2023 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

CCR LANDFILL AND LOWER AQC IMPOUNDMENT
LA CYGNE GENERATING STATION
LA CYGNE, KANSAS

Presented To:
Evergy Metro, Inc.

SCS ENGINEERS

27217233.23 | January 2024

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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 2023 Annual Groundwater Monitoring and Corrective Action Report for the CCR Landfill and Lower 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).

29
1-31-24

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 2023 Annual Groundwater Monitoring and Corrective Action Report for the CCR Landfill and Lower 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).

14136
1-31-24

Douglas L. Doerr, P.E.

SCS Engineers

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

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Appendices

1 INTRODUCTION

This 2023 Annual Groundwater Monitoring and Corrective Action Report was prepared to support compliance with the groundwater monitoring requirements of the "Coal Combustion Residuals (CCR) Final Rule" (Rule) published by the United States Environmental Protection Agency (USEPA) in the *Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule*, dated April 17, 2015 (USEPA, 2015), and subsequent revisions. Specifically, this report was prepared for Evergy 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 2023 Annual Groundwater Monitoring and Corrective Action Report for the CCR Landfill and Lower 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, 2023), the CCR Landfill and Lower AQC Impoundment were 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, 2023), the CCR Landfill and Lower AQC Impoundment were 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 2022	MW-13	Chloride	Successful
Fall 2022	MW-803	Sulfate	Successful

Monitoring Event	Monitoring Well	Constituent	ASD
Spring 2023	MW-13	Chloride	Successful
Spring 2023	MW-802	pH	Successful
Spring 2023	MW-803	Sulfate	Successful
Spring 2023	MW-804	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 BACKGROUND

To further characterize the on-site hydro-geological conditions, the following background information is provided in this section of the report:

- Geologic and hydrogeologic setting
- CCR Rule monitoring system

The site geology and hydrogeology was characterized by AECOM in the "*Detailed Hydrogeologic Site Characterization Report*" (DSI) prepared in October 2017 (AECOM, 2017). As described in the characterization report, the generalized geology underlying the CCR Landfill and Lower AQC Impoundment includes the following, from the surface down:

1. Native residual clay with some discrete sand beds or lenses (semi confining to confining unit)
2. Unsaturated or relatively low-yielding shale (semi-confining to confining unit)
3. Saturated unweathered to highly weathered shale (Holdenville Shale) with relatively higher permeability (uppermost aquifer)
4. Relatively unweathered lower permeability shale with sparse limestone and coal units interbedded (lower confining bedrock unit)

2.1 GEOLOGIC AND HYDROGEOLOGIC SETTING

2.1.1 Overlying Geologic Units

The material overlying the aquifer beneath the CCR Landfill and Lower AQC Impoundment is primarily unconsolidated clay materials and unsaturated heterogeneous shale bedrock. The uppermost aquifer consists of saturated relatively higher permeable zones within the heterogeneous shale bedrock.

2.1.1.1 Unconsolidated Materials

The unconsolidated overburden material is primarily stiff to very stiff, low to high plastic clay, silty clays, and some clayey sand or sandy clay. Some borings also encountered surficial fill material at several locations on site. The thickness of the clay ranges from approximately 10 to 35 ft., depending on the ground surface elevation and the thickness of the overlying fill. The vertical hydraulic conductivity of the clay unit was measured by conducting falling head permeability laboratory tests from representative samples collected from within the clay unit. The results of these tests indicated a calculated hydraulic conductivity range of 5.7×10^{-07} to 1.4×10^{-05} cm/sec, as summarized in the table below. The porosity of the clay unit is estimated to be 34 - 60%, and the effective porosity of the clay unit is estimated to be 1 - 20%, based on accepted literature values after Domenico and Schwartz, 1990.

2.1.1.2 Bedrock

As stated above, the uppermost aquifer consists of saturated, relatively higher permeable zones within the heterogeneous shale bedrock. Overlying the uppermost aquifer, there is unsaturated or relatively low yielding heterogeneous shale bedrock. The bedrock as a whole is predominantly heterogeneous shale with thin interbedded sandstone and/or limestone and/or coal at some locations. Lateral facies changes and vertical gradational changes are common and limit lateral correlation between borings. Overall, the shale is described as moderate to highly plastic with calcareous and sandy zones varying from brown and weathered to gray and unweathered.

The thickness of the unsaturated or relatively low yielding heterogeneous shale bedrock overlying the uppermost aquifer ranges from approximately 5 to 25 ft., depending on the depth of the overlying clay or fill. The vertical hydraulic conductivity of the shale bedrock was not directly measured. However, based on it being unsaturated or relatively low yielding, the vertical hydraulic conductivity is estimated to be as low as or lower than that of the overlying clay. Therefore, it is likely less than the clay range of 5.7 x 10^{-07} to 1.4 x 10^{-05} cm/sec and possibly as low as the range identified for shale within the literature, 1 x 10^{-11} to 2 x 10^{-07} cm/sec. The porosity of the shale is estimated to be 1 - 10%, and the effective porosity is estimated to be 0.5 - 5%, based on accepted literature values after Domenico and Schwartz, 1990.

2.1.2 Aquifer Characterization

Based on the site characterization activities, the uppermost aquifer beneath the CCR Landfill and Lower AQC Impoundment consists of select saturated zones within the heterogeneous shale bedrock that have relatively higher permeability than the shale above and below it. It is probable that the relatively higher permeability zones are the calcareous and sandy zones or undifferentiated limestone or sandstone interbeds. It is believed that these zones are the primary groundwater-bearing strata and the uppermost aquifer. These zones were identified through drilling observations and installation and testing of piezometer clusters at multiple locations. Although all the piezometers were low-yielding, the piezometers that intercepted the higher-yielding productive zones were selected as most closely satisfying the definition of the uppermost aquifer below the CCR unit.

The uppermost aquifer is a confined and/or locally semi-confined aquifer believed to be roughly 5- to 10-ft thick. The hydraulic conductivity of the aquifer was measured by conducting hydraulic slug tests, which indicated an estimated hydraulic conductivity range of 6.3 x 10^{-05} cm/sec to 1.0 x 10^{-04} cm/sec. However, these values are higher than would be expected based on the overall low-yield nature of the aquifer and the hydraulic conductivity could be less than reported. The porosity and effective porosity of the aquifer has been estimated, and evidence indicates it is greater than the overlying and underlying shale and likely greater than the overlying clay. The estimated seepage velocity of the aquifer based on the above hydraulic conductivity and an estimated effective porosity of 5 percent ranges from about 6.3 x 10^{-06} to 1.0 x 10^{-05} cm/sec.

Based on the water level measurements in temporary piezometers and monitoring wells, the groundwater flow direction is predominantly west-southwest toward La Cygne Lake. However, flow under the northern portion of the CCR Landfill appears to be to the southeast prior to turning and flowing to the southwest. Flow beneath the central eastern portion of the CCR Landfill has northwest, west and southwest components to the overall west-southwest flow direction.

2.1.3 Lower Boundary Confining Geologic Unit

The lower boundary confining geologic unit is the relatively lower permeability shale bedrock below the uppermost aquifer as defined above. Based on boring logs, shale is present below the uppermost aquifer at the CCR Landfill and Lower AQC Impoundment. The thickness of the shale unit is at least 15 to 20 feet, based on several boring logs and piezometer installations. The hydraulic conductivity is estimated to range from 1 x 10^{-11} to 2 x 10^{-07} cm/sec and the porosity and effective porosity are estimated to range from 1   10% and 0.5 – 5%, respectively, based on accepted literature values for shale after Walton, 1970 and 1988, and Domenico and Schwartz, 1990.

2.1.4 Characteristics of Geologic Units

A summary table of the geologic units including the estimated or calculated hydraulic conductivities, porosities, and effective porosities for each geologic unit encountered at the CCR Landfill and Lower AQC Impoundment is provided below.

Unit	Classification / Lithology	Hydraulic Conductivity$^{(1)}$	Porosity$^{(2)}$	Effective Porosity$^{(2)}$
Overlying Unconsolidated Geologic Unit	Low to High Plastic Clay	5.7 x 10^{-07} to 1.4 x 10^{-05} cm/s$^{(1}$	34 – 60%	1 – 20%$^{(2)}$
Unsaturated or Relatively Low-Yielding Bedrock Upper Confining or Semi-Confining Unit	Unweathered to Weathered Heterogeneous Shale	1 x 10^{-11} to 2 x 10^{-07} cm/s$^{)}$	1 – 10%	0.5 – 5
Saturated Relatively High-Yielding Bedrock Aquifer	Unweathered to Weathered Heterogeneous Shale	6.3 x 10^{-05} to 1.0 x 10^{-04} cm/s	Greater than overlying and underlying units	Greater than overlying and underlying units
Bedrock Lower Confining Unit	Unweathered Heterogeneous Shale	1 x 10^{-11} to 2 x 10^{-07} cm/s	1 – 10%$^{(2)}$	0.5 – 5

Notes: (1) Hydraulic Conductivities of the clay are from laboratory permeability tests; hydraulic conductivities of the aquifer are from slug tests; hydraulic conductivities of the upper and lower confining unit shale were chosen based on literature values after Domenico and Schwartz, 1990.

(2) Porosities and effective porosities chosen based on literature values after Walton, 1970 and 1988, and Domenico and Schwartz, 1990.

In summary, based on the site characterization, the CCR Landfill and Lower AQC Impoundment is underlain by low permeability unconsolidated materials and heterogeneous shale bedrock with relatively higher permeability zones believed to be calcareous and sandy zones or undifferentiated limestone or sandstone interbeds. The uppermost aquifer is identified as the relatively higher permeability saturated zone within the heterogeneous shale bedrock, which is relatively higher yielding. The aquifer appears to be approximately 5- to 10-ft thick and locally semi-confined to confined by relatively lower permeability residual clay and shale bedrock acting as the upper confining unit, and a relatively lower permeability primarily shale bedrock on the bottom. The difference in the hydraulic conductivity between the aquifer and the confining units is estimated to be approximately two to seven orders of magnitude.

2.2 CCR RULE MONITORING SYSTEM

A multiunit, eleven well groundwater monitoring system is used to monitor the CCR Landfill and Lower AQC Impoundment. The groundwater monitoring system consists of four upgradient wells and seven downgradient wells. A site map with an aerial image showing the CCR Landfill and Lower AQC Impoundment and compliance monitoring wells with identification numbers for the CCR Landfill and Lower AQC Impoundment groundwater monitoring program is provided as **Figure 1** in **Appendix A.** The CCR Landfill and Lower AQC Impoundment are two separate CCR units that are monitored with one monitoring system due to their close proximity and configuration relative to groundwater flow. The CCR Landfill and the Lower AQC Impoundment are separated by a narrow surface water run-on/off control berm that runs nearly perpendicular to groundwater flow. Groundwater passing the boundary of the CCR Landfill flows beneath the Lower AQC Impoundment. The multiunit system was designed to detect monitored constituents at the downgradient waste boundary of the combined area of the CCR Landfill and Lower AQC Impoundment.

Potentiometric surface maps for the uppermost aquifer indicating the groundwater flow direction beneath the CCR Landfill and Lower AQC Impoundment for May 2023 and November 2023 are provided as **Figure 2** and **Figure 3,** respectively, in **Appendix A**. It should be noted that because of the semi-confined to confined aquifer conditions, the potentiometric surface map is not representative of the top of groundwater in the aquifer. The top of groundwater in the aquifer is the same as the contact between the top of the aquifer material and the bottom of the upper confining unit.

Although groundwater levels measured in the wells may extend up and into the low permeability shale and clay, the measured groundwater level is believed to be representative of the potentiometric head and not the water table elevation. None of the boring logs from the AECOM site characterization noted encountering groundwater during drilling. However, several boring logs from previous investigations by Woodward-Clyde and URS in 1978, 1979, 1981, 2005, and 2010 noted encountering groundwater at greater depths (or lower elevations) during drilling and then the groundwater rising in the borehole, piezometer, or well to higher elevations. For one of the wells, groundwater was even noted as rising above ground surface within the PVC well casing. This rise of groundwater in the well above the elevations where it was encountered during drilling and above the screen interval to elevations within the low permeability shale and clay, indicates semi-confining to confining conditions and represents the potentiometric head of the aquifer and not the water table.

Based on review of the historic topographic map of the area prior to the station being constructed, the base of the impoundment ranges from approximately 850 feet MSL to the east and 830 feet MSL to the west. A review of hydrostratigraphic cross sections in the AECOM characterization report indicate the maximum uppermost aquifer elevation beneath the impoundment is approximately 840 feet MSL to the east and approximately 813 feet MSL to the west. Based on this review, the base of the CCR Landfill and Lower AQC Impoundment appears to be approximately 10 feet above the upper limit of the uppermost aquifer, therefore the base of the CCR Landfill and Lower AQC Impoundment was constructed no less than five feet above the upper limit of the uppermost aquifer.

3 § 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:*

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

3.2 § 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 CCR Landfill and Lower AQC Impoundment in 2023.

3.3 § 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 (2023). Samples collected in 2023 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 2022 semiannual detection monitoring event verification sample data collected and analyzed in 2023; Spring 2023 semiannual detection monitoring data, verification sample data; and, the initial Fall 2023 semiannual detection monitoring data. The dates of sample collection and the monitoring program requiring the sample are also provided in these tables.

3.4 § 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 2023. Only detection monitoring was conducted in 2023.

3.5 § 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.

3.5.1 § 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 2022 verification sampling and analyses per the certified statistical method,

b. completion of the statistical evaluation of the Fall 2022 semiannual detection monitoring sampling and analysis event per the certified statistical method,

c. completion of the 2022 Annual Groundwater Monitoring and Corrective Action Report,

d. completion of a successful alternative source demonstration for the Fall 2022 semiannual detection monitoring sampling and analysis event,

e. completion of the Spring 2023 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 2023 semiannual detection monitoring sampling and analysis event per the certified statistical method,

g. initiation of the Fall 2023 semiannual detection monitoring sampling and analysis event, and

h. completion of a successful alternative source demonstration for the Spring 2023 semiannual detection monitoring sampling and analysis event.

i. an updated Sampling and Analysis Plan (SAP), Groundwater Monitoring System Certification, and Statistical Method Certification were finalized and added to the operating record on December 4, 2023. These documents were prepared to transition from intrawell statistical methods to interwell statistical methods and to transition from a two-unit multi-unit monitoring system (CCR Landfill and Lower AQC Impoundment) to a three-unit multi-unit monitoring system (CCR Landfill, Lower AQC Impoundment, and Upper AQC Impoundment). These changes will be reflected in the 2024 Annual GWMCA 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 (2024).

Completion of data analysis and the statistical evaluation of Fall 2023 detection monitoring sampling and analysis event, and, if required, alternative source demonstration(s). The Fall 2023 statistical evaluation will be completed as a combined three-unit multi-unit monitoring system utilizing interwell statistical procedures. An updated Sampling and Analysis Plan (SAP), Groundwater Monitoring System Certification, and Statistical Method Certification in support of this transition was finalized and added to the operating record on December 4, 2023. Future sampling events will be completed utilizing this combined multi-unit monitoring system and interwell statistical methods. Semiannual Spring and Fall 2024 groundwater sampling and analysis. Completion of the statistical evaluation of the Spring 2024 detection monitoring sampling and analysis event, and, if required, alternative source demonstration(s).

3.5.2 § 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.

3.5.3 § 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 report is included as **Appendix C:**

C.1 CCR Groundwater Monitoring Alternative Source Demonstration Report November 2022 Groundwater Monitoring Event, CCR Landfill and Lower AQC Impoundment, La Cygne Generating Station (June 2023).

C.2 CCR Groundwater Monitoring Alternative Source Demonstration Report May 2023 Groundwater Monitoring Event, CCR Landfill and Lower AQC Impoundment, La Cygne Generating Station (December 2023).

3.5.4 § 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.

3.5.5 § 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.

3.5.6 § 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.

3.5.7 § 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.

3.6 § 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.

4 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 in this GWMCA report. This supplemental information and data are provided as specified below:

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

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

  - January 2023 – First verification sampling for the Fall 2022 detection monitoring event.
  - February 2023 – Second verification sampling for the Fall 2022 detection monitoring event.
  - May 2023 – Spring 2023 semiannual detection monitoring sampling event.
  - July 2023 – First verification sampling for the Spring 2023 detection monitoring sampling event.
  - August 2023 - Second verification sampling for Spring 2023 detection monitoring sampling event.
  - November 2023 - Fall 2023 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 2023 included the following:

  - Fall 2022 semiannual detection monitoring statistical analyses.
  - Spring 2023 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 2023 semiannual detection monitoring sampling event.
  - **Figure 3** - Fall 2023 semiannual detection monitoring sampling event.

5 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 CCR Landfill and Lower AQC Impoundment. No warranties, express or implied, are intended or made.

APPENDIX A

FIGURES

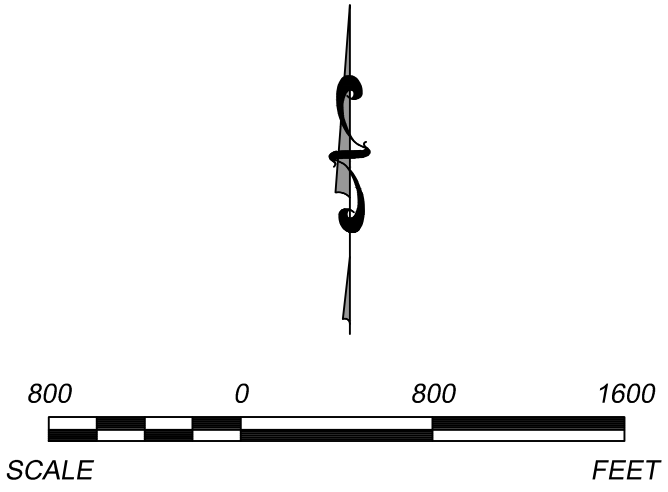
LEGEND

CCR UNIT BOUNDARY
(APPROXIMATE LIMITS OF LOWER 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.



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SHEET TITLE
SITE MAP
CCR LANDFILL & LOWER AQC IMPOUNDMENT
CCR GROUNDWATER MONITORING SYSTEM

PROJECT TITLE
2023 CCR 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
Overland Park, Kansas 66210
PH. (913) 681-0030 FAX. (913) 681-0012

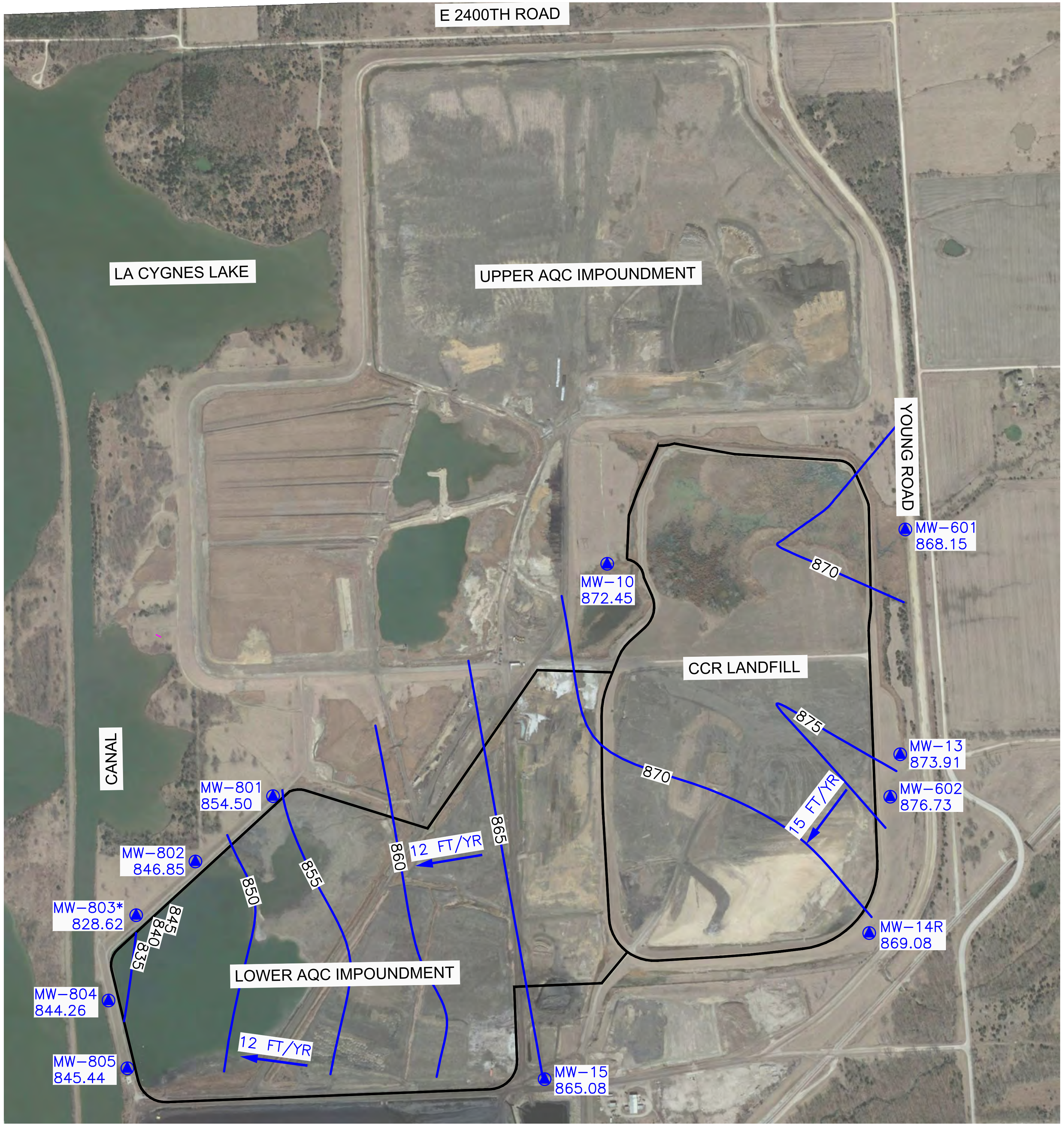
PROJ. NO. 27217233.20
DSN. BY: ALR
DWN. BY: ALR
CHK. BY: JF
Q/A RVW BY: JRR
PROJ. MGR: JRR

CADD FILE: LA CYGNE LF UAQC FIG 1_2021.DWG

DATE: 1/23/2023

FIGURE NO. 1

N:\KCPL\Projects\Groundwater\DWG\La Cygne\CCR Annual Report\2021\Upper\La Cygne LF UAQC Fig 1_2021.dwg Jan 23, 2023 - 11:39am Layout Name: Fig 1 Lower By: swyly

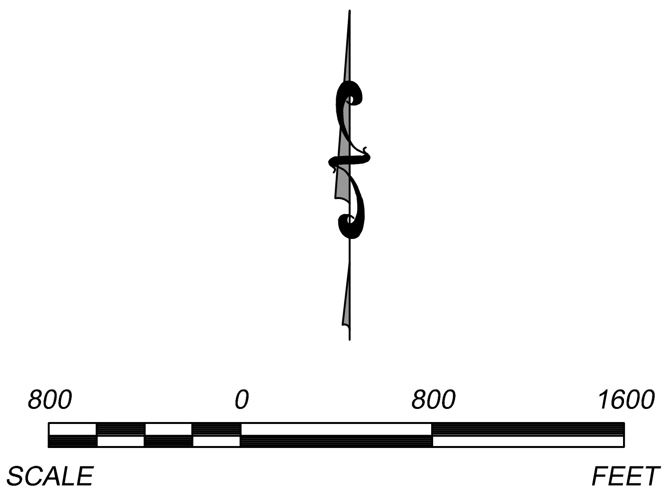


LEGEND

▭	CCR UNIT BOUNDARY (APPROXIMATE LIMITS)
● MW-704 (869.52)	CCR GROUNDWATER MONITORING SYSTEM WELLS (GROUNDWATER ELEVATION)
—875—	GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS
12 FT/YR ←	DIRECTION OF GROUNDWATER FLOW AND GROUNDWATER FLOW RATE (FEET/YEAR)
● MW-803* (864.69)	INDICATES WELL NOT USED TO DEVELOP POTENTIOMETRIC SURFACE MAP

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 MAY 17, 2023.



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SHEET TITLE
POTENTIOMETRIC SURFACE MAP
MAY 2023
CCR LANDFILL & LAQC IMPOUNDMENT

PROJECT TITLE
2023 GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT

CLIENT
EVERGY METRO, INC.
LA CYGNE GENERATING STATION
LA CYGNE, KANSAS

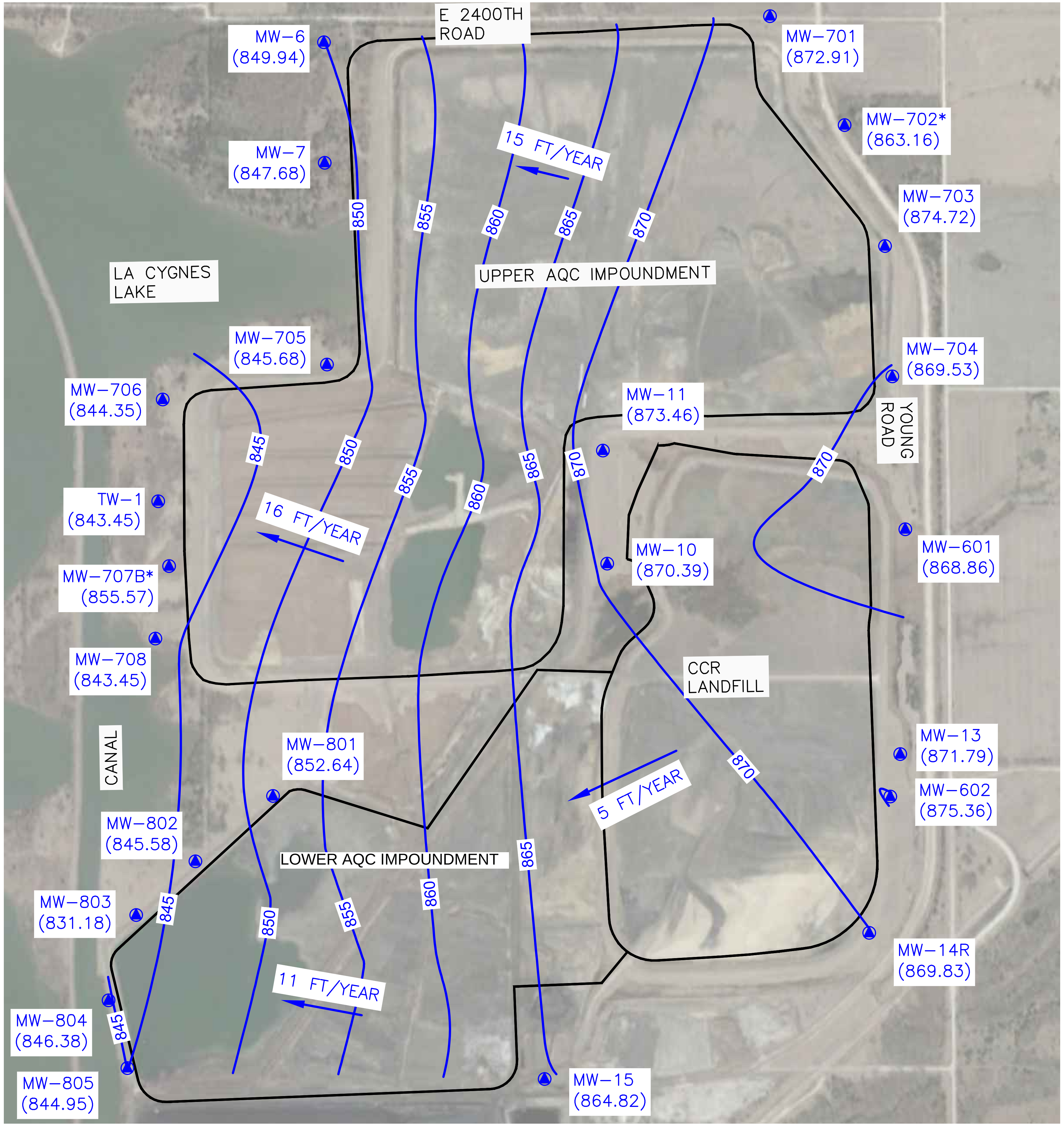
SCS ENGINEERS
8575 W. 110th St, Ste. 100
Overland Park, Kansas 66210
PH. (913) 681-0030 FAX. (913) 681-0012

PROJ. NO. 27217233.22
DWN. BY: SJW
CHK. BY: JF
DSN. BY: DAW
Q/A RVW BY: JRR
PROJ. MGR JRR

CADD FILE:
LA CYGNE LF__ MAY 2023 EXCLUDING MW-70
& MW-803.DWG

DATE:
9/26/23

FIGURE NO.
2



LEGEND

▭	CCR UNIT BOUNDARY (APPROXIMATE LIMITS)
● MW–704 (869.52)	CCR GROUNDWATER MONITORING SYSTEM WELLS (GROUNDWATER ELEVATION)
—875—	GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS
18 FT/YR ←	DIRECTION OF GROUNDWATER FLOW AND GROUNDWATER FLOW RATE (FEET/YEAR)
● MW–702* (864.69)	* INDICATES WELL NOT USED TO DEVELOP POTENTIOMETRIC SURFACE MAP

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 17, 2023.

800 0 800 1600

SCALE FEET

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△	-	-

SHEET TITLE
POTENTIOMETRIC SURFACE MAP (NOVEMBER 2023)

PROJECT TITLE
COMBINED UAQC/LANDFILL - LAQC IMPOUNDMENT
2023 GROUNDWATER

CLIENT
EVERGY METRO, INC
LA CYGNE GENERATING STATION
LA CYGNE, KANSAS

SCS ENGINEERS
8575 W. 110th St, Ste. 100
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PROJ. NO. 27217233.22
DSN. BY: ALR
DWN. BY: SO
CHK. BY: JF
Q/A RVW BY: JRR
PROJ. MGR: JRR

CADD FILE: LA CYGNE GW NOVEMBER 2023.DWG

DATE: 1/05/24

FIGURE NO. 3

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APPENDIX B

TABLES

Table 1
CCR Landfill and Lower AQC Impoundment
Appendix III Detection Monitoring Results
Evergy La Cygne Generating Station

Well Number	Sample Date	Appendix III Constituents						
		Boron (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	pH (S.U.)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
MW-10	5/17/2023	0.807	46.4	47.3	0.379	7.20	18.4	542
MW-10	11/17/2023	0.798	48.5	45.7 (J-)	0.389	7.34	15.7 (J-)	544
MW-13	1/12/2023	---	---	*41.7	---	**6.98	---	---
MW-13	2/8/2023	---	---	*35.1	---	**7.06	---	---
MW-13	5/17/2023	0.353	303	31.7	0.148 (J)	7.12	1280	2170
MW-13	7/12/2023	---	---	*24.5	---	**7.20	---	---
MW-13	8/15/2023	---	---	*26.3	---	**6.89	---	---
MW-13	11/17/2023	0.413	272	25.5 (J-)	0.176	7.11	1110 (J-)	1960
MW-14R	1/12/2023	---	---	---	*0.342	**7.05	---	---
MW-14R	5/17/2023	0.851	50.5	7.13	0.308	7.54	66.1	530
MW-14R	7/12/2023	---	---	*6.99	---	**7.38	---	---
MW-14R	8/15/2023	---	---	*6.67	---	**7.28	---	---
MW-14R	11/17/2023	0.829	51.1	7.11 (J-)	0.312	7.52	63.3	559
MW-15	1/12/2023	---	---	---	*0.267	**6.92	---	---
MW-15	5/17/2023	0.228	100	10.8	0.249	6.95	188	705
MW-15	11/17/2023	0.246	102	10.5 (J-)	0.250	7.42	186	716
MW-601	5/17/2023	1.88	15.9	163	1.61	7.92	8.77	940
MW-601	11/17/2023	1.86	16.0	168 (J-)	1.71	7.87	7.24	926
MW-602	5/17/2023	2.32	22.6	16.4	1.22	7.79	26.9	579
MW-602	11/17/2023	2.27	22.0	16.8 (J-)	1.22	7.78	25.9	577
MW-801	5/17/2023	2.17	24.6	93.6	1.06	7.18	2.62 (J)	792
MW-801	11/17/2023	2.20	24.6	93.6 (J-)	1.11	7.72	2.07 (J)	800
MW-802	1/12/2023	---	---	*40.0	---	**7.27	---	---
MW-802	2/8/2023	---	---	*36.0 (E)	---	**7.34	---	---
MW-802	5/17/2023	2.44	28.8	38.4	0.972	7.00	0.757 (J)	656
MW-802	11/17/2023	2.45	28.6	41.2 (J-)	0.970	7.64	<5.00	664
MW-803	1/12/2023	---	---	*50.2	---	**7.27	*35.8	---
MW-803	2/8/2023	---	---	*50.5	---	**7.43	*34.4	---
MW-803	5/17/2023	2.05	42.6	51.1	0.698	7.17	38.9	591
MW-803	7/12/2023	---	---	*49.1/51.2	*1.10/0.582	**7.69	*31.9/35.2	---
MW-803	8/15/2023	---	---	*50.5	*0.599	**7.59	*36.4	---
MW-803	11/17/2023	2.05	41.8	53.6 (J-)	0.562	7.72	36.1	589
MW-804	1/12/2023	---	---	---	---	*6.94	---	---
MW-804	2/8/2023	---	---	---	---	*7.20	---	---
MW-804	5/17/2023	1.53	63.3	33.0	0.457	6.96	25.6	540
MW-804	7/12/2023	---	---	*33.0	---	**7.44	---	---
MW-804	8/15/2023	---	---	*33.1	---	**7.15	---	---
MW-804	11/17/2023	1.59	67.9	32.4 (J-)	0.450	7.40	22.8	554
MW-805	5/17/2023	0.531	447	484	0.191	6.23	717	2270
MW-805	11/17/2023	0.496	459	464 (J-)	0.143 (J)	6.70	629	1890

* 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 - miligrams per liter

pCi/L - picocuries per liter

S.U. - Standard Units

--- Not Sampled

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

(M) - Method Detection Limit (MDL)

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

(E) - Eurofins Laboratories data

(J-) – Based on the Stage II data quality review the sample result is potentially biased low.

Table 2
CCR Landfill and Lower AQC Impoundment
Detection Monitoring Field Measurements
Evergy La Cygne 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-10	5/17/2023	7.20	853	19.26	0.00	-68	0.23	2.50	872.45
MW-10	11/17/2023	7.34	970	18.06	20.00	-102	1.48	4.56	870.39
MW-13	1/12/2023	**6.98	3000	11.43	9.90	84	0.00	4.74	872.48
MW-13	2/8/2023	**7.06	4360	12.40	6.10	224	0.00	3.13	874.09
MW-13	5/17/2023	7.12	2470	15.43	21.80	116	3.44	3.31	873.91
MW-13	7/12/2023	**7.20	2240	18.42	4.00	46	1.15	4.61	872.61
MW-13	8/15/2023	**6.89	2270	19.98	0.00	33	0.94	4.82	872.40
MW-13	11/17/2023	7.11	2370	15.78	0.00	128	0.00	5.43	871.79
MW-14R	1/12/2023	**7.05	1010	11.74	7.60	89	0.00	8.24	870.59
MW-14R	5/17/2023	7.54	932	14.64	13.90	-15	0.00	9.75	869.08
MW-14R	7/12/2023	**7.38	927	19.64	2.20	-161	0.00	8.55	870.28
MW-14R	8/15/2023	**7.28	8.53	21.22	3.50	-164	0.27	8.36	870.47
MW-14R	11/17/2023	7.52	973	16.10	0.00	-78	0.00	9.00	869.83
MW-15	1/12/2023	**6.92	1260	12.91	21.90	165	0.22	9.33	864.55
MW-15	5/17/2023	6.95	1080	17.47	4.50	212	2.57	8.80	865.08
MW-15	11/17/2023	7.42	1140	15.69	0.50	123	0.21	9.06	864.82
MW-601	5/17/2023	7.92	1610	15.36	21.80	-14	2.37	11.03	868.15
MW-601	11/17/2023	7.87	1630	16.79	4.40	20	0.35	10.32	868.86
MW-602	5/17/2023	7.79	973	15.54	43.10	-52	1.82	3.16	876.73
MW-602	11/17/2023	7.78	1010	16.39	20.00	57	0.00	4.53	875.36
MW-801	5/17/2023	7.18	1250	17.70	0.00	-46	0.69	3.15	854.50
MW-801	11/17/2023	7.72	1350	15.25	0.10	-76	0.00	5.01	852.64
MW-802	1/12/2023	**7.27	1100	11.45	8.50	48	2.02	3.07	850.40
MW-802	2/8/2023	**7.34	1190	11.76	8.10	-105	0.00	4.92	848.55
MW-802	5/17/2023	7.00	1050	17.12	1.70	-121	0.00	6.62	846.85
MW-802	11/17/2023	7.64	1150	15.85	10.20	-116	0.00	7.89	845.58
MW-803	1/12/2023	**7.27	1240	11.34	6.60	-104	1.91	21.62	833.38
MW-803	2/8/2023	**7.43	1040	13.16	0.00	94	1.10	25.44	829.56
MW-803	5/17/2023	7.17	921	20.59	0.60	197	2.28	26.38	828.62
MW-803	7/12/2023	**7.69	1000	19.02	17.00	42	2.45	24.05	830.95
MW-803	8/15/2023	**7.59	970	19.32	1.80	70	0.99	28.53	826.47
MW-803	11/17/2023	7.72	973	16.29	0.00	31	2.40	23.82	831.18
MW-804	1/12/2023	*6.94	980	10.55	3.10	8	1.75	9.13	846.07
MW-804	2/8/2023	*7.20	945	16.19	18.50	108	3.31	7.35	847.85
MW-804	5/17/2023	6.96	877	20.02	1.70	229	2.95	10.94	844.26
MW-804	7/12/2023	**7.44	925	23.54	8.80	-59	1.11	11.88	843.32
MW-804	8/15/2023	**7.15	8.94	21.06	0.90	-19	0.80	11.70	843.50
MW-804	11/17/2023	7.40	950	17.28	19.40	48	0.73	8.82	846.38
MW-805	5/17/2023	6.23	2760	18.51	8.80	281	1.46	9.19	845.44
MW-805	11/17/2023	6.70	3100	14.78	21.00	204	0.00	9.68	844.95

* 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

C.1 CCR Groundwater Monitoring Alternative Source Demonstration Report November 2022 Groundwater Monitoring Event, CCR Landfill and Lower AQC Impoundment, La Cygne Generating Station (June 2023)

C.2 CCR Groundwater Monitoring Alternative Source Demonstration Report May 2023 Groundwater Monitoring Event, CCR Landfill and Lower AQC Impoundment, La Cygne Generating Station (December 2023)

APPENDIX C.1

CCR Groundwater Monitoring Alternative Source Demonstration Report November 2022 Groundwater Monitoring Event, CCR Landfill and Lower AQC Impoundment, La Cygne Generating Station (June 2023)

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

CCR LANDFILL AND LOWER AQC IMPOUNDMENT

La Cygne Generating Station
Evergy Metro, Inc
Ly Cygne, Kansas

SCS ENGINEERS

June 16, 2023
File No. 21217233.22

SCS Engineers
8575 W 110th St, Suite 100
Overland Park, Kansas 66210
913-681-0030

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 CCR Landfill and Lower 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
29
6-6-23

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 CCR Landfill and Lower 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
14136
6-6-23

Douglas L. Doerr, P.E.
SCS Engineers

Table of Contents

Section Page

Appendices

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 CCR Landfill and Lower 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 9, 2022. Review and validation of the results from the November 2022 Detection Monitoring Event was completed on December 20, 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 12, 2023, and February 8, 2023.

The completed statistical evaluation identified one Appendix III constituent above its prediction limit established for monitoring well MW-13 and one Appendix III constituent above its prediction limit established for monitoring well MW-803.

Monitoring Well Constituent	*UPL	Observation November 9, 2022	1st Verification January 12, 2023	2nd Verification February 8, 2023
MW-13				
Chloride	19.61	46.1	41.7	35.1
MW-803				
Sulfate	28.84	33.1	35.8/37.6**	34.4/34.5**

*UPL – Upper Prediction Limit
** - Duplicate Sample

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified SSIs above the background prediction limits for chloride at MW-13 and for sulfate at MW-803.

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 SSIs for the CCR Landfill and Lower 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 CCR Landfill and Lower AQC Impoundment. Select multiple lines of supporting evidence are described as follows.

3.1 UPRADIENT WELL LOCATION

Figure 1 in **Appendix A** shows a potentiometric surface contour map indicating the direction of groundwater flow at and near the CCR Landfill and Lower AQC Impoundment at the time of sampling. The groundwater flow directions indicated are for the November 2022 groundwater monitoring event and are typical flow directions for this unit. During this sampling event, monitoring well MW-13 is located upgradient from the CCR Landfill and Lower AQC Impoundment indicating the SSI for chloride in monitoring well MW-13 is not caused by a release from the CCR Landfill and Lower AQC Impoundment. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment likely caused the SSI above background levels for chloride, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

3.2 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-602 and MW-13 and non-network upgradient wells MW-701 and MW-703. MW-701 and MW-703 are not in the monitoring network for the CCR Landfill and Lower AQC Impoundment. The chloride concentrations in non-network upgradient wells MW-701 and MW-703 are greater than the chloride concentrations in monitoring well MW-13 and the chloride concentrations in upgradient well MW-602 are similar to the concentrations in monitoring well MW-13. These comparisons and the upgradient location of MW-13 indicate the chloride concentrations in upgradient well MW-13 are not caused by the CCR Landfill or the Lower AQC Impoundment. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment likely caused the SSI above background levels for chloride, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Box and whiskers plots are provided in **Appendix B**.

Box and whiskers plots were prepared for sulfate for upgradient wells MW-602 and MW-13, non-monitoring network upgradient wells MW-701 and MW-703, and downgradient well MW-803. The sulfate concentrations in upgradient well MW-13 and non-network upgradient well MW-701 are greater than the sulfate concentrations in monitoring well MW-803 and the sulfate concentrations in upgradient well MW-602 are similar to the concentrations in monitoring well MW-803. These comparisons indicate the sulfate concentrations in well MW-803 are not caused by the CCR Landfill or the Lower AQC Impoundment and that there is significant variability of chloride concentrations in upgradient wells and across the site. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment likely caused the SSI above background levels for sulfate, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Box and whiskers plots are provided in **Appendix B**.

3.3 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 (i.e., spikes). 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 were prepared for chloride for upgradient wells MW-602 and MW-13 and non-network upgradient wells MW-701 and MW-703, and downgradient well MW-803. MW-701 and MW-703 are not in the monitoring network for the CCR Landfill and Lower AQC Impoundment. The chloride concentrations in non-network upgradient wells MW-701 and MW-703 are historically greater than the chloride concentrations in monitoring well MW-13; however, for this sampling event the chloride concentration were similar for all three upgradient wells with the concentration in MW-13 being a little lower. These comparisons and the upgradient location of MW-13 indicate the chloride concentrations in upgradient well MW-13 are not caused by the CCR Landfill or the Lower AQC Impoundment. Additionally, a historical examination of the data collected from this unit indicate that there is significant variability of chloride concentrations in upgradient wells. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment likely caused the SSI above background levels for chloride, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Time series plots are provided in **Appendix C.**

Time series plots were prepared for sulfate for upgradient wells MW-602 and MW-13, non-monitoring network upgradient wells MW-701 and MW-703, and downgradient well MW-803. The sulfate concentrations in upgradient well MW-13 and non-network upgradient well MW-701 are historically and currently greater than the sulfate concentrations in monitoring well MW-803 and the sulfate concentrations in upgradient well MW-602 are similar to the concentrations in monitoring well MW-803. These comparisons indicate the sulfate concentrations in well MW-803 are not caused by the CCR Landfill or the Lower AQC Impoundment and that there is significant historical variability of sulfate concentrations in upgradient wells. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment likely caused the SSI above background levels for sulfate, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Time series plots are provided in **Appendix C**.

3.4 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-13 and MW-602, non-monitoring network upgradient wells MW-701 and MW-703, and downgradient well MW-803. The samples from MW-803 plot between the samples from upgradient wells MW-13 and MW-602/MW-703 and near upgradient well MW-701 indicating 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 Landfill and Lower AQC Impoundment likely caused the SSI for MW-803, or that the SSI resulted from natural variation in groundwater quality. The piper diagram plots and analytical results are provided in **Appendix D**.

3.5 TREND ANALYSIS

Trend analysis was performed to evaluate statistically significant trends utilizing Sen's Slope/Mann-Kendall Statistical Analysis. Sen's Slope/Mann-Kendall statistical analysis is used to determine if the data exhibits an SSI or statistically significant decreasing (SSD) trend. A trend is the general increase or decrease in observed values of a variable over time. A trend analysis can be used to determine the significance of an apparent trend and to estimate the magnitude of that trend. The Mann-Kendall test is nonparametric, meaning that it does not depend on an assumption of a particular underlying distribution. The test uses only the relative magnitude of data rather than actual values. Therefore, missing values are allowed, and values that are recorded as non-detects by the laboratory can still be used in the statistical analysis by assigning values equal to half their detection limits. Sen's Slope is a simple nonparametric procedure developed to estimate the true slope. The advantage of this method over linear regression is that it is not greatly affected by gross data errors or outliers and can be computed when data are missing.

The Sen's Slope/Mann-Kendall Statistical Analysis was performed at the 98 percent confidence level utilizing the statistical program Sanitas™. Sulfate data from June 2016 through the most recent data for upgradient monitoring well MW-602, non-network upgradient monitoring well MW-701 and monitoring network well MW-803 were used to perform trend analysis. The trend analysis for sulfate indicates upgradient-gradient well MW-602 has a positive slope (i.e., increasing trend but not statistically significant) and non-network upgradient monitoring well MW-701 has a positive slope and concentrations greater than MW-803. Since upgradient wells show increasing trends due to natural conditions, it is also likely the downgradient wells can increase similarly due to natural conditions.

These trend analyses demonstrate that a source other than the CCR Landfill could have caused the SSI over the background level for sulfate or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Trend analyses are provided in **Appendix E**.

4 CONCLUSIONS

Our opinion is that a sufficient body of evidence is available and presented above to demonstrate that a source other than the CCR Landfill and Lower AQC Impoundment likely caused the SSIs for chloride and sulfate, or that the SSIs resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Based on the successful ASD, the owner or operator of the CCR

Landfill and Lower AQC Impoundment may continue with the detection monitoring program under § 257.94.

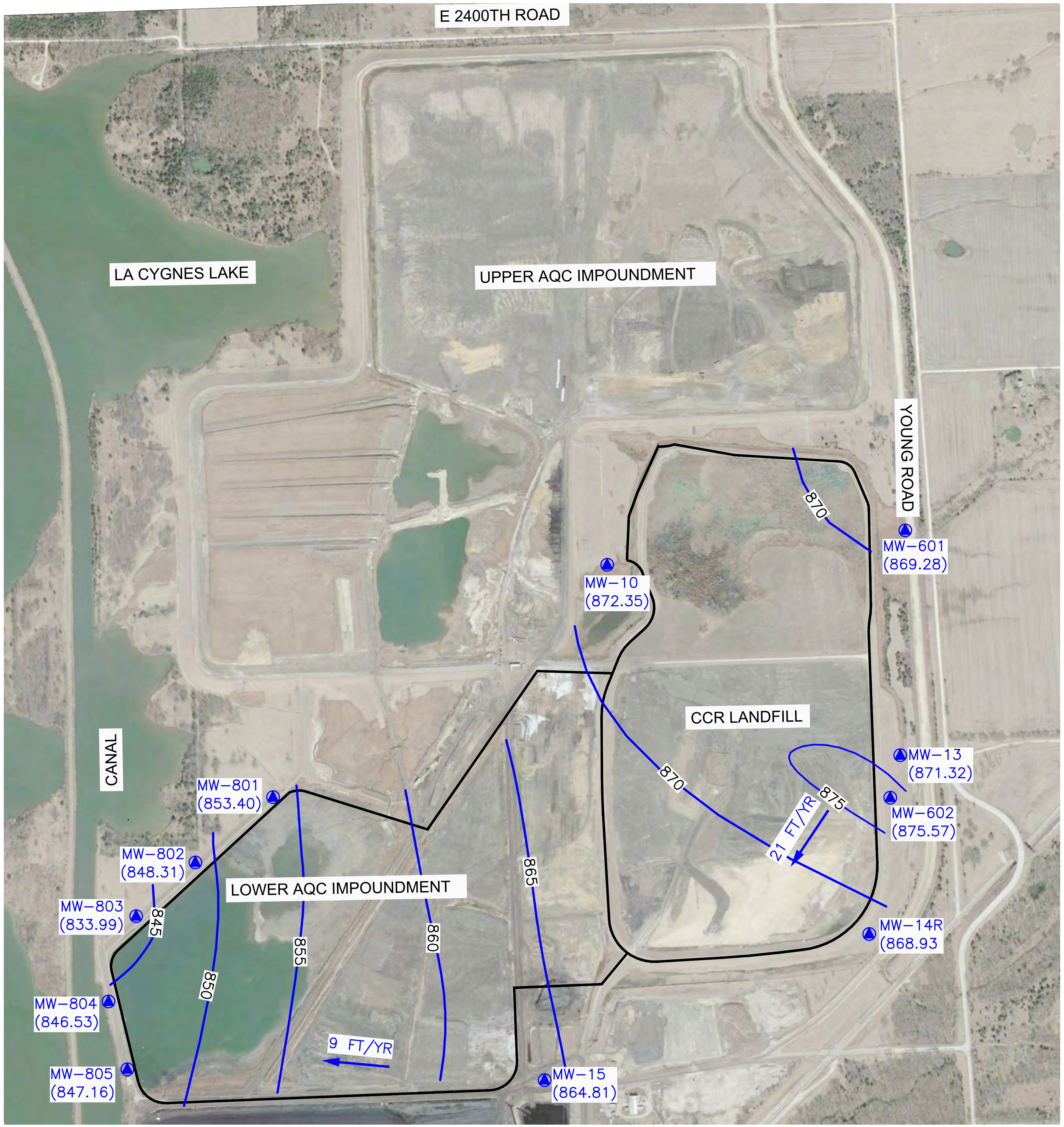
5 GENERAL COMMENTS

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 represent 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 signature. 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

Potentiometric Surface Map

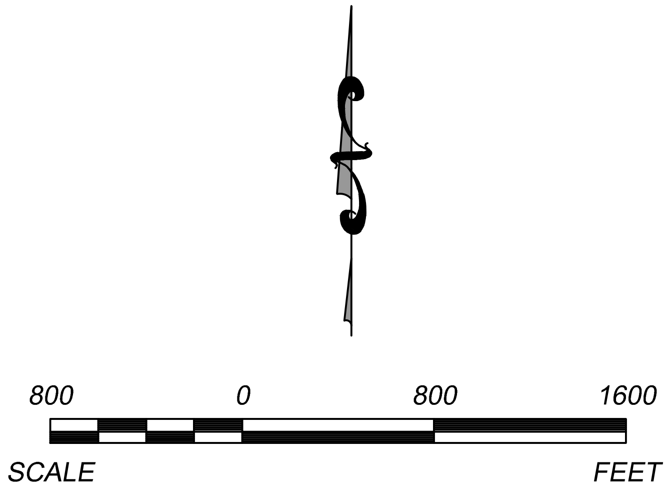


LEGEND

▭	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)
21 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.



REV.	DATE		CK. BY
△	-		-
△	-		-
△	-		-
△	-		-
△	-		-
△	-		-

SHEET TITLE
POTENTIOMETRIC SURFACE MAP
(NOVEMBER 2022)
CCR LANDFILL - LAQC 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
Overland Park, Kansas 66210
PH. (913) 681-0030 FAX. (913) 681-0012

PROJ. NO. 27217233.22
DSN. BY: DAW
DWN. BY: MBJ
CHK. BY: JF
Q/A RVW BY: JRR
PROJ. MGR JRR

CADD FILE:
LA CYGNE LF__ NOV 2022.DWG

DATE:
1/23/2023

FIGURE NO.
1

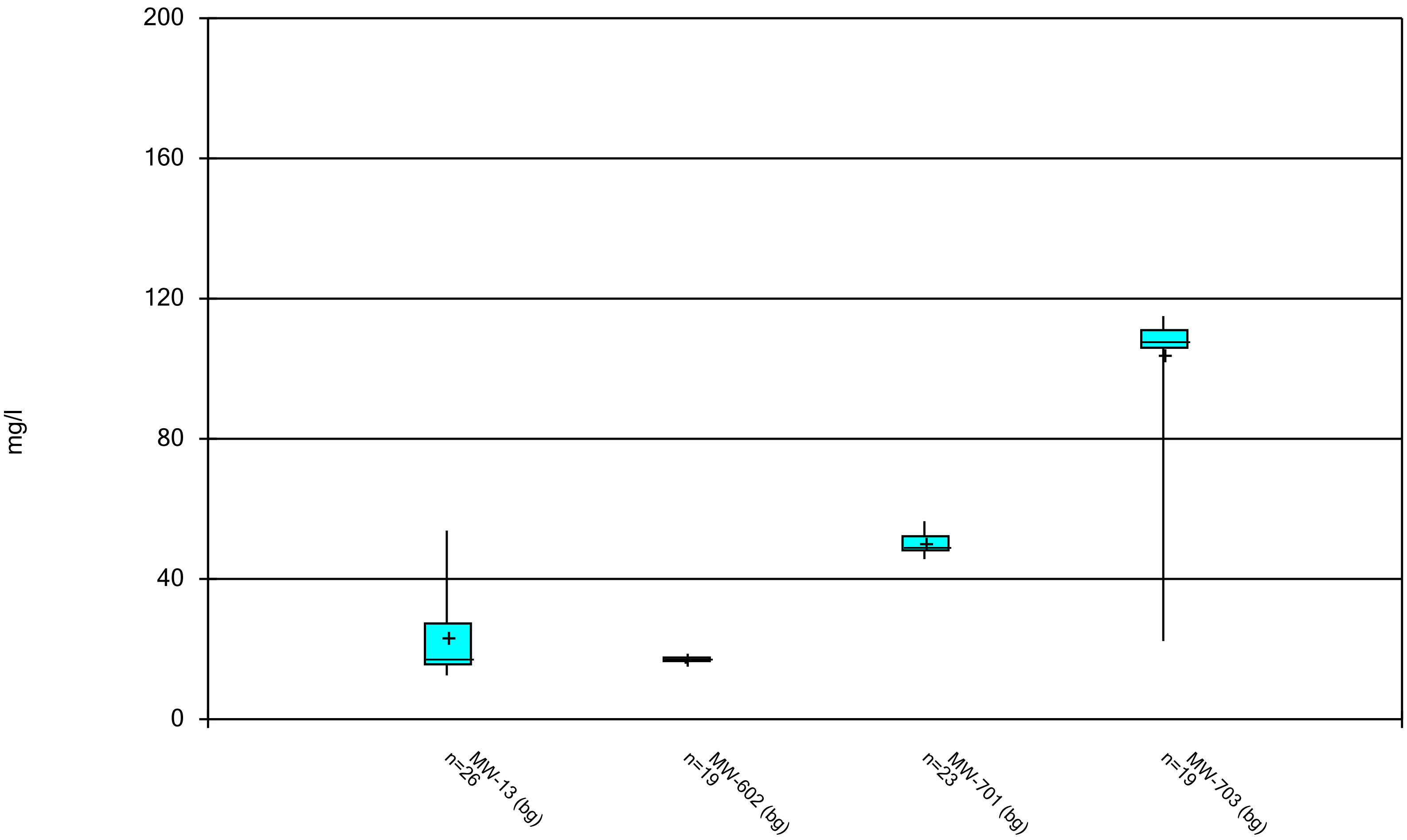
N:\KCPL\Projects\Groundwater\DWG\La Cygne\2022\La Cygne LF__ Nov 2022.dwg Jan 23, 2023 - 8:17am Layout Name: Fig 1 Lower By: swyly

Appendix B

Box and Whiskers Plots

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Box & Whiskers Plot



Constituent: CHLORIDE Analysis Run 4/24/2023 12:06 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

Box & Whiskers Plot

Constituent: CHLORIDE (mg/l) Analysis Run 4/24/2023 12:08 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

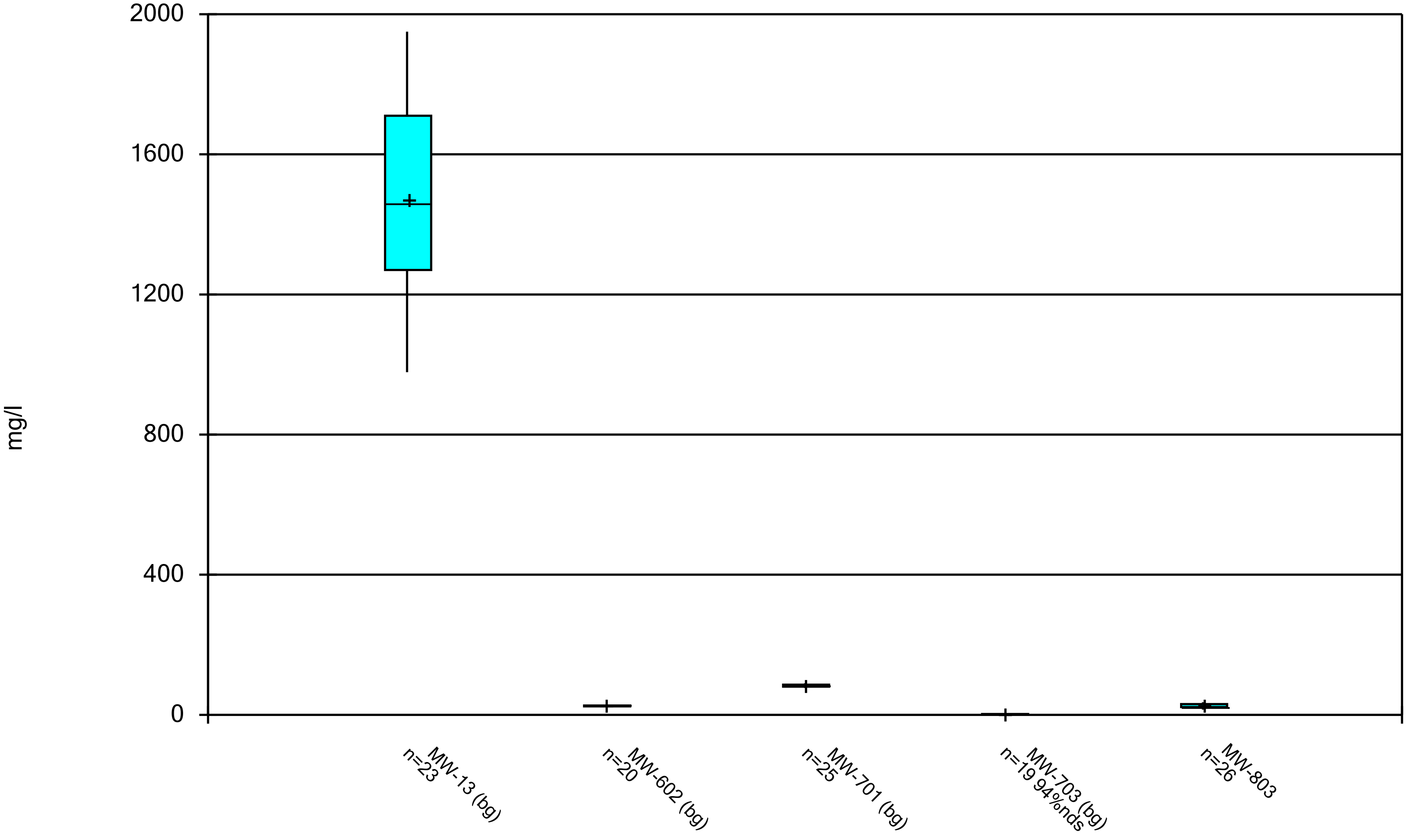
	MW-13 (bg)	MW-602 (bg)	MW-701 (bg)	MW-703 (bg)
6/7/2016			56.5	103
6/9/2016	18			
6/10/2016		16.9		
8/9/2016		17.3	50.6	106
8/11/2016	18.5			
10/11/2016			49.1	105
10/13/2016	19.2	16.8		
12/6/2016			52.2	107
12/9/2016		16.4		
12/13/2016	16.4			
2/7/2017			49.2	109
2/8/2017		17.6		
2/10/2017	15.6			
4/4/2017			55.3	115
4/6/2017	16.8			
4/7/2017		17.2		
6/13/2017			54.1	
6/14/2017				102
6/15/2017	17.2	17.2		
8/8/2017	16.2		53.5	
8/10/2017		17.8		22.3
10/3/2017			51.5	
10/5/2017	13.6	17.9		111
5/23/2018	14.3	17.6		
5/24/2018			53	108
9/17/2018	13.1			
11/30/2018	12.8	16.5		
12/3/2018			49.4	106
1/14/2019	12.5			
1/15/2019			47.9	
5/23/2019	16.2	16.9	48.6	109
7/17/2019			50.7	
11/7/2019	15.7	16.6	46.2	111
5/19/2020	19.5	17.1	48.3	107
7/13/2020	18.8			
11/12/2020	17.1	17.7	49.1	109
5/18/2021	19	16.8		
5/19/2021			48.2	108
11/18/2021	16.1	17.1	47.4	114
5/9/2022	48.3	16.5	48.5	111
7/19/2022	52.8			
8/17/2022	53.8		48.6	
11/9/2022	46.1	15.8	46.4	111
1/12/2023	41.7			
2/8/2023	35.1		45.7	
Median	17.15	17.1	49.1	108
LowerQ.	15.65	16.6	48.2	106
UpperQ.	27.3	17.6	52.2	111
Min	12.5	15.8	45.7	22.3
Max	53.8	17.9	56.5	115
Mean	23.25	17.04	50	103.9

Box & Whiskers Plot

LaCygne Client: SCS Engineers Data: LaC GW Data Printed 4/24/2023, 12:08 PM

Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
CHLORIDE (mg/l)	MW-13 (bg)	26	23.25	13.39	2.627	17.15	12.5	53.8	0
CHLORIDE (mg/l)	MW-602 (bg)	19	17.04	0.5469	0.1255	17.1	15.8	17.9	0
CHLORIDE (mg/l)	MW-701 (bg)	23	50	2.926	0.6101	49.1	45.7	56.5	0
CHLORIDE (mg/l)	MW-703 (bg)	19	103.9	20.04	4.598	108	22.3	115	0

Box & Whiskers Plot



Constituent: SULFATE Analysis Run 4/24/2023 12:29 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

Box & Whiskers Plot

Constituent: SULFATE (mg/l)   Analysis Run 4/24/2023 12:30 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-13 (bg)	MW-602 (bg)	MW-701 (bg)	MW-703 (bg)	MW-803
6/7/2016			76.9	<5	
6/9/2016	1830				15
6/10/2016		25.1			
8/9/2016		25.2	81.1	<5	
8/11/2016	1730				
8/12/2016					16.2
10/11/2016			80.3	<5	
10/13/2016	1830	23.4			17.9
12/6/2016			80.9	<5	21.9
12/9/2016		24.2			
12/13/2016	1270				
2/7/2017			89.8	<5	
2/8/2017		27.5			22.4
2/10/2017	1950				
4/4/2017			83.8	<5	
4/6/2017	1480				
4/7/2017		23.8			17.8
6/13/2017			80.6		21.2
6/14/2017				<5	
6/15/2017	1630	24.4			
8/8/2017	1410		80.8		
8/9/2017					23.2
8/10/2017		24.8		<5	
10/3/2017			80.6		
10/4/2017					23.2
10/5/2017	1330	26.9		<5	
5/23/2018	1070	23.9			24.4
5/24/2018			78.6	<5	
9/17/2018	1010				
11/30/2018	978	24.2			24.5
12/3/2018			79.1	<5	
1/14/2019	1120				
1/15/2019			83.3		
5/23/2019	1520	24.2	78.8	<5	24.1
7/17/2019			83.4		
11/7/2019	1450	24.5	83.7	<5	24
5/19/2020	1700	25.7	84	<5	25.2
11/12/2020	1500	28.1	86.2	<5	25.2
2/4/2021		26.7			
5/18/2021	1810	26.2			25.2
5/19/2021			86.2	<5	
8/30/2021					25.4
11/18/2021	1710	25.9	86.3	<5	27.2
1/27/2022					30
3/3/2022					27.4
5/9/2022	1460	26.6	89.1	<5	32.1
7/15/2022			90.2		31.6
8/17/2022	1440		84.5		32.8
11/9/2022	1430	26.8	87.8	1.24	33.1
1/12/2023			88.2		35.8
2/8/2023	1210		83.9		34.4
Median	1460	25.15	83.7	2.5	24.85

ND substitution: RL/2.

Box & Whiskers Plot

Constituent: SULFATE (mg/l)   Analysis Run 4/24/2023 12:30 PM   View: LF LAQC III
LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-13 (bg)	MW-602 (bg)	MW-701 (bg)	MW-703 (bg)	MW-803
LowerQ.	1270	24.2	80.6	2.5	22.15
UpperQ.	1710	26.65	86.25	2.5	30.8
Min	978	23.4	76.9	1.24	15
Max	1950	28.1	90.2	2.5	35.8
Mean	1473	25.41	83.52	2.434	25.43

Box & Whiskers Plot

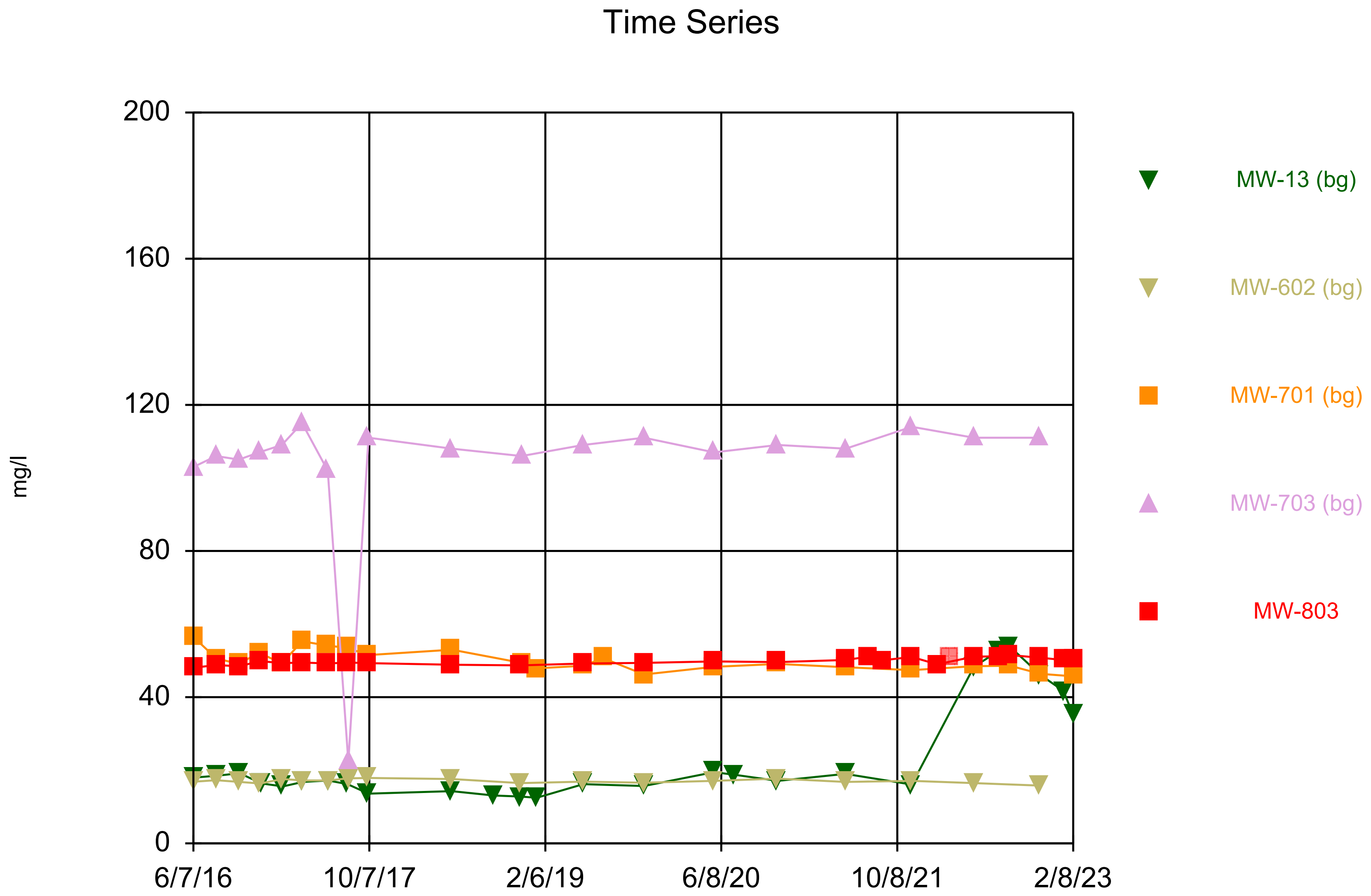
LaCygne Client: SCS Engineers Data: LaC GW Data Printed 4/24/2023, 12:30 PM

Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
SULFATE (mg/l)	MW-13 (bg)	23	1473	276.5	57.66	1460	978	1950	0
SULFATE (mg/l)	MW-602 (bg)	20	25.41	1.366	0.3054	25.15	23.4	28.1	0
SULFATE (mg/l)	MW-701 (bg)	25	83.52	3.744	0.7488	83.7	76.9	90.2	0
SULFATE (mg/l)	MW-703 (bg)	19	2.434	0.2891	0.06632	2.5	1.24	2.5	94.74
SULFATE (mg/l)	MW-803	26	25.43	5.571	1.093	24.85	15	35.8	0

Appendix C

Time Series Plots

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



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LaCygne Client: SCS Engineers Data: LaC GW Data

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Constituent: SULFATE   Analysis Run 4/24/2023 12:31 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

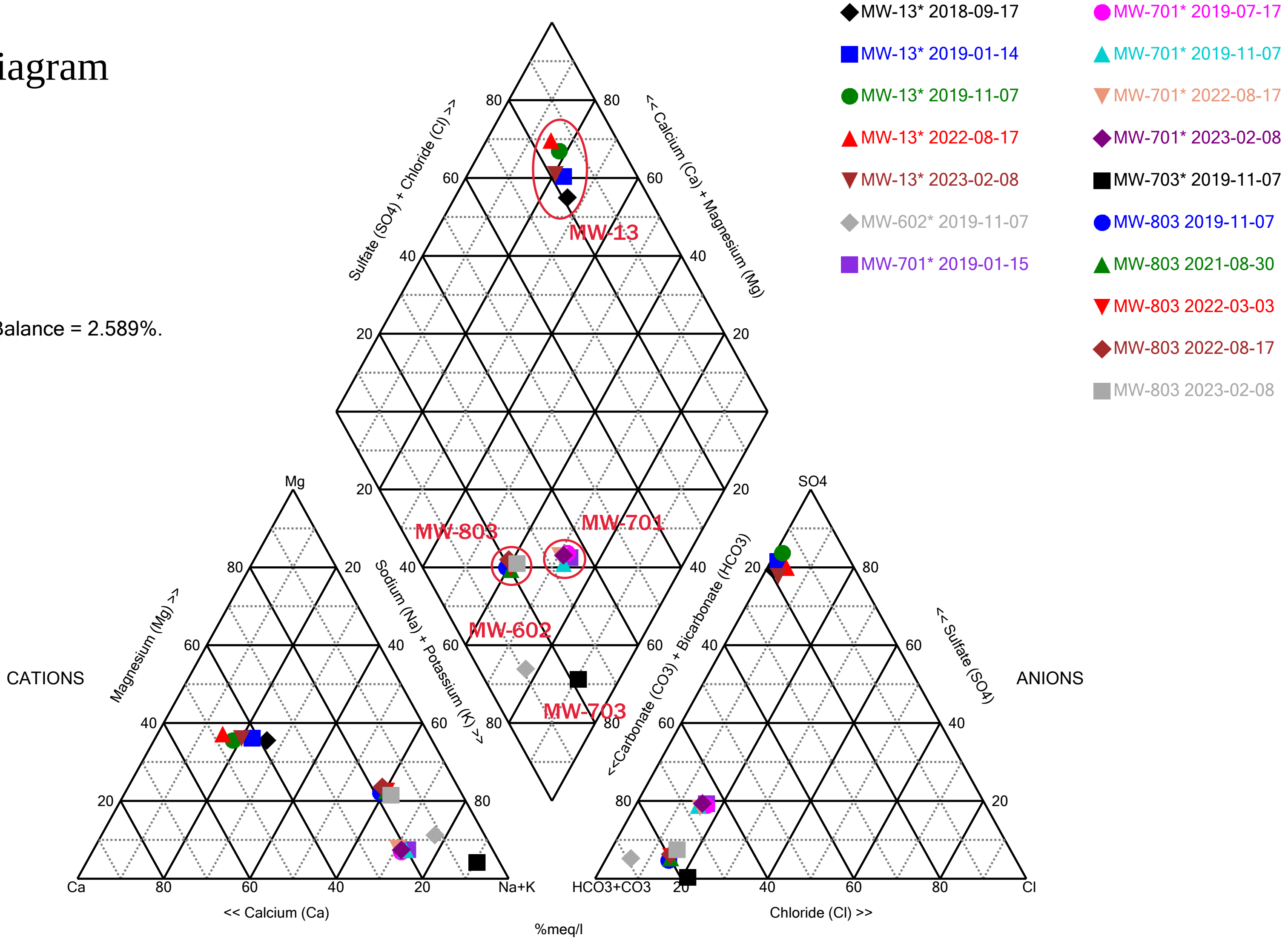
Appendix D

Piper Diagram Plots and Analytical Results

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Piper Diagram

Cation-Anion Balance = 2.589%.



Analysis Run 4/24/2023 12:34 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

Piper Diagram

Analysis Run 4/24/2023 12:36 PM View: LF LAQC III

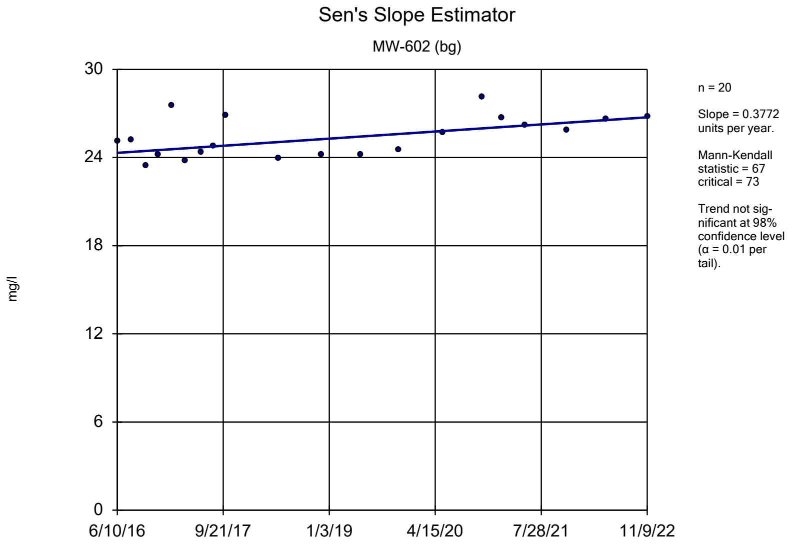
LaCygne Client: SCS Engineers Data: LaC GW Data

Totals (ppm)	Na	K	Ca	Mg	Cl	SO4	HCO3	CO3
MW-13* 2018-09-17	165	3.55	214	120	13.1	1010	295	10
MW-13* 2019-01-14	151	3.3	247	128	12.5	1120	289	10
MW-13* 2019-11-07	154	3.37	340	159	15.7	1450	321	10
MW-13* 2022-08-17	118	2.93	339	159	53.8	1440	346	10
MW-13* 2023-02-08	164	4.95	319	157	35.1	1210	366	10
MW-602* 2019-11-07	192	3.59	24.9	15	16.6	24.5	523	10
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-701* 2023-02-08	172	3.74	45.4	9.2	45.7	83.9	349	10
MW-703* 2019-11-07	339	3.53	17.6	8.07	111	2.5	725	10
MW-803 2019-11-07	154	4.94	43.1	30.4	49.4	24	496	10
MW-803 2021-08-30	156	4.92	39	30.8	50.1	25.4	483	10
MW-803 2022-03-03	151	4.74	37.7	30.1	50.9	27.4	487	10
MW-803 2022-08-17	143	4.76	37.9	31.1	51.5	32.8	506	10
MW-803 2023-02-08	165	5.62	40.2	30.5	50.5	34.4	460	10

Appendix D

Trend Analysis

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



n = 20

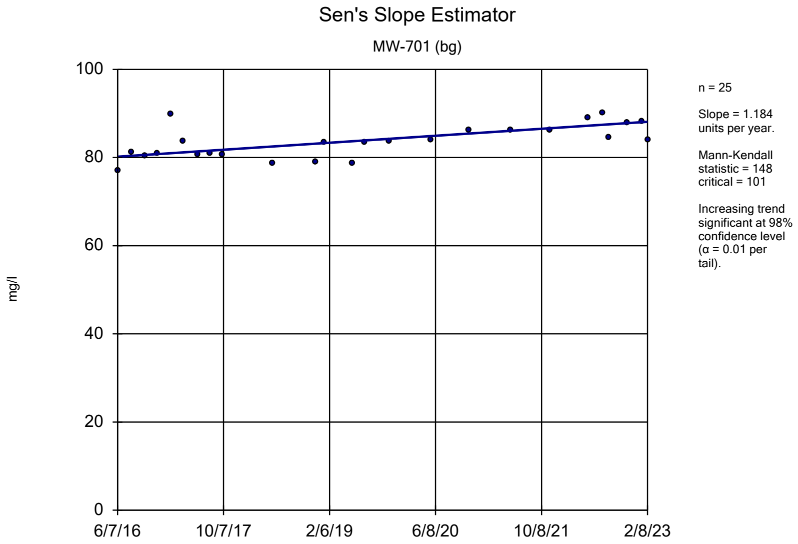
Slope = 0.3772 units per year.

Mann-Kendall statistic = 67 critical = 73

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: SULFATE Analysis Run 4/24/2023 12:38 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



n = 25

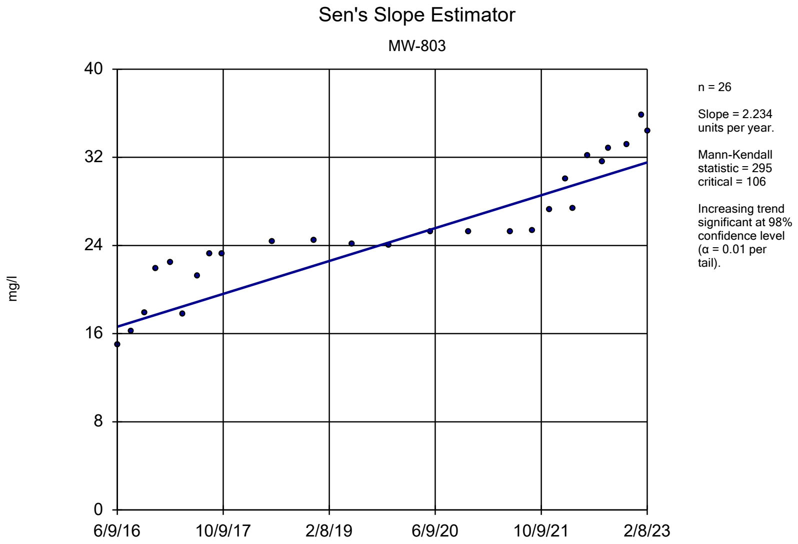
Slope = 1.184 units per year.

Mann-Kendall statistic = 148 critical = 101

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: SULFATE Analysis Run 4/24/2023 12:38 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



n = 26

Slope = 2.234 units per year.

Mann-Kendall statistic = 295 critical = 106

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: SULFATE Analysis Run 4/24/2023 12:38 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Trend Test

LaCygne Client: SCS Engineers Data: LaC GW Data Printed 4/24/2023, 12:39 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
SULFATE (mg/l)	MW-602 (bg)	0.3772	67	73	No	20	0	n/a	n/a	0.02	NP
SULFATE (mg/l)	**MW-701 (bg)**	**1.184**	**148**	**101**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.02**	**NP**
SULFATE (mg/l)	**MW-803**	**2.234**	**295**	**106**	**Yes**	**26**	**0**	**n/a**	**n/a**	**0.02**	**NP**

APPENDIX C.2

CCR Groundwater Monitoring Alternative Source Demonstration Report May 2023 Groundwater Monitoring Event, CCR Landfill and Lower AQC Impoundment, La Cygne Generating Station (December 2023)

CCR GROUNDWATER MONITORING
ALTERNATIVE SOURCE DEMONSTRATION REPORT
May 2023 GROUNDWATER MONITORING EVENT

CCR LANDFILL AND LOWER AQC IMPOUNDMENT

La Cygne Generating Station
Evergy Metro, Inc
Ly Cygne, Kansas

SCS ENGINEERS

December 8, 2023
File No. 21217233.22

SCS Engineers
8575 W 110th St, Suite 100
Overland Park, Kansas 66210
913-681-0030

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 CCR Landfill and Lower 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.

29
12-8-27

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 CCR Landfill and Lower 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.

14136
12-8-23

Douglas L. Doerr, P.E.
SCS Engineers

Table of Contents

Appendices

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 CCR Landfill and Lower 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 17, 2023. Review and validation of the results from the May 2023 Detection Monitoring Event was completed on June 30, 2023, 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 12, 2023, and August 15, 2023.

The completed statistical evaluation identified one Appendix III constituent above its prediction limits established for monitoring well MW-13 and MW-804, one Appendix III constituent above its prediction limit established for MW-802, and one Appendix III constituent above its prediction limit established for MW-803.

Monitoring Well Constituent	*UPL/LPL	Observation May 17, 2023	1st Verification July 12, 2023	2nd Verification August 15, 2023
MW-13				
Chloride	19.61	31.7	24.5	26.3
MW-802				
pH	8.72/7.29	7.0	NA	NA
MW-803				
Sulfate	28.84	38.9	31.9/30.4**	36.4/35.9**
MW-804				
Chloride	32.11	33.0	33.0	33.1

*UPL/LPL – Upper Prediction Limit/Lower Prediction Limit
** - Duplicate Sample
NA – Not Analyzed

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified SSIs above the background prediction limits for chloride at MW-13 and MW-804, pH at MW-802, and sulfate at MW-803.

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 SSIs for the CCR Landfill and Lower 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 CCR Landfill and Lower AQC Impoundment. Select multiple lines of supporting evidence are described as follows.

3.1 UPRADIENT WELL LOCATION

Figure 1 in **Appendix A** shows a potentiometric surface contour map indicating the direction of groundwater flow at and near the CCR Landfill and Lower AQC Impoundment at the time of sampling. The groundwater flow directions indicated are for the May 2023 groundwater monitoring event and are typical flow directions for this unit. During this sampling event, monitoring well MW-13 is located upgradient from the CCR Landfill and Lower AQC Impoundment indicating the SSI for chloride in monitoring well MW-13 is not caused by a release from the CCR Landfill and Lower AQC Impoundment. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment likely caused the SSI above background levels for chloride, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

3.2 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-601, MW-602, and MW-13 and non-network upgradient wells MW-701, MW-702, and MW-703, and downgradient well MW-804. MW-701, MW-702, and MW-703 are not in the monitoring network for the CCR Landfill and Lower AQC Impoundment but are upgradient from the site and the Upper AQC Impoundment. The chloride concentrations in upgradient network wells and non-network upgradient wells are greater than the chloride concentrations in monitoring wells MW-13 and MW-804. These comparisons and the upgradient location of MW-13 indicate the chloride concentrations in upgradient well MW-13 and downgradient well MW-804 are not caused by the CCR Landfill or the Lower AQC Impoundment. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment likely caused the SSI above background levels for chloride, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Box and whiskers plots are provided in **Appendix B**.

Box and whiskers plots were prepared for sulfate for upgradient wells MW-601, MW-602 and MW-13, non-monitoring network upgradient wells MW-701, MW-702, and MW-703, and downgradient well MW-803. The sulfate concentrations in upgradient well MW-13 and non-network upgradient well MW-701 are greater than the sulfate concentrations in monitoring well MW-803 and the sulfate concentrations in upgradient well MW-602 are similar to the concentrations in monitoring well MW-803. These comparisons indicate the sulfate concentrations in well MW-803 are not likely caused by the CCR Landfill or the Lower AQC Impoundment and that there is significant variability of chloride concentrations in upgradient wells and across the site. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment likely caused the SSI above background levels for sulfate, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Box and whiskers plots are provided in **Appendix B**.

Box and whiskers plots were prepared for pH for upgradient wells MW-13, MW-601, and MW-602 and downgradient well MW-802. The pH range in upgradient well MW-13 is lower than the pH range in MW-802 and the pH range for upgradient wells MW-601 and MW-602 is similar to that of MW-802. These comparisons indicate the pH in well MW-802 is not likely caused by the CCR Landfill or the Lower AQC Impoundment and that there is variability of pH in upgradient wells. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment likely caused the SSI above background levels for pH, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Box and whiskers plots are provided in **Appendix B**.

3.3 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 (i.e., spikes). 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 were prepared for chloride for upgradient wells MW-602 and MW-13 and non-network upgradient wells MW-701 and MW-703, and downgradient well MW-803. MW-701 and MW-703 are not in the monitoring network for the CCR Landfill and Lower AQC Impoundment. The chloride concentrations in non-network upgradient wells MW-701 and MW-703 are historically greater than the chloride concentrations in monitoring well MW-13; however, for this sampling event the chloride concentrations were similar for all three upgradient wells with the concentration in MW-13 being a little lower. These comparisons and the upgradient location of MW-13 indicate the chloride concentrations in upgradient well MW-13 are not caused by the CCR Landfill or the Lower AQC Impoundment. Additionally, a historical examination of the data collected from this unit indicate that there is significant variability of chloride concentrations in upgradient wells. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment likely caused the SSI above background levels for chloride, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Time series plots are provided in **Appendix C**.

Time series plots were prepared for sulfate for upgradient wells MW-602 and MW-13, non-monitoring network upgradient wells MW-701 and MW-703, and downgradient well MW-803. The sulfate concentrations in upgradient well MW-13 and non-network upgradient well MW-701 are historically and currently greater than the sulfate concentrations in monitoring well MW-803 and the sulfate concentrations in upgradient well MW-602 are similar to the concentrations in monitoring well MW-803. These comparisons indicate the sulfate concentrations in well MW-803 are not caused by the CCR Landfill or the Lower AQC Impoundment and that there is significant historical variability of sulfate concentrations in upgradient wells. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment likely caused the SSI above background levels for sulfate, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Time series plots are provided in **Appendix C**.

Time series plots were prepared for pH for upgradient wells MW-13, MW-601, and MW-602 and downgradient well MW-802. The pH range in upgradient well MW-13 is lower than the pH range in MW-802 and the pH range for upgradient wells MW-601 and MW-602 is similar to that of MW-802. These comparisons indicate the pH in well MW-802 is not likely caused by the CCR Landfill or the Lower AQC Impoundment and that there is variability of pH in upgradient wells. This demonstrates that a source other than the CCR Landfill and Lower AQC Impoundment likely caused the SSI above background levels for pH, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Box and whiskers plots are provided in **Appendix B**.

3.4 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-13, MW-601, and MW-602, non-monitoring network upgradient wells MW-701, MW-702, and MW-703, and downgradient wells MW-802, MW-803, and MW-804. The samples from MW-802, MW-803, and MW-804 plot between the samples from upgradient wells MW-13 and MW-601, MW-602, MW-701, MW-702, and MW-703 indicating 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 Landfill and Lower AQC Impoundment likely caused the SSIs for MW-13, MW-802, MW-803, and MW-804, or that the SSI resulted from natural variation in groundwater quality. The piper diagram plots and analytical results are provided in **Appendix D**.

4 CONCLUSIONS

Our opinion is that a sufficient body of evidence is available and presented above to demonstrate that a source other than the CCR Landfill and Lower AQC Impoundment likely caused the SSIs for chloride and sulfate, or that the SSIs resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Based on the successful ASD, the owner or operator of the CCR

Landfill and Lower AQC Impoundment may continue with the detection monitoring program under § 257.94.

5 GENERAL COMMENTS

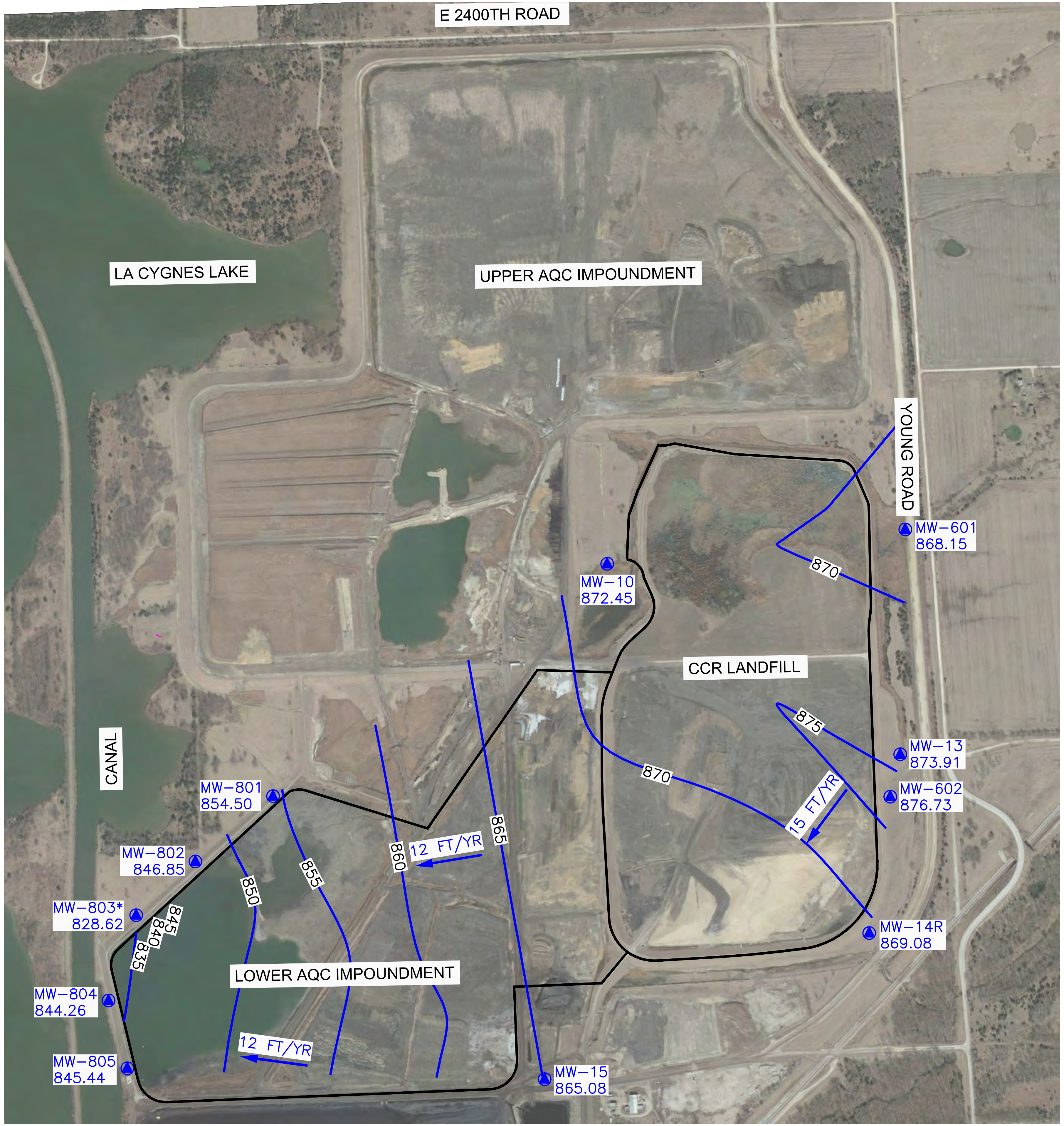
This report has been prepared and reviewed under the direction of a qualified groundwater scientist and qualified professional engineer. Please note that SCS Engineers does not warrant the work of regulatory agencies or other third parties supplying information used in the assimilation of this report. 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 represent 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 signature. 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

Potentiometric Surface Map

N:\KCPL - EVERGY\Projects\Groundwater\DWG\La Cygne\2023\La Cygne LF__ May 2023 excluding MW-702 & MW-803.dwg Sep 26, 2023 - 11:22am Layout Name: Fig 3 Lower By: swyly

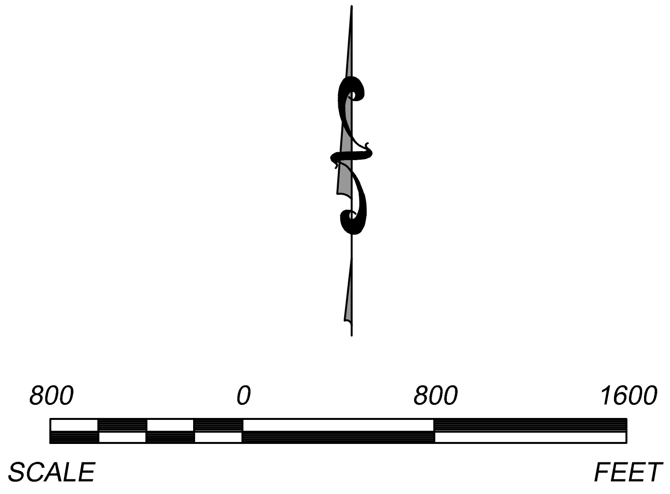


LEGEND

▭	CCR UNIT BOUNDARY (APPROXIMATE LIMITS)
MW−704 (869.52)	CCR GROUNDWATER MONITORING SYSTEM WELLS (GROUNDWATER ELEVATION)
—875—	GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS
12 FT/YR ←	DIRECTION OF GROUNDWATER FLOW AND GROUNDWATER FLOW RATE (FEET/YEAR)
MW−803* (864.69)	INDICATES WELL NOT USED TO DEVELOP POTENTIOMETRIC SURFACE MAP

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 MAY 17, 2023.



REV. DATE CK. BY

SHEET TITLE
POTENTIOMETRIC SURFACE MAP
MAY 2023
CCR LANDFILL & LAQC IMPOUNDMENT

PROJECT TITLE
2023 GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT

CLIENT
EVERGY METRO, INC.
LA CYGNE GENERATING STATION
LA CYGNE, KANSAS

SCS ENGINEERS
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PROJ. NO. 27217233.22
DSN. BY: DAW
DWN. BY: SJW
CHK. BY: JF
Q/A RVW BY: JRR
PROJ. MGR. JRR

CADD FILE:
LA CYGNE LF__ MAY 2023 EXCLUDING MW-70
& MW-803.DWG

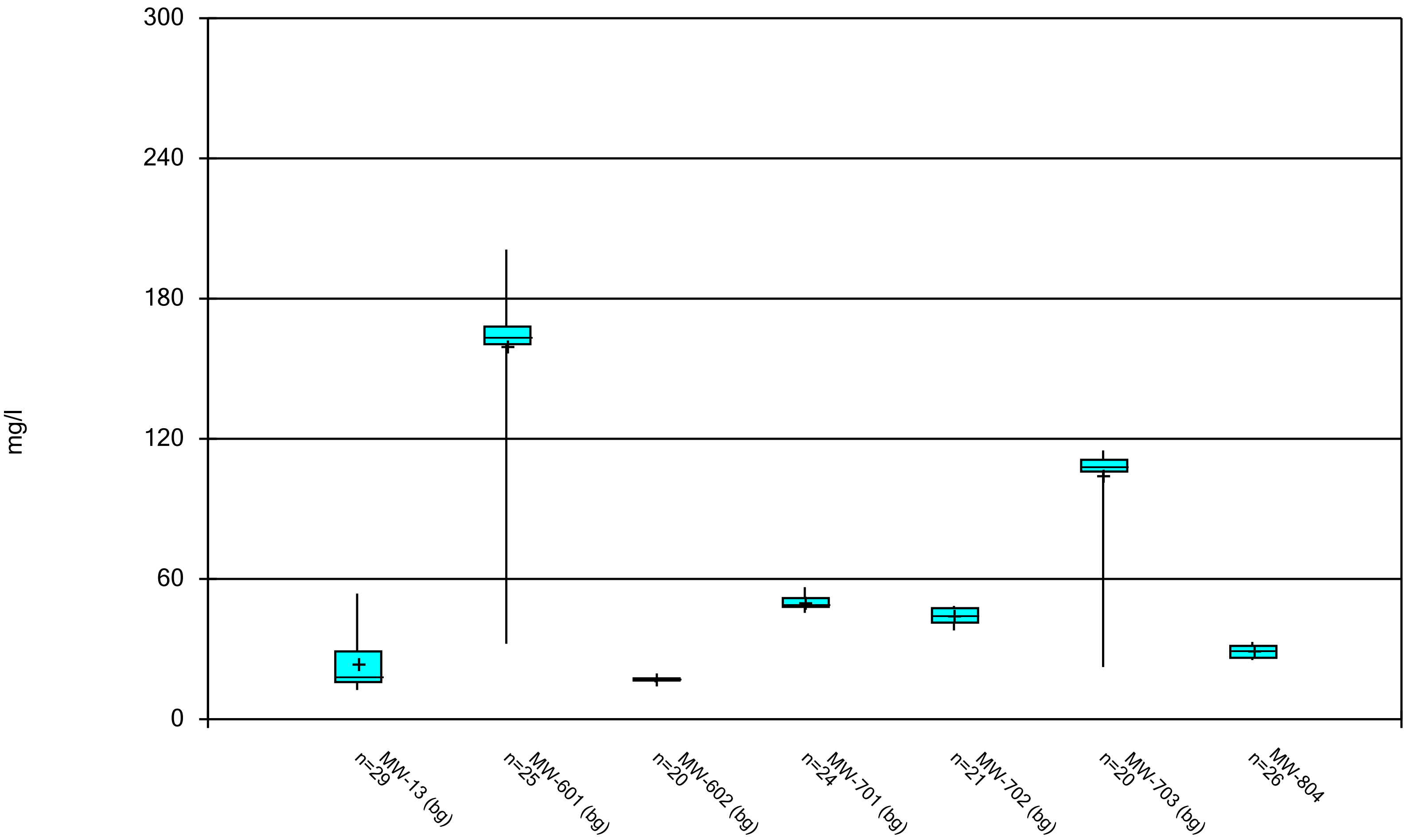
DATE: 9/26/23

FIGURE NO. 3

Appendix B

Box and Whiskers Plots

Box & Whiskers Plot



Constituent: CHLORIDE Analysis Run 11/14/2023 4:44 PM View: LF LAQC III

LaCygne Data: LaC GW Data

Box & Whiskers Plot

Constituent: CHLORIDE (mg/l)   Analysis Run 11/14/2023 4:46 PM   View: LF LAQC III

LaCygne   Data: LaC GW Data

	MW-13 (bg)	MW-601 (bg)	MW-602 (bg)	MW-701 (bg)	MW-702 (bg)	MW-703 (bg)	MW-804
6/7/2016				56.5		103	
6/8/2016					44.9		32.8
6/9/2016	18	161					
6/10/2016			16.9				
8/9/2016		161	17.3	50.6	41.7	106	
8/10/2016							26.1
8/11/2016	18.5						
10/11/2016				49.1	41.8	105	26.3
10/13/2016	19.2	201	16.8				
12/6/2016				52.2		107	
12/7/2016		169					25.5
12/8/2016					46.7		
12/9/2016			16.4				
12/13/2016	16.4						
2/7/2017				49.2		109	25.3
2/8/2017		168	17.6		48.4		
2/10/2017	15.6						
4/4/2017				55.3		115	26
4/5/2017					48.4		
4/6/2017	16.8	156					
4/7/2017			17.2				
6/13/2017				54.1			26
6/14/2017						102	
6/15/2017	17.2	167	17.2		46.2		
8/8/2017	16.2			53.5			26.3
8/9/2017		168			48.1		
8/10/2017			17.8			22.3	
10/3/2017				51.5	48.5		
10/5/2017	13.6		17.9			111	26.9
10/6/2017		166					
5/23/2018	14.3	160	17.6				30.4
5/24/2018				53	45.8	108	
9/17/2018	13.1						
11/30/2018	12.8	160	16.5				32.2
12/3/2018				49.4	40.9	106	
1/14/2019	12.5	157			43		29.7
1/15/2019				47.9			
5/23/2019	16.2	162	16.9	48.6	41.8	109	31.7
7/17/2019		32.3		50.7			31.1
11/7/2019	15.7	164	16.6	46.2	40.7	111	29
5/19/2020	19.5	161	17.1	48.3	38	107	29.1
7/13/2020	18.8						
11/12/2020	17.1	172	17.7	49.1	39.4	109	26.7
3/3/2021		157					
5/18/2021	19	169	16.8				28.8
5/19/2021				48.2	41	108	
8/30/2021		163					30.2
11/18/2021	16.1	166	17.1	47.4	42.2	114	29.3
3/3/2022		166					
5/9/2022	48.3	167	16.5	48.5	47.8	111	29.3
7/19/2022	52.8						
8/17/2022	53.8			48.6			30

Box & Whiskers Plot

Constituent: CHLORIDE (mg/l) Analysis Run 11/14/2023 4:46 PM View: LF LAQC III

LaCygne Data: LaC GW Data

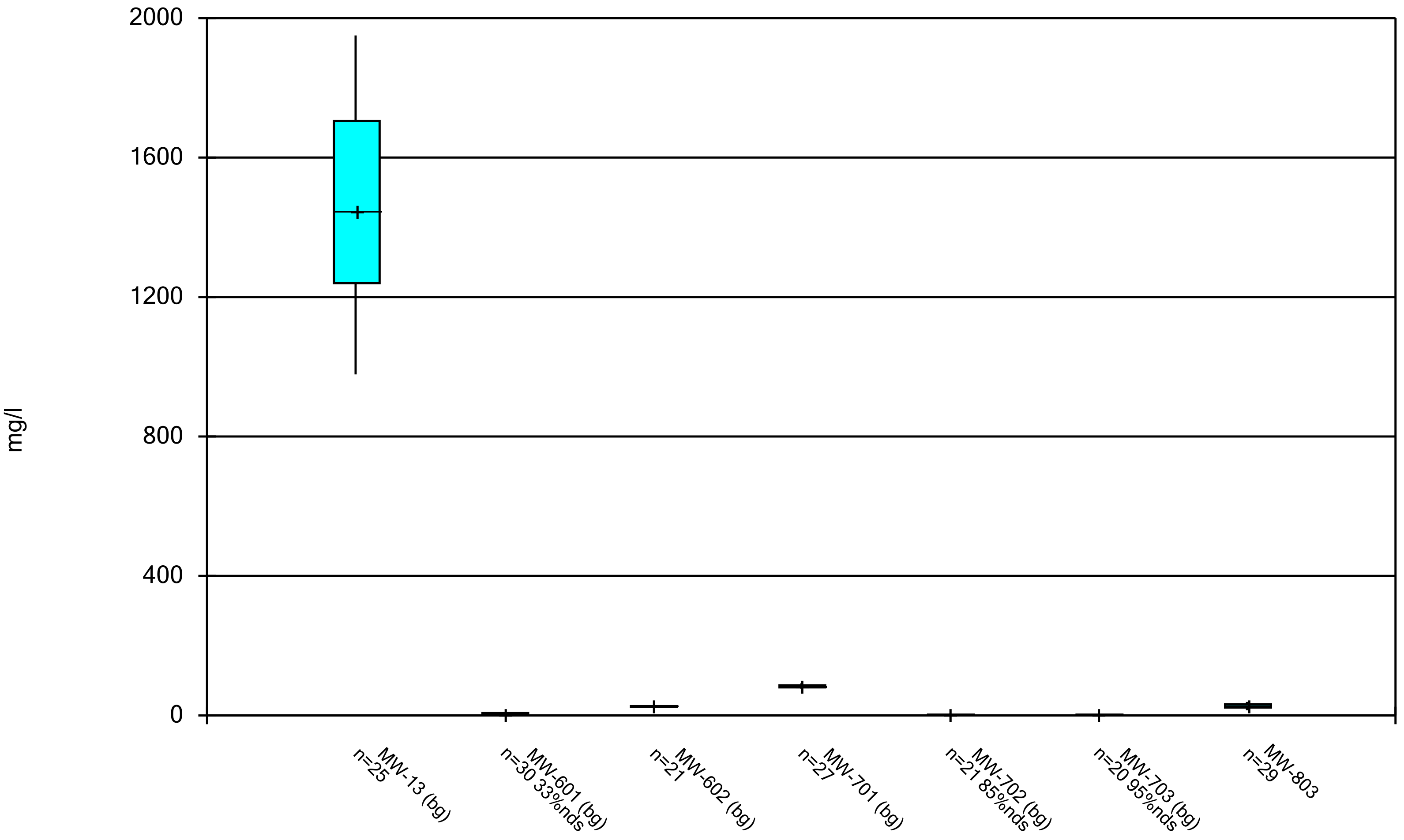
	MW-13 (bg)	MW-601 (bg)	MW-602 (bg)	MW-701 (bg)	MW-702 (bg)	MW-703 (bg)	MW-804
11/9/2022	46.1	169	15.8	46.4	47.2	111	27.9
1/12/2023	41.7						
2/8/2023	35.1			45.7			
5/17/2023	31.7	163	16.4	45.5	45.7	109	33
7/12/2023	24.5						33
8/15/2023	26.3						33.1
Median	18	164	17	49.1	44.9	108.5	29.2
LowerQ.	15.9	160.5	16.55	48.05	41.35	106	26.3
UpperQ.	29	168	17.45	51.85	47.5	111	31.4
Min	12.5	32.3	15.8	45.5	38	22.3	25.3
Max	53.8	201	17.9	56.5	48.5	115	33.1
Mean	23.69	160.2	17.01	49.81	44.2	104.2	29.07

Box & Whiskers Plot

LaCygne Data: LaC GW Data Printed 11/14/2023, 4:46 PM

Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
CHLORIDE (mg/l)	MW-13 (bg)	29	23.69	12.76	2.37	18	12.5	53.8	0
CHLORIDE (mg/l)	MW-601 (bg)	25	160.2	27.98	5.595	164	32.3	201	0
CHLORIDE (mg/l)	MW-602 (bg)	20	17.01	0.5511	0.1232	17	15.8	17.9	0
CHLORIDE (mg/l)	MW-701 (bg)	24	49.81	3.005	0.6134	49.1	45.5	56.5	0
CHLORIDE (mg/l)	MW-702 (bg)	21	44.2	3.351	0.7312	44.9	38	48.5	0
CHLORIDE (mg/l)	MW-703 (bg)	20	104.2	19.54	4.37	108.5	22.3	115	0
CHLORIDE (mg/l)	MW-804	26	29.07	2.593	0.5084	29.2	25.3	33.1	0

Box & Whiskers Plot



Constituent: SULFATE Analysis Run 11/14/2023 4:49 PM View: LF LAQC III

LaCygne Data: LaC GW Data

Box & Whiskers Plot

Constituent: SULFATE (mg/l) Analysis Run 11/14/2023 4:50 PM View: LF LAQC III

LaCygne Data: LaC GW Data

	MW-13 (bg)	MW-601 (bg)	MW-602 (bg)	MW-701 (bg)	MW-702 (bg)	MW-703 (bg)	MW-803
6/7/2016				76.9		<5	
6/8/2016					5.73		
6/9/2016	1830	<5					15
6/10/2016			25.1				
8/9/2016		<5	25.2	81.1	5.46	<5	
8/11/2016	1730						
8/12/2016							16.2
10/11/2016				80.3	<5	<5	
10/13/2016	1830	<5	23.4				17.9
12/6/2016				80.9		<5	21.9
12/7/2016		<5					
12/8/2016					<5		
12/9/2016			24.2				
12/13/2016	1270						
2/7/2017				89.8		<5	
2/8/2017		<5	27.5		<5		22.4
2/10/2017	1950						
4/4/2017				83.8		<5	
4/5/2017					<5		
4/6/2017	1480	<5					
4/7/2017			23.8				17.8
6/13/2017				80.6			21.2
6/14/2017						<5	
6/15/2017	1630	<5	24.4		<5		
8/8/2017	1410			80.8			
8/9/2017		<5			<5		23.2
8/10/2017			24.8			<5	
10/3/2017				80.6	<5		
10/4/2017							23.2
10/5/2017	1330		26.9			<5	
10/6/2017		<5					
5/23/2018	1070	<5	23.9				24.4
5/24/2018				78.6	<5	<5	
9/17/2018	1010						
11/30/2018	978	5.98	24.2				24.5
12/3/2018				79.1	<5	<5	
1/14/2019	1120	5.97			<5		
1/15/2019				83.3			
3/11/2019		5.89					
5/23/2019	1520	6.76	24.2	78.8	<5	<5	24.1
7/17/2019		5.75		83.4			
8/23/2019		6.32					
11/7/2019	1450	6.33	24.5	83.7	<5	<5	24
5/19/2020	1700	6.07	25.7	84	<5	<5	25.2
11/12/2020	1500	8.78	28.1	86.2	<5	<5	25.2
2/4/2021		9.76	26.7				
3/3/2021		6.73					
5/18/2021	1810	7.04	26.2				25.2
5/19/2021				86.2	<5	<5	
7/21/2021		7.71					
8/30/2021		4.98					25.4
11/18/2021	1710	6.77	25.9	86.3	<5	<5	27.2

ND substitution: RL/2.

Box & Whiskers Plot

Constituent: SULFATE (mg/l) Analysis Run 11/14/2023 4:50 PM View: LF LAQC III

LaCygne Data: LaC GW Data

	MW-13 (bg)	MW-601 (bg)	MW-602 (bg)	MW-701 (bg)	MW-702 (bg)	MW-703 (bg)	MW-803
1/27/2022		7.48					30
3/3/2022		6.58					27.4
5/9/2022	1460	6.41	26.6	89.1	<5	<5	32.1
7/15/2022				90.2			31.6
8/17/2022	1440			84.5			32.8
11/9/2022	1430	7.35	26.8	87.8	1.47	1.24	33.1
1/12/2023				88.2			35.8
2/8/2023	1210			83.9			34.4
5/17/2023	1280	8.77	26.9	92.2	<5	<5	38.9
7/12/2023				78.4			31.15 (D)
8/15/2023	1010						36.15 (D)
Median	1450	6.025	25.2	83.7	2.5	2.5	25.2
LowerQ.	1240	2.5	24.2	80.6	2.5	2.5	22.8
UpperQ.	1705	6.905	26.75	86.3	2.5	2.5	31.85
Min	978	2.5	23.4	76.9	1.47	1.24	15
Max	1950	9.76	28.1	92.2	5.73	2.5	38.9
Mean	1446	5.414	25.48	83.66	2.746	2.437	26.46

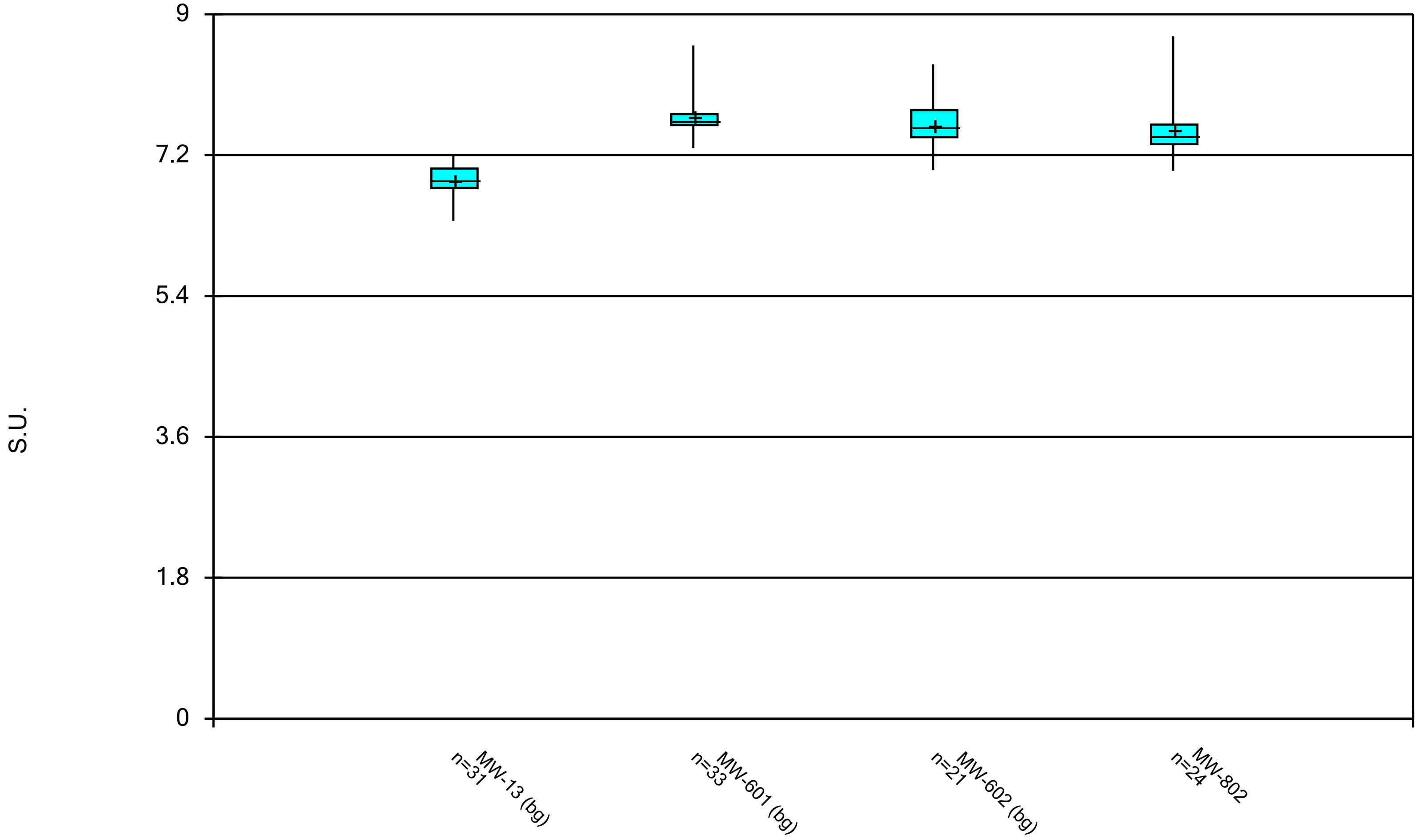
ND substitution: RL/2.

Box & Whiskers Plot

LaCygne   Data: LaC GW Data   Printed 11/14/2023, 4:50 PM

Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
SULFATE (mg/l)	MW-13 (bg)	25	1446	282.6	56.51	1450	978	1950	0
SULFATE (mg/l)	MW-601 (bg)	30	5.414	2.299	0.4198	6.025	2.5	9.76	33.33
SULFATE (mg/l)	MW-602 (bg)	21	25.48	1.371	0.2991	25.2	23.4	28.1	0
SULFATE (mg/l)	MW-701 (bg)	27	83.66	4.102	0.7894	83.7	76.9	92.2	0
SULFATE (mg/l)	MW-702 (bg)	21	2.746	0.9744	0.2126	2.5	1.47	5.73	85.71
SULFATE (mg/l)	MW-703 (bg)	20	2.437	0.2817	0.063	2.5	1.24	2.5	95
SULFATE (mg/l)	MW-803	29	26.46	6.193	1.15	25.2	15	38.9	0

Box & Whiskers Plot



Constituent: pH Analysis Run 11/14/2023 4:52 PM View: LF LAQC III

LaCygne Data: LaC GW Data

Box & Whiskers Plot

Constituent: pH (S.U.)   Analysis Run 11/14/2023 4:53 PM   View: LF LAQC III
LaCygne   Data: LaC GW Data

	MW-13 (bg)	MW-601 (bg)	MW-602 (bg)	MW-802
6/7/2016				7.46
6/9/2016	6.88	7.66		
6/10/2016			7.01	
8/9/2016		7.72	7.64	
8/10/2016				7.52
8/11/2016	6.78			
10/11/2016				7.34
10/13/2016	6.95	7.71	7.34	
12/6/2016				7.48
12/7/2016		7.61		
12/9/2016			8.15	
12/13/2016	6.36			
2/7/2017				7.67
2/8/2017		8.6	8.36	
2/10/2017	7.08			
4/5/2017				8.72
4/6/2017	6.86	7.61		
4/7/2017			7.51	
6/13/2017				7.6
6/15/2017	6.8	7.62	7.77	
8/7/2017				7.29
8/8/2017	6.74			
8/9/2017		7.72		
8/10/2017			7.56	
10/4/2017				7.58
10/5/2017	6.9		7.78	
10/6/2017		7.53		
1/9/2018		7.41		
5/23/2018	7.05	7.56	7.54	7.34
7/11/2018	7.02	7.43		
8/16/2018	7.05	7.59		
11/30/2018	6.99	7.58	7.42	7.38
1/14/2019	6.87	7.63		
3/11/2019	7.07	7.64		
5/23/2019	7.03	7.65	7.45	7.3
7/17/2019		7.95		
8/23/2019		7.66		
11/7/2019	6.79	7.72	7.44	7.58
5/19/2020	6.81	7.63	7.6	7.44
7/13/2020	6.88			
11/12/2020	6.62	7.29	7.13	7.96
2/4/2021		8.14	7.87	
3/3/2021		7.88		
5/18/2021	6.7	7.66	7.66	7.64
7/21/2021		7.73		7.35
8/30/2021		7.96		
11/18/2021	6.9	7.5	7.27	7.42
1/27/2022		7.63		7.46
3/3/2022		7.6		
5/9/2022	6.52	7.57	7.5	7.71
7/15/2022	6.57			
8/17/2022	6.62			

Box & Whiskers Plot

Constituent: pH (S.U.)   Analysis Run 11/14/2023 4:53 PM   View: LF LAQC III

LaCygne   Data: LaC GW Data

	MW-13 (bg)	MW-601 (bg)	MW-602 (bg)	MW-802
11/9/2022	6.97	7.82	7.64	7.39
1/12/2023	6.98			7.27
2/8/2023	7.06			7.34
5/17/2023	7.12	7.92	7.79	7
7/12/2023	7.2			
8/15/2023	6.89			
Median	6.89	7.64	7.56	7.45
LowerQ.	6.78	7.585	7.43	7.34
UpperQ.	7.03	7.725	7.775	7.59
Min	6.36	7.29	7.01	7
Max	7.2	8.6	8.36	8.72
Mean	6.873	7.695	7.592	7.51

Box & Whiskers Plot

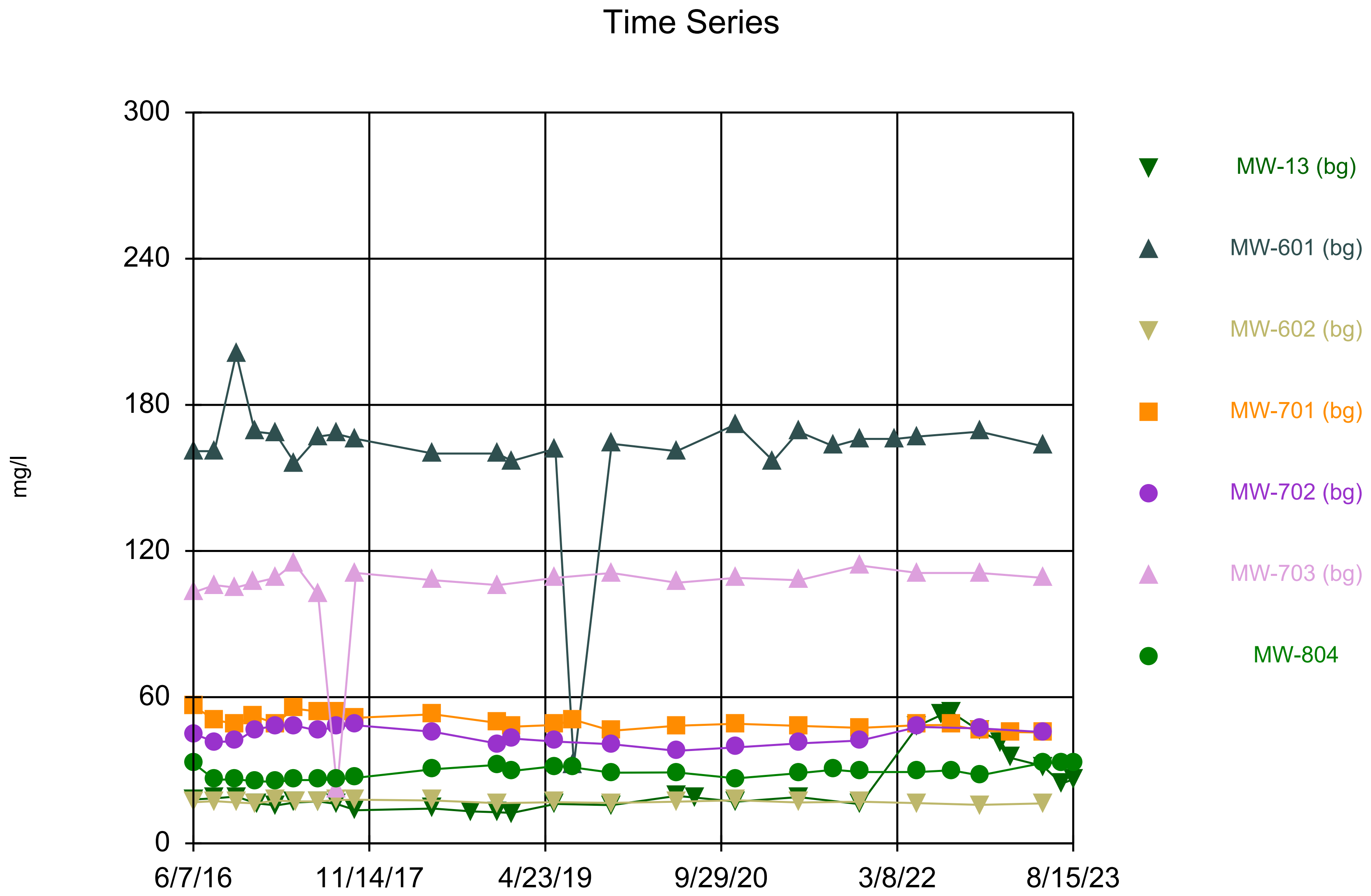
LaCygne   Data: LaC GW Data   Printed 11/14/2023, 4:53 PM

Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
pH (S.U.)	MW-13 (bg)	31	6.873	0.1929	0.03464	6.89	6.36	7.2	0
pH (S.U.)	MW-601 (bg)	33	7.695	0.2335	0.04066	7.64	7.29	8.6	0
pH (S.U.)	MW-602 (bg)	21	7.592	0.3086	0.06735	7.56	7.01	8.36	0
pH (S.U.)	MW-802	24	7.51	0.319	0.06511	7.45	7	8.72	0

Appendix C

Time Series Plots

Sanitas™ v.10.0.13 Software licensed to SCS Engineers. UG



Constituent: CHLORIDE Analysis Run 11/14/2023 4:58 PM View: LF LAQC III

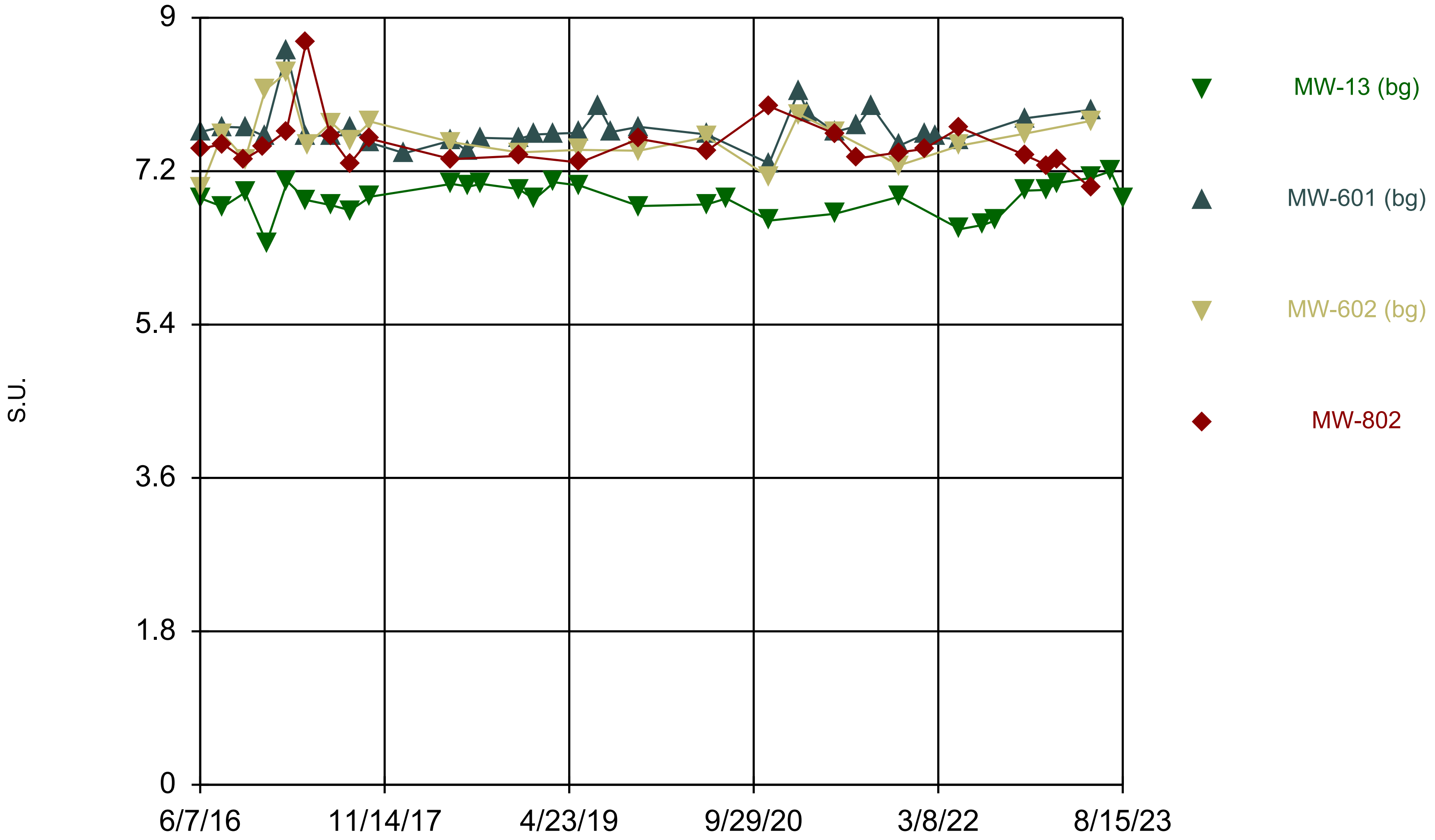
LaCygne Data: LaC GW Data

Sanitas™ v.10.0.13 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Constituent: SULFATE   Analysis Run 11/14/2023 4:55 PM   View: LF LAQC III

LaCygne   Data: LaC GW Data

Time Series



Constituent: pH Analysis Run 11/14/2023 4:53 PM View: LF LAQC III

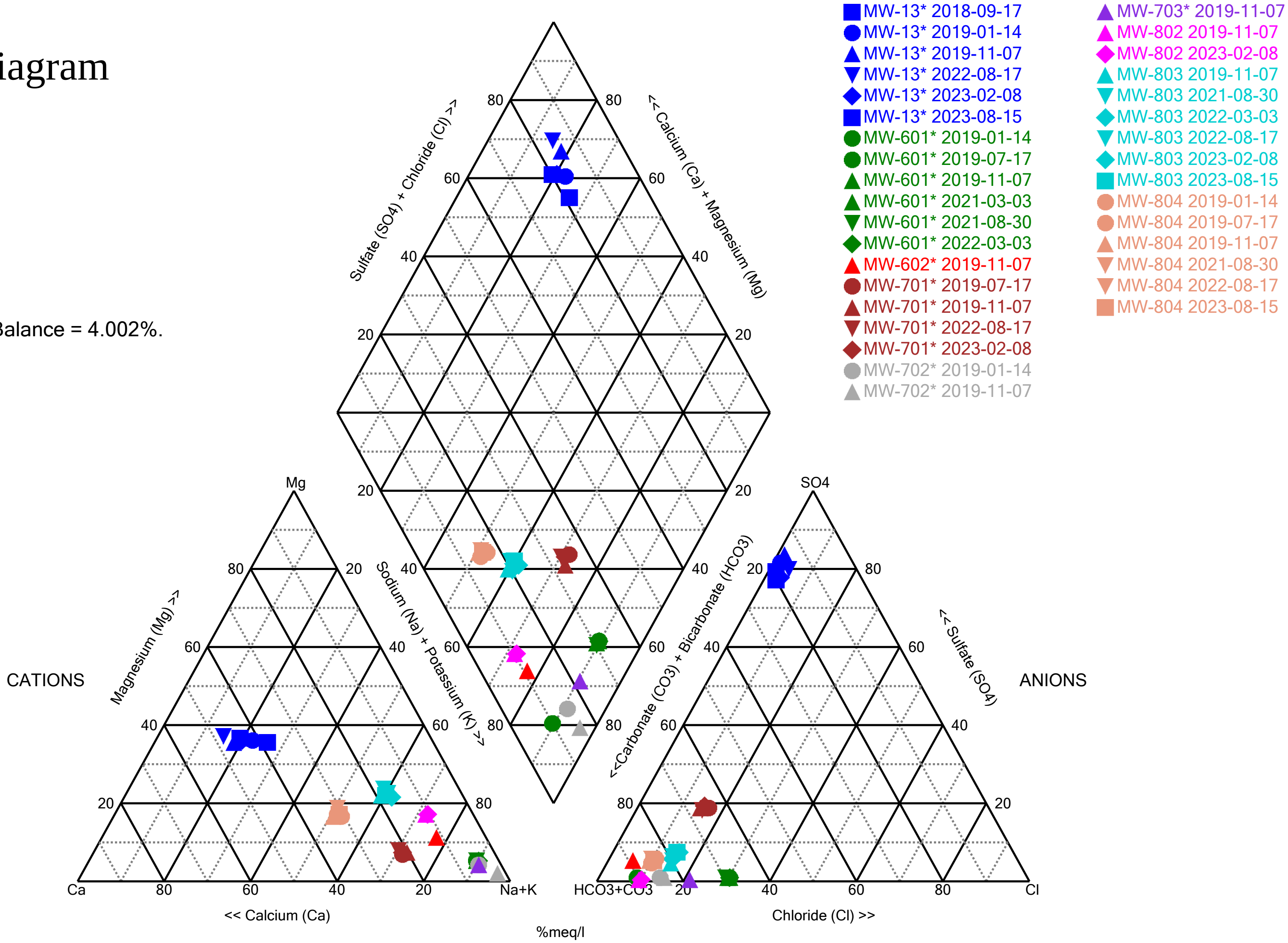
LaCygne Data: LaC GW Data

Appendix D

Piper Diagram Plots and Analytical Results

Piper Diagram

Cation-Anion Balance = 4.002%.



Analysis Run 11/14/2023 5:13 PM View: LF LAQC Piper Data

LaCygne Data: LaC GW Data

Piper Diagram

Analysis Run 11/14/2023 5:14 PM View: LF LAQC Piper Data

LaCygne Data: LaC GW Data

Totals (ppm)	Na	K	Ca	Mg	Cl	SO4	HCO3	CO3
MW-13* 2018-09-17	165	3.55	214	120	13.1	1010	295	10
MW-13* 2019-01-14	151	3.3	247	128	12.5	1120	289	10
MW-13* 2019-11-07	154	3.37	340	159	15.7	1450	321	10
MW-13* 2022-08-17	118	2.93	339	159	53.8	1440	346	10
MW-13* 2023-02-08	164	4.95	319	157	35.1	1210	366	10
MW-13* 2023-08-15	132	3.48	266	134	26.3	1010	323	10
MW-601* 2019-01-14	361	4.21	17.9	10.9	157	5.97	626	10
MW-601* 2019-07-17	362	4.35	18.2	10.9	32.3	5.75	631	10
MW-601* 2019-11-07	346	4.13	17.2	10.4	164	6.33	668	10
MW-601* 2021-03-03	350	4.1	17	10.9	157	6.73	631	10
MW-601* 2021-08-30	351	4.57	16.8	10.9	163	4.98	683	10
MW-601* 2022-03-03	348	4.78	16.8	10.3	166	6.58	665	10
MW-602* 2019-11-07	192	3.59	24.9	15	16.6	24.5	523	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-701* 2023-02-08	172	3.74	45.4	9.2	45.7	83.9	349	10
MW-702* 2019-01-14	230	3.14	11.2	5.24	43	2.5	461	10
MW-702* 2019-11-07	167	2.58	2.73	1.7	40.7	2.5	249	87.9
MW-703* 2019-11-07	339	3.53	17.6	8.07	111	2.5	725	10
MW-802 2019-11-07	205	5.13	28	26	33.8	2.5	623	10
MW-802 2023-02-08	223	6.72	29.1	28	36	2.5	612	10
MW-803 2019-11-07	154	4.94	43.1	30.4	49.4	24	496	10
MW-803 2021-08-30	156	4.92	39	30.8	50.1	25.4	483	10
MW-803 2022-03-03	151	4.74	37.7	30.1	50.9	27.4	487	10
MW-803 2022-08-17	143	4.76	37.9	31.1	51.5	32.8	506	10
MW-803 2023-02-08	165	5.62	40.2	30.5	50.5	34.4	460	10
MW-803 2023-08-15	149	4.99	39.7	29.6	50.4	36.15	481	10
MW-804 2019-01-14	128	2.88	68.4	22.5	29.7	19.5	450	10
MW-804 2019-07-17	130	3.06	67	22.2	31.1	24.5	439	10
MW-804 2019-11-07	120	2.66	68.2	21.1	29	21.9	468	10
MW-804 2021-08-30	123	2.71	64.4	21.7	30.2	24.4	468	10
MW-804 2022-08-17	113	2.72	59.9	22	30	26.1	479	10
MW-804 2023-08-15	120	2.95	63.1	21.4	33.1	22.2	472	10

APPENDIX D

LABORATORY ANALYTICAL REPORTS

- January 2023 – First verification sampling for the Fall 2022 detection monitoring event.
- February 2023 – Second verification sampling for the Fall 2022 detection monitoring event.
- May 2023 – Spring 2023 semiannual detection monitoring sampling event.
- July 2023 – First verification sampling for the Spring 2023 detection monitoring sampling event.
- August 2023 - Second verification sampling for Spring 2023 detection monitoring sampling event.
- November 2023 - Fall 2023 semiannual detection monitoring sampling event.

ANALYTICAL REPORT

January 16, 2023

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

SCS Engineers - KS

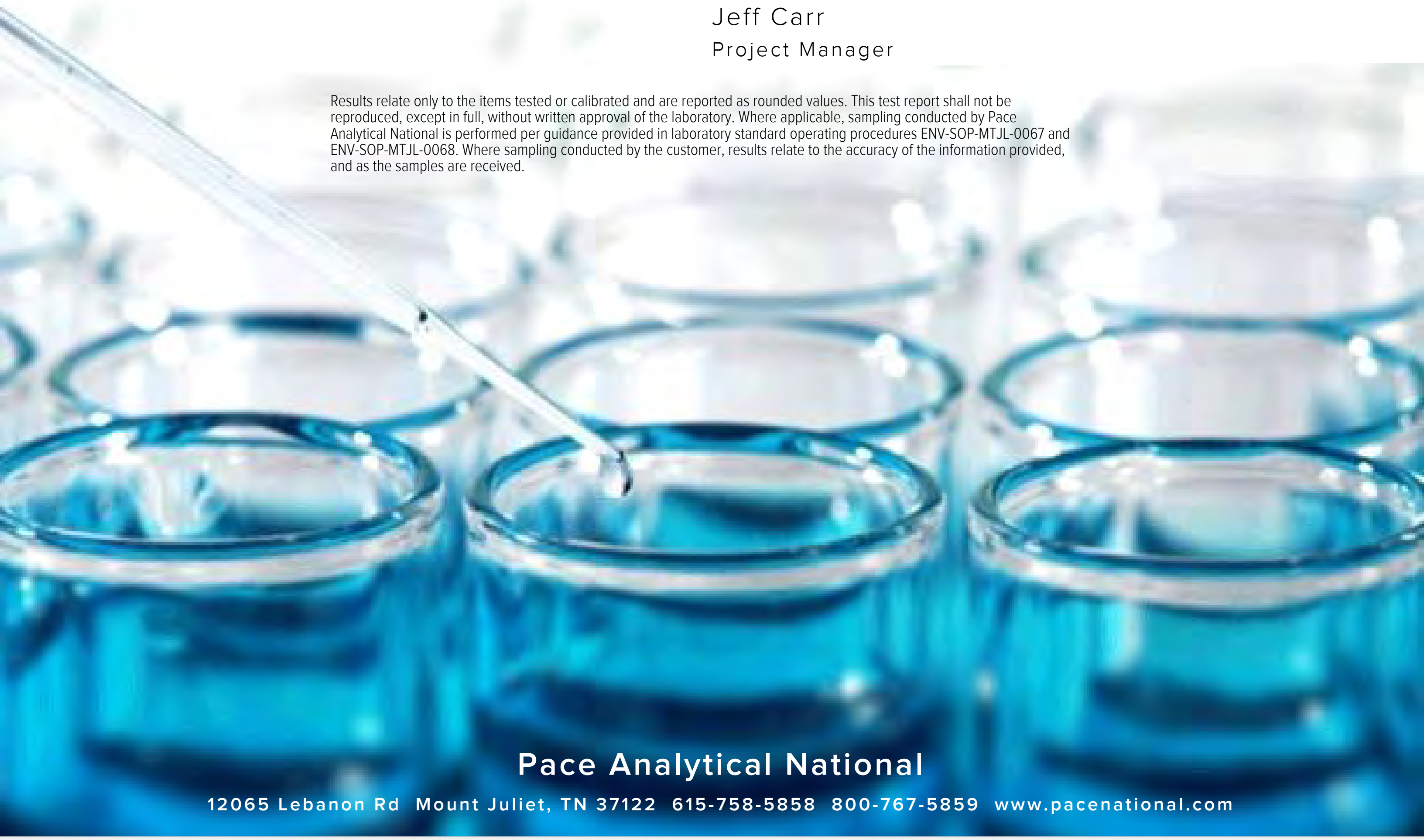
Sample Delivery Group:	L1576036
Samples Received:	01/13/2023
Project Number:	27217233.22-I
Description:	Evergy La Cygne Gen Station GW 2022-23

Report To:

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

Entire Report Reviewed By:

Jeff Carr
Project Manager



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

TABLE OF CONTENTS

SAMPLE SUMMARY

MW-13 L1576036-01 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	01/12/23 13:25	01/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1988769	10	01/14/23 15:17	01/14/23 15:17	GEB	Mt. Juliet, TN

MW-14R L1576036-02 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	01/12/23 11:45	01/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1988864	1	01/14/23 22:55	01/14/23 22:55	GEB	Mt. Juliet, TN

DUPLICATE L1 L1576036-03 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	01/12/23 11:45	01/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1988769	1	01/14/23 16:05	01/14/23 16:05	GEB	Mt. Juliet, TN

MW-15 L1576036-04 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	01/12/23 11:10	01/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1988769	1	01/14/23 16:21	01/14/23 16:21	GEB	Mt. Juliet, TN

MW-802 L1576036-05 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	01/12/23 12:55	01/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1988769	1	01/14/23 16:37	01/14/23 16:37	GEB	Mt. Juliet, TN

MW-803 L1576036-06 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	01/12/23 13:30	01/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1988864	1	01/14/23 23:59	01/14/23 23:59	GEB	Mt. Juliet, TN

DUPLICATE L2 L1576036-07 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	01/12/23 13:30	01/13/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1988769	1	01/14/23 16:53	01/14/23 16:53	GEB	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

SAMPLE RESULTS - 01

L1576036

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	41700		3790	10000	10	01/14/2023 15:17	WG1988769

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Fluoride	342		64.0	150	1	01/14/2023 22:55	WG1988864

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Fluoride	341		64.0	150	1	01/14/2023 16:05	WG1988769

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Fluoride	267		64.0	150	1	01/14/2023 16:21	WG1988769

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	40000		379	1000	1	01/14/2023 16:37	WG1988769

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	50200		379	1000	1	01/14/2023 23:59	WG1988864
Sulfate	35800		594	5000	1	01/14/2023 23:59	WG1988864

Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	50900		379	1000	1	01/14/2023 16:53	WG1988769
Sulfate	37600		594	5000	1	01/14/2023 16:53	WG1988769

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

Method Blank (MB)

(MB) R3881130-1 01/14/23 10:17

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

L1576034-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1576034-01 01/14/23 13:41 • (DUP) R3881130-3 01/14/23 13:57

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	45200	45100	1	0.168		15
Fluoride	625	624	1	0.0961		15
Sulfate	88200	88300	1	0.162		15

L1576034-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1576034-03 01/14/23 19:16 • (DUP) R3881130-6 01/14/23 19:32

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	172000	170000	10	1.51		15
Fluoride	U	U	10	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3881130-2 01/14/23 10:33

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Chloride	40000	40500	101	80.0-120	
Fluoride	8000	8500	106	80.0-120	
Sulfate	40000	40900	102	80.0-120	

L1576034-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1576034-01 01/14/23 13:41 • (MS) R3881130-4 01/14/23 14:13 • (MSD) R3881130-5 01/14/23 14:29

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	50000	45200	93900	93400	97.5	96.4	1	80.0-120			0.572	15
Fluoride	5000	625	6050	5990	109	107	1	80.0-120			1.12	15

L1576034-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1576034-01 01/14/23 13:41 • (MS) R3881130-4 01/14/23 14:13 • (MSD) R3881130-5 01/14/23 14:29

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	50000	88200	133000	133000	90.4	89.4	1	80.0-120			0.356	15

L1576034-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1576034-03 01/14/23 19:16 • (MS) R3881130-7 01/14/23 19:48 • (MSD) R3881130-8 01/14/23 20:04

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	172000	215000	216000	84.7	87.6	10	80.0-120			0.666	15
Fluoride	5000	U	5340	5610	107	112	10	80.0-120			4.95	15

QUALITY CONTROL SUMMARY

L1576036-02,06

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

Method Blank (MB)

(MB) R3881113-1 01/14/23 18:37

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

L1575932-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1575932-12 01/14/23 20:16 • (DUP) R3881113-5 01/14/23 20:32

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	3590	3400	1	5.47		15
Sulfate	4490	4460	1	0.836	J	15

L1576036-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1576036-02 01/14/23 22:55 • (DUP) R3881113-6 01/14/23 23:11

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	6600	6610	1	0.135		15
Fluoride	342	334	1	2.43		15
Sulfate	67700	67700	1	0.0657		15

Laboratory Control Sample (LCS)

(LCS) R3881113-2 01/14/23 18:53

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Chloride	40000	39900	99.8	80.0-120	
Fluoride	8000	8330	104	80.0-120	
Sulfate	40000	39500	98.8	80.0-120	

L1575421-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1575421-01 01/14/23 19:13 • (MS) R3881113-3 01/14/23 19:29 • (MSD) R3881113-4 01/14/23 19:44

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	50000	30600000	29700000	29600000	0.000	0.000	100	80.0-120	E V	E V	0.350	15
Fluoride	5000	U	U	6600	0.000	132	100	80.0-120	J6	J3 J5	200	15

WG1988864

Wet Chemistry by Method 9056A

L1576036-02,06

L1575421-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1575421-01 01/14/23 19:13 • (MS) R3881113-3 01/14/23 19:29 • (MSD) R3881113-4 01/14/23 19:44

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	50000	5050000	4940000	4930000	0.000	0.000	100	80.0-120	V	V	0.111	15

L1576036-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1576036-02 01/14/23 22:55 • (MS) R3881113-7 01/14/23 23:27 • (MSD) R3881113-8 01/14/23 23:43

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	6600	56000	57100	98.8	101	1	80.0-120			1.96	15
Fluoride	5000	342	5300	5270	99.1	98.6	1	80.0-120			0.511	15
Sulfate	50000	67700	116000	116000	95.7	97.1	1	80.0-120			0.609	15

L1576036-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1576036-06 01/14/23 23:59 • (MS) R3881113-9 01/15/23 00:15 • (MSD) R3881113-10 01/15/23 01:03

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	50200	98100	98100	96.0	95.9	1	80.0-120			0.0296	15
Fluoride	5000	643	5570	5640	98.6	100	1	80.0-120			1.19	15
Sulfate	50000	35800	84900	84600	98.2	97.6	1	80.0-120			0.351	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
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.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
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	LAO00356
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

Pres Chk

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 [✓ CT] ET

Phone: **913-681-0030**

Client Project #: **27217233.22-I**

Lab Project #: **AQUAOPKS-LACYGNE**

Collected by (print): Matt VanderPutten

Site/Facility ID #:

P.O. #:

Collected by (signature): Matt VandPut

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 ✓

Chain of Custody Page ___ of ___

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN

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

SDG # L1576036
E189

Acctnum: **AQUAOPKS**
Template: **T136292**
Prelogin: **P973655**
PM: **206 - Jeff Carr**
PB:
Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Chloride 125mlHDPE-NoPres	Chloride, SO4 125mlHDPE-NoPres	Fluoride 125mlHDPE-NoPres						Remarks	Sample # (lab only)
MW-13	Grab	GW	NA	1/12/23	1325	1	X									-01
MW-14R		GW			1145	1			X							-02
MW-14R MS/MSD		GW			1145	1			X							
DUPLICATE L1		GW			1145	1			X							-03
MW-15		GW			1110	1			X							-04
MW-802		GW			1255	1	X									-05
MW-803		GW			1330	1		X								-06
MW-803 MS/MSD		GW			1330	1		X								
DUPLICATE L2		GW			1330	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 # 5671 5374 5645

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

Relinquished by : (Signature) Matt VandPut
Date: 1/12/23
Time: 1700
Received by: (Signature)

Trip Blank Received: Yes / [✓ No]
HCL / MeoH
TBR

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

Temp: 6BA2°C 0.7
Bottles Received: 8

If preservation required by Login: Date/Time

Relinquished by : (Signature)
Date:
Time:
Received for lab by: (Signature) EW

Date: 1-13
Time: 0915

Hold:

Condition: NCF / [✓ OK]

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

February 20, 2023

Jason Franks
SCS Engineers
8575 West 110th St
Suite 100
Overland Park, KS 66210

RE: Project: EVERGY LA CYGNE GEN STATION GW
Pace Project No.: 60421763

Dear Jason Franks:

Enclosed are the analytical results for sample(s) received by the laboratory on February 09, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Kansas City

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Heather M. Wilson

Heather Wilson
heather.wilson@pacelabs.com
1(913)563-1407
Project Manager

Enclosures

cc: Andrea Bausch, SCS Engineers

CERTIFICATIONS

Project:	EVERGY LA CYGNE GEN STATION GW
Pace Project No.:	60421763

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219
Missouri Inorganic Drinking Water Certification #: 10090
Arkansas Drinking Water
Arkansas Certification #: 22-031-0
Illinois Certification #: 2000302021-3
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212023-1
Oklahoma Certification #: 2022-057
Florida: Cert E871149 SEKS WET
Texas Certification #: T104704407-21-15
Utah Certification #: KS000212022-12
Illinois Certification #: 004592
Kansas Field Laboratory Accreditation: # E-92587
Missouri SEKS Micro Certification: 10070

SAMPLE SUMMARY

Project: EVERGY LA CYGNE GEN STATION GW
Pace Project No.: 60421763

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60421763001	**MW-13**	Water	02/08/23 11:35	02/09/23 13:47
60421763002	**MW-802**	Water	02/08/23 13:20	02/09/23 13:47
60421763003	**MW-803**	Water	02/08/23 12:06	02/09/23 13:47
60421763004	**DUPLICATE L1**	Water	02/08/23 12:06	02/09/23 13:47

SAMPLE ANALYTE COUNT

Project: EVERGY LA CYGNE GEN STATION GW
Pace Project No.: 60421763

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60421763001	**MW-13**	EPA 300.0	CRN2	1	PASI-K
60421763002	**MW-802**	EPA 300.0	CRN2	1	PASI-K
60421763003	**MW-803**	EPA 300.0	CRN2	2	PASI-K
60421763004	**DUPLICATE L1**	EPA 300.0	CRN2	3	PASI-K

PASI-K = Pace Analytical Services - Kansas City

ANALYTICAL RESULTS

Project: EVERGY LA CYGNE GEN STATION GW
Pace Project No.: 60421763

Sample: MW-13 **Lab ID: 60421763001** Collected: 02/08/23 11:35 Received: 02/09/23 13:47 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**61.9**	mg/L	20.0	10.5	20		02/15/23 14:42	16887-00-6	

REPORT OF LABORATORY ANALYSIS

ANALYTICAL RESULTS

Project: EVERGY LA CYGNE GEN STATION GW
Pace Project No.: 60421763

Sample: MW-802 **Lab ID: 60421763002** Collected: 02/08/23 13:20 Received: 02/09/23 13:47 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**56.0**	mg/L	20.0	10.5	20		02/15/23 14:56	16887-00-6	

REPORT OF LABORATORY ANALYSIS

ANALYTICAL RESULTS

Project: EVERGY LA CYGNE GEN STATION GW
Pace Project No.: 60421763

Sample: MW-803 **Lab ID: 60421763003** Collected: 02/08/23 12:06 Received: 02/09/23 13:47 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**77.2**	mg/L	20.0	10.5	20		02/15/23 15:36	16887-00-6	D6,R1
Sulfate	**50.6**	mg/L	20.0	11.0	20		02/15/23 15:36	14808-79-8	D6,M1, R1

ANALYTICAL RESULTS

Project: EVERGY LA CYGNE GEN STATION GW
Pace Project No.: 60421763

Sample: DUPLICATE L1 **Lab ID: 60421763004** Collected: 02/08/23 12:06 Received: 02/09/23 13:47 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City								
Chloride	**48.1**	mg/L	10.0	5.3	10		02/17/23 14:06	16887-00-6	
Fluoride	**0.15J**	mg/L	0.20	0.12	1		02/15/23 16:29	16984-48-8	
Sulfate	**32.3**	mg/L	10.0	5.5	10		02/17/23 14:06	14808-79-8	

QUALITY CONTROL DATA

Project: EVERGY LA CYGNE GEN STATION GW
Pace Project No.: 60421763

QC Batch: 831953
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60421763001, 60421763002, 60421763003, 60421763004

METHOD BLANK: 3301805 Matrix: Water
Associated Lab Samples: 60421763001, 60421763002, 60421763003, 60421763004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.53	02/15/23 09:40	
Fluoride	mg/L	ND	0.20	0.12	02/15/23 09:40	
Sulfate	mg/L	ND	1.0	0.55	02/15/23 09:40	

METHOD BLANK: 3303831 Matrix: Water
Associated Lab Samples: 60421763001, 60421763002, 60421763003, 60421763004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.53	02/17/23 09:18	
Fluoride	mg/L	ND	0.20	0.12	02/17/23 09:18	
Sulfate	mg/L	ND	1.0	0.55	02/17/23 09:18	

LABORATORY CONTROL SAMPLE: 3301806

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.8	95	90-110	
Fluoride	mg/L	2.5	2.3	93	90-110	
Sulfate	mg/L	5	4.8	95	90-110	

LABORATORY CONTROL SAMPLE: 3303832

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.9	97	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	5	4.9	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3301807 3301808

Parameter	Units	60421882005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1290	2000	2000	4460	3970	159	134	80-120	12	15	M1
Fluoride	mg/L	ND	50	50	56.6	57.0	113	114	80-120	1	15	
Sulfate	mg/L	56.9	100	100	210	211	153	154	80-120	0	15	M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

QUALITY CONTROL DATA

Project: EVERGY LA CYGNE GEN STATION GW
Pace Project No.: 60421763

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3301810 3301811

Parameter	Units	60421763003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	77.2	100	100	190	161	113	84	80-120	16	15	R1
Fluoride	mg/L	ND	50	50	51.9	43.1	104	86	80-120	19	15	R1
Sulfate	mg/L	50.6	100	100	173	147	123	96	80-120	16	15	M1,R1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3304791 3304792

Parameter	Units	60421765002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	219	5	5	223	224	69	106	80-120	1	15	M1
Fluoride	mg/L	6.9	2.5	2.5	7.8	7.5	36	24	80-120	4	15	M1,R1
Sulfate	mg/L	4700	5	5	4700	4720	110	339	80-120	0	15	M1

SAMPLE DUPLICATE: 3301809

Parameter	Units	60421882005 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	1290	1150	11	15	
Fluoride	mg/L	ND	ND		15	
Sulfate	mg/L	56.9	57.1	0	15	

SAMPLE DUPLICATE: 3301812

Parameter	Units	60421763003 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	77.2	103	28	15	D6
Fluoride	mg/L	ND	ND		15	
Sulfate	mg/L	50.6	66.9	28	15	D6

SAMPLE DUPLICATE: 3304793

Parameter	Units	60421765002 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	219	222	1	15	
Fluoride	mg/L	6.9	7.3	5	15	
Sulfate	mg/L	4700	4660	1	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

QUALIFIERS

Project:	EVERGY LA CYGNE GEN STATION GW
Pace Project No.:	60421763

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: EVERGY LA CYGNE GEN STATION GW
Pace Project No.: 60421763

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60421763001	**MW-13**	EPA 300.0	831953		
60421763002	**MW-802**	EPA 300.0	831953		
60421763003	**MW-803**	EPA 300.0	831953		
60421763004	**DUPLICATE L1**	EPA 300.0	831953		

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-LENE-0009_

Revision: 2 **Effective Date: 01,**

WO#:60421763

60421763

Client Name: SCS ENGINEERS

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☒ Other ☐

Tracking #: ____________ Pace Shipping Label Used? Yes ☒ No ☐

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☐ No ☒

Packing Material: Bubble Wrap ☒ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: T-266 **Type of Ice:** [✓ Wet] Blue None

Cooler Temperature (°C): **As-read** 0.2 **Corr. Factor** -0.1 **Corrected** 0.1

Date and initials of person examining contents: VF 2/10

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	
Chain of Custody relinquished:	☒Yes ☐No ☐N/A	
Samples arrived within holding time:	☒Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☒No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	
Sufficient volume:	☒Yes ☐No ☐N/A	
Correct containers used:	☒Yes ☐No ☐N/A	
Pace containers used:	☒Yes ☐No ☐N/A	
Containers intact:	☒Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☒N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	
Sample labels match COC: Date / time / ID / analyses	☒Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☒No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:**	☐Yes ☐No ☒N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve)	 ☐Yes ☐No ☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☒N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☒N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☒N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☒N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: ____________ Date/Time: ____________

Comments/ Resolution: ____________

Project Manager Review: ____________ Date: ____________

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www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately

Page: 1 of 1

Section A
Required Client Information:
Company: SCS Engineers
Address: 8575 W 110th Street, Suite 100
Overland Park, Kansas 66210
Email To: jfranks@scsengineers.com
Phone: 913-302-3238
Fax:
Requested Due Date/TAT: STD

Section B
Required Project Information:
Report To: Jason R. Franks
Copy To:
Purchase Order No.:
Project Name: Evergy La Cygne Gen Station GW 2022-23
Project Number: 27217233.22 - F

Section C
Invoice Information:
Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY
☐ NPDES ☑ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER ______

Site Location
STATE: KS

Section D
Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

Pace Project No./ Lab I.D.: 60421763

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	↓Analysis Test↓ Y/N	300.0 Chloride	300.0 Sulfate	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																			N	N		
1	MW-13	WT	G	-	-	02/08/23	11:35	-	1	1									X			
2	MW-802	WT	G	-	-	02/08/23	13:20	-	1	1									X			
3	MW-803	WT	G	-	-	02/08/23	12:06	-	1	1									X	X		
4	Duplicate L1	WT	G	-	-	02/08/23	12:06	-	1	1									X	X		
5	MW-803 MS/MSD	WT	G	-	-	02/08/23	12:06	-	1	1									X	X		
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Jason R. Franks / SCS	2/9/23	16:00		2/9/23	1347	02	Y	Y	Y

SAMPLE CONDITIONS

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Jason R. Franks
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 2/9/23

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days

F-ALL-Q-020rev.08, 12-Oct-2007

Client: SCS ENGINEERS

Profile # 157607-2

Site: EVERGY LA CYGNE GEN STATION GW 2022-23

Notes ms/msD

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3C	BP3Z	WPDU	ZPLC	Other		
1																					1											
2																					1											
3																					2											
4																					1											
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1C	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2C	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3C	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 60421763

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Jason R Franks
SCS Engineers
8575 W 110th St
Suite 100
Overland Park, Kansas 66210

Generated 3/2/2023 4:08:36 PM

JOB DESCRIPTION

Evergy La Cygne Gen Station 27217233.22

JOB NUMBER

500-229289-1

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

Eurofins Chicago

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization

Sandie Fredrick

Generated
3/2/2023 4:08:36 PM

Authorized for release by
Sandie Fredrick, Project Manager II
Sandra.Fredrick@et.eurofinsus.com
(920)261-1660

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Table of Contents

Case Narrative

Job ID: 500-229289-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-229289-1

Comments
No additional comments.

Receipt
The samples were received on 2/10/2023 8:16 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.4º C.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client Sample ID: MW-13 — Lab Sample ID: 500-229289-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	35		4.0	3.4	mg/L	20		9056A	Total/NA

Client Sample ID: MW-802 — Lab Sample ID: 500-229289-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	36		4.0	3.4	mg/L	20		9056A	Total/NA

Client Sample ID: MW-803 — Lab Sample ID: 500-229289-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	47	B	10	1.2	mg/L	10		9056A	Total/NA
Sulfate	32		10	2.1	mg/L	10		9056A	Total/NA

Client Sample ID: Duplicate L1 — Lab Sample ID: 500-229289-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	46	B	10	1.2	mg/L	10		9056A	Total/NA
Sulfate	31		10	2.1	mg/L	10		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: SCS Engineers
Project/Site: Evergy La Cygne Gen Station 27217233.22

Job ID: 500-229289-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: SCS Engineers

Job ID: 500-229289-1

Project/Site: Evergy La Cygne Gen Station 27217233.22

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-229289-1	MW-13	Water	02/08/23 11:35	02/10/23 08:16
500-229289-2	MW-802	Water	02/08/23 13:20	02/10/23 08:16
500-229289-3	MW-803	Water	02/08/23 12:06	02/10/23 08:16
500-229289-4	Duplicate L1	Water	02/08/23 12:06	02/10/23 08:16

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Client Sample Results

Client: SCS Engineers
Project/Site: Evergy La Cygne Gen Station 27217233.22

Job ID: 500-229289-1

Client Sample ID: MW-13
Date Collected: 02/08/23 11:35
Date Received: 02/10/23 08:16

Lab Sample ID: 500-229289-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	**35**		4.0	3.4	mg/L			02/22/23 22:40	20

Client Sample Results

Client Sample ID: MW-802
Date Collected: 02/08/23 13:20
Date Received: 02/10/23 08:16

Lab Sample ID: 500-229289-2
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	**36**		4.0	3.4	mg/L			02/22/23 23:43	20

Client Sample ID: MW-803

Lab Sample ID: 500-229289-3

Date Collected: 02/08/23 12:06

Matrix: Water

Date Received: 02/10/23 08:16

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	47	B	10	1.2	mg/L			03/01/23 20:37	10
Sulfate (SW846 9056A)	32		10	2.1	mg/L			03/01/23 20:37	10

Client Sample ID: Duplicate L1

Lab Sample ID: 500-229289-4

Date Collected: 02/08/23 12:06

Matrix: Water

Date Received: 02/10/23 08:16

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	46	B	10	1.2	mg/L			03/01/23 21:53	10
Sulfate (SW846 9056A)	31		10	2.1	mg/L			03/01/23 21:53	10

Qualifiers

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: SCS Engineers

Job ID: 500-229289-1

Project/Site: Evergy La Cygne Gen Station 27217233.22

General Chemistry

Analysis Batch: 699877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229289-1	MW-13	Total/NA	Water	9056A	
500-229289-2	MW-802	Total/NA	Water	9056A	
MB 500-699877/41	Method Blank	Total/NA	Water	9056A	
LCS 500-699877/42	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 700794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229289-3	MW-803	Total/NA	Water	9056A	
500-229289-4	Duplicate L1	Total/NA	Water	9056A	
500-229289-3 MS	MW-803	Total/NA	Water	9056A	
500-229289-3 MSD	MW-803	Total/NA	Water	9056A	

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 500-699877/41
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 699877

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.17		0.20	0.17	mg/L			02/22/23 17:36	1

Lab Sample ID: LCS 500-699877/42
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 699877

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			3.00	2.96		mg/L		99	80 - 120		

Lab Sample ID: 500-229289-3 MS
Client Sample ID: MW-803
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 700794

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	47	B	100	146		mg/L		99	80 - 120		
Sulfate	32		100	131		mg/L		99	80 - 120		

Lab Sample ID: 500-229289-3 MSD
Client Sample ID: MW-803
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 700794

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	47	B	100	146		mg/L		99	80 - 120	0	15
Sulfate	32		100	131		mg/L		99	80 - 120	0	15

Lab Chronicle

Client Sample ID: MW-13
Lab Sample ID: 500-229289-1

Date Collected: 02/08/23 11:35
Matrix: Water
Date Received: 02/10/23 08:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		20	699877	MM	EET CHI	02/22/23 22:40

Client Sample ID: MW-802
Lab Sample ID: 500-229289-2

Date Collected: 02/08/23 13:20
Matrix: Water
Date Received: 02/10/23 08:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		20	699877	MM	EET CHI	02/22/23 23:43

Client Sample ID: MW-803
Lab Sample ID: 500-229289-3

Date Collected: 02/08/23 12:06
Matrix: Water
Date Received: 02/10/23 08:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		10	700794	EH	EET CHI	03/01/23 20:37

Client Sample ID: Duplicate L1
Lab Sample ID: 500-229289-4

Date Collected: 02/08/23 12:06
Matrix: Water
Date Received: 02/10/23 08:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		10	700794	EH	EET CHI	03/01/23 21:53

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 500-229289-1
Project/Site: Evergy La Cygne Gen Station 27217233.22

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Kansas	NELAP	E-10161	10-31-23

Eurofins Chicago
2417 Bond Street
University Park IL 60484
Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins

Client Information

Sampler: Jason R Franks
Lab PM: Fredrick, Sandie
Carrier Tracking No(s): FedEx 628393156570
COC No.: 500-110269-45955 2
Client Contact: Jason Franks
Phone: 913-302-3238
E-Mail: Sandra Fredrick@et eurofinsus com
State of Origin: Kansas
Page: Page 1 of 1
Company: SCS Engineers
PWSID:
Job #: 500-229289
Address: 8575 W 110th St Suite 100
Due Date Requested:
City: Overland Park
TAT Requested (days): STD
State, Zip: KS 66210
Compliance Project: ∆ Yes ∆ No
Phone: 913-302-3238
PO #: 27217233 22 - I
Email: jfranks@scsengineers com
WO #:
Project Name: Evergy La Cygne Gen Station GW
Project #: 50021131
Site: Evergy La Cygne Gen Station
SSOW#:

500-229289 COC

Analysis Requested

Preservation Codes.

A HCL
B NaOH
C Zn Acetate
D Nitric Acid
E NaHSO4
F MeOH
G Amchlor
H Ascorbic Acid
I Ice
J DI Water
K EDTA
L EDA
M Hexane
N None
O AsNaO2
P Na2O4S
Q Na2SO3
R Na2S2O3
S H2SO4
T TSP Dodecahydrate
U Acetone
V MCAA
W pH 4-5
Y Trizma
Z other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_28D - Chloride	9056A_28D - Sulfate		Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
1 MW-13	2/8/23	11 35	G	Water	N	N	X				
2 MW-802	2/8/23	13 20	G	Water	N	N	X				
3 MW-803	2/8/23	12 06	G	Water	N	N	X	X			
4 Duplicate L1	2/8/23	12 06	G	Water	N	N	X	X			
3 MW-803 MS/MSD	2/8/23	12 06	G	Water	N	Y	X	X			

Possible Hazard Identification

☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For ________ Months*

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Jason R Franks	02/09/23 / 16.00	SCS	Shari Frost	2/10/23 0940	EETA

Custody Seals Intact: ∆ Yes ∆ No
Custody Seal No Pace
Cooler Temperature(s) °C and Other Remarks 2.4→1.4

Ver 01/16/2019 3/2/2023

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 500-229289-1

Login Number: 229289
List Number: 1
Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

February 13, 2023

SCS Engineers - KS

Sample Delivery Group:	L1584382
Samples Received:	02/10/2023
Project Number:	27217233.22-I
Description:	Evergy 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

Pace Analytical National

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

TABLE OF CONTENTS

SAMPLE SUMMARY

MW-13 L1584382-01 GW

Collected by	Collected date/time	Received date/time
Jason R. Franks	02/08/23 11:35	02/10/23 08:50

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2004119	10	02/10/23 22:55	02/10/23 22:55	GEB	Mt. Juliet, TN

MW-802 L1584382-02 GW

Collected by	Collected date/time	Received date/time
Jason R. Franks	02/08/23 13:20	02/10/23 08:50

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2004119	1	02/10/23 23:08	02/10/23 23:08	GEB	Mt. Juliet, TN

MW-803 L1584382-03 GW

Collected by	Collected date/time	Received date/time
Jason R. Franks	02/08/23 12:06	02/10/23 08:50

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2004119	1	02/10/23 20:13	02/10/23 20:13	GEB	Mt. Juliet, TN

DUPLICATE L1 L1584382-04 GW

Collected by	Collected date/time	Received date/time
Jason R. Franks	02/08/23 12:06	02/10/23 08:50

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2004119	1	02/10/23 23:20	02/10/23 23:20	GEB	Mt. Juliet, TN

CASE NARRATIVE

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

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

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	35100		3790	10000	10	02/10/2023 22:55	WG2004119

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	39400		379	1000	1	02/10/2023 23:08	WG2004119

Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	50500		379	1000	1	02/10/2023 20:13	WG2004119
Sulfate	34400		594	5000	1	02/10/2023 20:13	WG2004119

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	50600		379	1000	1	02/10/2023 23:20	WG2004119
Sulfate	34500		594	5000	1	02/10/2023 23:20	WG2004119

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3889917-1 02/10/23 19:49

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

L1584382-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1584382-03 02/10/23 20:13 • (DUP) R3889917-3 02/10/23 20:26

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	50500	50600	1	0.109		15
Sulfate	34400	34400	1	0.0686		15

L1584395-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1584395-03 02/11/23 11:33 • (DUP) R3889917-6 02/11/23 12:11

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	2340	2310	1	1.18		15
Sulfate	8650	8660	1	0.162		15

Laboratory Control Sample (LCS)

(LCS) R3889917-2 02/10/23 20:01

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Chloride	40000	40300	101	80.0-120	
Sulfate	40000	40200	100	80.0-120	

L1584382-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1584382-03 02/10/23 20:13 • (MS) R3889917-4 02/10/23 20:38 • (MSD) R3889917-5 02/10/23 20:51

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	50000	50500	98600	98600	96.3	96.1	1	80.0-120			0.0564	15
Sulfate	50000	34400	82700	82600	96.7	96.5	1	80.0-120			0.0928	15

L1584395-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1584395-03 02/11/23 11:33 • (MS) R3889917-7 02/11/23 12:23

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	2340	53100	102	1	80.0-120	
Sulfate	50000	8650	58600	100	1	80.0-120	

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

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

ACCREDITATIONS & LOCATIONS

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

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1,6]	KY90010
Kentucky [2]	16
Louisiana	AI30792
Louisiana	LA018
Maine	TN00003
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN000032021-1
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico [1]	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [3]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004002
South Dakota	n/a
Tennessee [1,4]	2006
Texas	T104704245-20-18
Texas [5]	LAB0152
Utah	TN000032021-11
Vermont	VT2006
Virginia	110033
Washington	C847
West Virginia	233
Wisconsin	998093910
Wyoming	A2LA

A2LA – ISO 17025	1461.01
A2LA – ISO 17025 [5]	1461.02
Canada	1461.01
EPA–Crypto	TN00003
AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

[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

Pres Chk

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 [✓ CT] ET

Phone: **913-681-0030**

Client Project # **27217233.22-I**

Lab Project # **AQUAOPKS-LACYGNE**

Collected by (print): JASON R. FRANKS

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ____ Y ✓

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

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

PEOPLE ADVANCING SCIENCE

MT JULIET, TN

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

SDG # L1584382

F058

Acctnum: **AQUAOPKS**
Template: **T136292**
Prelogin: **P978652**
PM: **206 - Jeff Carr**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Chloride 125mlHDPE-NoPres	Chloride, SO4 125mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-13	GRAB	GW	–	2/8/23	1135	1	X			-01
MW-802		GW	–		1320	1	X			<02
MW-803		GW	–		1206	1		X		-03
MW-803 MS/MSD		GW	–		1206	1		X		-03 ~~-04~~ TO
DUPLICATE L1		GW	–		1206	1		X		<04 ~~-05~~

* 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 # 609454558221

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

Relinquished by : (Signature) Date: 2/9/23 Time: 1600

Received by: (Signature)

Trip Blank Received: Yes / [✓ No]
HCL / MeoH
TBR

Relinquished by : (Signature) Date: Time:

Received by: (Signature)

Temp: NSA °C 1.1 +0 = 1.1 Bottles Received: 5

If preservation required by Login: Date/Time

Relinquished by : (Signature) Date: Time:

Received for lab by: (Signature) Matt

Date: 2-10-23 Time: 0850

Hold:

Condition: NCF / [✓ OK]

ANALYTICAL REPORT

June 03, 2023

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

SCS Engineers - KS

Sample Delivery Group:	L1617839
Samples Received:	05/18/2023
Project Number:	27217233.23-A
Description:	Evergy La Cygne Gen Station GW 2023-24
Report To:	Jason Franks 8575 West 110th Street Suite 100 Overland Park, KS 66210

Entire Report Reviewed By:

Jeff Carr
Project Manager

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

TABLE OF CONTENTS

SAMPLE SUMMARY

MW-10 L1617839-01 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/17/23 14:05	05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2064768	1	05/23/23 06:49	05/24/23 09:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2065932	1	05/24/23 21:56	05/24/23 21:56	MDM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2063422	1	05/24/23 13:14	05/25/23 13:13	ZSA	Mt. Juliet, TN

MW-13 L1617839-02 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/17/23 12:55	05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2064768	1	05/23/23 06:49	05/24/23 09:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2065932	1	05/24/23 22:12	05/24/23 22:12	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2065932	10	05/24/23 22:28	05/24/23 22:28	MDM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2063422	1	05/24/23 13:14	05/25/23 13:16	ZSA	Mt. Juliet, TN

MW-14R L1617839-03 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/17/23 14:10	05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2064768	1	05/23/23 06:49	05/24/23 09:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2065932	1	05/24/23 23:47	05/24/23 23:47	MDM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2063422	1	05/24/23 13:14	05/25/23 13:19	ZSA	Mt. Juliet, TN

MW-15 L1617839-04 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/17/23 10:05	05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2064768	1	05/23/23 06:49	05/24/23 09:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2065932	1	05/24/23 22:44	05/24/23 22:44	MDM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2063422	1	05/24/23 13:14	05/25/23 13:27	ZSA	Mt. Juliet, TN

MW-601 L1617839-05 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/17/23 12:15	05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2064768	1	05/23/23 06:49	05/24/23 09:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2065932	1	05/24/23 23:16	05/24/23 23:16	MDM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2063422	1	05/24/23 13:14	05/25/23 13:30	ZSA	Mt. Juliet, TN

MW-602 L1617839-06 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/17/23 13:40	05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2064768	1	05/23/23 06:49	05/24/23 09:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2066039	1	05/24/23 19:23	05/24/23 19:23	MDM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2063422	1	05/24/23 13:14	05/25/23 13:33	ZSA	Mt. Juliet, TN

MW-801 L1617839-07 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/17/23 12:50	05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2064768	1	05/23/23 06:49	05/24/23 09:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2066039	1	05/24/23 18:02	05/24/23 18:02	MDM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2063422	1	05/24/23 13:14	05/25/23 13:00	ZSA	Mt. Juliet, TN

MW-802 L1617839-08 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/17/23 12:15	05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2064768	1	05/23/23 06:49	05/24/23 09:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2066039	1	05/24/23 20:03	05/24/23 20:03	MDM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2063422	1	05/24/23 13:14	05/25/23 13:35	ZSA	Mt. Juliet, TN

MW-803 L1617839-09 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/17/23 11:40	05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2064768	1	05/23/23 06:49	05/24/23 09:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2066039	1	05/24/23 20:17	05/24/23 20:17	MDM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2063422	1	05/24/23 13:14	05/25/23 13:38	ZSA	Mt. Juliet, TN

MW-804 L1617839-10 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/17/23 11:10	05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2064768	1	05/23/23 06:49	05/24/23 09:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2066039	1	05/24/23 20:31	05/24/23 20:31	MDM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2063422	1	05/24/23 13:14	05/25/23 13:41	ZSA	Mt. Juliet, TN

MW-805 L1617839-11 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/17/23 10:35	05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2064768	1	05/23/23 06:49	05/24/23 09:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2066039	1	05/24/23 20:44	05/24/23 20:44	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2066039	5	05/24/23 20:58	05/24/23 20:58	MDM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2063422	1	05/24/23 13:14	05/25/23 13:44	ZSA	Mt. Juliet, TN

DUPLICATE L1617839-12 GW

Collected by	Collected date/time	Received date/time
B. Coleman	05/17/23 00:00	05/18/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2064768	1	05/23/23 06:49	05/24/23 09:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2066039	1	05/25/23 02:21	05/25/23 02:21	MDM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2063422	1	05/24/23 13:14	05/25/23 13:46	ZSA	Mt. Juliet, TN

CASE NARRATIVE

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

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

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Dissolved Solids	542000		10000	1	05/24/2023 09:57	WG2064768

Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	47300		379	1000	1	05/24/2023 21:56	WG2065932
Fluoride	379		64.0	150	1	05/24/2023 21:56	WG2065932
Sulfate	18400		594	5000	1	05/24/2023 21:56	WG2065932

Metals (ICP) by Method 6010D

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Boron	807		20.0	200	1	05/25/2023 13:13	WG2063422
Calcium	46400		79.3	1000	1	05/25/2023 13:13	WG2063422

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 ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2170000		50000	1	05/24/2023 09:57	WG2064768

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	31700		379	1000	1	05/24/2023 22:12	WG2065932
Fluoride	148	J	64.0	150	1	05/24/2023 22:12	WG2065932
Sulfate	1280000		5940	50000	10	05/24/2023 22:28	WG2065932

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	353		20.0	200	1	05/25/2023 13:16	WG2063422
Calcium	303000		79.3	1000	1	05/25/2023 13:16	WG2063422

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	530000		100000	1	05/24/2023 09:57	WG2064768

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	7130		379	1000	1	05/24/2023 23:47	WG2065932
Fluoride	308		64.0	150	1	05/24/2023 23:47	WG2065932
Sulfate	66100		594	5000	1	05/24/2023 23:47	WG2065932

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	851		20.0	200	1	05/25/2023 13:19	WG2063422
Calcium	50500		79.3	1000	1	05/25/2023 13:19	WG2063422

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	705000		13300	1	05/24/2023 09:57	WG2064768

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	10800		379	1000	1	05/24/2023 22:44	WG2065932
Fluoride	249		64.0	150	1	05/24/2023 22:44	WG2065932
Sulfate	188000		594	5000	1	05/24/2023 22:44	WG2065932

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	228		20.0	200	1	05/25/2023 13:27	WG2063422
Calcium	100000		79.3	1000	1	05/25/2023 13:27	WG2063422

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	940000		20000	1	05/24/2023 09:57	WG2064768

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	163000		379	1000	1	05/24/2023 23:16	WG2065932
Fluoride	1610		64.0	150	1	05/24/2023 23:16	WG2065932
Sulfate	8770		594	5000	1	05/24/2023 23:16	WG2065932

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	1880		20.0	200	1	05/25/2023 13:30	WG2063422
Calcium	15900		79.3	1000	1	05/25/2023 13:30	WG2063422

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	579000		13300	1	05/24/2023 09:57	WG2064768

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	16400		379	1000	1	05/24/2023 19:23	WG2066039
Fluoride	1220		64.0	150	1	05/24/2023 19:23	WG2066039
Sulfate	26900		594	5000	1	05/24/2023 19:23	WG2066039

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2320		20.0	200	1	05/25/2023 13:33	WG2063422
Calcium	22600		79.3	1000	1	05/25/2023 13:33	WG2063422

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	792000		20000	1	05/24/2023 09:57	WG2064768

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	93600		379	1000	1	05/24/2023 18:02	WG2066039
Fluoride	1060		64.0	150	1	05/24/2023 18:02	WG2066039
Sulfate	2620	J	594	5000	1	05/24/2023 18:02	WG2066039

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2170	O1	20.0	200	1	05/25/2023 13:00	WG2063422
Calcium	24600	O1	79.3	1000	1	05/25/2023 13:00	WG2063422

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	656000		13300	1	05/24/2023 09:57	WG2064768

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	38400		379	1000	1	05/24/2023 20:03	WG2066039
Fluoride	972		64.0	150	1	05/24/2023 20:03	WG2066039
Sulfate	757	J	594	5000	1	05/24/2023 20:03	WG2066039

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2440		20.0	200	1	05/25/2023 13:35	WG2063422
Calcium	28800		79.3	1000	1	05/25/2023 13:35	WG2063422

MW-803

Collected date/time: 05/17/23 11:40

SAMPLE RESULTS - 09

L1617839

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	591000		13300	1	05/24/2023 09:57	WG2064768

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	51100		379	1000	1	05/24/2023 20:17	WG2066039
Fluoride	698		64.0	150	1	05/24/2023 20:17	WG2066039
Sulfate	38900		594	5000	1	05/24/2023 20:17	WG2066039

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2050		20.0	200	1	05/25/2023 13:38	WG2063422
Calcium	42600		79.3	1000	1	05/25/2023 13:38	WG2063422

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	540000		10000	1	05/24/2023 09:57	WG2064768

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	33000		379	1000	1	05/24/2023 20:31	WG2066039
Fluoride	457		64.0	150	1	05/24/2023 20:31	WG2066039
Sulfate	25600		594	5000	1	05/24/2023 20:31	WG2066039

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	1530		20.0	200	1	05/25/2023 13:41	WG2063422
Calcium	63300		79.3	1000	1	05/25/2023 13:41	WG2063422

SAMPLE RESULTS - 11

L1617839

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2270000		50000	1	05/24/2023 09:57	WG2064768

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	484000		1900	5000	5	05/24/2023 20:58	WG2066039
Fluoride	191		64.0	150	1	05/24/2023 20:44	WG2066039
Sulfate	717000		2970	25000	5	05/24/2023 20:58	WG2066039

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	531		20.0	200	1	05/25/2023 13:44	WG2063422
Calcium	447000		79.3	1000	1	05/25/2023 13:44	WG2063422

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	812000		20000	1	05/24/2023 09:57	WG2064768

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	93400		379	1000	1	05/25/2023 02:21	WG2066039
Fluoride	1070		64.0	150	1	05/25/2023 02:21	WG2066039
Sulfate	2680	J	594	5000	1	05/25/2023 02:21	WG2066039

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2250		20.0	200	1	05/25/2023 13:46	WG2063422
Calcium	25200		79.3	1000	1	05/25/2023 13:46	WG2063422

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

Method Blank (MB)

(MB) R3929535-1 05/24/23 09:57

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

L1617839-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1617839-07 05/24/23 09:57 • (DUP) R3929535-3 05/24/23 09:57

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Dissolved Solids	792000	828000	1	4.44		5

L1617839-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1617839-08 05/24/23 09:57 • (DUP) R3929535-4 05/24/23 09:57

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Dissolved Solids	656000	684000	1	4.18		5

Laboratory Control Sample (LCS)

(LCS) R3929535-2 05/24/23 09:57

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Dissolved Solids	8800000	8590000	97.6	77.3-123	

Method Blank (MB)

(MB) R3932464-1 05/24/23 10:30

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

L1616438-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1616438-01 05/24/23 16:06 • (DUP) R3932464-6 05/24/23 16:22

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	125000	125000	1	0.0269		15
Fluoride	1570	1570	1	0.236		15
Sulfate	248000	248000	1	0.00723	E	15

L1617839-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1617839-03 05/24/23 23:47 • (DUP) R3932464-9 05/25/23 00:03

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7130	7140	1	0.157		15
Fluoride	308	306	1	0.749		15
Sulfate	66100	66100	1	0.126		15

Laboratory Control Sample (LCS)

(LCS) R3932464-2 05/24/23 10:46

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40000	100	80.0-120	
Fluoride	8000	8060	101	80.0-120	
Sulfate	40000	40200	101	80.0-120	

L1616438-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1616438-01 05/24/23 16:06 • (MS) R3932464-7 05/24/23 16:38 • (MSD) R3932464-8 05/24/23 16:54

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	125000	169000	169000	88.4	88.2	1	80.0-120			0.0723	15
Fluoride	5000	1570	6760	6770	104	104	1	80.0-120			0.197	15
Sulfate	50000	248000	288000	288000	81.0	81.3	1	80.0-120	E	E	0.0530	15

L1617839-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1617839-03 05/24/23 23:47 • (MS) R3932464-10 05/25/23 00:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	7130	57400	101	1	80.0-120	
Fluoride	5000	308	5430	102	1	80.0-120	
Sulfate	50000	66100	113000	93.0	1	80.0-120	

Method Blank (MB)

(MB) R3932534-1 05/24/23 12:25

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

L1617839-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1617839-07 05/24/23 18:02 • (DUP) R3932534-3 05/24/23 18:16

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	93600	92000	1	1.63		15
Fluoride	1060	1040	1	1.48		15
Sulfate	2620	2590	1	1.27	J	15

L1617839-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1617839-12 05/25/23 02:21 • (DUP) R3932534-6 05/25/23 02:34

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	93400	91100	1	2.48		15
Fluoride	1070	1040	1	2.48		15
Sulfate	2680	2570	1	4.02	J	15

Laboratory Control Sample (LCS)

(LCS) R3932534-2 05/24/23 12:39

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39000	97.6	80.0-120	
Fluoride	8000	8060	101	80.0-120	
Sulfate	40000	39700	99.3	80.0-120	

L1617839-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1617839-07 05/24/23 18:02 • (MS) R3932534-4 05/24/23 18:29 • (MSD) R3932534-5 05/24/23 18:43

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	93600	140000	137000	93.6	86.3	1	80.0-120			2.65	15
Fluoride	5000	1060	6240	6040	104	99.6	1	80.0-120			3.23	15
Sulfate	50000	2620	54000	52100	103	99.0	1	80.0-120			3.54	15

L1617839-12 Original Sample (OS) • Matrix Spike (MS)

(OS) L1617839-12 05/25/23 02:21 • (MS) R3932534-7 05/25/23 02:48

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	93400	139000	92.1	1	80.0-120	
Fluoride	5000	1070	6240	103	1	80.0-120	
Sulfate	50000	2680	54200	103	1	80.0-120	

Method Blank (MB)

(MB) R3929423-1 05/25/23 12:55

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

Laboratory Control Sample (LCS)

(LCS) R3929423-2 05/25/23 12:57

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	1010	101	80.0-120	
Calcium	10000	10200	102	80.0-120	

L1617839-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1617839-07 05/25/23 13:00 • (MS) R3929423-4 05/25/23 13:05 • (MSD) R3929423-5 05/25/23 13:08

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1000	2170	3160	3160	98.7	98.8	1	75.0-125			0.0255	20
Calcium	10000	24600	34000	34000	94.1	93.8	1	75.0-125			0.0893	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

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	LAO00356
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

Pres Chk <2

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

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

SDG # L1617839
D136

Acctnum: **AQUAOPKS**
Template: **T157983**
Prelogin: **P999278**
PM: **206 - Jeff Carr**
PB:
Shipped Via: **FedEX Ground**

Report to:
Jason Franks

Email To:
jfranks@scsengineers.com;jrockhold@scsengine

Project Description:
Evergy La Cygne Gen Station GW 2023-24

City/State Collected: La Cygne, KS

Please Circle: PT MT [✓ CT] ET

Phone: **913-681-0030**

Client Project #
27217233.23-A

Lab Project #
AQUAOPKS-LACYGNE

Collected by (print): D. Coleman

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ____ Y ✓

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

Quote #

Date Results Needed
STD

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Anions (Cld, F, SO4) 125mlHDPE-NoPres	B, Ca - 6010 250mlHDPE-HNO3	TDS 250mlHDPE-NoPres								Remarks	Sample # (lab only)
MW-10	G	GW	-	5/17/23	1405	3	X	X	X									-01
MW-13		GW			1255	3	X	X	X									-02
MW-14R		GW			1610	3	X	X	X									-03
MW-15		GW			1005	3	X	X	X									-04
MW-601		GW			1215	3	X	X	X									-05
MW-602		GW			1340	3	X	X	X									-06
MW-801		GW			1250	3	X	X	X									-07
MW-802		GW			1215	3	X	X	X									-08
MW-803		GW			1140	3	X	X	X									-09
MW-804		GW			1110	3	X	X	X									-10

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

Remarks:

pH ______ Temp ______

Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking # 5882 7565 0886

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

Relinquished by : (Signature)	Date: 5/17/23	Time: 1800	Received by: (Signature)	Trip Blank Received: Yes [✓ No] HCL / MeoH TBR	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.1 °C Bottles Received: NS#7 2.1 +0 = 2.1 21	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/18/23 Time: 9:15	Hold:

Condition: NCF / [✓ OK]

MN SK

Chain of Custody Page 2 of 2

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN

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

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;jrockhold@scsengine

Project Description: **Evergy La Cygne Gen Station GW 2023-24**

City/State Collected: La Cygne, KS

Please Circle: PT MT [✓ CT] ET

Phone: **913-681-0030**

Client Project #: **27217233.23-A**

Lab Project #: **AQUAOPKS-LACYGNE**

Collected by (print): B. Coleman

Site/Facility ID #:

P.O. #:

Collected by (signature):

Quote #:

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: STD

SDG # L1617389

Table #:

Acctnum: **AQUAOPKS**

Template: **T157983**

Prelogin: **P999278**

PM: **206 - Jeff Carr**

PB:

Shipped Via: **FedEX Ground**

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Anions (Cld, F, SO4) 125mlHDPE-NoPres	B, Ca - 6010 250mlHDPE-HNO3	TDS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
Pres Chk								22			
MW-805	G	GW	-	5/17/23	1035	3	X	X	X		-11
DUPLICATE	G	GW	-	↓	-	3	X	X	X		-12
801 MD/MSD	G	GW	-	↓	-	3	X	X	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 # 5882 7565 0882

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

Relinquished by : (Signature)	Date: 5/17/23	Time: 1800	Received by: (Signature)	Trip Blank Received: Yes / [✓ No] HCL / MeoH TBR	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.1 °C Bottles Received: NSA7 2.1+0=2.1	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/18/23 Time: 9:15	Hold: Condition: NCF / [✓ OK]

ANALYTICAL REPORT

August 02, 2023

Revised Report

SCS Engineers - KS

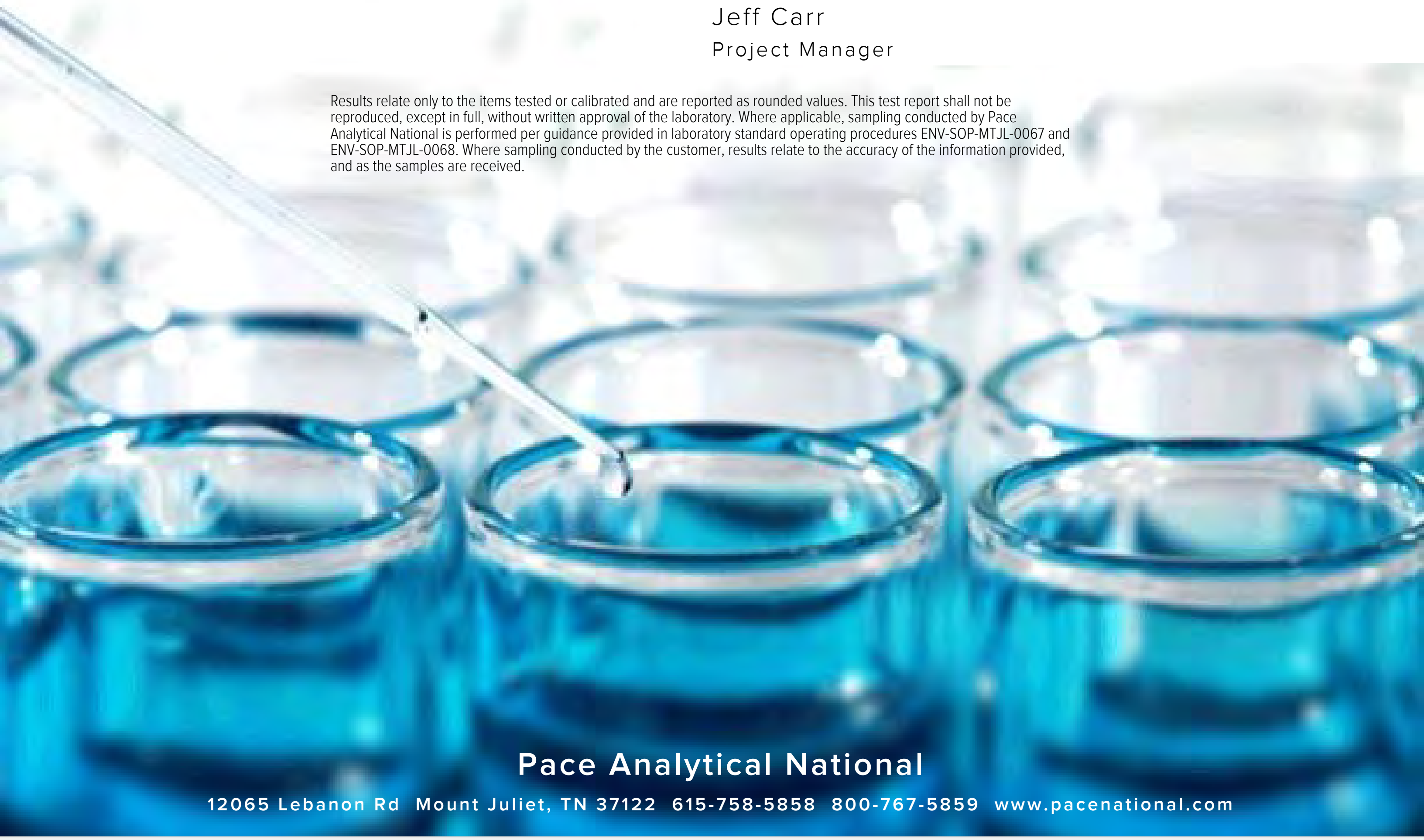
Sample Delivery Group:	L1635153
Samples Received:	07/13/2023
Project Number:	27217233.22-I
Description:	Evergy La Cygne Gen Station GW 2022-23

Report To:

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

Entire Report Reviewed By:

Jeff Carr
Project Manager



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

TABLE OF CONTENTS

SAMPLE SUMMARY

MW-13 L1635153-01 GW

Collected by	Collected date/time	Received date/time
Whit Martin	07/12/23 11:35	07/13/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2098146	1	07/20/23 06:45	07/20/23 06:45	KMC	Mt. Juliet, TN

MW-14R L1635153-02 GW

Collected by	Collected date/time	Received date/time
Whit Martin	07/12/23 10:45	07/13/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2098146	1	07/20/23 06:55	07/20/23 06:55	KMC	Mt. Juliet, TN

MW-803 L1635153-03 GW

Collected by	Collected date/time	Received date/time
Whit Martin	07/12/23 14:40	07/13/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2098146	1	07/20/23 07:25	07/20/23 07:25	KMC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2099558	1	07/22/23 03:38	07/22/23 03:38	GEB	Mt. Juliet, TN

DUPLICATE L1 L1635153-04 GW

Collected by	Collected date/time	Received date/time
Whit Martin	07/12/23 14:40	07/13/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2098146	1	07/20/23 07:55	07/20/23 07:55	KMC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2099704	1	07/22/23 11:43	07/22/23 11:43	KMC	Mt. Juliet, TN

MW-804 L1635153-05 GW

Collected by	Collected date/time	Received date/time
Whit Martin	07/12/23 15:30	07/13/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2098146	1	07/20/23 08:05	07/20/23 08:05	KMC	Mt. Juliet, TN

CASE NARRATIVE

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

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

Report Revision History

Level II Report - Version 1: 07/20/23 14:18

Project Narrative

Samples L1635153-03 and -04 were reanalyzed for confirmation. Both sets of results are reported.

SAMPLE RESULTS - 01

L1635153

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	24500		379	1000	1	07/20/2023 06:45	WG2098146

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	6990		379	1000	1	07/20/2023 06:55	WG2098146

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	51200		379	1000	1	07/20/2023 07:25	WG2098146
Chloride	49100		379	1000	1	07/22/2023 03:38	WG2099558
Fluoride	1100		64.0	150	1	07/20/2023 07:25	WG2098146
Fluoride	582		64.0	150	1	07/22/2023 03:38	WG2099558
Sulfate	31900		594	5000	1	07/20/2023 07:25	WG2098146
Sulfate	35200		594	5000	1	07/22/2023 03:38	WG2099558

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	48500		379	1000	1	07/20/2023 07:55	WG2098146
Chloride	50800		379	1000	1	07/22/2023 11:43	WG2099704
Fluoride	553		64.0	150	1	07/20/2023 07:55	WG2098146
Fluoride	714	P1	64.0	150	1	07/22/2023 11:43	WG2099704
Sulfate	30400		594	5000	1	07/20/2023 07:55	WG2098146
Sulfate	31600		594	5000	1	07/22/2023 11:43	WG2099704

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	33000		379	1000	1	07/20/2023 08:05	WG2098146

Method Blank (MB)

(MB) R3950714-1 07/20/23 03:25

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

L1634883-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1634883-05 07/20/23 04:25 • (DUP) R3950714-3 07/20/23 04:35

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	2150	2170	1	0.695		15
Fluoride	U	U	1	0.000		15
Sulfate	1650	1620	1	1.70	J	15

L1635398-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1635398-01 07/20/23 08:15 • (DUP) R3950714-7 07/20/23 08:25

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	5590	5580	1	0.222		15
Fluoride	U	U	1	0.000		15
Sulfate	37600	37600	1	0.0646		15

Laboratory Control Sample (LCS)

(LCS) R3950714-2 07/20/23 03:35

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Chloride	40000	40500	101	80.0-120	
Fluoride	8000	8380	105	80.0-120	
Sulfate	40000	41700	104	80.0-120	

L1634883-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1634883-05 07/20/23 04:25 • (MS) R3950714-4 07/20/23 04:45

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	2150	52400	100	1	80.0-120	
Fluoride	5000	U	5090	102	1	80.0-120	
Sulfate	50000	1650	51500	99.7	1	80.0-120	

L1635153-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1635153-03 07/20/23 07:25 • (MS) R3950714-5 07/20/23 07:35 • (MSD) R3950714-6 07/20/23 07:45

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	51200	95200	95700	88.0	89.0	1	80.0-120			0.493	15
Fluoride	5000	1100	6340	5680	105	91.5	1	80.0-120			10.9	15
Sulfate	50000	31900	76300	76500	88.8	89.1	1	80.0-120			0.230	15

Method Blank (MB)

(MB) R3951912-1 07/21/23 22:36

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

L1637739-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1637739-04 07/22/23 00:29 • (DUP) R3951912-3 07/22/23 01:08

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	63600	63200	1	0.599		15
Sulfate	32700	32500	1	0.564		15

L1636513-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1636513-01 07/22/23 04:29 • (DUP) R3951912-8 07/22/23 04:41

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	61500	61500	1	0.00845		15
Fluoride	159	162	1	1.75		15
Sulfate	767	765	1	0.222	J	15

Laboratory Control Sample (LCS)

(LCS) R3951912-2 07/21/23 22:49

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40200	100	80.0-120	
Fluoride	8000	8140	102	80.0-120	
Sulfate	40000	40000	100	80.0-120	

L1634827-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1634827-01 07/22/23 02:35 • (MS) R3951912-4 07/22/23 02:48 • (MSD) R3951912-5 07/22/23 03:01

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	5640	55100	55200	98.9	99.1	1	80.0-120			0.195	15
Fluoride	5000	75.7	3960	3990	77.6	78.3	1	80.0-120	J6	J6	0.780	15

L1634827-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1634827-01 07/22/23 02:35 • (MS) R3951912-4 07/22/23 02:48 • (MSD) R3951912-5 07/22/23 03:01

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Sulfate	50000	977	50600	50500	99.2	99.0	1	80.0-120			0.199	15

Sample Narrative:

MS: Matrix spike failure due to matrix.

MSD: Matrix spike failure due to matrix.

L1635153-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1635153-03 07/22/23 03:38 • (MS) R3951912-6 07/22/23 03:51 • (MSD) R3951912-7 07/22/23 04:03

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	50000	49100	96000	96900	93.7	95.6	1	80.0-120			0.962	15
Fluoride	5000	582	5430	5540	96.9	99.2	1	80.0-120			2.09	15
Sulfate	50000	35200	83400	84400	96.4	98.4	1	80.0-120			1.21	15

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3952113-1 07/22/23 09:25

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

L1635153-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1635153-04 07/22/23 11:43 • (DUP) R3952113-3 07/22/23 11:53

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	50800	50900	1	0.173		15
Fluoride	714	578	1	21.1	P1	15
Sulfate	31600	31600	1	0.0174		15

L1637401-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1637401-10 07/22/23 16:25 • (DUP) R3952113-6 07/22/23 16:35

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	25000	24800	1	0.786		15
Fluoride	584	542	1	7.35		15
Sulfate	38900	38400	1	1.12		15

Laboratory Control Sample (LCS)

(LCS) R3952113-2 07/22/23 09:35

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40100	100	80.0-120	
Fluoride	8000	8320	104	80.0-120	
Sulfate	40000	40000	100	80.0-120	

L1635153-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1635153-04 07/22/23 11:43 • (MS) R3952113-4 07/22/23 12:03 • (MSD) R3952113-5 07/22/23 12:13

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	50800	99200	98300	96.8	95.0	1	80.0-120			0.877	15
Fluoride	5000	714	5800	5740	102	100	1	80.0-120			1.11	15
Sulfate	50000	31600	79400	78600	95.6	93.9	1	80.0-120			1.06	15

L1637401-10 Original Sample (OS) • Matrix Spike (MS)

(OS) L1637401-10 07/22/23 16:25 • (MS) R3952113-7 07/22/23 16:45

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	25000	75400	101	1	80.0-120	
Fluoride	5000	584	5760	104	1	80.0-120	
Sulfate	50000	38900	87600	97.6	1	80.0-120	

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.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1,6]	KY90010
Kentucky [2]	16
Louisiana	AI30792
Louisiana	LA018
Maine	TN00003
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN000032021-1
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico [1]	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [3]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004002
South Dakota	n/a
Tennessee [1,4]	2006
Texas	T104704245-20-18
Texas [5]	LAB0152
Utah	TN000032021-11
Vermont	VT2006
Virginia	110033
Washington	C847
West Virginia	233
Wisconsin	998093910
Wyoming	A2LA

A2LA – ISO 17025	1461.01
A2LA – ISO 17025 [5]	1461.02
Canada	1461.01
EPA–Crypto	TN00003
AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

[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

Pres Chk

Analysis / Container / Preservative

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/hubfs/pas-standard-terms.pdf

Report to:
Jason Franks

Email To:
jfranks@scsengineers.com;jrockhold@scsengine

Project Description:
Evergy 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

SDG # L1635153

G050

Acctnum: AQUAOPKS
Template: T136292
Prelogin: P1010513
PM: 206 - Jeff Carr
PB:
Shipped Via:

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 #

Date Results Needed: Std

Immediately Packed on Ice N___ Y X

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Chloride 125mlHDPE-NoPres	Chloride, F, SO4 125mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-13	Grab	GW		7/12/23	1135	1	X			-01
MW-14R	Grab	GW		7/12/23	1045	1	X			-02
MW-803	Grab	GW		7/12/23	1440	1		X		-03
MW-803 MS/MSD	Grab	GW		7/12/23	1440	1		X		-03
DUPLICATE L1	Grab	GW		7/12/23	1440	1		X		-04
MW-804	Grab	GW		7/12/23	1530	1	X			-05

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

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Sample Receipt Checklist
COC Seal Present/Intact: ✓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

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking # 6481 5470 3609

Relinquished by : (Signature) Whit Martin | Date: 7/12/23 | Time: 1730 | Received by: (Signature)

Trip Blank Received: Yes / [✓ No]
HCL / MeoH
TBR

Relinquished by : (Signature) | Date: | Time: | Received by: (Signature)

Temp: GBAE °C 2.5+0=2.5 Bottles Received: 6

If preservation required by Login: Date/Time

Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) Caleb Tapp

Date: 7/13/23 Time: 09:00

Hold:

Condition: NCF / [✓ OK]

Pace Analytical®

ANALYTICAL REPORT

August 22, 2023

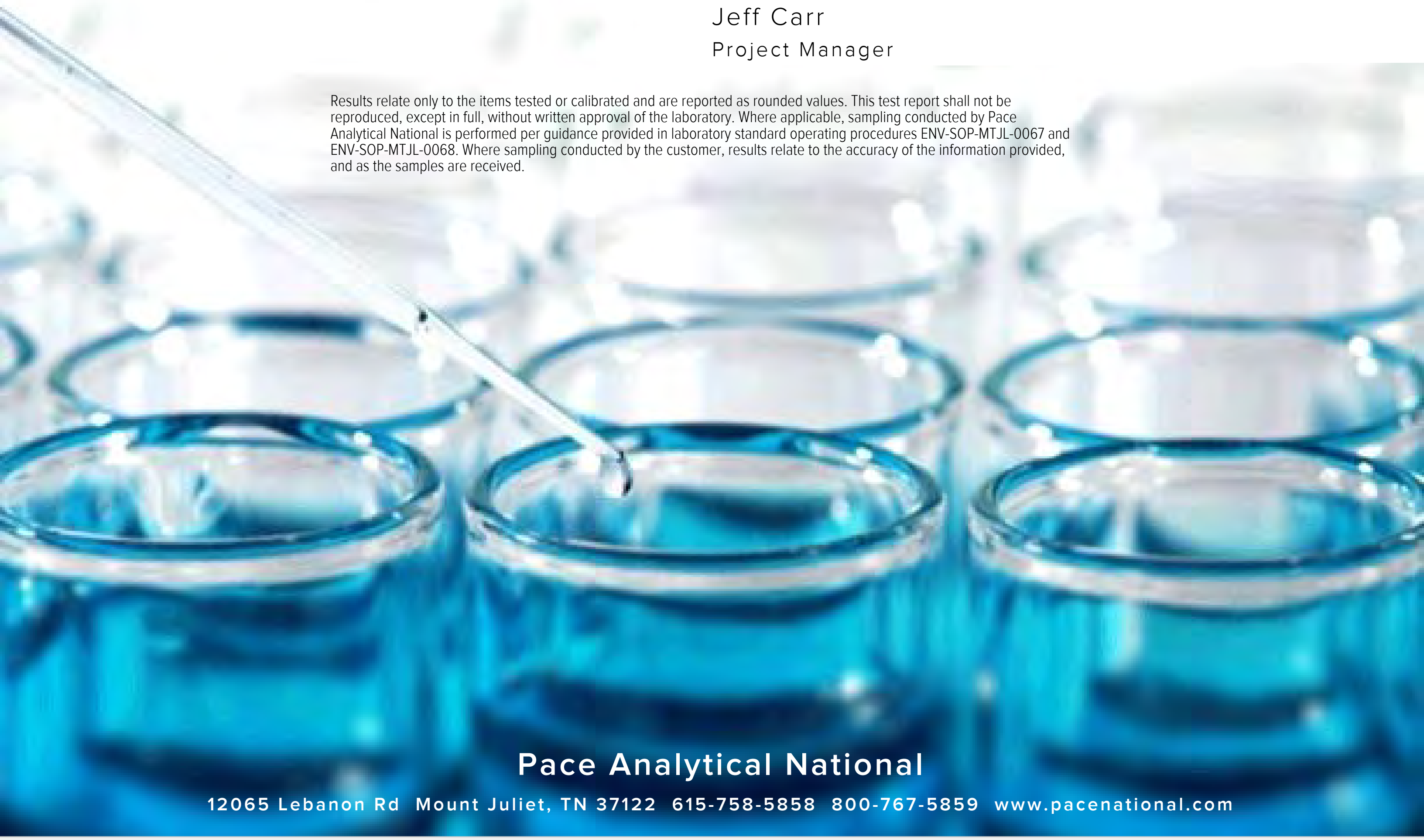
SCS Engineers - KS

Sample Delivery Group:	L1646876
Samples Received:	08/16/2023
Project Number:	27217233.23 - H
Description:	Evergy La Cygne Gen Station GW 2023-24

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

SAMPLE SUMMARY

MW-13 L1646876-01 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	08/15/23 12:15	08/16/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2116296	1	08/17/23 23:12	08/17/23 23:12	ASM	Mt. Juliet, TN

MW-14R L1646876-02 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	08/15/23 11:55	08/16/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2116296	1	08/18/23 00:09	08/18/23 00:09	ASM	Mt. Juliet, TN

MW-803 L1646876-03 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	08/15/23 11:10	08/16/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2116589	1	08/18/23 12:24	08/18/23 12:24	GEB	Mt. Juliet, TN

DUPLICATE L1 L1646876-05 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	08/15/23 11:10	08/16/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2116589	1	08/19/23 01:41	08/19/23 01:41	GEB	Mt. Juliet, TN

MW-804 L1646876-06 GW

Collected by	Collected date/time	Received date/time
Matt Vander Putten	08/15/23 10:30	08/16/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2116602	1	08/18/23 13:27	08/18/23 13:27	GEB	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

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	26300		379	1000	1	08/17/2023 23:12	WG2116296

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	6670		379	1000	1	08/18/2023 00:09	WG2116296

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	50500		379	1000	1	08/18/2023 12:24	WG2116589
Fluoride	599		64.0	150	1	08/18/2023 12:24	WG2116589
Sulfate	36400		594	5000	1	08/18/2023 12:24	WG2116589

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	50300		379	1000	1	08/19/2023 01:41	WG2116589
Fluoride	592		64.0	150	1	08/19/2023 01:41	WG2116589
Sulfate	35900		594	5000	1	08/19/2023 01:41	WG2116589

Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	33100		379	1000	1	08/18/2023 13:27	WG2116602

Method Blank (MB)

(MB) R3963393-1 08/17/23 20:48

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000

L1646876-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1646876-01 08/17/23 23:12 • (DUP) R3963393-3 08/17/23 23:22

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	26300	26000	1	1.20		15

L1646886-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1646886-07 08/18/23 01:06 • (DUP) R3963393-6 08/18/23 01:16

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	20700	20500	1	1.03		15

Laboratory Control Sample (LCS)

(LCS) R3963393-2 08/17/23 20:57

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40500	101	80.0-120	

L1646876-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1646876-01 08/17/23 23:12 • (MS) R3963393-4 08/17/23 23:31 • (MSD) R3963393-5 08/17/23 23:41

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	26300	71000	71100	89.4	89.6	1	80.0-120			0.0773	15

L1646886-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1646886-07 08/18/23 01:06 • (MS) R3963393-7 08/18/23 01:26

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	20700	68900	96.4	1	80.0-120	

Method Blank (MB)

(MB) R3963496-1 08/18/23 10:08

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

L1646876-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1646876-03 08/18/23 12:24 • (DUP) R3963496-3 08/18/23 12:41

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	50500	50500	1	0.0430		15
Fluoride	599	597	1	0.301		15
Sulfate	36400	36300	1	0.242		15

L1646876-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1646876-05 08/19/23 01:41 • (DUP) R3963496-6 08/19/23 01:57

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	50300	50300	1	0.151		15
Fluoride	592	591	1	0.135		15
Sulfate	35900	35800	1	0.242		15

Laboratory Control Sample (LCS)

(LCS) R3963496-2 08/18/23 10:25

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39500	98.7	80.0-120	
Fluoride	8000	8190	102	80.0-120	
Sulfate	40000	39300	98.3	80.0-120	

L1646876-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1646876-03 08/18/23 12:24 • (MS) R3963496-4 08/18/23 12:57 • (MSD) R3963496-5 08/18/23 13:14

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	50500	98800	99100	96.7	97.2	1	80.0-120			0.272	15
Fluoride	5000	599	5670	5700	101	102	1	80.0-120			0.642	15
Sulfate	50000	36400	84600	84900	96.3	97.0	1	80.0-120			0.421	15

L1646876-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1646876-05 08/19/23 01:41 • (MS) R3963496-7 08/19/23 02:14

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	50300	99300	97.8	1	80.0-120	
Fluoride	5000	592	5690	102	1	80.0-120	
Sulfate	50000	35900	84700	97.7	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) R3963468-1 08/18/23 12:47

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000

L1646876-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1646876-06 08/18/23 13:27 • (DUP) R3963468-5 08/18/23 14:08

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	33100	33400	1	0.880		15

L1646928-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1646928-01 08/18/23 23:03 • (DUP) R3963468-6 08/18/23 23:58

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	86300	86500	1	0.202		15

Laboratory Control Sample (LCS)

(LCS) R3963468-2 08/18/23 10:06

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	38400	96.1	80.0-120	

L1646876-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1646876-06 08/18/23 13:27 • (MS) R3963468-3 08/18/23 13:40 • (MSD) R3963468-4 08/18/23 13:54

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	33100	79800	84000	93.4	102	1	80.0-120			5.14	15

L1646928-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1646928-01 08/18/23 23:03 • (MS) R3963468-8 08/19/23 00:25

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	86300	129000	85.8	1	80.0-120	

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.
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Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

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

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	LAO00356
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

Pres Chk

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

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

Report to: **Jason Franks**

Email To: **jfranks@scsengineers.com;jrockhold@scsengine**

Project Description: **Evergy La Cygne Gen Station GW 2023-24**

City/State Collected: LaCygne KS

Please Circle: PT MT [✓ CT] ET

Phone: **913-681-0030**

Client Project # **27217233.23 - H**

Lab Project # **AQUAOPKS-LACYGNE**

SDG # L1646876

A013

Acctnum: **AQUAOPKS**
Template: **T136292**
Prelogin: **P1015851**
PM: **206 - Jeff Carr**
PB:
Shipped Via:

Collected by (print): Matt Vander Putten

Site/Facility ID #

P.O. #

Collected by (signature): Matt Vander Putt

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

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Chloride 125mlHDPE-NoPres	Chloride, F, SO4 125mlHDPE-NoPres									Remarks	Sample # (lab only)
MW-13	Grab	GW	NA	8/15/23	1215	1	X											-01
MW-14R	|	GW	|	|	1155	1	X											-02
MW-803	|	GW	|	|	1110	1		X									-03
MW-803 MS/MSD	|	GW	|	|	1110	1		X									-04
DUPLICATE L1	|	GW	|	|	1110	1		X									-05
MW-804	|	GW	|	|	1030	1	X										-06

* 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 # 6481 5470 3285

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

Relinquished by : (Signature) Matt VanderPutte
Date: 8/15/23
Time: 1600
Received by: (Signature)

Trip Blank Received: Yes / [✓ No]
Ø HCL / MeoH
TBR

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

Temp: aBA8°C
3.5±0=3.5
Bottles Received: 6

If preservation required by Login: Date/Time

Relinquished by : (Signature)
Date:
Time:
Received for lab by: (Signature)

Date: 08/16/23
Time: 0900

Hold:

Condition: NCF / [✓ OK]

ANALYTICAL REPORT

November 30, 2023

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

SCS Engineers - KS

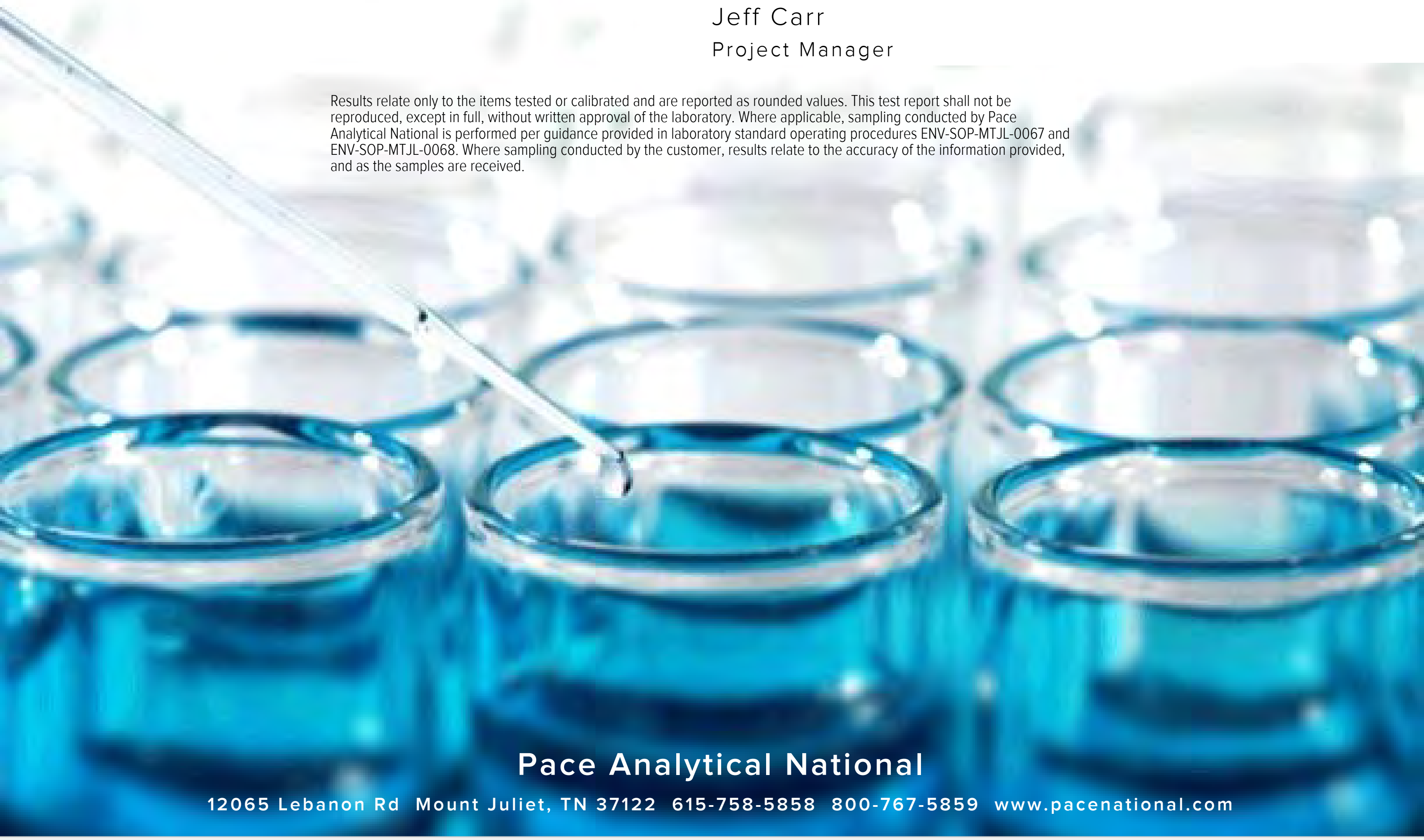
Sample Delivery Group:	L1679691
Samples Received:	11/18/2023
Project Number:	27217233.23-A
Description:	Evergy La Cygne Gen Station GW 2023-24

Report To:

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

Entire Report Reviewed By:

Jeff Carr
Project Manager



Pace Analytical National

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

TABLE OF CONTENTS

SAMPLE SUMMARY

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

MW-10 L1679691-01 GW

Collected by	Collected date/time	Received date/time
B. Coleman	11/17/23 14:15	11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2177011	1	11/24/23 14:05	11/24/23 17:33	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2178835	1	11/29/23 15:37	11/29/23 15:37	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174868	1	11/29/23 10:35	11/29/23 15:55	SPL	Mt. Juliet, TN

MW-13 L1679691-02 GW

Collected by	Collected date/time	Received date/time
B. Coleman	11/17/23 12:10	11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2177011	1	11/24/23 14:05	11/24/23 17:33	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2178835	1	11/29/23 16:20	11/29/23 16:20	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2178835	20	11/29/23 16:36	11/29/23 16:36	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174868	1	11/29/23 10:35	11/29/23 15:58	SPL	Mt. Juliet, TN

MW-14R L1679691-03 GW

Collected by	Collected date/time	Received date/time
B. Coleman	11/17/23 13:00	11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2177011	1	11/24/23 14:05	11/24/23 17:33	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	1	11/29/23 16:43	11/29/23 16:43	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174868	1	11/29/23 10:35	11/29/23 16:01	SPL	Mt. Juliet, TN

MW-15 L1679691-04 GW

Collected by	Collected date/time	Received date/time
B. Coleman	11/17/23 09:35	11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2177011	1	11/24/23 14:05	11/24/23 17:33	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	1	11/29/23 16:56	11/29/23 16:56	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174868	1	11/29/23 10:35	11/29/23 16:04	SPL	Mt. Juliet, TN

MW-601 L1679691-05 GW

Collected by	Collected date/time	Received date/time
B. Coleman	11/17/23 11:35	11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2177011	1	11/24/23 14:05	11/24/23 17:33	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	1	11/29/23 17:21	11/29/23 17:21	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174868	1	11/29/23 10:35	11/29/23 16:12	SPL	Mt. Juliet, TN

MW-602 L1679691-06 GW

Collected by	Collected date/time	Received date/time
B. Coleman	11/17/23 12:35	11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2177011	1	11/24/23 14:05	11/24/23 17:33	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	1	11/29/23 17:34	11/29/23 17:34	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174868	1	11/29/23 10:35	11/29/23 16:15	SPL	Mt. Juliet, TN

SAMPLE SUMMARY

MW-801 L1679691-07 GW

Collected by	Collected date/time	Received date/time
B. Coleman	11/17/23 13:05	11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2177011	1	11/24/23 14:05	11/24/23 17:33	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	1	11/29/23 18:15	11/29/23 18:15	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174868	1	11/29/23 10:35	11/29/23 16:18	SPL	Mt. Juliet, TN

MW-802 L1679691-08 GW

Collected by	Collected date/time	Received date/time
B. Coleman	11/17/23 12:30	11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2177011	1	11/24/23 14:05	11/24/23 17:33	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	1	11/29/23 18:28	11/29/23 18:28	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174868	1	11/29/23 10:35	11/29/23 16:21	SPL	Mt. Juliet, TN

MW-803 L1679691-09 GW

Collected by	Collected date/time	Received date/time
B. Coleman	11/17/23 11:25	11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2177011	1	11/24/23 14:05	11/24/23 17:33	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	1	11/29/23 18:42	11/29/23 18:42	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174868	1	11/29/23 10:35	11/29/23 15:43	SPL	Mt. Juliet, TN

MW-804 L1679691-10 GW

Collected by	Collected date/time	Received date/time
B. Coleman	11/17/23 10:45	11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2177011	1	11/24/23 14:05	11/24/23 17:33	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	1	11/29/23 19:36	11/29/23 19:36	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174868	1	11/29/23 10:35	11/29/23 16:24	SPL	Mt. Juliet, TN

MW-805 L1679691-11 GW

Collected by	Collected date/time	Received date/time
B. Coleman	11/17/23 10:20	11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2177011	1	11/24/23 14:05	11/24/23 17:33	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	1	11/29/23 19:50	11/29/23 19:50	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	10	11/29/23 20:03	11/29/23 20:03	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174868	1	11/29/23 10:35	11/29/23 16:27	SPL	Mt. Juliet, TN

DUPLICATE L1679691-12 GW

Collected by	Collected date/time	Received date/time
B. Coleman	11/17/23 00:00	11/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2177017	1	11/24/23 18:03	11/24/23 20:02	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2179188	1	11/29/23 20:17	11/29/23 20:17	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2174868	1	11/29/23 10:35	11/29/23 16:30	SPL	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

MW-10

Collected date/time: 11/17/23 14:15

SAMPLE RESULTS - 01

L1679691

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Dissolved Solids	544000		10000	1	11/24/2023 17:33	WG2177011

Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	45700		379	1000	1	11/29/2023 15:37	WG2178835
Fluoride	389		64.0	150	1	11/29/2023 15:37	WG2178835
Sulfate	15700		594	5000	1	11/29/2023 15:37	WG2178835

Metals (ICP) by Method 6010D

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Boron	798		20.0	200	1	11/29/2023 15:55	WG2174868
Calcium	48500		79.3	1000	1	11/29/2023 15:55	WG2174868

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

MW-13

Collected date/time: 11/17/23 12:10

SAMPLE RESULTS - 02

L1679691

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 ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1960000		25000	1	11/24/2023 17:33	WG2177011

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	25500		379	1000	1	11/29/2023 16:20	WG2178835
Fluoride	176		64.0	150	1	11/29/2023 16:20	WG2178835
Sulfate	1110000		11900	100000	20	11/29/2023 16:36	WG2178835

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	413		20.0	200	1	11/29/2023 15:58	WG2174868
Calcium	272000		79.3	1000	1	11/29/2023 15:58	WG2174868

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	559000		10000	1	11/24/2023 17:33	WG2177011

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	7110		379	1000	1	11/29/2023 16:43	WG2179188
Fluoride	312		64.0	150	1	11/29/2023 16:43	WG2179188
Sulfate	63300		594	5000	1	11/29/2023 16:43	WG2179188

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	829		20.0	200	1	11/29/2023 16:01	WG2174868
Calcium	51100		79.3	1000	1	11/29/2023 16:01	WG2174868

MW-15

Collected date/time: 11/17/23 09:35

SAMPLE RESULTS - 04

L1679691

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	716000		13300	1	11/24/2023 17:33	WG2177011

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	10500		379	1000	1	11/29/2023 16:56	WG2179188
Fluoride	250		64.0	150	1	11/29/2023 16:56	WG2179188
Sulfate	186000		594	5000	1	11/29/2023 16:56	WG2179188

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	246		20.0	200	1	11/29/2023 16:04	WG2174868
Calcium	102000		79.3	1000	1	11/29/2023 16:04	WG2174868

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 ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	926000		20000	1	11/24/2023 17:33	WG2177011

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	168000		379	1000	1	11/29/2023 17:21	WG2179188
Fluoride	1710		64.0	150	1	11/29/2023 17:21	WG2179188
Sulfate	7240		594	5000	1	11/29/2023 17:21	WG2179188

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	1860		20.0	200	1	11/29/2023 16:12	WG2174868
Calcium	16000		79.3	1000	1	11/29/2023 16:12	WG2174868

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	577000		13300	1	11/24/2023 17:33	WG2177011

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	16800		379	1000	1	11/29/2023 17:34	WG2179188
Fluoride	1220		64.0	150	1	11/29/2023 17:34	WG2179188
Sulfate	25900		594	5000	1	11/29/2023 17:34	WG2179188

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2270		20.0	200	1	11/29/2023 16:15	WG2174868
Calcium	22000		79.3	1000	1	11/29/2023 16:15	WG2174868

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	800000		20000	1	11/24/2023 17:33	WG2177011

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	93600		379	1000	1	11/29/2023 18:15	WG2179188
Fluoride	1110		64.0	150	1	11/29/2023 18:15	WG2179188
Sulfate	2070	J	594	5000	1	11/29/2023 18:15	WG2179188

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2200		20.0	200	1	11/29/2023 16:18	WG2174868
Calcium	24600		79.3	1000	1	11/29/2023 16:18	WG2174868

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	664000		13300	1	11/24/2023 17:33	WG2177011

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	41200		379	1000	1	11/29/2023 18:28	WG2179188
Fluoride	970		64.0	150	1	11/29/2023 18:28	WG2179188
Sulfate	U		594	5000	1	11/29/2023 18:28	WG2179188

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2450		20.0	200	1	11/29/2023 16:21	WG2174868
Calcium	28600		79.3	1000	1	11/29/2023 16:21	WG2174868

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	589000		13300	1	11/24/2023 17:33	WG2177011

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	53600	J6	379	1000	1	11/29/2023 18:42	WG2179188
Fluoride	562		64.0	150	1	11/29/2023 18:42	WG2179188
Sulfate	36100		594	5000	1	11/29/2023 18:42	WG2179188

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2050		20.0	200	1	11/29/2023 15:43	WG2174868
Calcium	41800		79.3	1000	1	11/29/2023 15:43	WG2174868

SAMPLE RESULTS - 10

L1679691

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	554000		10000	1	11/24/2023 17:33	WG2177011

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	32400		379	1000	1	11/29/2023 19:36	WG2179188
Fluoride	450		64.0	150	1	11/29/2023 19:36	WG2179188
Sulfate	22800		594	5000	1	11/29/2023 19:36	WG2179188

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	1590		20.0	200	1	11/29/2023 16:24	WG2174868
Calcium	67900		79.3	1000	1	11/29/2023 16:24	WG2174868

SAMPLE RESULTS - 11

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1890000		50000	1	11/24/2023 17:33	WG2177011

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	464000		3790	10000	10	11/29/2023 20:03	WG2179188
Fluoride	143	J	64.0	150	1	11/29/2023 19:50	WG2179188
Sulfate	629000		5940	50000	10	11/29/2023 20:03	WG2179188

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	496		20.0	200	1	11/29/2023 16:27	WG2174868
Calcium	459000		79.3	1000	1	11/29/2023 16:27	WG2174868

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	588000		13300	1	11/24/2023 20:02	WG2177017

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	54000		379	1000	1	11/29/2023 20:17	WG2179188
Fluoride	644		64.0	150	1	11/29/2023 20:17	WG2179188
Sulfate	37800		594	5000	1	11/29/2023 20:17	WG2179188

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	2040		20.0	200	1	11/29/2023 16:30	WG2174868
Calcium	41800		79.3	1000	1	11/29/2023 16:30	WG2174868

Method Blank (MB)

(MB) R4005328-1 11/24/23 17:33

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

L1679687-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1679687-01 11/24/23 17:33 • (DUP) R4005328-3 11/24/23 17:33

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1040000	1110000	1	6.72	J3	5

L1679687-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1679687-07 11/24/23 17:33 • (DUP) R4005328-4 11/24/23 17:33

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1150000	1200000	1	4.47		5

Laboratory Control Sample (LCS)

(LCS) R4005328-2 11/24/23 17:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	8710000	99.0	85.0-115	

Method Blank (MB)

(MB) R4005296-1 11/24/23 20:02

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

L1679627-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1679627-01 11/24/23 20:02 • (DUP) R4005296-3 11/24/23 20:02

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	176000	182000	1	3.35		5

L1679627-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1679627-02 11/24/23 20:02 • (DUP) R4005296-4 11/24/23 20:02

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	178000	189000	1	5.99	J3	5

Laboratory Control Sample (LCS)

(LCS) R4005296-2 11/24/23 20:02

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	8870000	101	85.0-115	

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

Method Blank (MB)

(MB) R4006442-1 11/29/23 04:55

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

L1679687-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1679687-02 11/29/23 09:41 • (DUP) R4006442-5 11/29/23 09:57

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	93100	94000	1	0.944		15
Fluoride	1260	1260	1	0.0159		15
Sulfate	3130	3110	1	0.564	J	15

L1679691-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1679691-01 11/29/23 15:37 • (DUP) R4006442-8 11/29/23 15:53

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	45700	45600	1	0.158		15
Fluoride	389	387	1	0.361		15
Sulfate	15700	15700	1	0.155		15

Laboratory Control Sample (LCS)

(LCS) R4006442-2 11/29/23 05:10

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39900	99.7	80.0-120	
Fluoride	8000	8330	104	80.0-120	
Sulfate	40000	41100	103	80.0-120	

L1681696-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1681696-02 11/29/23 05:58 • (MS) R4006442-3 11/29/23 06:14 • (MSD) R4006442-4 11/29/23 06:30

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	40000	1110000	867000	864000	0.000	0.000	10	80.0-120	V	V	0.299	15
Fluoride	8000	U	8360	8310	105	104	10	80.0-120			0.579	15
Sulfate	40000	2570000	1960000	1950000	0.000	0.000	10	80.0-120	V	V	0.302	15

Sample Narrative:

OS: Dilution due to matrix.

L1679687-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679687-04 11/29/23 11:16 • (MS) R4006442-6 11/29/23 11:32 • (MSD) R4006442-7 11/29/23 11:48

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	40000	48700	79500	79100	76.9	76.1	1	80.0-120	J6	J6	0.394	15
Fluoride	8000	640	8920	8880	104	103	1	80.0-120			0.494	15
Sulfate	40000	83000	107000	107000	60.7	60.3	1	80.0-120	J6	J6	0.168	15

Method Blank (MB)

(MB) R4006465-1 11/29/23 09:05

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

L1679689-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1679689-01 11/29/23 13:36 • (DUP) R4006465-3 11/29/23 13:50

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	85200	87600	1	2.73		15
Fluoride	154	155	1	0.972		15
Sulfate	37200	37000	1	0.597		15

L1679691-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1679691-09 11/29/23 18:42 • (DUP) R4006465-6 11/29/23 18:55

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	53600	52700	1	1.58		15
Fluoride	562	637	1	12.4		15
Sulfate	36100	36200	1	0.141		15

Laboratory Control Sample (LCS)

(LCS) R4006465-2 11/29/23 09:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	41400	103	80.0-120	
Fluoride	8000	8400	105	80.0-120	
Sulfate	40000	38500	96.3	80.0-120	

L1679689-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679689-06 11/29/23 14:58 • (MS) R4006465-4 11/29/23 15:39 • (MSD) R4006465-5 11/29/23 15:51

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	40000	30400	67500	67800	92.8	93.5	1	80.0-120			0.399	15
Fluoride	8000	182	8950	9230	110	113	1	80.0-120			3.08	15
Sulfate	40000	257000	251000	255000	0.000	0.000	1	80.0-120	E V	E V	1.40	15

L1679691-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679691-09 11/29/23 18:42 • (MS) R4006465-7 11/29/23 19:09 • (MSD) R4006465-8 11/29/23 19:22

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	40000	53600	84800	84900	78.1	78.4	1	80.0-120	J6	J6	0.118	15
Fluoride	8000	562	9400	9670	110	114	1	80.0-120			2.84	15
Sulfate	40000	36100	71400	71500	88.1	88.3	1	80.0-120			0.0979	15

Method Blank (MB)

(MB) R4006140-1 11/29/23 15:37

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

Laboratory Control Sample (LCS)

(LCS) R4006140-2 11/29/23 15:40

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	995	99.5	80.0-120	
Calcium	10000	9790	97.9	80.0-120	

L1679691-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679691-09 11/29/23 15:43 • (MS) R4006140-4 11/29/23 15:49 • (MSD) R4006140-5 11/29/23 15:52

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 %
Boron	1000	2050	3010	3010	96.8	96.4	1	75.0-125			0.128	20
Calcium	10000	41800	51100	50900	93.3	91.7	1	75.0-125			0.302	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
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	LAO00356
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

Pres Chk

Report to:
Jason Franks

Email To:
jfranks@scsengineers.com;jrockhold@scsengine

Project Description: **Evergy La Cygne Gen Station GW 2023-24**

City/State Collected: La Cygne, KS

Please Circle: PT MT [✓ CT] ET

Phone: **913-681-0030**

Client Project # **27217233.23-A**

Lab Project # **AQUAOPKS-LACYGNE**

Collected by (print): B Coleman

Site/Facility ID #

P.O. #

Collected by (signature):

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

Quote #

Date Results Needed: STD

Immediately Packed on Ice N ___ Y ✓

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN

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

SDG # L1679691
B127

Table #

Acctnum: **AQUAOPKS**
Template: **T157983**
Prelogin: **P1033073**
PM: **206 - Jeff Carr**
PB:

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Anions (Cld, F, SO4) 125mlHDPE-NoPres	B, Ca - 6010 250mlHDPE-HNO3	TDS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-10	G	GW	–	11.17.23	1415	3	X	X	X		-01
MW-13		GW	–		1210	3	X	X	X		-02
MW-14R		GW	–		1300	3	X	X	X		-03
MW-15		GW	–		935	3	X	X	X		-04
MW-601		GW	–		1135	3	X	X	X		-05
MW-602		GW	–		1235	3	X	X	X		-06
MW-801		GW	–		1305	3	X	X	X		-07
MW-802		GW	–		1230	3	X	X	X		-08
MW-803		GW	–		1125	3	X	X	X		-09
MW-804		GW	–		1045	3	X	X	X		-10

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

Remarks:

pH ______ Temp ______

Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __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)
Date: 11-17-23
Time: 1530
Received by: (Signature)
Trip Blank Received: Yes / [✓ No]
HCL / MeoH
TBR

Relinquished by : (Signature)
Date:
Time:
Received by: (Signature)
Temp: °C
Bottles Received: 42
If pre
PH-10BDH4321 TRC-2352362
CR6-20221V
/Time

Relinquished by : (Signature)
Date:
Time:
Received for lab by: (Signature)
Date: 11.18.23
Time: 9:00
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

Pres Chk

Report to: **Jason Franks**

Email To: jfranks@scsengineers.com;jrockhold@scsengine

Project Description: Evergy La Cygne Gen Station GW 2023-24

City/State Collected: La Cygne, KS

Please Circle: PT MT [✓ CT] ET

Phone: 913-681-0030

Client Project # 27217233.23-A

Lab Project # AQUAOPKS-LACYGNE

Collected by (print): B. Colyman

Site/Facility ID #

P.O. #

Collected by (signature):

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

Quote #

Date Results Needed: STD

immediately
Packed on Ice N ___ Y ✓

Chain of Custody Page 2 of 2

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN

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

SDG # L1679691

Table #

Acctnum: **AQUAOPKS**
Template: **T157983**
Prelogin: **P1033073**
PM: **206 - Jeff Carr**
PB:
Shipped Via: **FedEX Ground**

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Anions (Cld, F, SO4) 125mlHDPE-NoPres	B, Ca - 6010 250mlHDPE-HNO3	TDS 250mlHDPE-NoPres								Remarks	Sample # (lab only)
MW-805	G	GW	-	11-17-23	1020	3	X	X	X									-11
DUPLICATE	↓	GW	↓	↓	-	3	X	X	X									-12
803 MD/MSD	↓	GW	↓	↓	-	3	X	X	X									-09

* 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: __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)	Date:	Time:	Received by: (Signature)	
	11-17-23	1530		Trip Blank Received: Yes / No HCL / MeoH TBR

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

Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date:	Time:	Hold:	Condition:
				11-18-23	9:00		NCF / [✓ OK]

4679691

Tracking Numbers	[redacted]	Tempature
6481 5470 4925.	[redacted]	CCA8 1.3to=1.3
6481 5470 4811'	[redacted]	CCA8 2.3to 2.3
6481 5470 4877.	[redacted]	CCA8 0.1to=0.1
6481 5470 4822'	[redacted]	CCA8 3.6to=3.6
6481 5470 5005:	[redacted]	CCA8 1.3to=1.3
7074 8788 2888.	[redacted]	CCA8 3.0to=3.0
6481 5470 4800.	[redacted]	CCA8 2.2to=2.2
7019 5686 3190:	[redacted]	CCA8 0.1to=0.1
6481 5470 4991'	[redacted]	CCA8 1.1to=1.1
6481 5470 4899'	[redacted]	CCA8 1.3to=1.3
6481 5470 4855.	[redacted]	CCA8 1.5to=1.5
6481 5470 3675.	[redacted]	CCA8 4.1to=4.1
6481 5470 4888.	[redacted]	CCA8 3.6to=3.6
	[redacted]	
	[redacted]	
	[redacted]	
	[redacted]	
	[redacted]	
	[redacted]	

APPENDIX E

STATISTICAL ANALYSES

E.1 Fall 2022 Semiannual Detection Monitoring Statistical Analyses

E.2 Spring 2023 Semiannual Detection Monitoring Statistical Analyses

Appendix E.1

Fall 2022 Semiannual Detection Monitoring Statistical Analyses

SCS ENGINEERS

Environmental Consulting & Contracting

MEMORANDUM

March 20, 2023

29
3-20-23

To: La Cygne Generating Station
25166 East 2200 Road
La Cygne, Kansas 66040
Evergy Metro, Inc.

From: SCS Engineers
John Rockhold, P.G.
Douglas Doerr, P.E.

RE: Determination of Statistically Significant Increases –
CCR Landfill and Lower AQC Impoundment
Fall 2022 Semiannual Detection Monitoring 40 CFR 257.94

Statistical analysis of monitoring data from the groundwater monitoring system for the CCR Landfill and Lower 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 9, 2022. Review and validation of the results from the November 2022 Detection Monitoring Event was completed on December 20, 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 12, 2023 and February 8, 2023.

The completed statistical evaluation identified one Appendix III constituent above its prediction limit established for monitoring well MW-13 and one Appendix III constituent above its prediction limit established for monitoring well MW-803.

Monitoring Well Constituent	*UPL	Observation November 9, 2022	1st Verification January 12, 2023	2nd Verification February 8, 2023
MW-13				
Chloride	19.61	46.1	41.7	35.1
MW-803				
Sulfate	28.84	33.1	35.8/37.6**	34.4/34.5**

*UPL – Upper Prediction Limit
** - Duplicate Sample

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified SSIs above the background prediction limits for chloride at MW-13 and for sulfate at MW-803.

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, 1st verification re-sample results (when applicable), 2nd verification re-sample results (when applicable), extra sample results for pH because pH is collected as part of the sampling procedure, and a Prediction Limit summary table. Output documentation includes the analytical data used for the statistical analyses.

Attachment 2: Sanitas™ Configuration Settings:

Screen shots of the applicable Sanitas™ configuration settings for the statistical prediction limit analysis. This includes data configuration, output configuration, prediction limit configuration and other tests configuration.

Revision Number	Revision Date	Attachment Revised	Summary of Revisions

ATTACHMENT 1

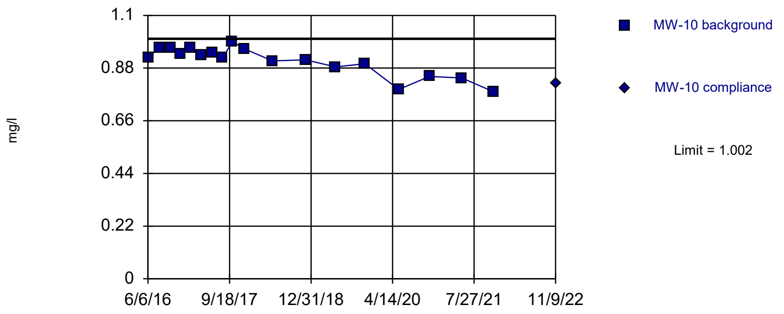
Sanitas™ Output

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.9094, Std. Dev.=0.06036, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.906, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/16/2023 10:52 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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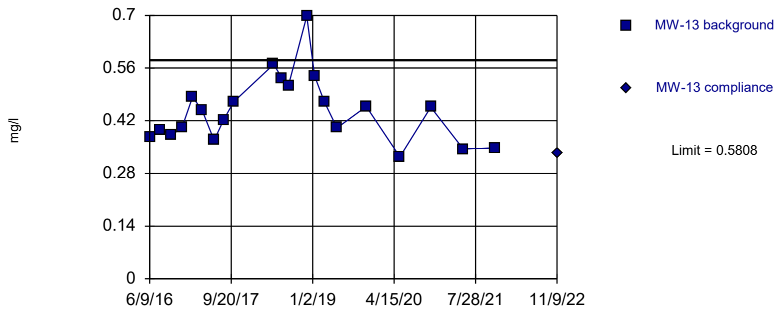
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.4478, Std. Dev.=0.08921, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9315, critical = 0.873. Kappa = 1.491 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/16/2023 10:52 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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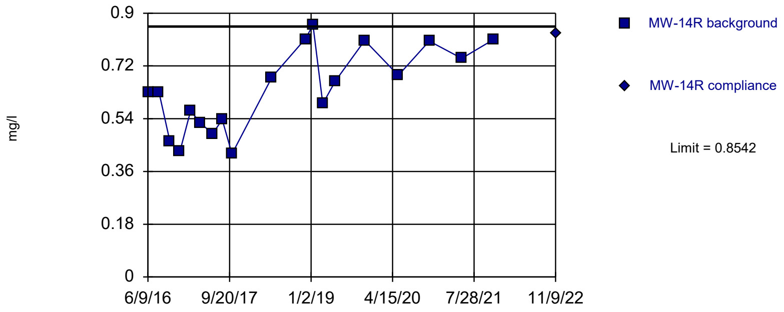
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.6397, Std. Dev.=0.141, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9425, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/16/2023 10:52 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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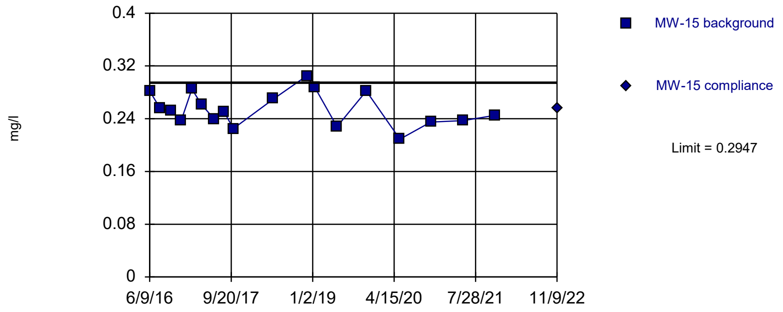
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2548, Std. Dev.=0.02584, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9684, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/16/2023 10:52 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: BORON (mg/l) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-10	MW-10
6/6/2016	0.923	
8/11/2016	0.966	
10/12/2016	0.964	
12/9/2016	0.94	
2/8/2017	0.966	
4/6/2017	0.933	
6/15/2017	0.942	
8/10/2017	0.921	
10/4/2017	0.991	
12/12/2017	0.961	
5/23/2018	0.91	
11/30/2018	0.914	
5/23/2019	0.885	
11/7/2019	0.898	
5/19/2020	0.791	
11/12/2020	0.845	
5/18/2021	0.839	
11/18/2021	0.781	
11/9/2022		0.818

Prediction Limit

Constituent: BORON (mg/l) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-13	MW-13
6/9/2016	0.375	
8/11/2016	0.397	
10/13/2016	0.381	
12/13/2016	0.403	
2/10/2017	0.483	
4/6/2017	0.449	
6/15/2017	0.368	
8/8/2017	0.422	
10/5/2017	0.47	
5/23/2018	0.57	
7/11/2018	0.533	
8/16/2018	0.513	
11/30/2018	0.698	
1/14/2019	0.539	
3/11/2019	0.47	
5/23/2019	0.401	
11/7/2019	0.458	
5/19/2020	0.324	
11/12/2020	0.456	
5/18/2021	0.345	
11/18/2021	0.348	
11/9/2022		0.335

Prediction Limit

Constituent: BORON (mg/l) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-14R	MW-14R
6/9/2016	0.629	
8/11/2016	0.63	
10/13/2016	0.463	
12/9/2016	0.427	
2/9/2017	0.566	
4/7/2017	0.526	
6/15/2017	0.488	
8/10/2017	0.537	
10/5/2017	0.42	
5/23/2018	0.682	
11/30/2018	0.812	
1/14/2019	0.859	
3/11/2019	0.591	
5/23/2019	0.669	
11/7/2019	0.807	
5/19/2020	0.688	
11/12/2020	0.805	
5/18/2021	0.746	
11/18/2021	0.81	
11/9/2022		0.832

Prediction Limit

Constituent: BORON (mg/l) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-15	MW-15
6/9/2016	0.282	
8/9/2016	0.255	
10/12/2016	0.252	
12/7/2016	0.237	
2/7/2017	0.285	
4/5/2017	0.261	
6/14/2017	0.24	
8/10/2017	0.251	
10/3/2017	0.225	
5/23/2018	0.27	
11/30/2018	0.305	
1/14/2019	0.288	
5/23/2019	0.228	
11/7/2019	0.282	
5/19/2020	0.209	
11/12/2020	0.235	
5/18/2021	0.237	
11/18/2021	0.245	
11/9/2022		0.255

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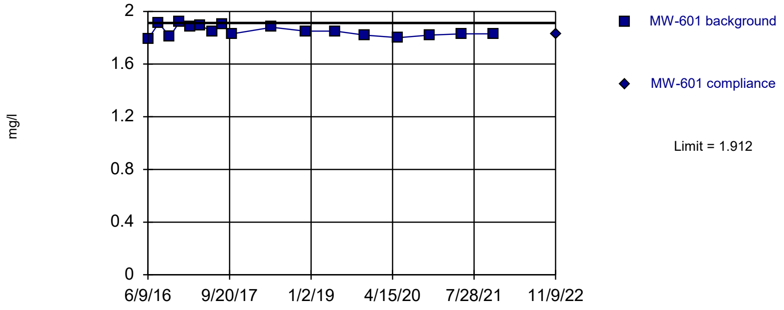
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.851, Std. Dev.=0.0396, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9478, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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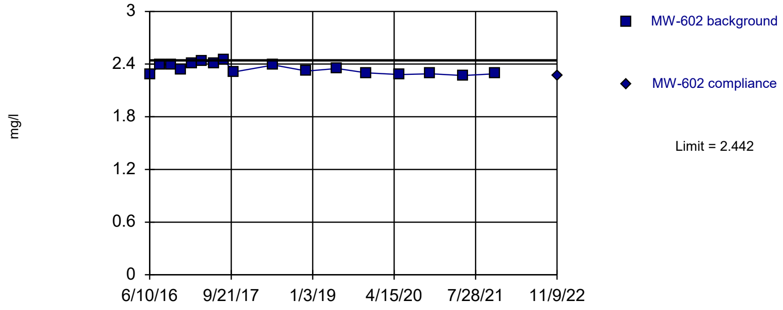
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.348, Std. Dev.=0.06047, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9102, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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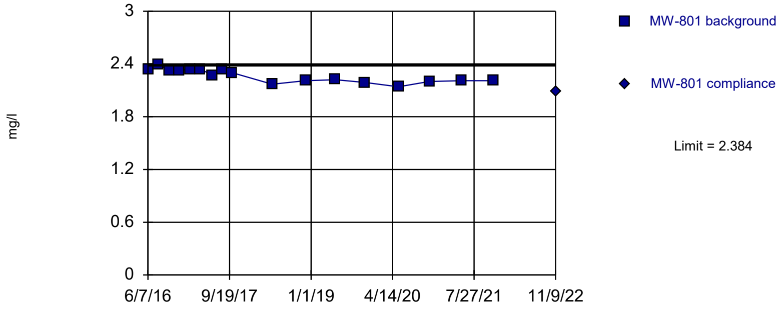
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.266, Std. Dev.=0.07592, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9104, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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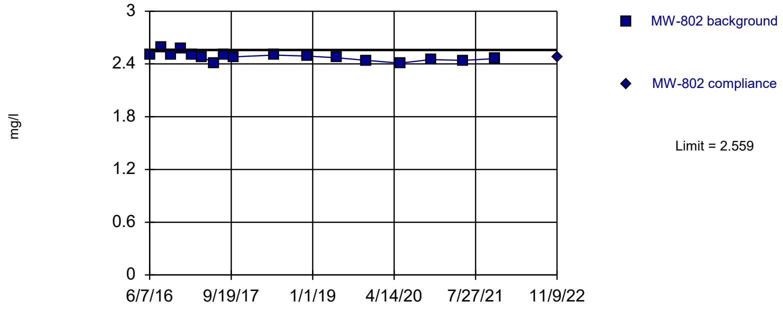
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.483, Std. Dev.=0.04845, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.942, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: BORON (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-601	MW-601
6/9/2016	1.79	
8/9/2016	1.91	
10/13/2016	1.81	
12/7/2016	1.92	
2/8/2017	1.88	
4/6/2017	1.89	
6/15/2017	1.85	
8/9/2017	1.9	
10/6/2017	1.83	
5/23/2018	1.88	
11/30/2018	1.85	
5/23/2019	1.85	
11/7/2019	1.82	
5/19/2020	1.8	
11/12/2020	1.82	
5/18/2021	1.83	
11/18/2021	1.83	
11/9/2022		1.83

Prediction Limit

Constituent: BORON (mg/l) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-602	MW-602
6/10/2016	2.28	
8/9/2016	2.39	
10/13/2016	2.39	
12/9/2016	2.34	
2/8/2017	2.41	
4/7/2017	2.44	
6/15/2017	2.41	
8/10/2017	2.45	
10/5/2017	2.31	
5/23/2018	2.39	
11/30/2018	2.32	
5/23/2019	2.35	
11/7/2019	2.3	
5/19/2020	2.28	
11/12/2020	2.29	
5/18/2021	2.27	
11/18/2021	2.29	
11/9/2022		2.27

Prediction Limit

Constituent: BORON (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-801	MW-801
6/7/2016	2.34	
8/9/2016	2.39	
10/11/2016	2.32	
12/6/2016	2.33	
2/7/2017	2.34	
4/6/2017	2.34	
6/14/2017	2.27	
8/9/2017	2.34	
10/4/2017	2.3	
5/23/2018	2.17	
11/30/2018	2.21	
5/23/2019	2.22	
11/7/2019	2.19	
5/19/2020	2.14	
11/12/2020	2.2	
5/18/2021	2.21	
11/18/2021	2.21	
11/9/2022		2.09

Prediction Limit

Constituent: BORON (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-802	MW-802
6/7/2016	2.51	
8/10/2016	2.59	
10/11/2016	2.5	
12/6/2016	2.57	
2/7/2017	2.51	
4/4/2017	2.48	
6/13/2017	2.41	
8/7/2017	2.5	
10/4/2017	2.48	
5/23/2018	2.5	
11/30/2018	2.49	
5/23/2019	2.47	
11/7/2019	2.44	
5/19/2020	2.41	
11/12/2020	2.45	
5/18/2021	2.44	
11/18/2021	2.46	
11/9/2022		2.47

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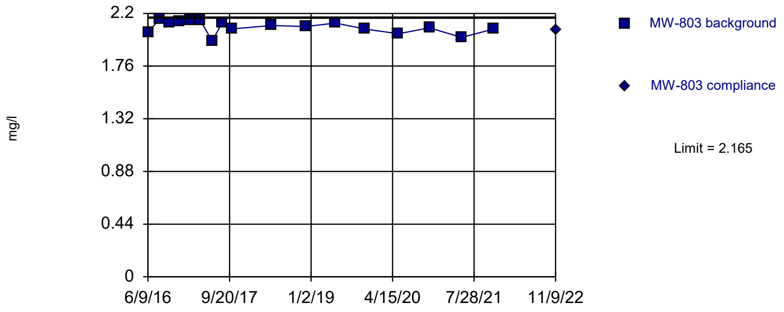
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.085, Std. Dev.=0.05149, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9296, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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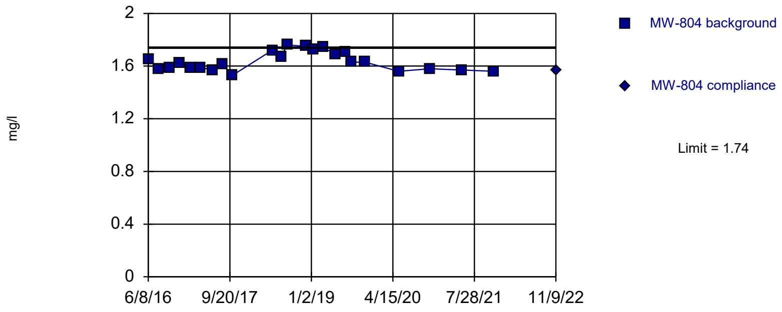
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.636, Std. Dev.=0.07069, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9167, critical = 0.881. Kappa = 1.47 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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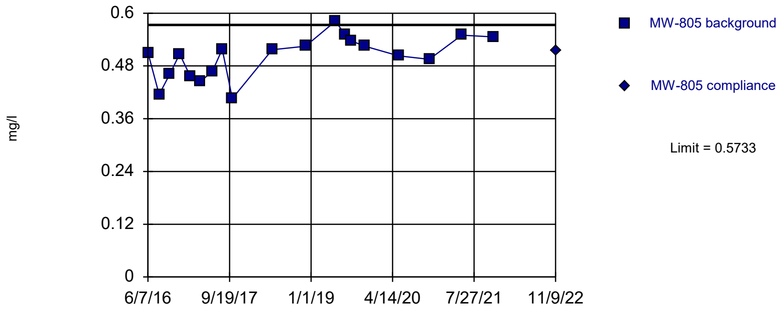
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.5008, Std. Dev.=0.04763, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.955, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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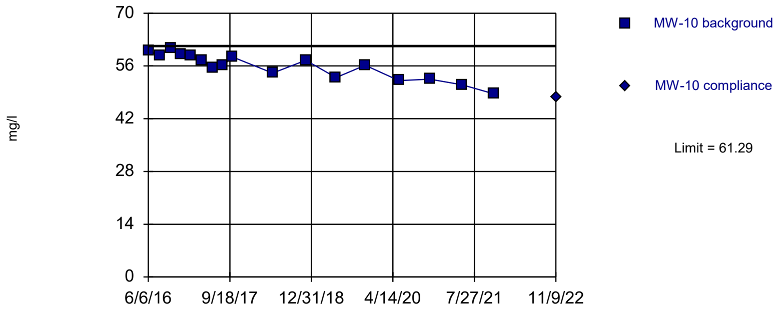
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=55.86, Std. Dev.=3.477, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9489, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: BORON (mg/l) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-803	MW-803
6/9/2016	2.04	
8/12/2016	2.15	
10/13/2016	2.12	
12/6/2016	2.13	
2/8/2017	2.14	
4/7/2017	2.14	
6/13/2017	1.97	
8/9/2017	2.12	
10/4/2017	2.07	
5/23/2018	2.1	
11/30/2018	2.09	
5/23/2019	2.12	
11/7/2019	2.07	
5/19/2020	2.03	
11/12/2020	2.08	
5/18/2021	2	
11/18/2021	2.07	
11/9/2022		2.06

Prediction Limit

Constituent: BORON (mg/l) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-804	MW-804
6/8/2016	1.65	
8/10/2016	1.58	
10/11/2016	1.59	
12/7/2016	1.62	
2/7/2017	1.59	
4/4/2017	1.59	
6/13/2017	1.57	
8/8/2017	1.61	
10/5/2017	1.53	
5/23/2018	1.72	
7/11/2018	1.67	
8/16/2018	1.76	
11/30/2018	1.75	
1/14/2019	1.73	
3/11/2019	1.74	
5/23/2019	1.69	
7/17/2019	1.71	
8/22/2019	1.63	
11/7/2019	1.63	
5/19/2020	1.56	
11/12/2020	1.58	
5/18/2021	1.57	
11/18/2021	1.56	
11/9/2022		1.57

Prediction Limit

Constituent: BORON (mg/l) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-805	MW-805
6/7/2016	0.51	
8/10/2016	0.415	
10/11/2016	0.462	
12/6/2016	0.507	
2/6/2017	0.456	
4/4/2017	0.444	
6/13/2017	0.468	
8/8/2017	0.518	
10/5/2017	0.406	
5/23/2018	0.517	
11/30/2018	0.525	
5/23/2019	0.582	
7/17/2019	0.55	
8/22/2019	0.537	
11/7/2019	0.525	
5/19/2020	0.503	
11/12/2020	0.495	
5/18/2021	0.55	
11/18/2021	0.546	
11/9/2022		0.515

Prediction Limit

Constituent: CALCIUM (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-10	MW-10
6/6/2016	60.1	
8/11/2016	58.7	
10/12/2016	60.7	
12/9/2016	59	
2/8/2017	58.8	
4/6/2017	57.4	
6/15/2017	55.5	
8/10/2017	56.1	
10/4/2017	58.4	
5/23/2018	54.1	
11/30/2018	57.5	
5/23/2019	52.9	
11/7/2019	56.2	
5/19/2020	52.1	
11/12/2020	52.5	
5/18/2021	51	
11/18/2021	48.6	
11/9/2022		47.7

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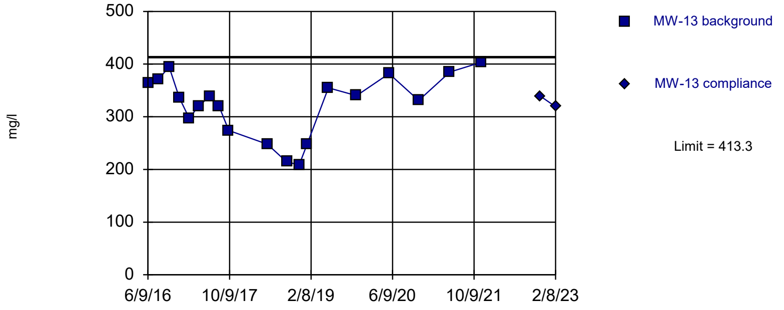
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=322.5, Std. Dev.=59.62, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9291, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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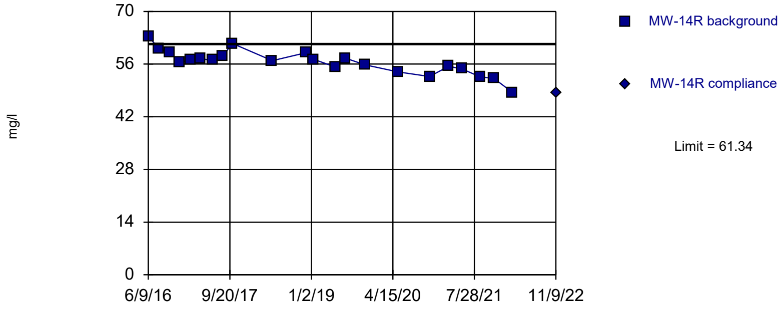
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=56.45, Std. Dev.=3.305, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9805, critical = 0.878. Kappa = 1.48 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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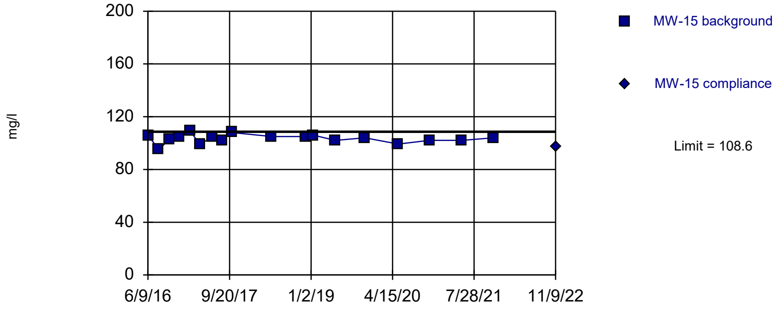
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=103.4, Std. Dev.=3.337, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9499, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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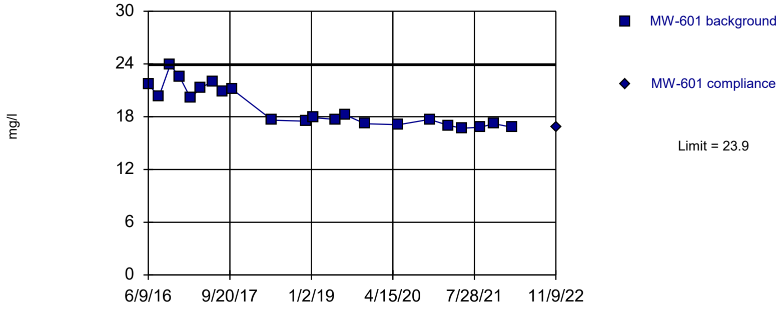
Within Limit

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 22 background values. Well-constituent pair annual alpha = 0.0009186. Individual comparison alpha = 0.0004594 (1 of 3).

Constituent: CALCIUM Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CALCIUM (mg/l) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-13	MW-13	
6/9/2016	363		
8/11/2016	371		
10/13/2016	395		
12/13/2016	336		
2/10/2017	297		
4/6/2017	320		
6/15/2017	339		
8/8/2017	319		
10/5/2017	274		
5/23/2018	248		
9/17/2018	214		
11/30/2018	209		
1/14/2019	247		
5/23/2019	355		
11/7/2019	340		
5/19/2020	382		
11/12/2020	331		
5/18/2021	385		
11/18/2021	403		
11/9/2022		339	
2/8/2023		319	extra sample

Prediction Limit

Constituent: CALCIUM (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-14R	MW-14R
6/9/2016	63.4	
8/11/2016	60	
10/13/2016	59.1	
12/9/2016	56.4	
2/9/2017	57.3	
4/7/2017	57.4	
6/15/2017	57	
8/10/2017	58	
10/5/2017	61.5	
5/23/2018	56.9	
11/30/2018	59	
1/14/2019	57.3	
5/23/2019	55.2	
7/17/2019	57.6	
11/7/2019	55.8	
5/19/2020	53.9	
8/27/2020	54.1 (i)	
11/12/2020	52.7	
3/3/2021	55.4	
5/18/2021	54.7	
8/30/2021	52.6	
11/18/2021	52.2	
3/3/2022	48.5	
11/9/2022		48.3

Prediction Limit

Constituent: CALCIUM (mg/l) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-15	MW-15
6/9/2016	106	
8/9/2016	95.2	
10/12/2016	103	
12/7/2016	105	
2/7/2017	109	
4/5/2017	98.9	
6/14/2017	105	
8/10/2017	102	
10/3/2017	108	
5/23/2018	105	
11/30/2018	105	
1/14/2019	106	
5/23/2019	102	
11/7/2019	104	
5/19/2020	99.3	
11/12/2020	102	
5/18/2021	102	
11/18/2021	104	
11/9/2022		97.4

Prediction Limit

Constituent: CALCIUM (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-601	MW-601
6/9/2016	21.7	
8/9/2016	20.3	
10/13/2016	23.9	
12/7/2016	22.5	
2/8/2017	20.1	
4/6/2017	21.3	
6/15/2017	22	
8/9/2017	20.9	
10/6/2017	21.1	
5/23/2018	17.6	
11/30/2018	17.5	
1/14/2019	17.9	
5/23/2019	17.7	
7/17/2019	18.2	
11/7/2019	17.2	
5/19/2020	17.1	
11/12/2020	17.7	
3/3/2021	17	
5/18/2021	16.7	
8/30/2021	16.8	
11/18/2021	17.2	
3/3/2022	16.8	
11/9/2022		16.8

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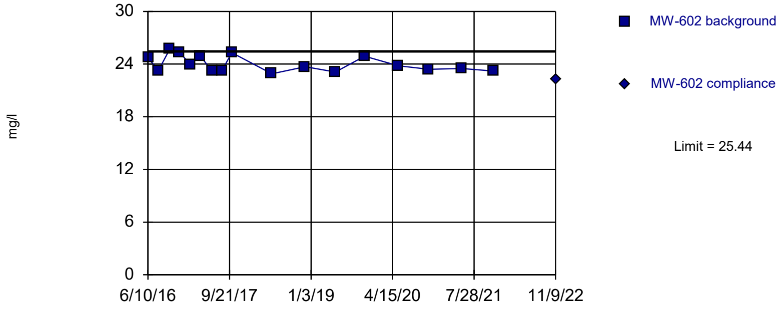
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=24.01, Std. Dev.=0.9151, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8811, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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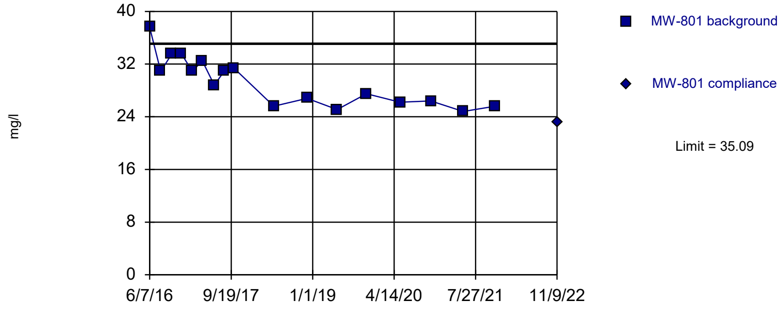
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=29.3, Std. Dev.=3.711, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9189, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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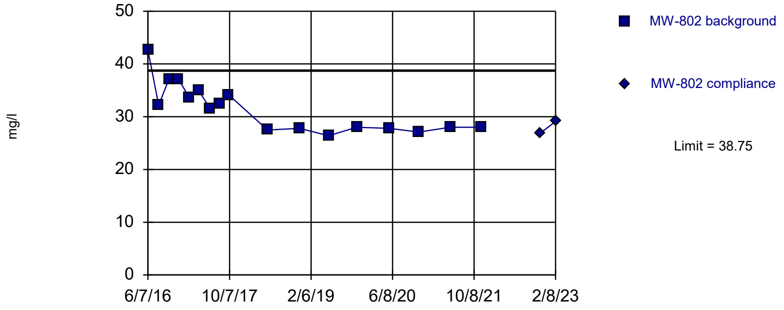
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=31.56, Std. Dev.=4.601, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8846, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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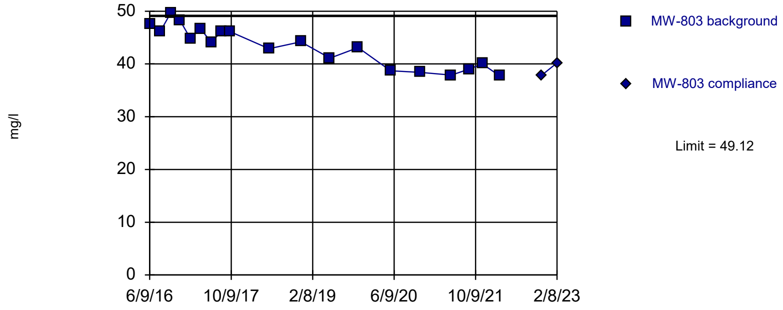
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=43.29, Std. Dev.=3.829, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9348, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CALCIUM (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-602	MW-602
6/10/2016	24.7	
8/9/2016	23.3	
10/13/2016	25.7	
12/9/2016	25.3	
2/8/2017	24	
4/7/2017	24.9	
6/15/2017	23.2	
8/10/2017	23.3	
10/5/2017	25.3	
5/23/2018	22.9	
11/30/2018	23.7	
5/23/2019	23.1	
11/7/2019	24.9	
5/19/2020	23.8	
11/12/2020	23.4	
5/18/2021	23.5	
11/18/2021	23.2	
11/9/2022		22.2

Prediction Limit

Constituent: CALCIUM (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-801	MW-801
6/7/2016	37.6	
8/9/2016	30.9	
10/11/2016	33.5	
12/6/2016	33.6	
2/7/2017	30.9	
4/6/2017	32.5	
6/14/2017	28.8	
8/9/2017	30.9	
10/4/2017	31.4	
5/23/2018	25.6	
11/30/2018	26.8	
5/23/2019	25.1	
11/7/2019	27.5	
5/19/2020	26.2	
11/12/2020	26.4	
5/18/2021	24.8	
11/18/2021	25.6	
11/9/2022		23.2

Prediction Limit

Constituent: CALCIUM (mg/l) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-802	MW-802	
6/7/2016	42.6		
8/10/2016	32.2		
10/11/2016	37.2		
12/6/2016	37.2		
2/7/2017	33.7		
4/4/2017	35		
6/13/2017	31.6		
8/7/2017	32.4		
10/4/2017	34.1		
5/23/2018	27.5		
11/30/2018	27.8		
5/23/2019	26.4		
11/7/2019	28		
5/19/2020	27.8		
11/12/2020	27.1		
5/18/2021	28		
11/18/2021	28		
11/9/2022		26.9	
2/8/2023		29.1	extra sample

Prediction Limit

Constituent: CALCIUM (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III
LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-803	MW-803	
6/9/2016	47.6		
8/12/2016	46.2		
10/13/2016	49.7		
12/6/2016	48.3		
2/8/2017	44.8		
4/7/2017	46.7		
6/13/2017	44.1		
8/9/2017	46.1		
10/4/2017	46.1		
5/23/2018	42.9		
11/30/2018	44.2		
5/23/2019	41.1		
11/7/2019	43.1		
5/19/2020	38.7		
11/12/2020	38.4		
5/18/2021	37.9		
8/30/2021	39		
11/18/2021	40		
3/3/2022	37.7		
11/9/2022		37.9	
2/8/2023		40.2	extra sample

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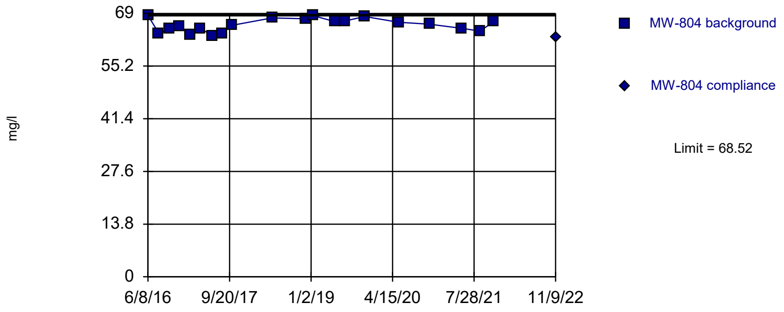
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=65.98, Std. Dev.=1.698, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9475, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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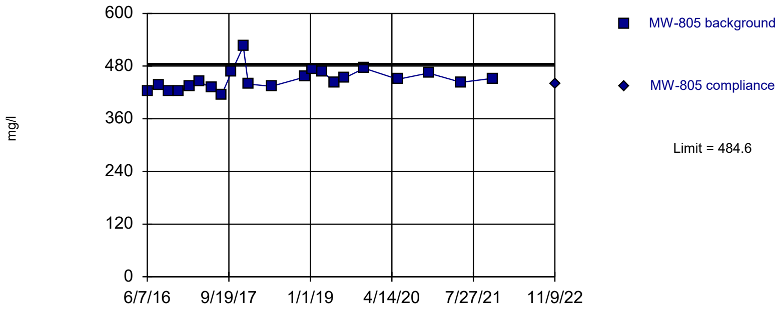
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=448.5, Std. Dev.=24.44, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9003, critical = 0.878. Kappa = 1.48 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

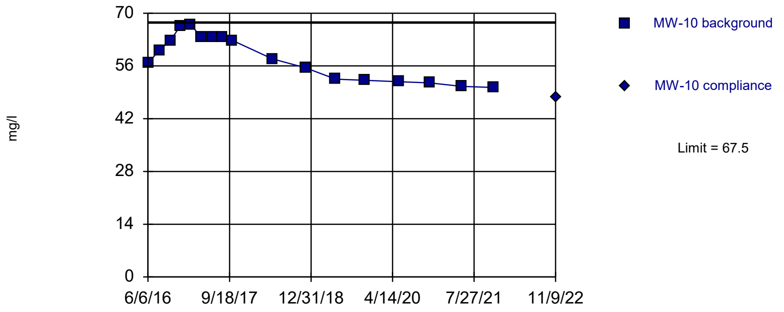
Constituent: CALCIUM Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=58.2, Std. Dev.=5.96, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8948, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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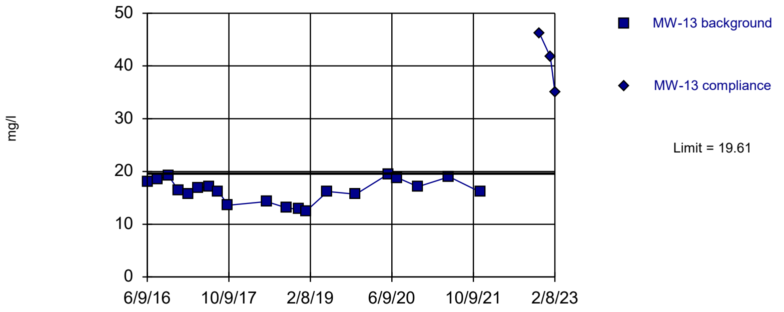
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=16.33, Std. Dev.=2.185, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9421, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CALCIUM (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-804	MW-804
6/8/2016	68.5	
8/10/2016	63.7	
10/11/2016	65.1	
12/7/2016	65.7	
2/7/2017	63.5	
4/4/2017	65.1	
6/13/2017	63.2	
8/8/2017	63.8	
10/5/2017	65.9	
5/23/2018	67.8	
11/30/2018	67.6	
1/14/2019	68.4	
5/23/2019	66.8	
7/17/2019	67	
11/7/2019	68.2	
5/19/2020	66.7	
11/12/2020	66.2	
5/18/2021	65.1	
8/30/2021	64.4	
11/18/2021	66.8	
11/9/2022		62.7

Prediction Limit

Constituent: CALCIUM (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-805	MW-805
6/7/2016	422	
8/10/2016	437	
10/11/2016	422	
12/6/2016	422	
2/6/2017	435	
4/4/2017	444	
6/13/2017	430	
8/8/2017	414	
10/5/2017	467	
12/12/2017	525	
1/9/2018	439	
5/23/2018	434	
11/30/2018	455	
1/14/2019	473	
3/11/2019	468	
5/23/2019	442	
7/17/2019	453	
11/7/2019	475	
5/19/2020	450	
11/12/2020	464	
5/18/2021	443	
11/18/2021	452	
11/9/2022		440

Prediction Limit

Constituent: CHLORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-10	MW-10
6/6/2016	56.7	
8/11/2016	60.2	
10/12/2016	62.7	
12/9/2016	66.6	
2/8/2017	67	
4/6/2017	63.7	
6/15/2017	63.6	
8/10/2017	63.8	
10/4/2017	62.8	
5/23/2018	57.9	
11/30/2018	55.5	
5/23/2019	52.5	
11/7/2019	52.2	
5/19/2020	51.8	
11/12/2020	51.5	
5/18/2021	50.6	
11/18/2021	50.3	
11/9/2022		47.6

Prediction Limit

Constituent: CHLORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

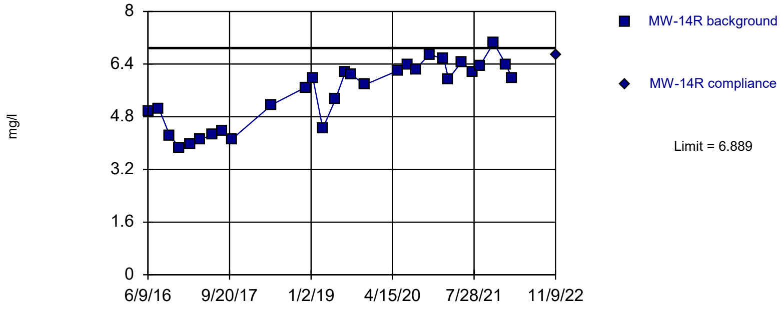
LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-13	MW-13	
6/9/2016	18		
8/11/2016	18.5		
10/13/2016	19.2		
12/13/2016	16.4		
2/10/2017	15.6		
4/6/2017	16.8		
6/15/2017	17.2		
8/8/2017	16.2		
10/5/2017	13.6		
5/23/2018	14.3		
9/17/2018	13.1		
11/30/2018	12.8		
1/14/2019	12.5		
5/23/2019	16.2		
11/7/2019	15.7		
5/19/2020	19.5		
7/13/2020	18.8		
11/12/2020	17.1		
5/18/2021	19		
11/18/2021	16.1		
11/9/2022		46.1	
1/12/2023		41.7	1st verification
2/8/2023		35.1	2nd verification

Within Limit

Prediction Limit

Intrawell Parametric



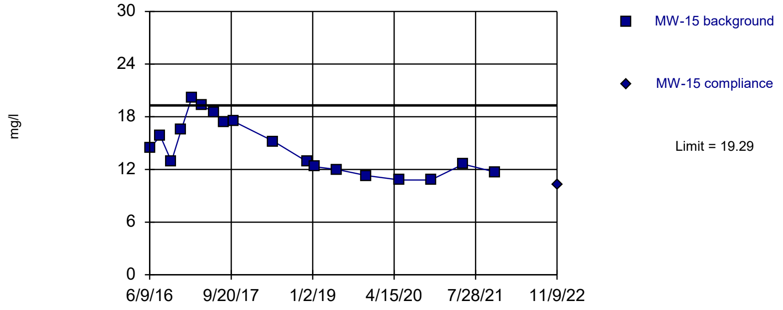
Background Data Summary: Mean=5.514, Std. Dev.=0.9668, n=29. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9001, critical = 0.898. Kappa = 1.422 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit

Intrawell Parametric



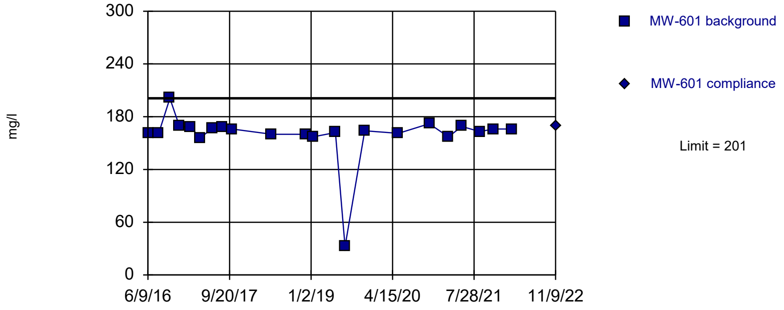
Background Data Summary: Mean=14.56, Std. Dev.=3.071, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9188, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit

Intrawell Non-parametric



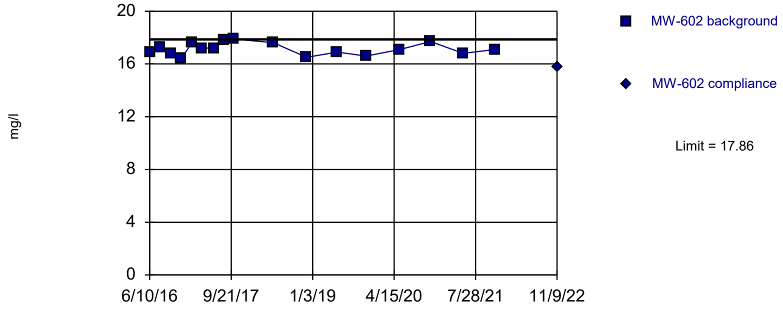
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 22 background values. Well-constituent pair annual alpha = 0.0009186. Individual comparison alpha = 0.0004594 (1 of 3).

Constituent: CHLORIDE Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=17.14, Std. Dev.=0.4597, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.959, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CHLORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-14R	MW-14R
6/9/2016	4.95	
8/11/2016	5.05	
10/13/2016	4.22	
12/9/2016	3.86	
2/9/2017	3.98	
4/7/2017	4.11	
6/15/2017	4.25	
8/10/2017	4.38	
10/5/2017	4.12	
5/23/2018	5.17	
11/30/2018	5.69	
1/14/2019	5.96	
3/11/2019	4.44	
5/23/2019	5.33	
7/17/2019	6.14	
8/23/2019	6.08	
11/7/2019	5.77	
5/19/2020	6.21	
7/13/2020	6.38	
8/27/2020	6.25	
11/12/2020	6.69	
2/4/2021	6.56	
3/3/2021	5.95	
5/18/2021	6.47	
7/21/2021	6.15	
8/30/2021	6.35	
11/18/2021	7.04	
1/27/2022	6.39	
3/3/2022	5.97	
11/9/2022		6.68

Prediction Limit

Constituent: CHLORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-15	MW-15
6/9/2016	14.4	
8/9/2016	15.8	
10/12/2016	12.9	
12/7/2016	16.5	
2/7/2017	20.2	
4/5/2017	19.3	
6/14/2017	18.5	
8/10/2017	17.4	
10/3/2017	17.5	
5/23/2018	15.2	
11/30/2018	12.9	
1/14/2019	12.3	
5/23/2019	12	
11/7/2019	11.3	
5/19/2020	10.8	
11/12/2020	10.8	
5/18/2021	12.6	
11/18/2021	11.7	
11/9/2022		10.2

Prediction Limit

Constituent: CHLORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-601	MW-601
6/9/2016	161	
8/9/2016	161	
10/13/2016	201	
12/7/2016	169	
2/8/2017	168	
4/6/2017	156	
6/15/2017	167	
8/9/2017	168	
10/6/2017	166	
5/23/2018	160	
11/30/2018	160	
1/14/2019	157	
5/23/2019	162	
7/17/2019	32.3	
11/7/2019	164	
5/19/2020	161	
11/12/2020	172	
3/3/2021	157	
5/18/2021	169	
8/30/2021	163	
11/18/2021	166	
3/3/2022	166	
11/9/2022		169

Prediction Limit

Constituent: CHLORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-602	MW-602
6/10/2016	16.9	
8/9/2016	17.3	
10/13/2016	16.8	
12/9/2016	16.4	
2/8/2017	17.6	
4/7/2017	17.2	
6/15/2017	17.2	
8/10/2017	17.8	
10/5/2017	17.9	
5/23/2018	17.6	
11/30/2018	16.5	
5/23/2019	16.9	
11/7/2019	16.6	
5/19/2020	17.1	
11/12/2020	17.7	
5/18/2021	16.8	
11/18/2021	17.1	
11/9/2022		15.8

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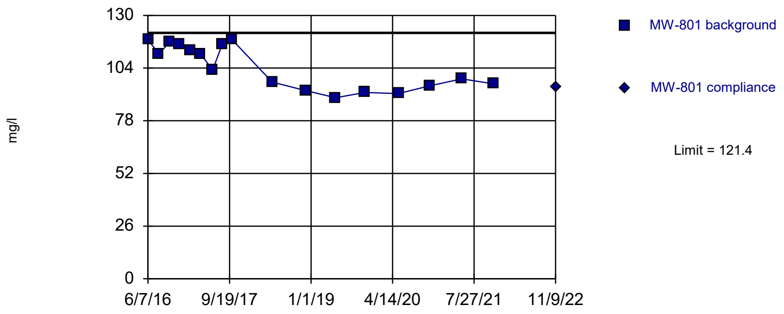
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=104.5, Std. Dev.=10.84, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8663, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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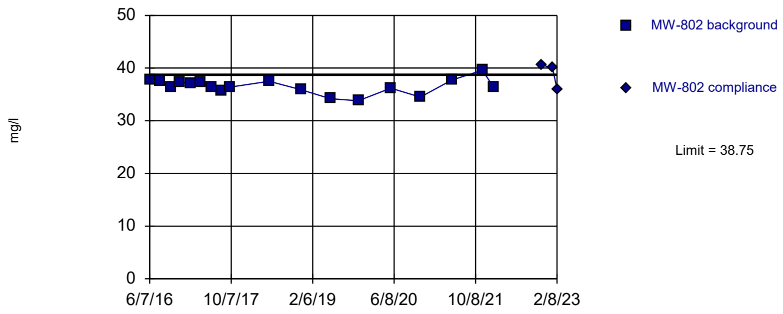
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=36.54, Std. Dev.=1.433, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9535, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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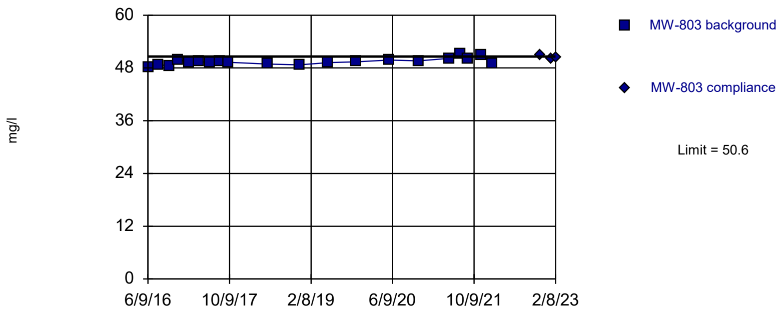
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=49.45, Std. Dev.=0.7626, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9605, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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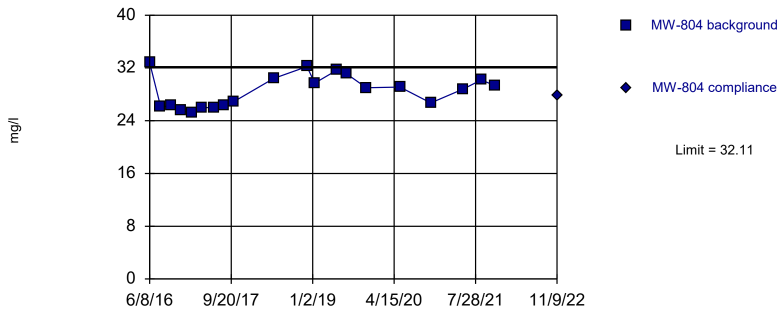
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=28.47, Std. Dev.=2.422, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9151, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CHLORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-801	MW-801
6/7/2016	118	
8/9/2016	111	
10/11/2016	117	
12/6/2016	116	
2/7/2017	113	
4/6/2017	111	
6/14/2017	103	
8/9/2017	116	
10/4/2017	118	
5/23/2018	97.1	
11/30/2018	92.9	
5/23/2019	89.4	
11/7/2019	92	
5/19/2020	91.4	
11/12/2020	95.2	
5/18/2021	98.7	
11/18/2021	96.2	
11/9/2022		94.7

Prediction Limit

Constituent: CHLORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-802	MW-802	
6/7/2016	37.9		
8/10/2016	37.5		
10/11/2016	36.3		
12/6/2016	37.4		
2/7/2017	37.1		
4/4/2017	37.4		
6/13/2017	36.4		
8/7/2017	35.6		
10/4/2017	36.4		
5/23/2018	37.5		
11/30/2018	35.9		
5/23/2019	34.2		
11/7/2019	33.8		
5/19/2020	36.2		
11/12/2020	34.5		
5/18/2021	37.7		
11/18/2021	39.6		
1/27/2022	36.3		
11/9/2022		40.6	
1/12/2023		40	1st verification
2/8/2023		36 (E)	2nd verification Eurofins

Prediction Limit

Constituent: CHLORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III
LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-803		MW-803	
6/9/2016	48.1			
8/12/2016	48.8			
10/13/2016	48.4			
12/6/2016	49.9			
2/8/2017	49.3			
4/7/2017	49.5			
6/13/2017	49.2			
8/9/2017	49.5			
10/4/2017	49.3			
5/23/2018	48.9			
11/30/2018	48.7			
5/23/2019	49.2			
11/7/2019	49.4			
5/19/2020	49.8			
11/12/2020	49.6			
5/18/2021	50.2			
7/21/2021	51.1			
8/30/2021	50.1			
11/18/2021	51			
1/27/2022	49			
3/3/2022	50.9 (i)	extra sample		
11/9/2022			50.8	
1/12/2023			50.2	1st verification
2/8/2023			50.5	2nd verification

Prediction Limit

Constituent: CHLORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-804	MW-804
6/8/2016	32.8	
8/10/2016	26.1	
10/11/2016	26.3	
12/7/2016	25.5	
2/7/2017	25.3	
4/4/2017	26	
6/13/2017	26	
8/8/2017	26.3	
10/5/2017	26.9	
5/23/2018	30.4	
11/30/2018	32.2	
1/14/2019	29.7	
5/23/2019	31.7	
7/17/2019	31.1	
11/7/2019	29	
5/19/2020	29.1	
11/12/2020	26.7	
5/18/2021	28.8	
8/30/2021	30.2	
11/18/2021	29.3	
11/9/2022		27.9

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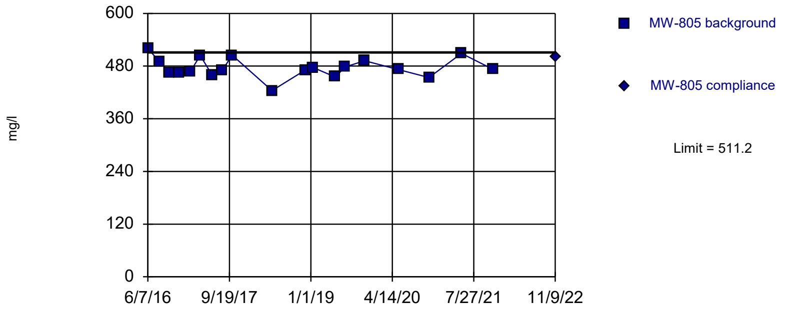
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=476.3, Std. Dev.=22.94, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9582, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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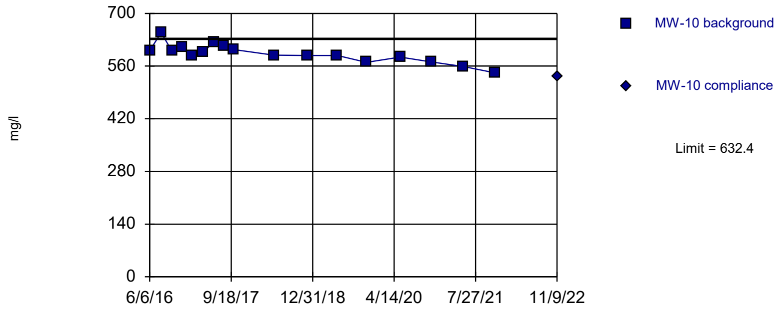
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=592.9, Std. Dev.=25.25, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9822, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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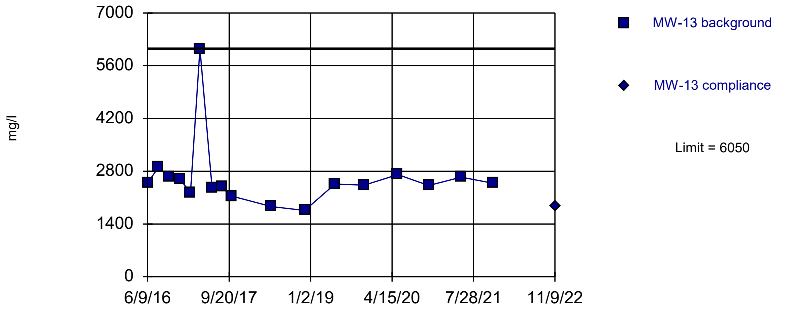
Within Limit

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 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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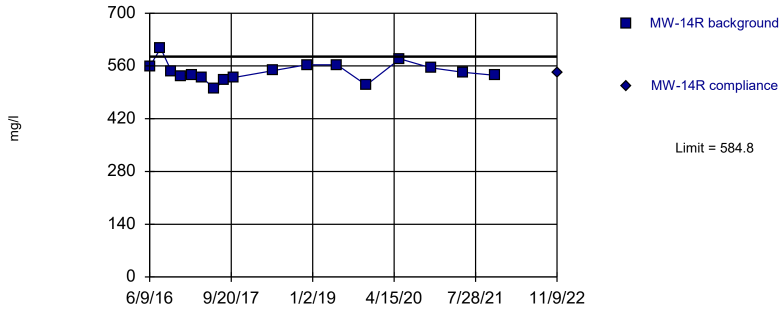
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=544.4, Std. Dev.=25.91, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9706, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CHLORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-805	MW-805
6/7/2016	520	
8/10/2016	491	
10/11/2016	466	
12/6/2016	464	
2/6/2017	467	
4/4/2017	504	
6/13/2017	459	
8/8/2017	470	
10/5/2017	505	
5/23/2018	424	
11/30/2018	471	
1/14/2019	477	
5/23/2019	455	
7/17/2019	478	
11/7/2019	492	
5/19/2020	472	
11/12/2020	454	
5/18/2021	509	
11/18/2021	472	
11/9/2022		502

Prediction Limit

Constituent: DISSOLVED SOLIDS (mg/l) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-10	MW-10
6/6/2016	601	
8/11/2016	649	
10/12/2016	600	
12/9/2016	612	
2/8/2017	587	
4/6/2017	596	
6/15/2017	625	
8/10/2017	615	
10/4/2017	604	
5/23/2018	589	
11/30/2018	588	
5/23/2019	588	
11/7/2019	570	
5/19/2020	584	
11/12/2020	571	
5/18/2021	559	
11/18/2021	542	
11/9/2022		533

Prediction Limit

Constituent: DISSOLVED SOLIDS (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-13	MW-13
6/9/2016	2490	
8/11/2016	2910	
10/13/2016	2640	
12/13/2016	2590	
2/10/2017	2220	
4/6/2017	6050	
6/15/2017	2350	
8/8/2017	2380	
10/5/2017	2140	
5/23/2018	1860	
11/30/2018	1760	
5/23/2019	2460	
11/7/2019	2430	
5/19/2020	2710	
11/12/2020	2420	
5/18/2021	2640	
11/18/2021	2480	
11/9/2022		1880

Prediction Limit

Constituent: DISSOLVED SOLIDS (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

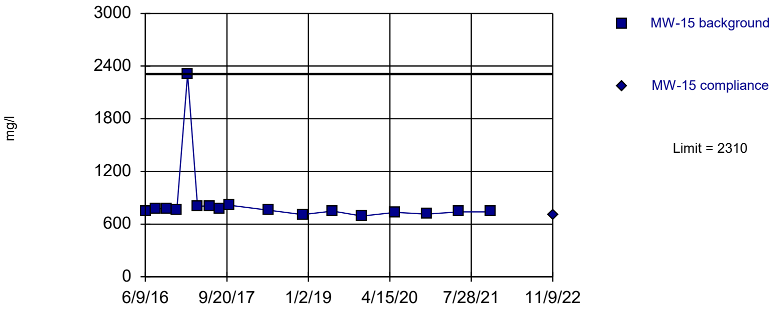
LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-14R	MW-14R
6/9/2016	559	
8/11/2016	607	
10/13/2016	545	
12/9/2016	533	
2/9/2017	536	
4/7/2017	530	
6/15/2017	499	
8/10/2017	521	
10/5/2017	529	
5/23/2018	548	
11/30/2018	563	
5/23/2019	563	
11/7/2019	509	
5/19/2020	579	
11/12/2020	555	
5/18/2021	543	
11/18/2021	535	
11/9/2022		543

Within Limit

Prediction Limit

Intrawell Non-parametric



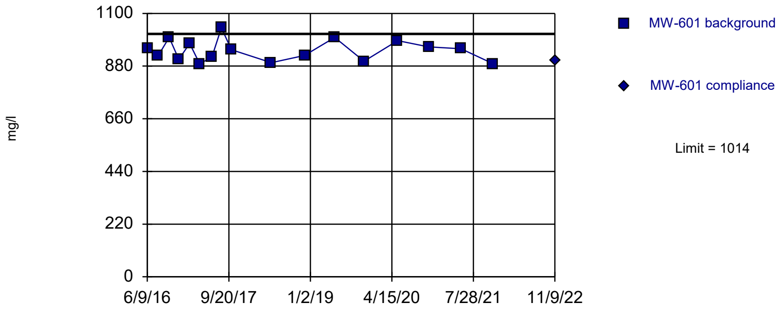
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 17 background values. Well-constituent pair annual alpha = 0.00182. Individual comparison alpha = 0.0009102 (1 of 3).

Constituent: DISSOLVED SOLIDS Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit

Intrawell Parametric



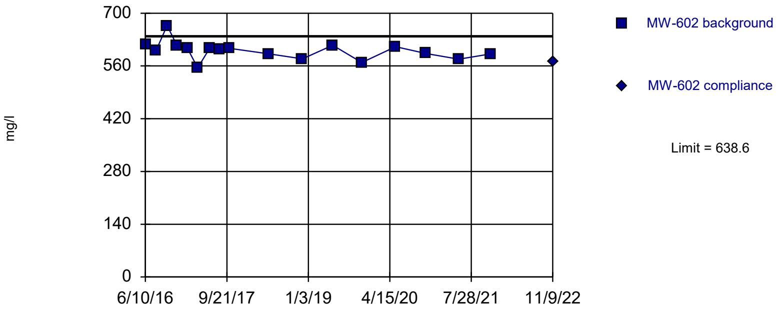
Background Data Summary: Mean=944.7, Std. Dev.=44.62, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.939, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit

Intrawell Parametric



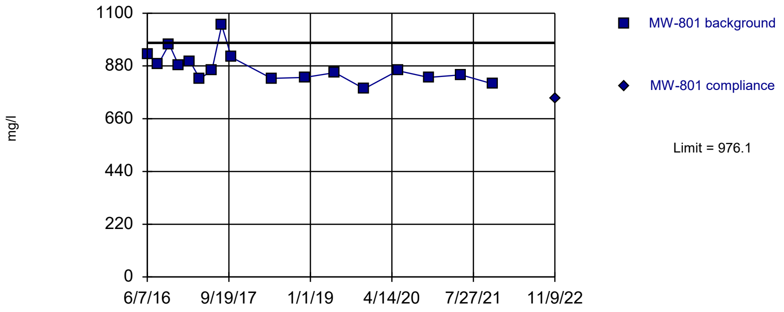
Background Data Summary: Mean=600.4, Std. Dev.=24.48, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9179, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=874.1, Std. Dev.=65.39, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9076, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 3/16/2023 10:52 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: DISSOLVED SOLIDS (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-15	MW-15
6/9/2016	751	
8/9/2016	777	
10/12/2016	772	
12/7/2016	767	
2/7/2017	2310	
4/5/2017	803	
6/14/2017	808	
8/10/2017	775	
10/3/2017	815	
5/23/2018	757	
11/30/2018	709	
5/23/2019	748	
11/7/2019	692	
5/19/2020	734	
11/12/2020	713	
5/18/2021	740	
11/18/2021	740	
11/9/2022		703

Prediction Limit

Constituent: DISSOLVED SOLIDS (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-601	MW-601
6/9/2016	956	
8/9/2016	922	
10/13/2016	1000	
12/7/2016	908	
2/8/2017	974	
4/6/2017	890	
6/15/2017	916	
8/9/2017	1040	
10/6/2017	948	
5/23/2018	894	
11/30/2018	924	
5/23/2019	1000	
11/7/2019	900	
5/19/2020	986	
11/12/2020	960	
5/18/2021	952	
11/18/2021	890	
11/9/2022		902

Prediction Limit

Constituent: DISSOLVED SOLIDS (mg/l) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-602	MW-602
6/10/2016	618	
8/9/2016	600	
10/13/2016	667	
12/9/2016	614	
2/8/2017	606	
4/7/2017	555	
6/15/2017	607	
8/10/2017	604	
10/5/2017	607	
5/23/2018	592	
11/30/2018	579	
5/23/2019	615	
11/7/2019	569	
5/19/2020	611	
11/12/2020	593	
5/18/2021	578	
11/18/2021	592	
11/9/2022		571

Prediction Limit

Constituent: DISSOLVED SOLIDS (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-801	MW-801
6/7/2016	930	
8/9/2016	888	
10/11/2016	970	
12/6/2016	880	
2/7/2017	900	
4/6/2017	826	
6/14/2017	862	
8/9/2017	1050	
10/4/2017	916	
5/23/2018	828	
11/30/2018	832	
5/23/2019	852	
11/7/2019	785	
5/19/2020	860	
11/12/2020	832	
5/18/2021	843	
11/18/2021	805	
11/9/2022		746

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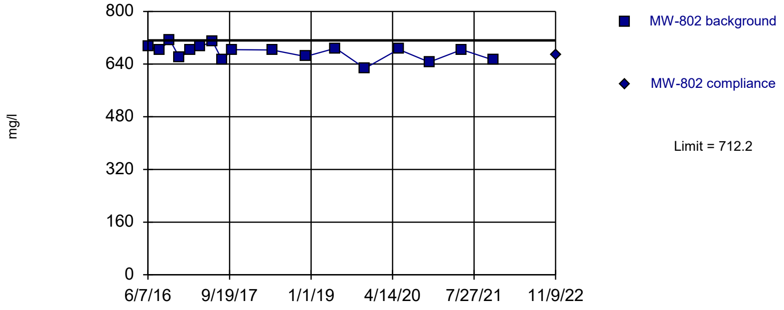
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=676.4, Std. Dev.=22.98, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9449, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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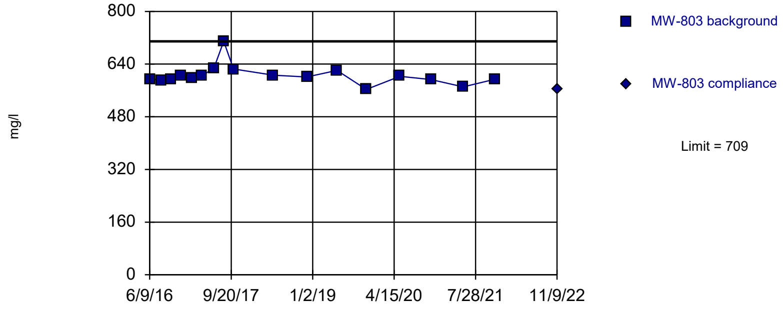
Within Limit

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 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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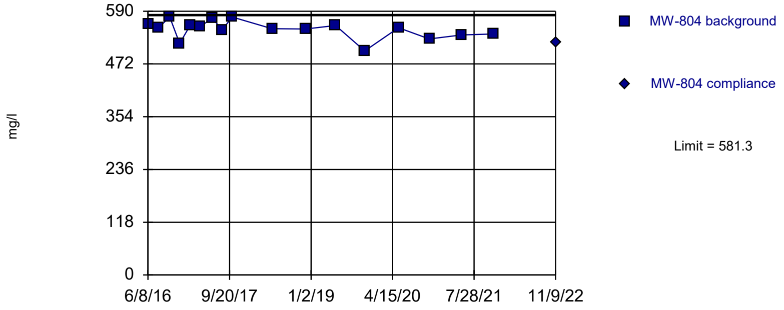
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=549.5, Std. Dev.=20.34, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.933, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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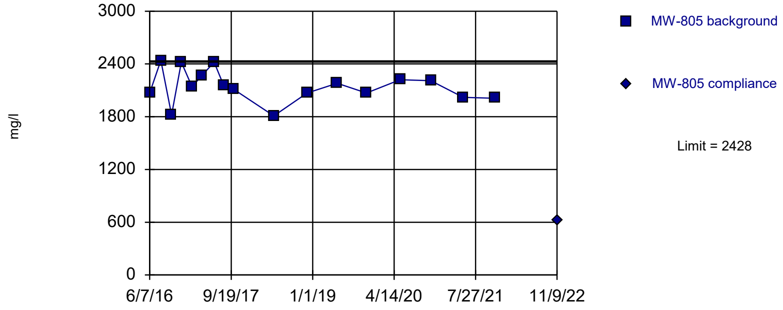
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2143, Std. Dev.=182.8, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9453, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: DISSOLVED SOLIDS (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-802	MW-802
6/7/2016	695	
8/10/2016	681	
10/11/2016	713	
12/6/2016	659	
2/7/2017	683	
4/4/2017	693	
6/13/2017	709	
8/7/2017	653	
10/4/2017	684	
5/23/2018	683	
11/30/2018	663	
5/23/2019	688	
11/7/2019	627	
5/19/2020	685	
11/12/2020	646	
5/18/2021	684	
11/18/2021	652	
11/9/2022		667

Prediction Limit

Constituent: DISSOLVED SOLIDS (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III
LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-803	MW-803
6/9/2016	594	
8/12/2016	591	
10/13/2016	592	
12/6/2016	603	
2/8/2017	599	
4/7/2017	605	
6/13/2017	627	
8/9/2017	709	
10/4/2017	625	
5/23/2018	606	
11/30/2018	601	
5/23/2019	621	
11/7/2019	563	
5/19/2020	603	
11/12/2020	593	
5/18/2021	571	
11/18/2021	594	
11/9/2022		564

Prediction Limit

Constituent: DISSOLVED SOLIDS (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-804	MW-804
6/8/2016	562	
8/10/2016	554	
10/11/2016	577	
12/7/2016	518	
2/7/2017	559	
4/4/2017	555	
6/13/2017	575	
8/8/2017	548	
10/5/2017	577	
5/23/2018	551	
11/30/2018	550	
5/23/2019	558	
11/7/2019	501	
5/19/2020	553	
11/12/2020	528	
5/18/2021	537	
11/18/2021	539	
11/9/2022		521

Prediction Limit

Constituent: DISSOLVED SOLIDS (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III
LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-805	MW-805
6/7/2016	2070	
8/10/2016	2440	
10/11/2016	1820	
12/6/2016	2420	
2/6/2017	2140	
4/4/2017	2270	
6/13/2017	2420	
8/8/2017	2150	
10/5/2017	2110	
5/23/2018	1810	
11/30/2018	2070	
5/23/2019	2180	
11/7/2019	2070	
5/19/2020	2220	
11/12/2020	2210	
5/18/2021	2020	
11/18/2021	2010	
11/9/2022		619

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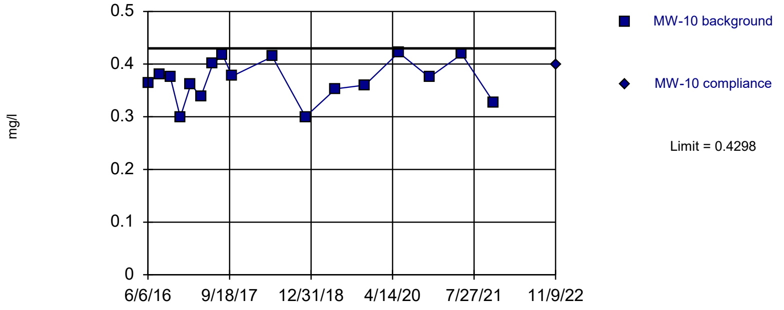
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.3697, Std. Dev.=0.0385, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9368, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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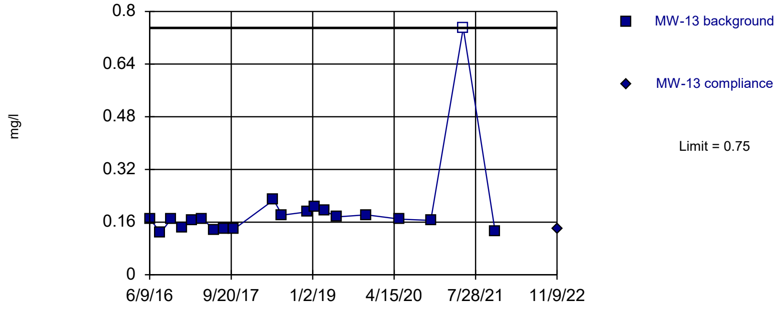
Hollow symbols indicate censored values.

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. 5% NDs. Well-constituent pair annual alpha = 0.001125. Individual comparison alpha = 0.0005627 (1 of 3).

Constituent: FLUORIDE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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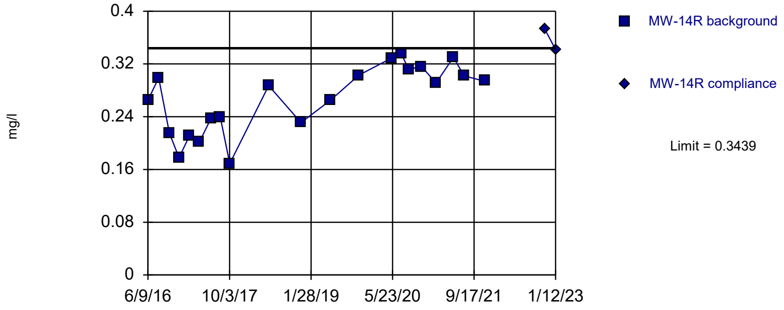
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2671, Std. Dev.=0.05146, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9327, critical = 0.873. Kappa = 1.491 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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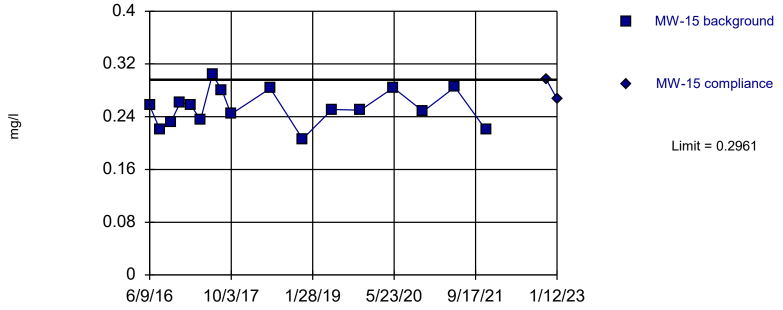
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2541, Std. Dev.=0.02691, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.973, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: FLUORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-10	MW-10
6/6/2016	0.365	
8/11/2016	0.38	
10/12/2016	0.376	
12/9/2016	0.299	
2/8/2017	0.362	
4/6/2017	0.338	
6/15/2017	0.401	
8/10/2017	0.417	
10/4/2017	0.377	
5/23/2018	0.414	
11/30/2018	0.3	
5/23/2019	0.353	
11/7/2019	0.36	
5/19/2020	0.422	
11/12/2020	0.375	
5/18/2021	0.419	
11/18/2021	0.327	
11/9/2022		0.4

Prediction Limit

Constituent: FLUORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-13	MW-13
6/9/2016	0.17	
8/11/2016	0.128	
10/13/2016	0.171	
12/13/2016	0.142	
2/10/2017	0.167	
4/6/2017	0.171	
6/15/2017	0.137	
8/8/2017	0.139	
10/5/2017	0.138	
5/23/2018	0.227	
7/11/2018	0.181	
11/30/2018	0.191	
1/14/2019	0.208	
3/11/2019	0.194	
5/23/2019	0.176	
11/7/2019	0.182	
5/19/2020	0.169	
11/12/2020	0.165	
5/18/2021	<1.5	
11/18/2021	0.132	
11/9/2022		0.14

ND substitution: RL/2.

Prediction Limit

Constituent: FLUORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-14R	MW-14R	
6/9/2016	0.265		
8/11/2016	0.299		
10/13/2016	0.215		
12/9/2016	0.178		
2/9/2017	0.211		
4/7/2017	0.201		
6/15/2017	0.237		
8/10/2017	0.239		
10/5/2017	0.169		
5/23/2018	0.287		
11/30/2018	0.231		
5/23/2019	0.265		
11/7/2019	0.303		
5/19/2020	0.329		
7/13/2020	0.336		
8/27/2020	0.312		
11/12/2020	0.316		
2/4/2021	0.291		
5/18/2021	0.33		
7/21/2021	0.302		
11/18/2021	0.294		
11/9/2022		0.373	
1/12/2023		0.342	1st verification

Prediction Limit

Constituent: FLUORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-15	MW-15	
6/9/2016	0.257		
8/9/2016	0.22		
10/12/2016	0.232		
12/7/2016	0.262		
2/7/2017	0.258		
4/5/2017	0.235		
6/14/2017	0.304		
8/10/2017	0.28		
10/3/2017	0.244		
5/23/2018	0.283		
11/30/2018	0.206		
5/23/2019	0.251		
11/7/2019	0.25		
5/19/2020	0.284		
11/12/2020	0.248		
5/18/2021	0.285		
11/18/2021	0.22		
11/9/2022		0.297	
1/12/2023		0.267	1st verification

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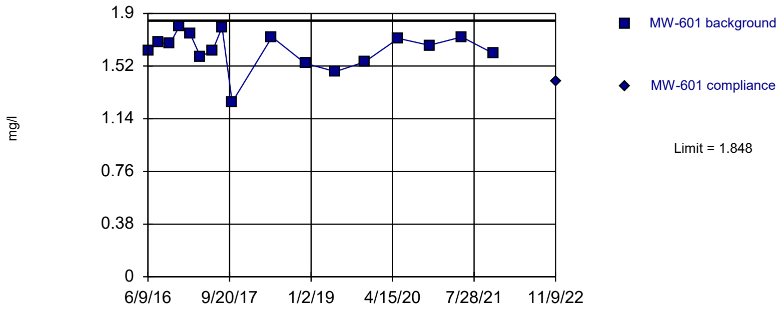
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.639, Std. Dev.=0.1337, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8983, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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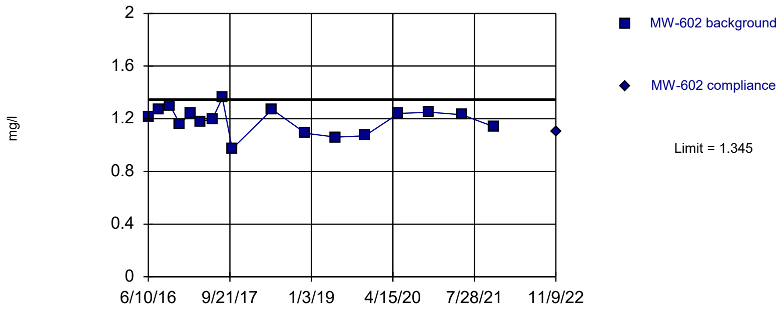
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.191, Std. Dev.=0.099, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9648, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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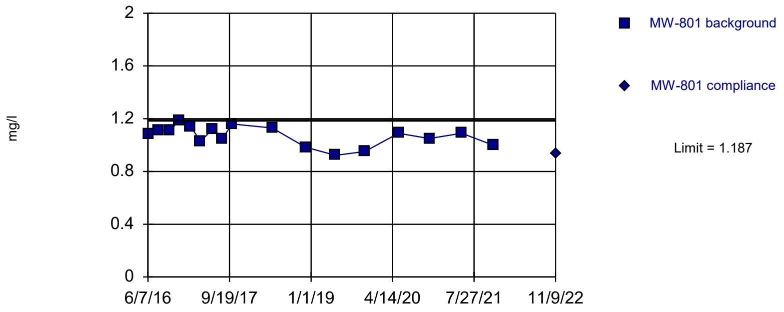
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.071, Std. Dev.=0.07449, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.965, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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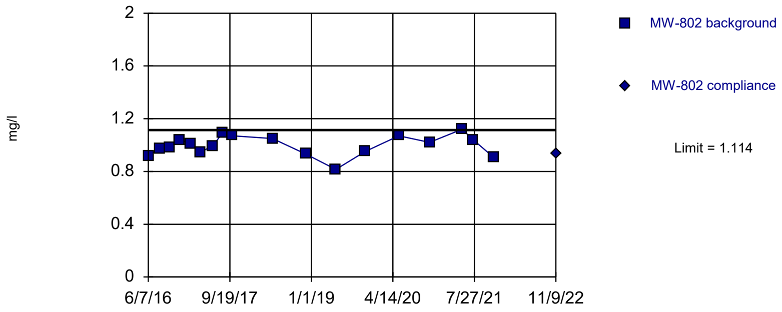
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.9963, Std. Dev.=0.07611, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9747, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: FLUORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-601	MW-601
6/9/2016	1.63	
8/9/2016	1.69	
10/13/2016	1.68	
12/7/2016	1.81	
2/8/2017	1.75	
4/6/2017	1.59	
6/15/2017	1.63	
8/9/2017	1.8	
10/6/2017	1.26	
5/23/2018	1.73	
11/30/2018	1.54	
5/23/2019	1.48	
11/7/2019	1.55	
5/19/2020	1.72	
11/12/2020	1.67	
5/18/2021	1.73	
11/18/2021	1.61	
11/9/2022		1.41

Prediction Limit

Constituent: FLUORIDE (mg/l) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-602	MW-602
6/10/2016	1.21	
8/9/2016	1.27	
10/13/2016	1.3	
12/9/2016	1.16	
2/8/2017	1.24	
4/7/2017	1.18	
6/15/2017	1.2	
8/10/2017	1.36	
10/5/2017	0.972	
5/23/2018	1.27	
11/30/2018	1.09	
5/23/2019	1.06	
11/7/2019	1.07	
5/19/2020	1.24	
11/12/2020	1.25	
5/18/2021	1.23	
11/18/2021	1.14	
11/9/2022		1.1

Prediction Limit

Constituent: FLUORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-801	MW-801
6/7/2016	1.08	
8/9/2016	1.11	
10/11/2016	1.11	
12/6/2016	1.19	
2/7/2017	1.14	
4/6/2017	1.03	
6/14/2017	1.12	
8/9/2017	1.05	
10/4/2017	1.16	
5/23/2018	1.13	
11/30/2018	0.984	
5/23/2019	0.922	
11/7/2019	0.951	
5/19/2020	1.09	
11/12/2020	1.05	
5/18/2021	1.09	
11/18/2021	0.997	
11/9/2022		0.932

Prediction Limit

Constituent: FLUORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-802	MW-802
6/7/2016	0.92	
8/10/2016	0.972	
10/11/2016	0.986	
12/6/2016	1.04	
2/7/2017	1.01	
4/4/2017	0.947	
6/13/2017	0.995	
8/7/2017	1.09	
10/4/2017	1.07	
5/23/2018	1.05	
11/30/2018	0.932	
5/23/2019	0.816	
11/7/2019	0.952	
5/19/2020	1.07	
11/12/2020	1.02	
5/18/2021	1.12	
7/21/2021	1.04	
11/18/2021	0.904	
11/9/2022		0.936

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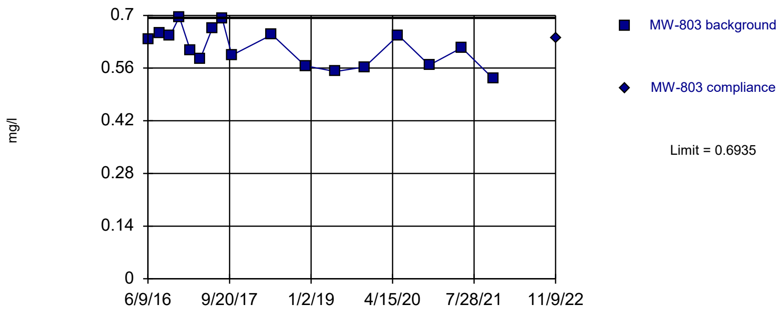
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.6155, Std. Dev.=0.04995, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9575, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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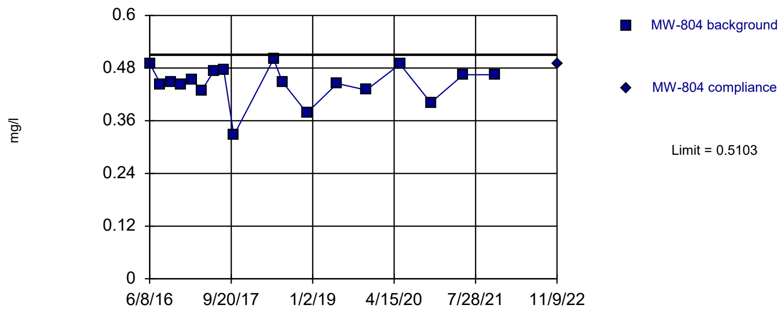
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.4447, Std. Dev.=0.04251, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8955, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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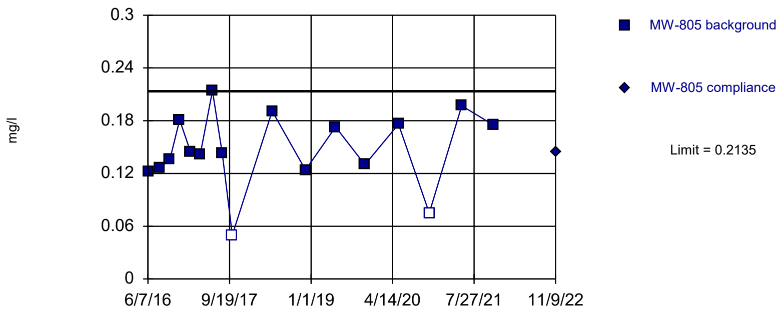
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1471, Std. Dev.=0.04259, n=17, 11.76% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9456, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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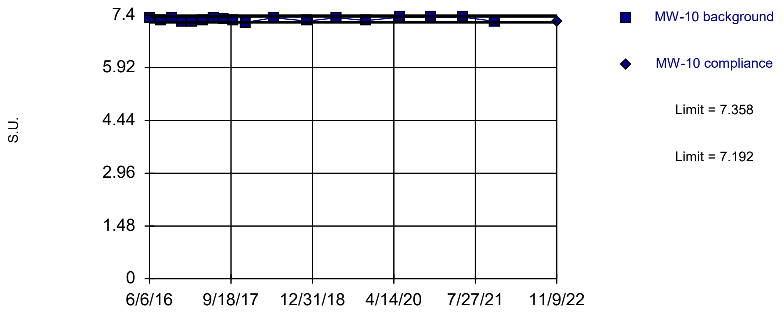
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.275, Std. Dev.=0.05382, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8671, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: FLUORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-803	MW-803
6/9/2016	0.636	
8/12/2016	0.653	
10/13/2016	0.645	
12/6/2016	0.696	
2/8/2017	0.607	
4/7/2017	0.586	
6/13/2017	0.665	
8/9/2017	0.693	
10/4/2017	0.594	
5/23/2018	0.649	
11/30/2018	0.566	
5/23/2019	0.551	
11/7/2019	0.563	
5/19/2020	0.647	
11/12/2020	0.568	
5/18/2021	0.614	
11/18/2021	0.531	
11/9/2022		0.641

Prediction Limit

Constituent: FLUORIDE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-804	MW-804
6/8/2016	0.491	
8/10/2016	0.443	
10/11/2016	0.448	
12/7/2016	0.441	
2/7/2017	0.453	
4/4/2017	0.429	
6/13/2017	0.474	
8/8/2017	0.476	
10/5/2017	0.327	
5/23/2018	0.501	
7/11/2018	0.449	
11/30/2018	0.378	
5/23/2019	0.445	
11/7/2019	0.43	
5/19/2020	0.489	
11/12/2020	0.401	
5/18/2021	0.465	
11/18/2021	0.465	
11/9/2022		0.489

Prediction Limit

Constituent: FLUORIDE (mg/l) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-805	MW-805
6/7/2016	0.122	
8/10/2016	0.126	
10/11/2016	0.136	
12/6/2016	0.181	
2/6/2017	0.145	
4/4/2017	0.142	
6/13/2017	0.214	
8/8/2017	0.143	
10/5/2017	<0.1	
5/23/2018	0.191	
11/30/2018	0.124	
5/23/2019	0.173	
11/7/2019	0.13	
5/19/2020	0.176	
11/12/2020	<0.15	
5/18/2021	0.197	
11/18/2021	0.175	
11/9/2022		0.144

ND substitution: RL/2.

Prediction Limit

Constituent: pH (S.U.)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-10	MW-10
6/6/2016	7.33	
8/11/2016	7.26	
10/12/2016	7.33	
12/9/2016	7.22	
2/8/2017	7.21	
4/6/2017	7.23	
6/15/2017	7.31	
8/10/2017	7.29	
10/4/2017	7.23	
12/12/2017	7.19	
5/23/2018	7.32	
11/30/2018	7.23	
5/23/2019	7.32	
11/7/2019	7.24	
5/19/2020	7.34	
11/12/2020	7.34	
5/18/2021	7.34	
11/18/2021	7.22	
11/9/2022		7.22

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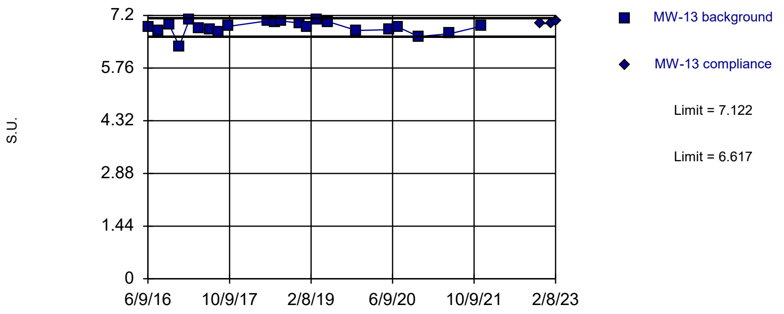
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.87, Std. Dev.=0.1706, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9044, critical = 0.878. Kappa = 1.48 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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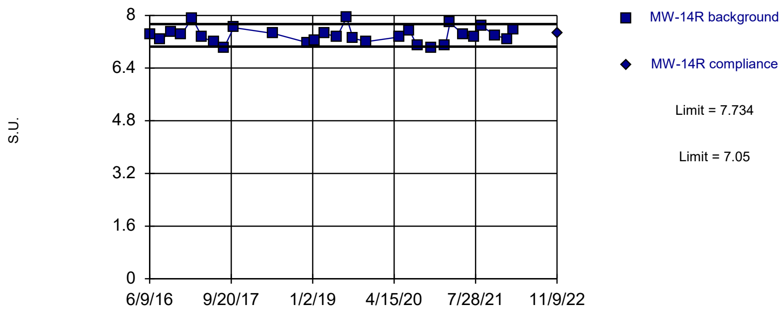
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.392, Std. Dev.=0.2405, n=29. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9552, critical = 0.898. Kappa = 1.422 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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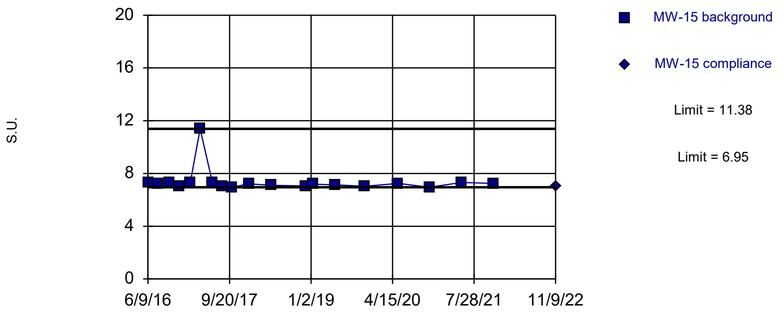
Within Limits

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 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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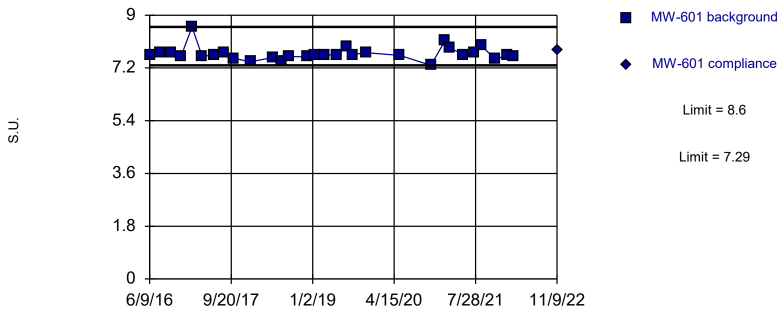
Within Limits

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 30 background values. Well-constituent pair annual alpha = 0.0007322. Individual comparison alpha = 0.0003661 (1 of 3).

Constituent: pH Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: pH (S.U.)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-13	MW-13	
6/9/2016	6.88		
8/11/2016	6.78		
10/13/2016	6.95		
12/13/2016	6.36		
2/10/2017	7.08		
4/6/2017	6.86		
6/15/2017	6.8		
8/8/2017	6.74		
10/5/2017	6.9		
5/23/2018	7.05		
7/11/2018	7.02		
8/16/2018	7.05		
11/30/2018	6.99		
1/14/2019	6.87		
3/11/2019	7.07		
5/23/2019	7.03		
11/7/2019	6.79		
5/19/2020	6.81		
7/13/2020	6.88		
11/12/2020	6.62		
5/18/2021	6.7		
11/18/2021	6.9		
11/9/2022		6.97	
1/12/2023		6.98	extra sample
2/8/2023		7.06	extra sample

Prediction Limit

Constituent: pH (S.U.)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-14R	MW-14R	
6/9/2016	7.42		
8/11/2016	7.26		
10/13/2016	7.51		
12/9/2016	7.42		
2/9/2017	7.92		
4/7/2017	7.34		
6/15/2017	7.19		
8/10/2017	7.01		
10/5/2017	7.63		
5/23/2018	7.45		
11/30/2018	7.18		
1/14/2019	7.25		
3/11/2019	7.45		
5/23/2019	7.35		
7/17/2019	7.94		
8/23/2019	7.31		
11/7/2019	7.2		
5/19/2020	7.35		
7/13/2020	7.54		
8/27/2020	7.07		
11/12/2020	7.01		
2/4/2021	7.09		
3/3/2021	7.78		
5/18/2021	7.42		
7/21/2021	7.36		
8/30/2021	7.69		
11/18/2021	7.39		
1/27/2022	7.29		
3/3/2022	7.56		
11/9/2022		7.47	
1/12/2023		7.04 (i)	extra sample

Prediction Limit

Constituent: pH (S.U.) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-15	MW-15	
6/9/2016	7.31		
8/9/2016	7.23		
10/12/2016	7.28		
12/7/2016	7.02		
2/7/2017	7.28		
4/5/2017	11.38		
6/14/2017	7.34		
8/10/2017	7.02		
10/3/2017	6.95		
1/9/2018	7.21		
5/23/2018	7.1		
11/30/2018	7.05		
1/14/2019	7.18		
5/23/2019	7.14		
11/7/2019	7.03		
5/19/2020	7.25		
11/12/2020	6.95		
5/18/2021	7.32		
11/18/2021	7.25		
11/9/2022		6.98	
1/12/2023		6.92 (i)	extra sample

Prediction Limit

Constituent: pH (S.U.) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-601	MW-601
6/9/2016	7.66	
8/9/2016	7.72	
10/13/2016	7.71	
12/7/2016	7.61	
2/8/2017	8.6	
4/6/2017	7.61	
6/15/2017	7.62	
8/9/2017	7.72	
10/6/2017	7.53	
1/9/2018	7.41	
5/23/2018	7.56	
7/11/2018	7.43	
8/16/2018	7.59	
11/30/2018	7.58	
1/14/2019	7.63	
3/11/2019	7.64	
5/23/2019	7.65	
7/17/2019	7.95	
8/23/2019	7.66	
11/7/2019	7.72	
5/19/2020	7.63	
11/12/2020	7.29	
2/4/2021	8.14	
3/3/2021	7.88	
5/18/2021	7.66	
7/21/2021	7.73	
8/30/2021	7.96	
11/18/2021	7.5	
1/27/2022	7.63	
3/3/2022	7.6	
11/9/2022		7.82

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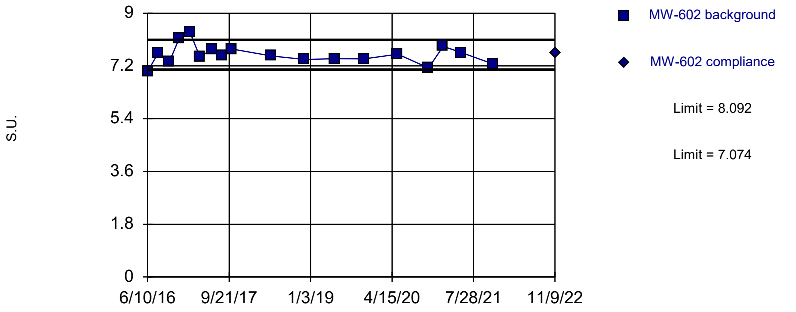
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.583, Std. Dev.=0.3302, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9633, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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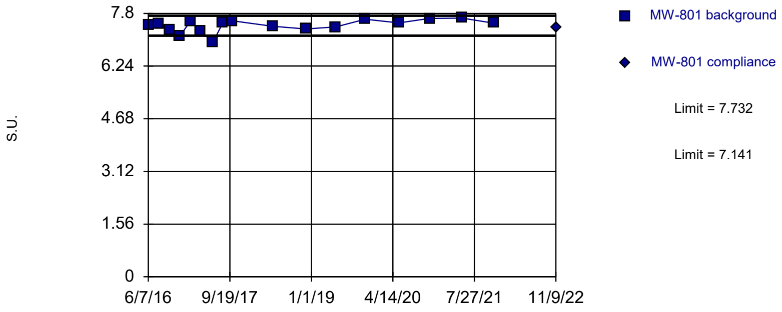
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.436, Std. Dev.=0.1896, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9092, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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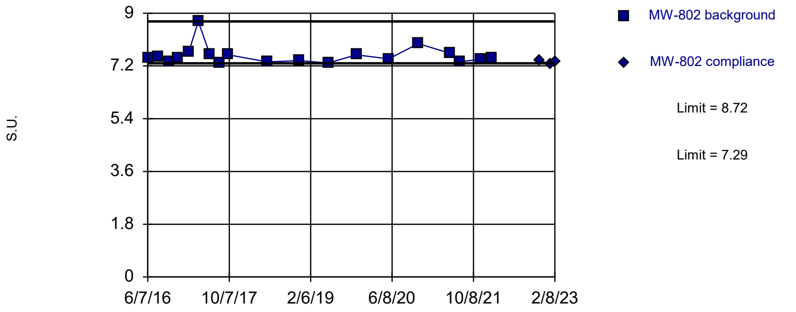
Within Limits

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 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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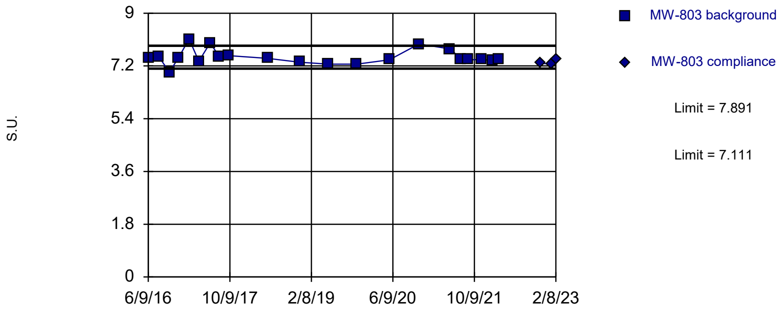
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.501, Std. Dev.=0.2615, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8827, critical = 0.873. Kappa = 1.491 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: pH (S.U.)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-602	MW-602
6/10/2016	7.01	
8/9/2016	7.64	
10/13/2016	7.34	
12/9/2016	8.15	
2/8/2017	8.36	
4/7/2017	7.51	
6/15/2017	7.77	
8/10/2017	7.56	
10/5/2017	7.78	
5/23/2018	7.54	
11/30/2018	7.42	
5/23/2019	7.45	
11/7/2019	7.44	
5/19/2020	7.6	
11/12/2020	7.13	
2/4/2021	7.87	
5/18/2021	7.66	
11/18/2021	7.27	
11/9/2022		7.64

Prediction Limit

Constituent: pH (S.U.) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-801	MW-801
6/7/2016	7.47	
8/9/2016	7.48	
10/11/2016	7.32	
12/6/2016	7.14	
2/7/2017	7.58	
4/6/2017	7.26	
6/14/2017	6.95	
8/9/2017	7.51	
10/4/2017	7.58	
5/23/2018	7.42	
11/30/2018	7.34	
5/23/2019	7.4	
11/7/2019	7.63	
5/19/2020	7.52	
11/12/2020	7.65	
5/18/2021	7.66	
11/18/2021	7.51	
11/9/2022		7.39

Prediction Limit

Constituent: pH (S.U.)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-802	MW-802	
6/7/2016	7.46		
8/10/2016	7.52		
10/11/2016	7.34		
12/6/2016	7.48		
2/7/2017	7.67		
4/5/2017	8.72		
6/13/2017	7.6		
8/7/2017	7.29		
10/4/2017	7.58		
5/23/2018	7.34		
11/30/2018	7.38		
5/23/2019	7.3		
11/7/2019	7.58		
5/19/2020	7.44		
11/12/2020	7.96		
5/18/2021	7.64		
7/21/2021	7.35		
11/18/2021	7.42		
1/27/2022	7.46		
11/9/2022		7.39	
1/12/2023		7.27	extra sample
2/8/2023		7.34	extra sample

Prediction Limit

Constituent: pH (S.U.)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-803	MW-803	
6/9/2016	7.48		
8/12/2016	7.51		
10/13/2016	6.99		
12/6/2016	7.48		
2/8/2017	8.12		
4/7/2017	7.36		
6/13/2017	7.98		
8/8/2017	7.52		
10/4/2017	7.55		
5/23/2018	7.46		
11/30/2018	7.33		
5/23/2019	7.26		
11/7/2019	7.26		
5/19/2020	7.41		
11/12/2020	7.95		
5/18/2021	7.78		
7/21/2021	7.44		
8/30/2021	7.41		
11/18/2021	7.42		
1/27/2022	7.39		
3/3/2022	7.43		
11/9/2022		7.29	
1/12/2023		7.27	extra sample
2/8/2023		7.43	extra sample

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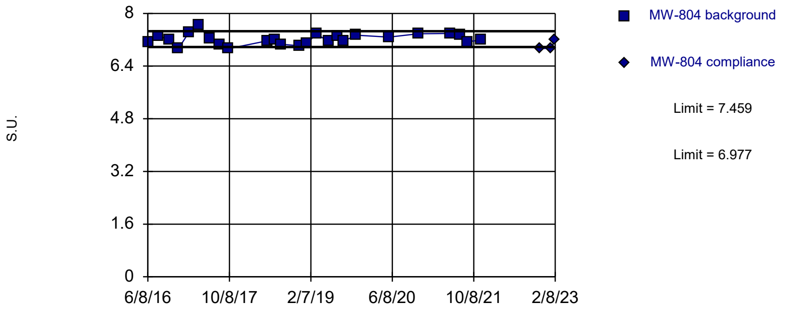
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.218, Std. Dev.=0.1662, n=25. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9671, critical = 0.888. Kappa = 1.448 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 3/16/2023 10:53 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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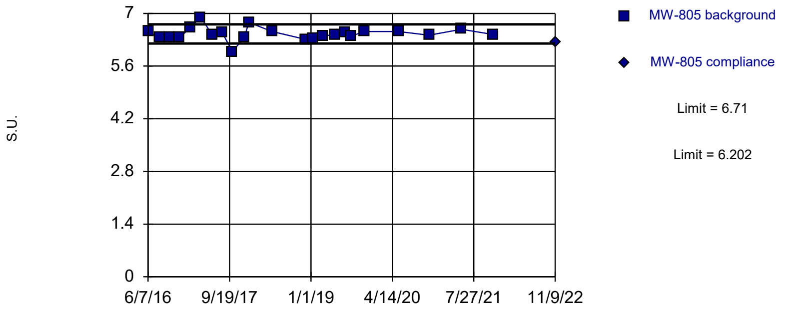
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.456, Std. Dev.=0.1728, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9122, critical = 0.881. Kappa = 1.47 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 3/16/2023 10:53 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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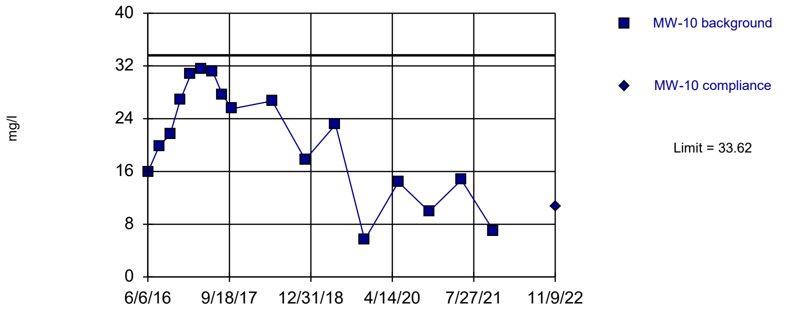
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=20.59, Std. Dev.=8.347, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9412, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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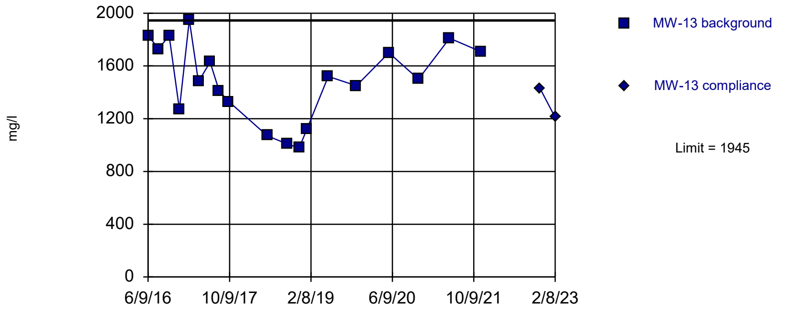
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1491, Std. Dev.=298.5, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9465, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: pH (S.U.) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-804	MW-804	
6/8/2016	7.13		
8/10/2016	7.32		
10/11/2016	7.2		
12/7/2016	6.93		
2/7/2017	7.41		
4/5/2017	7.65		
6/13/2017	7.22		
8/8/2017	7.06		
10/5/2017	6.93		
5/23/2018	7.17		
7/11/2018	7.21		
8/16/2018	7.06		
11/30/2018	7.02		
1/14/2019	7.07		
3/11/2019	7.38		
5/23/2019	7.15		
7/17/2019	7.31		
8/22/2019	7.16		
11/7/2019	7.34		
5/19/2020	7.28		
11/12/2020	7.38		
5/18/2021	7.39		
7/21/2021	7.35		
8/30/2021	7.14		
11/18/2021	7.19		
11/9/2022		6.93	
1/12/2023		6.94	1st verification
2/8/2023		7.2	2nd verification

Prediction Limit

Constituent: pH (S.U.)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-805	MW-805
6/7/2016	6.52	
8/10/2016	6.35	
10/11/2016	6.36	
12/6/2016	6.36	
2/6/2017	6.62	
4/5/2017	6.9	
6/13/2017	6.43	
8/8/2017	6.49	
10/5/2017	5.99	
12/12/2017	6.35	
1/9/2018	6.76	
5/23/2018	6.52	
11/30/2018	6.31	
1/14/2019	6.32	
3/11/2019	6.4	
5/23/2019	6.44	
7/17/2019	6.48	
8/22/2019	6.4	
11/7/2019	6.52	
5/19/2020	6.52	
11/12/2020	6.42	
5/18/2021	6.58	
11/18/2021	6.44	
11/9/2022		6.25

Prediction Limit

Constituent: SULFATE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-10	MW-10
6/6/2016	15.9	
8/11/2016	19.9	
10/12/2016	21.6	
12/9/2016	26.8	
2/8/2017	30.7	
4/6/2017	31.6	
6/15/2017	31.1	
8/10/2017	27.6	
10/4/2017	25.5	
5/23/2018	26.7	
11/30/2018	17.8	
5/23/2019	23.1	
11/7/2019	5.64	
5/19/2020	14.4	
11/12/2020	9.92	
5/18/2021	14.7	
11/18/2021	7.03	
11/9/2022		10.7

Prediction Limit

Constituent: SULFATE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-13	MW-13	
6/9/2016	1830		
8/11/2016	1730		
10/13/2016	1830		
12/13/2016	1270		
2/10/2017	1950		
4/6/2017	1480		
6/15/2017	1630		
8/8/2017	1410		
10/5/2017	1330		
5/23/2018	1070		
9/17/2018	1010		
11/30/2018	978		
1/14/2019	1120		
5/23/2019	1520		
11/7/2019	1450		
5/19/2020	1700		
11/12/2020	1500		
5/18/2021	1810		
11/18/2021	1710		
11/9/2022		1430	
2/8/2023		1210	extra sample

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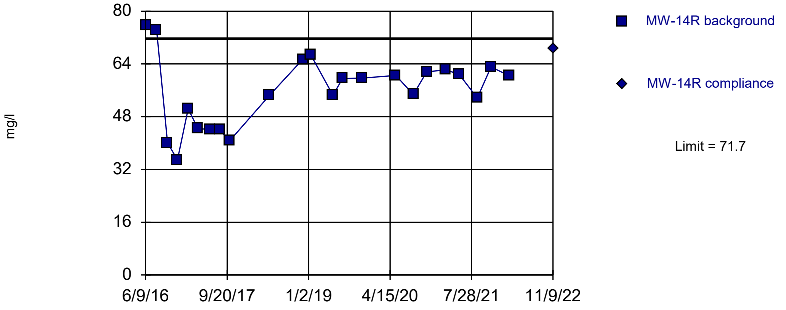
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=55.92, Std. Dev.=10.73, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9616, critical = 0.881. Kappa = 1.47 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

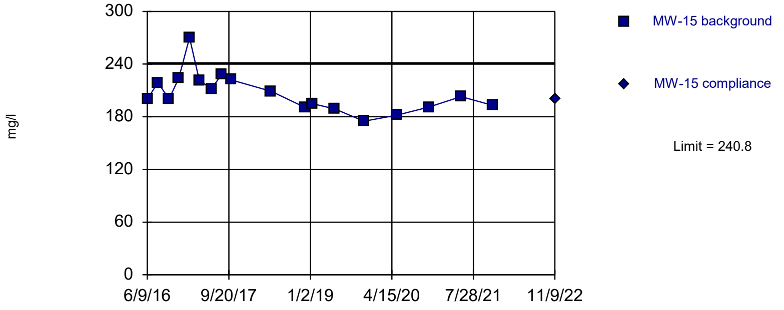
Constituent: SULFATE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=206.9, Std. Dev.=22.01, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9067, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

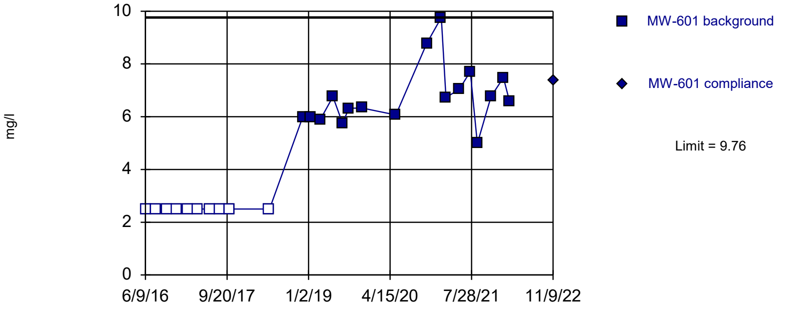
Constituent: SULFATE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

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 27 background values. 37.04% NDs. Well-constituent pair annual alpha = 0.0005119. Individual comparison alpha = 0.000256 (1 of 3).

Constituent: SULFATE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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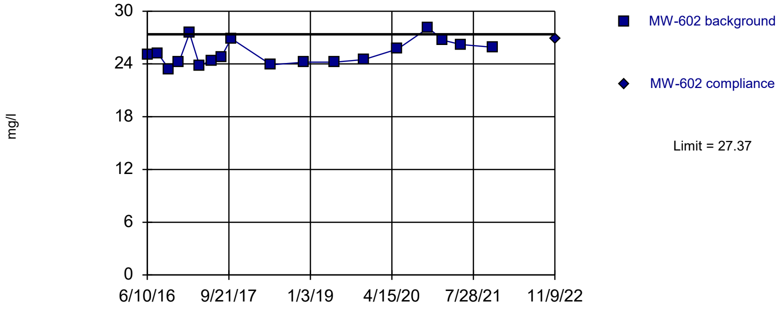
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=25.26, Std. Dev.=1.366, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9342, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: SULFATE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-14R	MW-14R
6/9/2016	75.8	
8/11/2016	74.2	
10/13/2016	40.1	
12/9/2016	34.9	
2/9/2017	50.4	
4/7/2017	44.3	
6/15/2017	44.2	
8/10/2017	44	
10/5/2017	40.7	
5/23/2018	54.5	
11/30/2018	65.4	
1/14/2019	66.9	
5/23/2019	54.5	
7/17/2019	59.6	
11/7/2019	59.7	
5/19/2020	60.5	
8/27/2020	54.7	
11/12/2020	61.6	
3/3/2021	62.2	
5/18/2021	60.8	
8/30/2021	53.7	
11/18/2021	63.1	
3/3/2022	60.4	
11/9/2022		68.5

Prediction Limit

Constituent: SULFATE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-15	MW-15
6/9/2016	200	
8/9/2016	219	
10/12/2016	200	
12/7/2016	224	
2/7/2017	270	
4/5/2017	221	
6/14/2017	212	
8/10/2017	228	
10/3/2017	222	
5/23/2018	209	
11/30/2018	191	
1/14/2019	195	
5/23/2019	189	
11/7/2019	175	
5/19/2020	182	
11/12/2020	191	
5/18/2021	203	
11/18/2021	193	
11/9/2022		200

Prediction Limit

Constituent: SULFATE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-601	MW-601
6/9/2016	<5	
8/9/2016	<5	
10/13/2016	<5	
12/7/2016	<5	
2/8/2017	<5	
4/6/2017	<5	
6/15/2017	<5	
8/9/2017	<5	
10/6/2017	<5	
5/23/2018	<5	
11/30/2018	5.98	
1/14/2019	5.97	
3/11/2019	5.89	
5/23/2019	6.76	
7/17/2019	5.75	
8/23/2019	6.32	
11/7/2019	6.33	
5/19/2020	6.07	
11/12/2020	8.78	
2/4/2021	9.76	
3/3/2021	6.73	
5/18/2021	7.04	
7/21/2021	7.71	
8/30/2021	4.98	
11/18/2021	6.77	
1/27/2022	7.48	
3/3/2022	6.58	
11/9/2022		7.35

ND substitution: RL/2.

Prediction Limit

Constituent: SULFATE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-602	MW-602
6/10/2016	25.1	
8/9/2016	25.2	
10/13/2016	23.4	
12/9/2016	24.2	
2/8/2017	27.5	
4/7/2017	23.8	
6/15/2017	24.4	
8/10/2017	24.8	
10/5/2017	26.9	
5/23/2018	23.9	
11/30/2018	24.2	
5/23/2019	24.2	
11/7/2019	24.5	
5/19/2020	25.7	
11/12/2020	28.1	
2/4/2021	26.7	
5/18/2021	26.2	
11/18/2021	25.9	
11/9/2022		26.8

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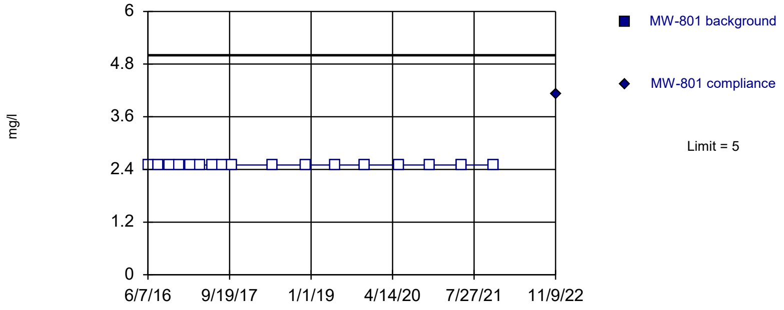
Hollow symbols indicate censored values.

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).

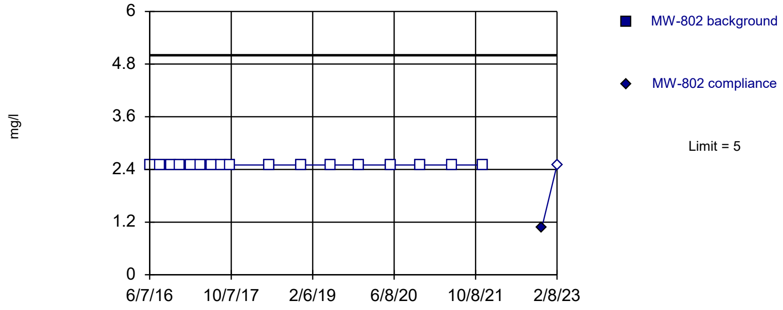
Constituent: SULFATE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

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 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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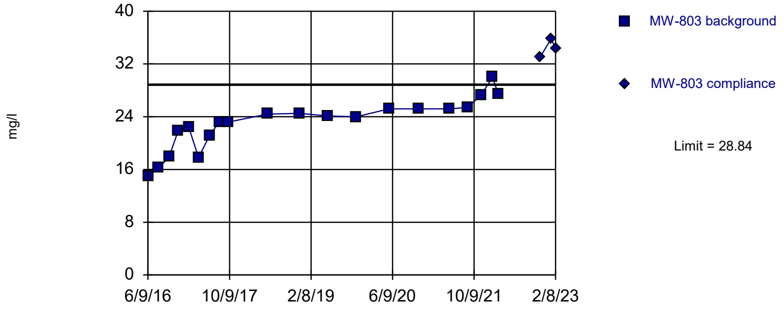
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=23.07, Std. Dev.=3.844, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9364, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

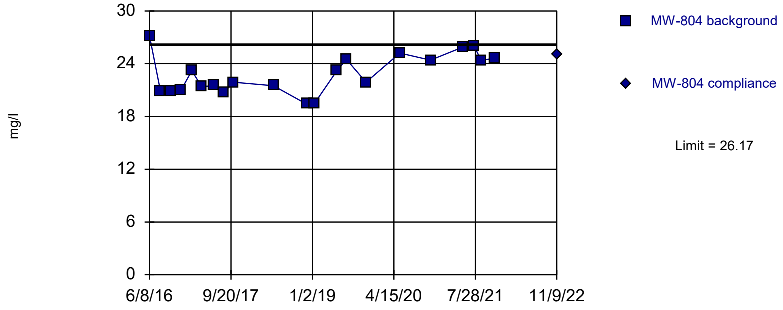
Constituent: SULFATE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=22.82, Std. Dev.=2.245, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.945, critical = 0.873. Kappa = 1.491 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: SULFATE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-801	MW-801
6/7/2016	<5	
8/9/2016	<5	
10/11/2016	<5	
12/6/2016	<5	
2/7/2017	<5	
4/6/2017	<5	
6/14/2017	<5	
8/9/2017	<5	
10/4/2017	<5	
5/23/2018	<5	
11/30/2018	<5	
5/23/2019	<5	
11/7/2019	<5	
5/19/2020	<5	
11/12/2020	<5	
5/18/2021	<5	
11/18/2021	<5	
11/9/2022		4.12

ND substitution: RL/2.

Prediction Limit

Constituent: SULFATE (mg/l) Analysis Run 3/16/2023 11:01 PM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-802	MW-802	
6/7/2016	<5		
8/10/2016	<5		
10/11/2016	<5		
12/6/2016	<5		
2/7/2017	<5		
4/4/2017	<5		
6/13/2017	<5		
8/7/2017	<5		
10/4/2017	<5		
5/23/2018	<5		
11/30/2018	<5		
5/23/2019	<5		
11/7/2019	<5		
5/19/2020	<5		
11/12/2020	<5		
5/18/2021	<5		
11/18/2021	<5		
11/9/2022		1.07	
2/8/2023		<5	extra sample

ND substitution: RL/2.

Prediction Limit

Constituent: SULFATE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-803	MW-803	
6/9/2016	15		
8/12/2016	16.2		
10/13/2016	17.9		
12/6/2016	21.9		
2/8/2017	22.4		
4/7/2017	17.8		
6/13/2017	21.2		
8/9/2017	23.2		
10/4/2017	23.2		
5/23/2018	24.4		
11/30/2018	24.5		
5/23/2019	24.1		
11/7/2019	24		
5/19/2020	25.2		
11/12/2020	25.2		
5/18/2021	25.2		
8/30/2021	25.4		
11/18/2021	27.2		
1/27/2022	30		
3/3/2022	27.4		
11/9/2022		33.1	
1/12/2023		35.8	1st verification
2/8/2023		34.4	2nd verification

Prediction Limit

Constituent: SULFATE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III

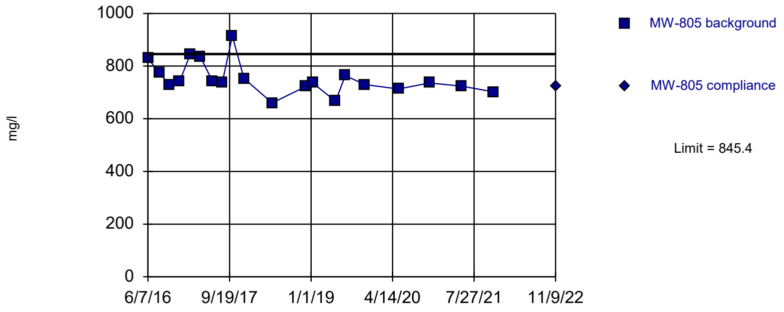
LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-804	MW-804
6/8/2016	27.2	
8/10/2016	20.9	
10/11/2016	20.9	
12/7/2016	21	
2/7/2017	23.2	
4/4/2017	21.4	
6/13/2017	21.5	
8/8/2017	20.7	
10/5/2017	21.9	
5/23/2018	21.5	
11/30/2018	19.4	
1/14/2019	19.5	
5/23/2019	23.2	
7/17/2019	24.5	
11/7/2019	21.9	
5/19/2020	25.2	
11/12/2020	24.4	
5/18/2021	25.9	
7/21/2021	26	
8/30/2021	24.4	
11/18/2021	24.6	
11/9/2022		25

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=752.7, Std. Dev.=61.76, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8968, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 3/16/2023 10:53 PM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: SULFATE (mg/l)   Analysis Run 3/16/2023 11:01 PM   View: LF LAQC III
LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-805	MW-805
6/7/2016	829	
8/10/2016	776	
10/11/2016	726	
12/6/2016	742	
2/6/2017	846	
4/4/2017	836	
6/13/2017	742	
8/8/2017	737	
10/5/2017	914	
12/12/2017	753	
5/23/2018	660	
11/30/2018	722	
1/14/2019	735	
5/23/2019	666	
7/17/2019	764	
11/7/2019	730	
5/19/2020	713	
11/12/2020	736	
5/18/2021	724	
11/18/2021	702	
11/9/2022		723

Prediction Limit

LaCygne Client: SCS Engineers Data: LaC GW Data Printed 3/16/2023, 11:01 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
BORON (mg/l)	MW-10	1.002	n/a	11/9/2022	0.818	No	18	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-13	0.5808	n/a	11/9/2022	0.335	No	21	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-14R	0.8542	n/a	11/9/2022	0.832	No	19	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-15	0.2947	n/a	11/9/2022	0.255	No	18	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-601	1.912	n/a	11/9/2022	1.83	No	17	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-602	2.442	n/a	11/9/2022	2.27	No	17	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-801	2.384	n/a	11/9/2022	2.09	No	17	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-802	2.559	n/a	11/9/2022	2.47	No	17	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-803	2.165	n/a	11/9/2022	2.06	No	17	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-804	1.74	n/a	11/9/2022	1.57	No	23	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-805	0.5733	n/a	11/9/2022	0.515	No	19	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-10	61.29	n/a	11/9/2022	47.7	No	17	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-13	413.3	n/a	2/8/2023	319	No	19	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-14R	61.34	n/a	11/9/2022	48.3	No	22	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-15	108.6	n/a	11/9/2022	97.4	No	18	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-601	23.9	n/a	11/9/2022	16.8	No	22	0	n/a	0.000...	NP Intra (normality) ...
CALCIUM (mg/l)	MW-602	25.44	n/a	11/9/2022	22.2	No	17	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-801	35.09	n/a	11/9/2022	23.2	No	17	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-802	38.75	n/a	2/8/2023	29.1	No	17	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-803	49.12	n/a	2/8/2023	40.2	No	19	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-804	68.52	n/a	11/9/2022	62.7	No	20	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-805	484.6	n/a	11/9/2022	440	No	22	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-10	67.5	n/a	11/9/2022	47.6	No	17	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	**MW-13**	**19.61**	**n/a**	**2/8/2023**	**35.1**	**Yes**	**20**	**0**	**No**	**0.001075**	**Param Intra 1 of 3**
CHLORIDE (mg/l)	MW-14R	6.889	n/a	11/9/2022	6.68	No	29	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-15	19.29	n/a	11/9/2022	10.2	No	18	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-601	201	n/a	11/9/2022	169	No	22	0	n/a	0.000...	NP Intra (normality) ...
CHLORIDE (mg/l)	MW-602	17.86	n/a	11/9/2022	15.8	No	17	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-801	121.4	n/a	11/9/2022	94.7	No	17	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-802	38.75	n/a	2/8/2023	36	No	18	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-803	50.6	n/a	2/8/2023	50.5	No	20	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-804	32.11	n/a	11/9/2022	27.9	No	20	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-805	511.2	n/a	11/9/2022	502	No	19	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-10	632.4	n/a	11/9/2022	533	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-13	6050	n/a	11/9/2022	1880	No	17	0	n/a	0.000...	NP Intra (normality) ...
DISSOLVED SOLIDS (mg/l)	MW-14R	584.8	n/a	11/9/2022	543	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-15	2310	n/a	11/9/2022	703	No	17	0	n/a	0.000...	NP Intra (normality) ...
DISSOLVED SOLIDS (mg/l)	MW-601	1014	n/a	11/9/2022	902	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-602	638.6	n/a	11/9/2022	571	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-801	976.1	n/a	11/9/2022	746	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-802	712.2	n/a	11/9/2022	667	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-803	709	n/a	11/9/2022	564	No	17	0	n/a	0.000...	NP Intra (normality) ...
DISSOLVED SOLIDS (mg/l)	MW-804	581.3	n/a	11/9/2022	521	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-805	2428	n/a	11/9/2022	619	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-10	0.4298	n/a	11/9/2022	0.4	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-13	0.75	n/a	11/9/2022	0.14	No	20	5	n/a	0.000...	NP Intra (normality) ...
FLUORIDE (mg/l)	MW-14R	0.3439	n/a	1/12/2023	0.342	No	21	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-15	0.2961	n/a	1/12/2023	0.267	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-601	1.848	n/a	11/9/2022	1.41	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-602	1.345	n/a	11/9/2022	1.1	No	17	0	No	0.001075	Param Intra 1 of 3

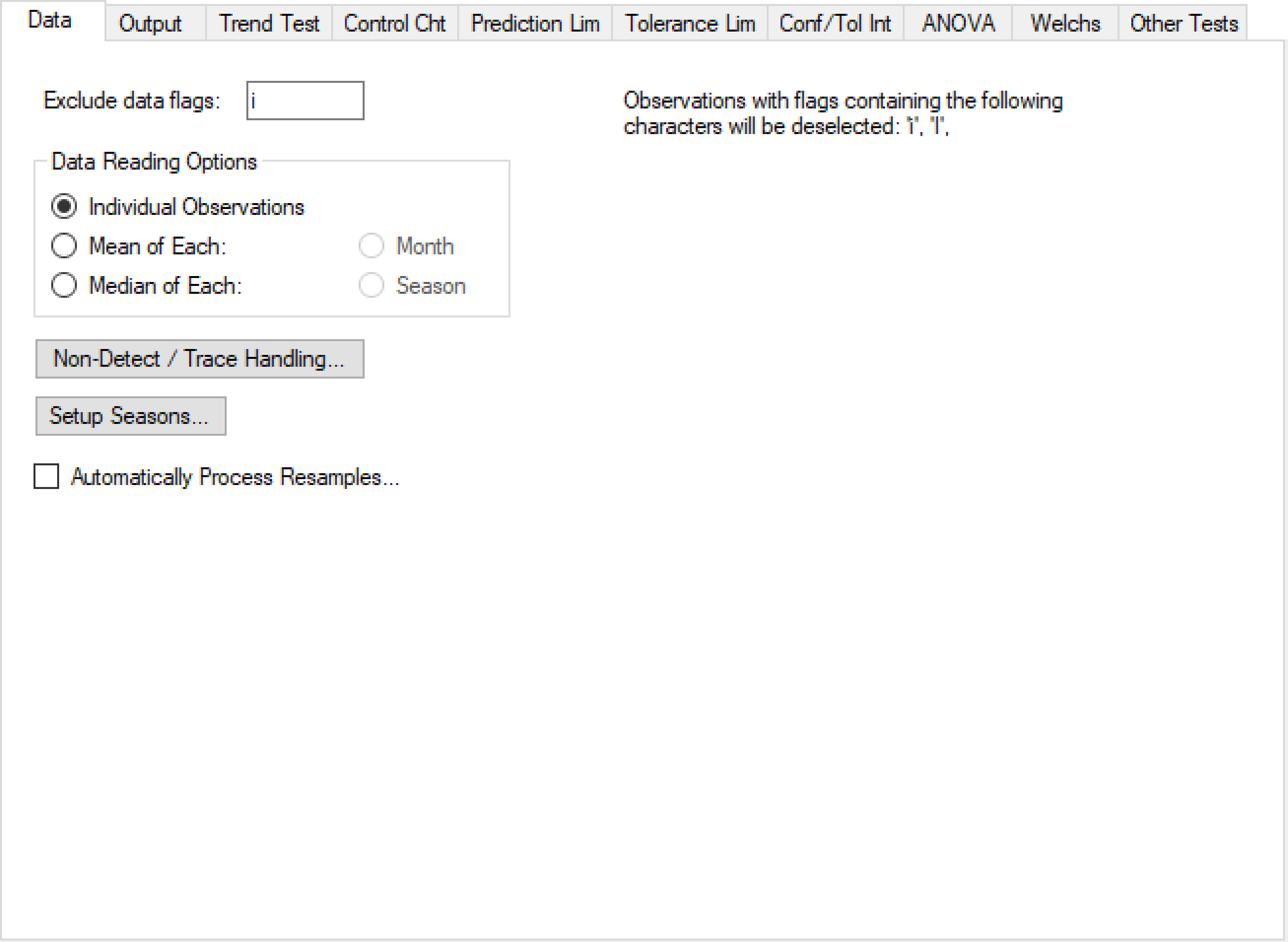
Prediction Limit

LaCygne   Client: SCS Engineers   Data: LaC GW Data   Printed 3/16/2023, 11:01 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
FLUORIDE (mg/l)	MW-801	1.187	n/a	11/9/2022	0.932	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-802	1.114	n/a	11/9/2022	0.936	No	18	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-803	0.6935	n/a	11/9/2022	0.641	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-804	0.5103	n/a	11/9/2022	0.489	No	18	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-805	0.2135	n/a	11/9/2022	0.144	No	17	11.76	No	0.001075	Param Intra 1 of 3
pH (S.U.)	MW-10	7.358	7.192	11/9/2022	7.22	No	18	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-13	7.122	6.617	2/8/2023	7.06	No	22	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-14R	7.734	7.05	11/9/2022	7.47	No	29	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-15	11.38	6.95	11/9/2022	6.98	No	19	0	n/a	0.001357	NP Intra (normality) ...
pH (S.U.)	MW-601	8.6	7.29	11/9/2022	7.82	No	30	0	n/a	0.000...	NP Intra (normality) ...
pH (S.U.)	MW-602	8.092	7.074	11/9/2022	7.64	No	18	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-801	7.732	7.141	11/9/2022	7.39	No	17	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-802	8.72	7.29	2/8/2023	7.34	No	19	0	n/a	0.001357	NP Intra (normality) ...
pH (S.U.)	MW-803	7.891	7.111	2/8/2023	7.43	No	21	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-804	7.459	6.977	2/8/2023	7.2	No	25	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-805	6.71	6.202	11/9/2022	6.25	No	23	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-10	33.62	n/a	11/9/2022	10.7	No	17	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-13	1945	n/a	2/8/2023	1210	No	19	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-14R	71.7	n/a	11/9/2022	68.5	No	23	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-15	240.8	n/a	11/9/2022	200	No	18	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-601	9.76	n/a	11/9/2022	7.35	No	27	37.04	n/a	0.000256	NP Intra (normality) ...
SULFATE (mg/l)	MW-602	27.37	n/a	11/9/2022	26.8	No	18	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-801	5	n/a	11/9/2022	4.12	No	17	100	n/a	0.000...	NP Intra (NDs) 1 of 3
SULFATE (mg/l)	MW-802	5	n/a	2/8/2023	2.5ND	No	17	100	n/a	0.000...	NP Intra (NDs) 1 of 3
SULFATE (mg/l)	**MW-803**	**28.84**	**n/a**	**2/8/2023**	**34.4**	**Yes**	**20**	**0**	**No**	**0.001075**	**Param Intra 1 of 3**
SULFATE (mg/l)	MW-804	26.17	n/a	11/9/2022	25	No	21	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-805	845.4	n/a	11/9/2022	723	No	20	0	No	0.001075	Param Intra 1 of 3

ATTACHMENT 2

Sanitas™ Configuration Settings



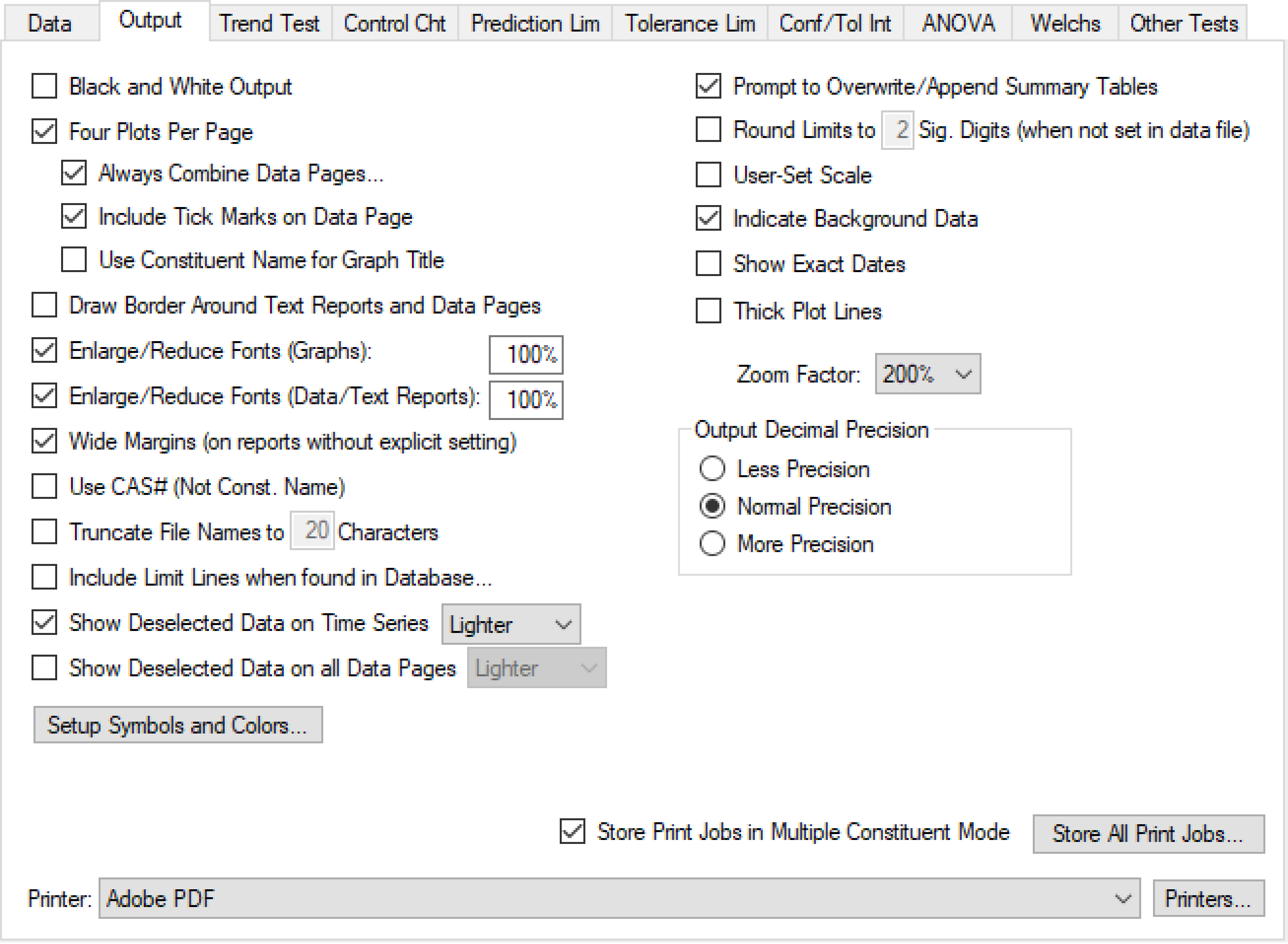
Exclude data flags: i

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): 100%

☑ Enlarge/Reduce Fonts (Data/Text Reports): 100%

☑ Wide Margins (on reports without explicit setting)

☐ Use CAS# (Not Const. Name)

☐ Truncate File Names to 20 Characters

☐ Include Limit Lines when found in Database...

☑ Show Deselected Data on Time Series Lighter

☐ Show Deselected Data on all Data Pages Lighter

☑ Prompt to Overwrite/Append Summary Tables

☐ Round Limits to 2 Sig. Digits (when not set in data file)

☐ User-Set Scale

☑ Indicate Background Data

☐ Show Exact Dates

☐ Thick Plot Lines

Zoom Factor: 200%

Output Decimal Precision

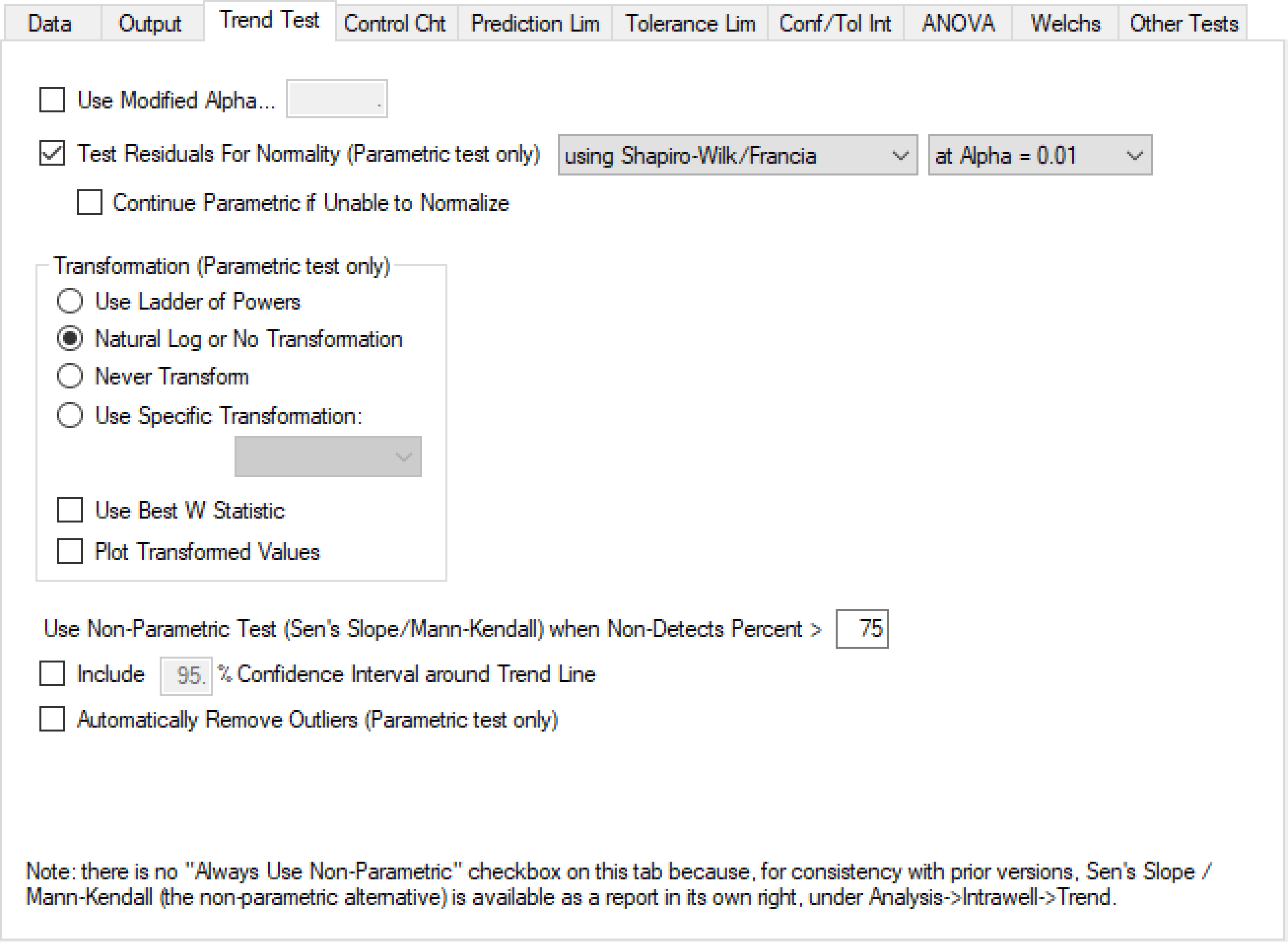
○ Less Precision

● Normal Precision

○ More Precision

☑ Store Print Jobs in Multiple Constituent Mode

Printer: Adobe PDF



☐ Use Modified Alpha...

☑ Test Residuals For Normality (Parametric test only) using Shapiro-Wilk/Francia at Alpha = 0.01

☐ Continue Parametric if Unable to Normalize

Transformation (Parametric test only)

○ Use Ladder of Powers
● Natural Log or No Transformation
○ Never Transform
○ Use Specific Transformation:

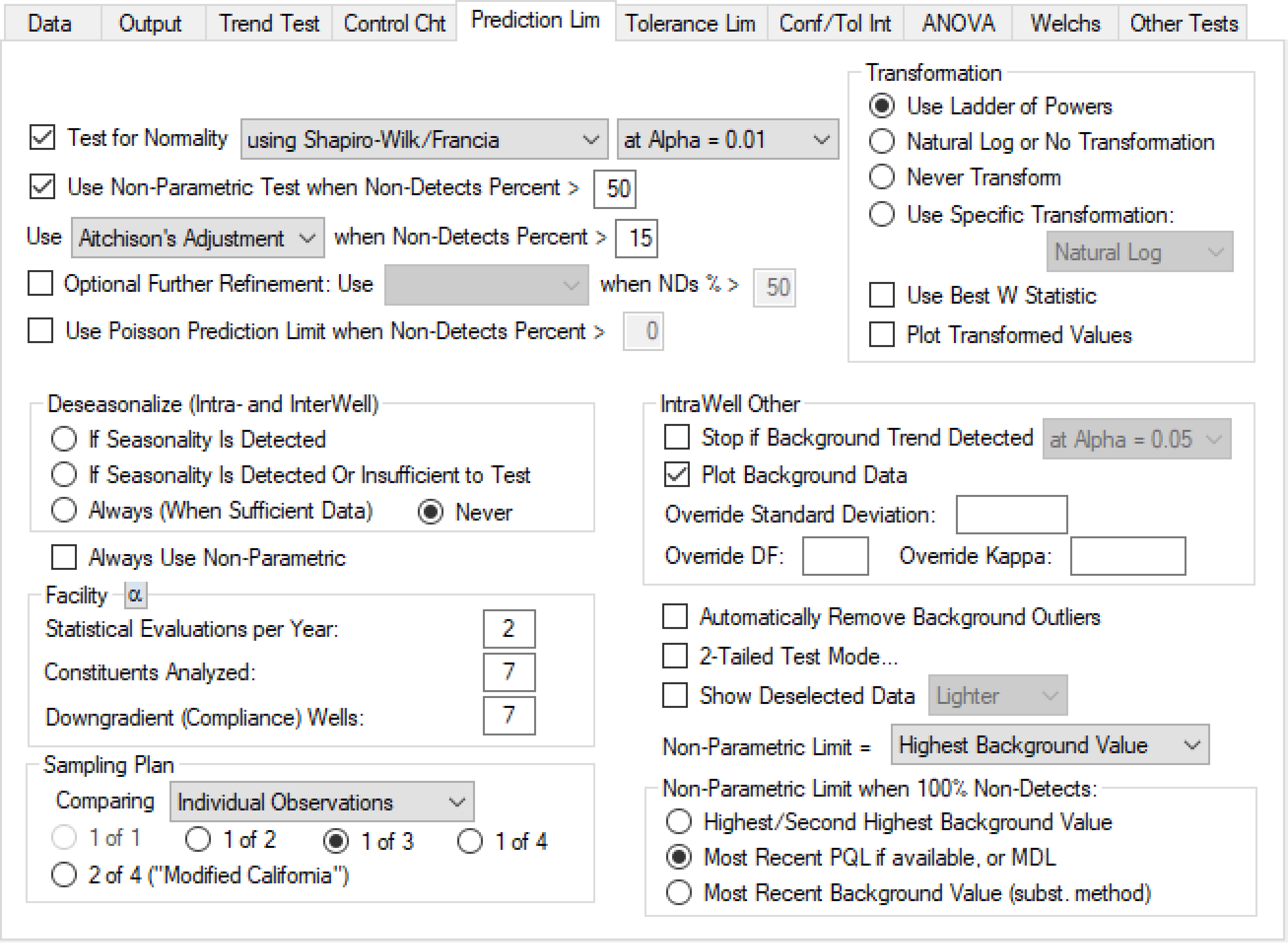
☐ Use Best W Statistic
☐ Plot Transformed Values

Use Non-Parametric Test (Sen's Slope/Mann-Kendall) when Non-Detects Percent > 75

☐ Include 95. % Confidence Interval around Trend Line

☐ Automatically Remove Outliers (Parametric test only)

Note: there is no "Always Use Non-Parametric" checkbox on this tab because, for consistency with prior versions, Sen's Slope / Mann-Kendall (the non-parametric alternative) is available as a report in its own right, under Analysis->Intrawell->Trend.



☑ Test for Normality using Shapiro-Wilk/Francia at Alpha = 0.01

☑ Use Non-Parametric Test when Non-Detects Percent > 50

Use Aitchison's Adjustment when Non-Detects Percent > 15

☐ Optional Further Refinement: Use 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 α
Statistical Evaluations per Year: 2
Constituents Analyzed: 7
Downgradient (Compliance) Wells: 7

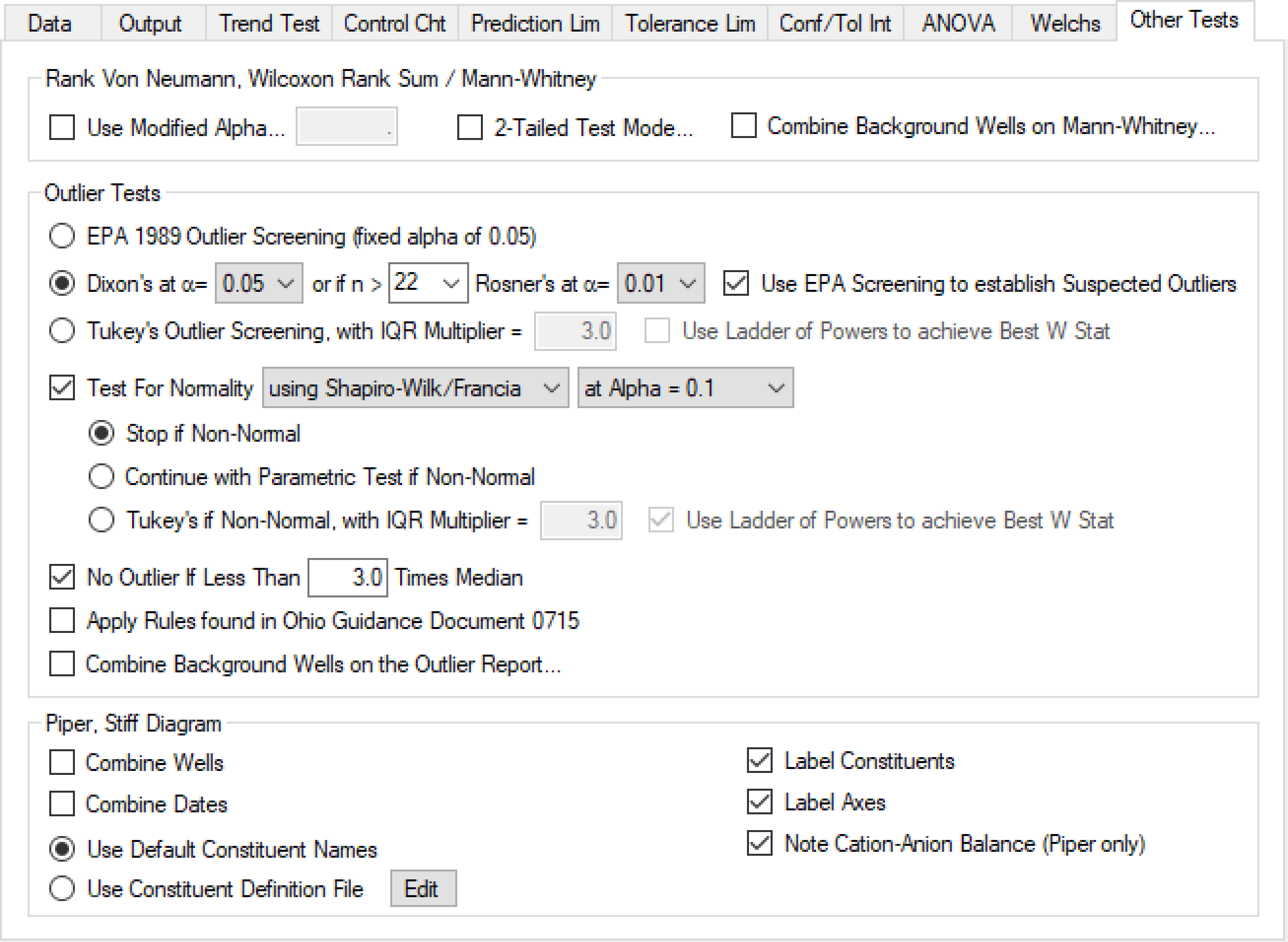
Sampling Plan
Comparing Individual Observations
○ 1 of 1 ○ 1 of 2 ● 1 of 3 ○ 1 of 4
○ 2 of 4 ("Modified California")

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 α= 0.05 or if n > 22 Rosner's at α= 0.01 ☑ Use EPA Screening to establish Suspected Outliers

○ Tukey's Outlier Screening, with IQR Multiplier = 3.0 ☐ Use Ladder of Powers to achieve Best W Stat

☑ Test For Normality using Shapiro-Wilk/Francia at Alpha = 0.1

- ● Stop if Non-Normal
- ○ Continue with Parametric Test if Non-Normal
- ○ Tukey's if Non-Normal, with IQR Multiplier = 3.0 ☑ Use Ladder of Powers to achieve Best W Stat

☑ No Outlier If Less Than 3.0 Times Median

☐ Apply Rules found in Ohio Guidance Document 0715

☐ Combine Background Wells on the Outlier Report...

Piper, Stiff Diagram

☐ Combine Wells

☐ Combine Dates

● Use Default Constituent Names

○ Use Constituent Definition File

☑ Label Constituents

☑ Label Axes

☑ Note Cation-Anion Balance (Piper only)

APPENDIX E.2

Spring 2023 Semiannual Detection Monitoring Statistical Analyses

SCS ENGINEERS
Environmental Consulting & Contracting

MEMORANDUM

September 28, 2023

To: La Cygne Generating Station
25166 East 2200 Road
La Cygne, Kansas 66040
Evergy Metro, Inc.

From: SCS Engineers
John Rockhold, P.G.
Douglas Doerr, P.E.

JOHN R. ROCKHOLD
LICENSED
29
9-28-23
KANSAS
PROFESSIONAL GEOLOGIST

RE: **Determination of Statistically Significant Increases –**
CCR Landfill and Lower AQC Impoundment
Spring 2023 Semiannual Detection Monitoring 40 CFR 257.94

Statistical analysis of monitoring data from the groundwater monitoring system for the CCR Landfill and Lower 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 17, 2023. Review and validation of the results from the May 2023 Detection Monitoring Event was completed on June 30, 2023, 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 12, 2023, and August 15, 2023.

The completed statistical evaluation identified one Appendix III constituent above its prediction limits established for monitoring well MW-13 and MW-804, one Appendix III constituent above its prediction limit established for MW-802, and one Appendix III constituent above its prediction limit established for MW-803.

Monitoring Well Constituent	*UPL/LPL	Observation May 17, 2023	1st Verification July 12, 2023	2nd Verification August 15, 2023
MW-13				
Chloride	19.61	31.7	24.5	26.3
MW-802				
pH	8.72/7.29	7.0	NA	NA
MW-803				
Sulfate	28.84	38.9	31.9/30.4**	36.4/35.9**
MW-804				
Chloride	32.11	33.0	33.0	33.1

*UPL/LPL – Upper Prediction Limit/Lower Prediction Limit
** - Duplicate Sample
NA – Not Analyzed

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified SSIs above the background prediction limits for chloride at MW-13 and MW-804, pH at MW-802, and sulfate at MW-803.

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, 1st verification re-sample results (when applicable), 2nd verification re-sample results (when applicable), extra sample results for pH because pH is collected as part of the sampling procedure, and a Prediction Limit summary table. Output documentation includes the analytical data used for the statistical analyses.

Attachment 2: Sanitas™ Configuration Settings:

> Screen shots of the applicable Sanitas™ configuration settings for the statistical prediction limit analysis. This includes data configuration, output configuration, prediction limit configuration and other tests configuration.

Revision Number	Revision Date	Attachment Revised	Summary of Revisions

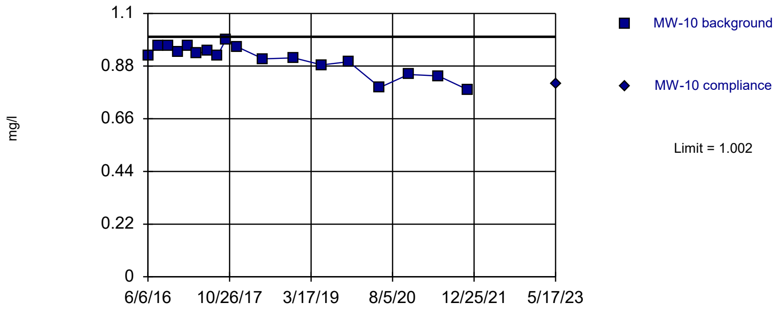
ATTACHMENT 1

Sanitas™ Output

Within Limit

Prediction Limit

Intrawell Parametric



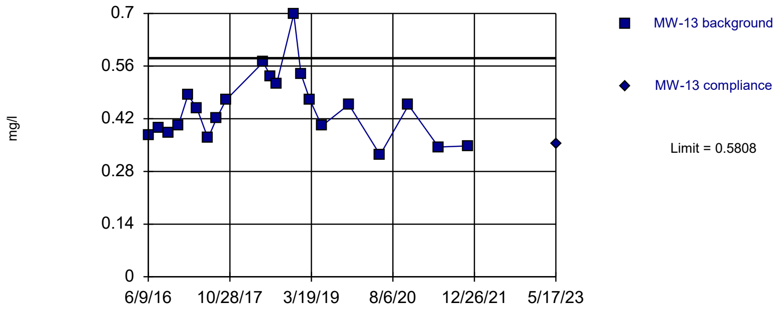
Background Data Summary: Mean=0.9094, Std. Dev.=0.06036, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.906, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit

Intrawell Parametric



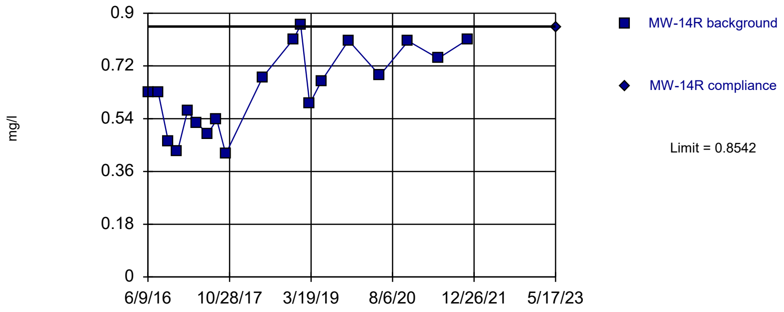
Background Data Summary: Mean=0.4478, Std. Dev.=0.08921, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9315, critical = 0.873. Kappa = 1.491 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit

Intrawell Parametric



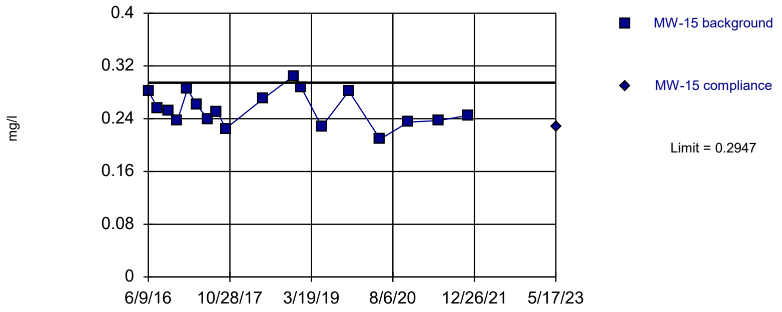
Background Data Summary: Mean=0.6397, Std. Dev.=0.141, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9425, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2548, Std. Dev.=0.02584, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9684, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: BORON   Analysis Run 9/11/2023 8:42 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-10	MW-10	MW-13	MW-13	MW-14R	MW-14R	MW-15	MW-15
6/6/2016	0.923							
6/9/2016			0.375		0.629		0.282	
8/9/2016							0.255	
8/11/2016	0.966		0.397		0.63			
10/12/2016	0.964						0.252	
10/13/2016			0.381		0.463			
12/7/2016							0.237	
12/9/2016	0.94				0.427			
12/13/2016			0.403					
2/7/2017							0.285	
2/8/2017	0.966							
2/9/2017					0.566			
2/10/2017			0.483					
4/5/2017							0.261	
4/6/2017	0.933		0.449					
4/7/2017					0.526			
6/14/2017							0.24	
6/15/2017	0.942		0.368		0.488			
8/8/2017			0.422					
8/10/2017	0.921				0.537		0.251	
10/3/2017							0.225	
10/4/2017	0.991							
10/5/2017			0.47		0.42			
12/12/2017	0.961							
5/23/2018	0.91		0.57		0.682		0.27	
7/11/2018			0.533					
8/16/2018			0.513					
11/30/2018	0.914		0.698		0.812		0.305	
1/14/2019			0.539		0.859		0.288	
3/11/2019			0.47		0.591			
5/23/2019	0.885		0.401		0.669		0.228	
11/7/2019	0.898		0.458		0.807		0.282	
5/19/2020	0.791		0.324		0.688		0.209	
11/12/2020	0.845		0.456		0.805		0.235	
5/18/2021	0.839		0.345		0.746		0.237	
11/18/2021	0.781		0.348		0.81		0.245	
5/17/2023		0.807		0.353		0.851		0.228

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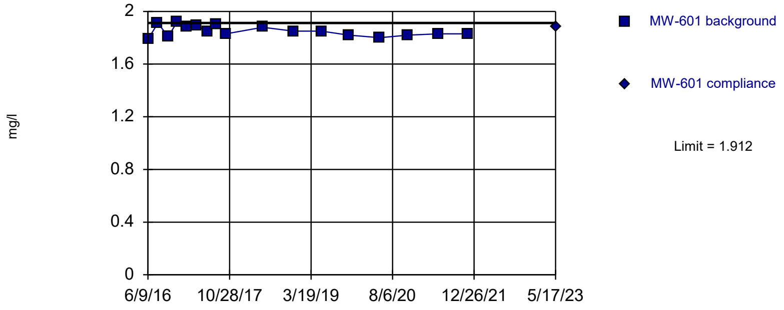
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.851, Std. Dev.=0.0396, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9478, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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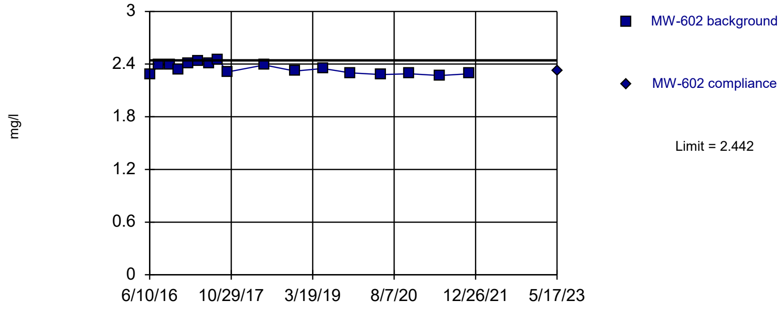
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.348, Std. Dev.=0.06047, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9102, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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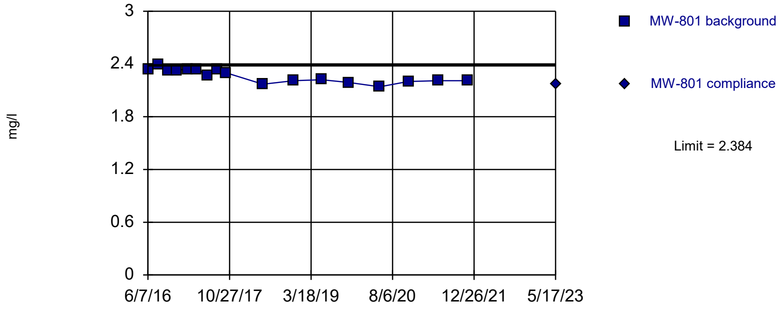
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.266, Std. Dev.=0.07592, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9104, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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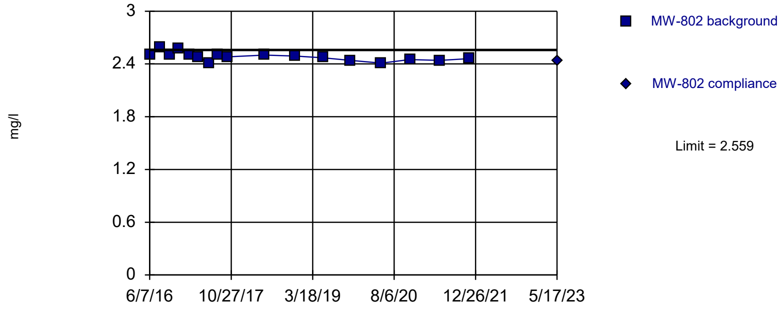
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.483, Std. Dev.=0.04845, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.942, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: BORON Analysis Run 9/11/2023 8:42 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-601	MW-601	MW-602	MW-602	MW-801	MW-801	MW-802	MW-802
6/7/2016					2.34		2.51	
6/9/2016	1.79							
6/10/2016			2.28					
8/9/2016	1.91		2.39		2.39			
8/10/2016							2.59	
10/11/2016					2.32		2.5	
10/13/2016	1.81		2.39					
12/6/2016					2.33		2.57	
12/7/2016	1.92							
12/9/2016			2.34					
2/7/2017					2.34		2.51	
2/8/2017	1.88		2.41					
4/4/2017							2.48	
4/6/2017	1.89				2.34			
4/7/2017			2.44					
6/13/2017							2.41	
6/14/2017					2.27			
6/15/2017	1.85		2.41					
8/7/2017							2.5	
8/9/2017	1.9				2.34			
8/10/2017			2.45					
10/4/2017					2.3		2.48	
10/5/2017			2.31					
10/6/2017	1.83							
5/23/2018	1.88		2.39		2.17		2.5	
11/30/2018	1.85		2.32		2.21		2.49	
5/23/2019	1.85		2.35		2.22		2.47	
11/7/2019	1.82		2.3		2.19		2.44	
5/19/2020	1.8		2.28		2.14		2.41	
11/12/2020	1.82		2.29		2.2		2.45	
5/18/2021	1.83		2.27		2.21		2.44	
11/18/2021	1.83		2.29		2.21		2.46	
5/17/2023		1.88		2.32		2.17		2.44

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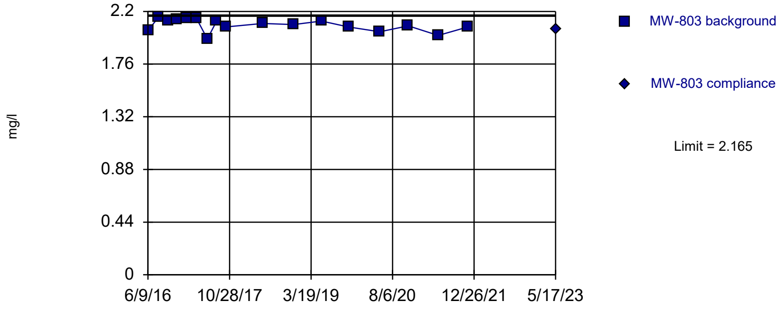
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.085, Std. Dev.=0.05149, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9296, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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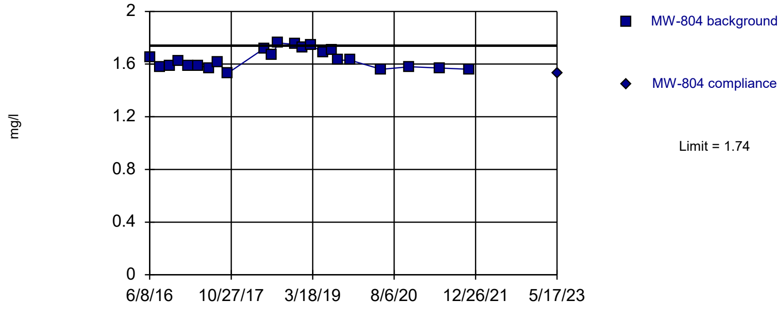
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.636, Std. Dev.=0.07069, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9167, critical = 0.881. Kappa = 1.47 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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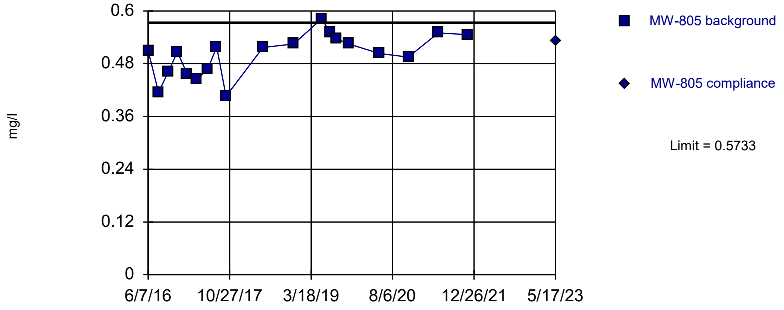
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.5008, Std. Dev.=0.04763, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.955, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: BORON Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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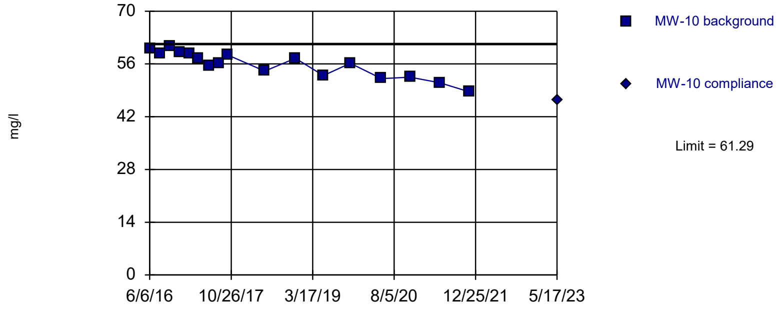
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=55.86, Std. Dev.=3.477, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9489, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: BORON, CALCIUM Analysis Run 9/11/2023 8:42 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-803	MW-803	MW-804	MW-804	MW-805	MW-805	MW-10	MW-10
6/6/2016							60.1	
6/7/2016					0.51			
6/8/2016			1.65					
6/9/2016	2.04							
8/10/2016			1.58		0.415			
8/11/2016							58.7	
8/12/2016	2.15							
10/11/2016			1.59		0.462			
10/12/2016							60.7	
10/13/2016	2.12							
12/6/2016	2.13				0.507			
12/7/2016			1.62					
12/9/2016							59	
2/6/2017					0.456			
2/7/2017			1.59					
2/8/2017	2.14						58.8	
4/4/2017			1.59		0.444			
4/6/2017							57.4	
4/7/2017	2.14							
6/13/2017	1.97		1.57		0.468			
6/15/2017							55.5	
8/8/2017			1.61		0.518			
8/9/2017	2.12							
8/10/2017							56.1	
10/4/2017	2.07						58.4	
10/5/2017			1.53		0.406			
5/23/2018	2.1		1.72		0.517		54.1	
7/11/2018			1.67					
8/16/2018			1.76					
11/30/2018	2.09		1.75		0.525		57.5	
1/14/2019			1.73					
3/11/2019			1.74					
5/23/2019	2.12		1.69		0.582		52.9	
7/17/2019			1.71		0.55			
8/22/2019			1.63		0.537			
11/7/2019	2.07		1.63		0.525		56.2	
5/19/2020	2.03		1.56		0.503		52.1	
11/12/2020	2.08		1.58		0.495		52.5	
5/18/2021	2		1.57		0.55		51	
11/18/2021	2.07		1.56		0.546		48.6	
5/17/2023		2.05		1.53		0.531		46.4

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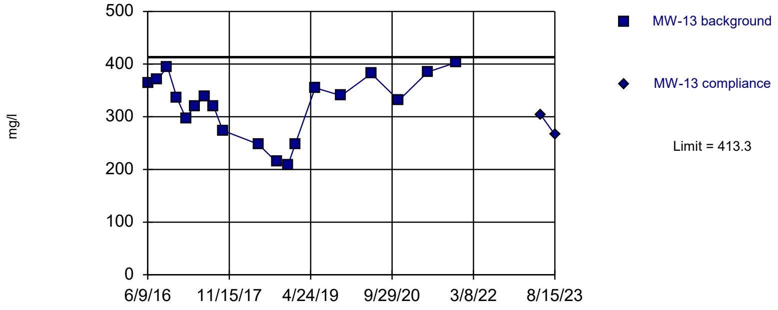
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=322.5, Std. Dev.=59.62, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9291, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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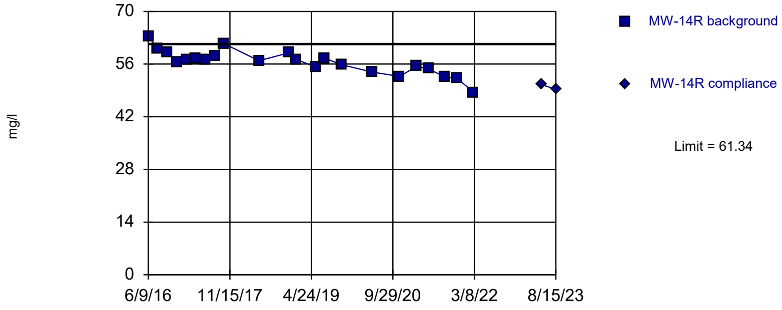
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=56.45, Std. Dev.=3.305, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9805, critical = 0.878. Kappa = 1.48 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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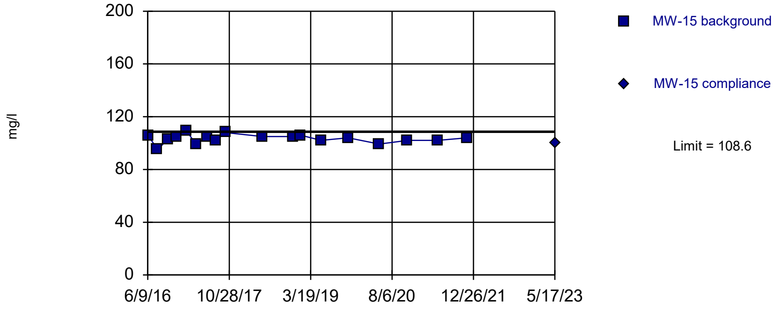
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=103.4, Std. Dev.=3.337, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9499, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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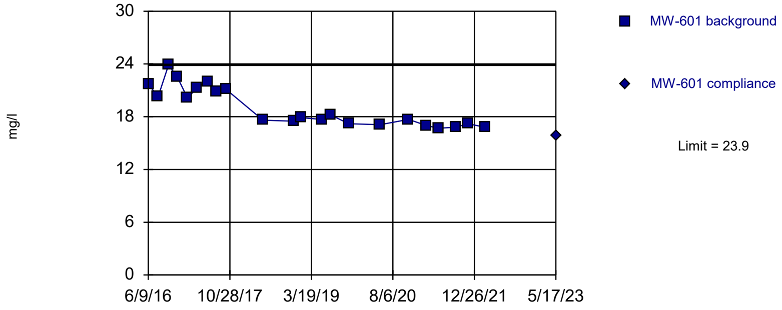
Within Limit

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 22 background values. Well-constituent pair annual alpha = 0.0009186. Individual comparison alpha = 0.0004594 (1 of 3).

Constituent: CALCIUM Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CALCIUM Analysis Run 9/11/2023 8:42 AM View: LF LAQC III

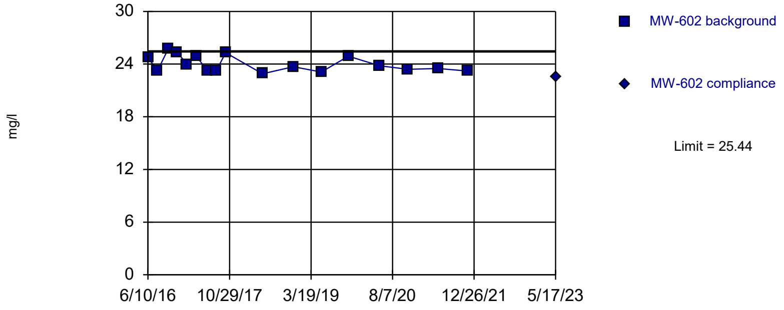
LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-13	MW-13	MW-14R	MW-14R	MW-15	MW-15	MW-601	MW-601
6/9/2016	363		63.4		106		21.7	
8/9/2016					95.2		20.3	
8/11/2016	371		60					
10/12/2016					103			
10/13/2016	395		59.1				23.9	
12/7/2016					105		22.5	
12/9/2016			56.4					
12/13/2016	336							
2/7/2017					109			
2/8/2017							20.1	
2/9/2017			57.3					
2/10/2017	297							
4/5/2017					98.9			
4/6/2017	320						21.3	
4/7/2017			57.4					
6/14/2017					105			
6/15/2017	339		57				22	
8/8/2017	319							
8/9/2017							20.9	
8/10/2017			58		102			
10/3/2017					108			
10/5/2017	274		61.5					
10/6/2017							21.1	
5/23/2018	248		56.9		105		17.6	
9/17/2018	214							
11/30/2018	209		59		105		17.5	
1/14/2019	247		57.3		106		17.9	
5/23/2019	355		55.2		102		17.7	
7/17/2019			57.6				18.2	
11/7/2019	340		55.8		104		17.2	
5/19/2020	382		53.9		99.3		17.1	
11/12/2020	331		52.7		102		17.7	
3/3/2021			55.4				17	
5/18/2021	385		54.7		102		16.7	
8/30/2021			52.6				16.8	
11/18/2021	403		52.2		104		17.2	
3/3/2022			48.5				16.8	
5/17/2023		303		50.5		100		15.9
8/15/2023		266 Extra		49.3 Extra				

Within Limit

Prediction Limit

Intrawell Parametric



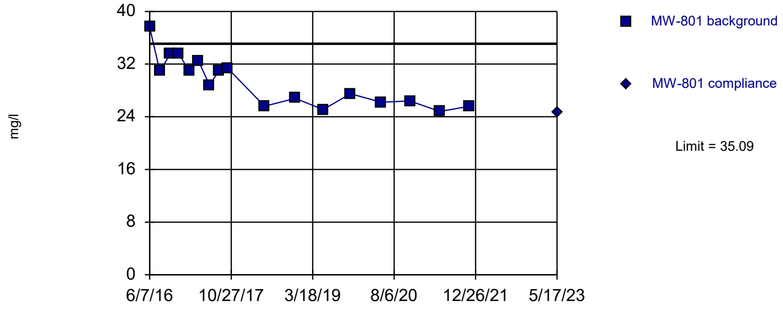
Background Data Summary: Mean=24.01, Std. Dev.=0.9151, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8811, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit

Intrawell Parametric



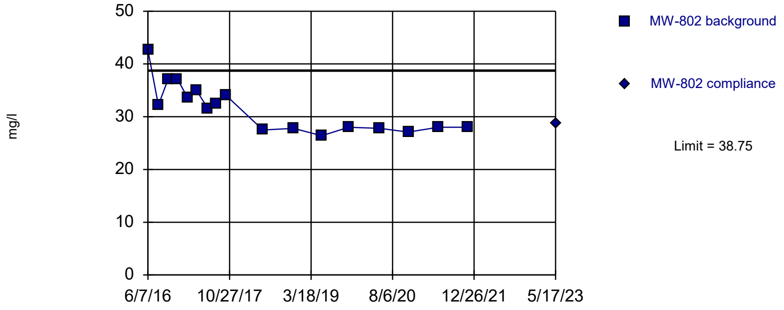
Background Data Summary: Mean=29.3, Std. Dev.=3.711, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9189, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit

Intrawell Parametric



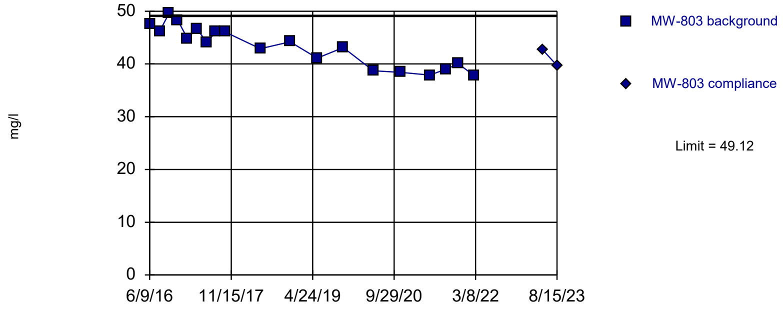
Background Data Summary: Mean=31.56, Std. Dev.=4.601, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8846, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=43.29, Std. Dev.=3.829, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9348, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CALCIUM Analysis Run 9/11/2023 8:42 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-602	MW-602	MW-801	MW-801	MW-802	MW-802	MW-803	MW-803	
6/7/2016			37.6		42.6				
6/9/2016							47.6		
6/10/2016	24.7								
8/9/2016	23.3		30.9						
8/10/2016					32.2				
8/12/2016							46.2		
10/11/2016			33.5		37.2				
10/13/2016	25.7						49.7		
12/6/2016			33.6		37.2		48.3		
12/9/2016	25.3								
2/7/2017			30.9		33.7				
2/8/2017	24						44.8		
4/4/2017					35				
4/6/2017			32.5						
4/7/2017	24.9						46.7		
6/13/2017					31.6		44.1		
6/14/2017			28.8						
6/15/2017	23.2								
8/7/2017					32.4				
8/9/2017			30.9				46.1		
8/10/2017	23.3								
10/4/2017			31.4		34.1		46.1		
10/5/2017	25.3								
5/23/2018	22.9		25.6		27.5		42.9		
11/30/2018	23.7		26.8		27.8		44.2		
5/23/2019	23.1		25.1		26.4		41.1		
11/7/2019	24.9		27.5		28		43.1		
5/19/2020	23.8		26.2		27.8		38.7		
11/12/2020	23.4		26.4		27.1		38.4		
5/18/2021	23.5		24.8		28		37.9		
8/30/2021							39		
11/18/2021	23.2		25.6		28		40		
3/3/2022							37.7		
5/17/2023		22.6		24.6		28.8		42.6	
8/15/2023								39.7	Extra

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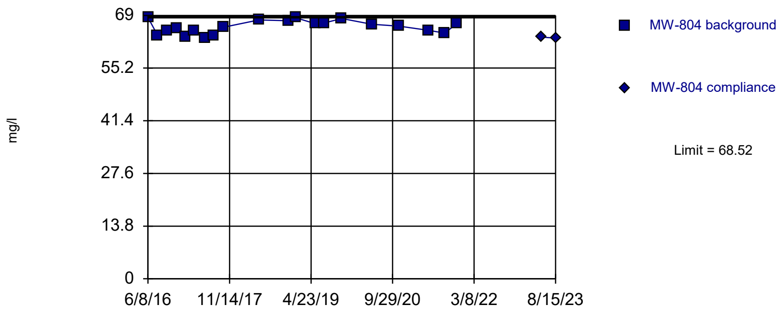
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=65.98, Std. Dev.=1.698, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9475, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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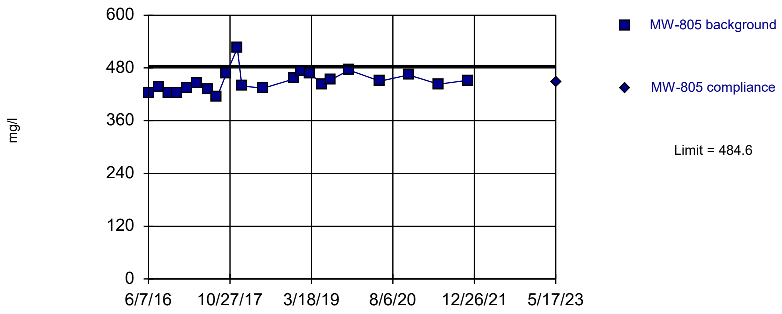
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=448.5, Std. Dev.=24.44, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9003, critical = 0.878. Kappa = 1.48 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CALCIUM Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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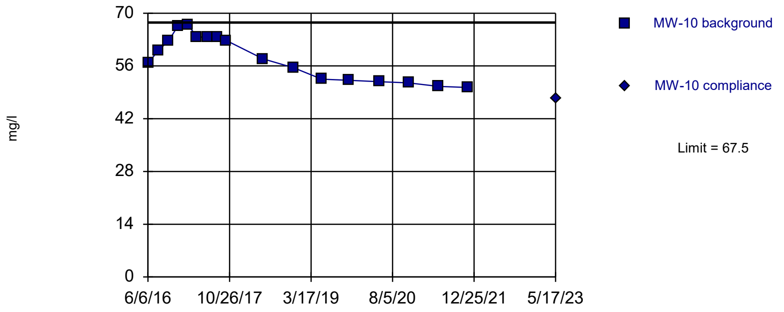
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=58.2, Std. Dev.=5.96, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8948, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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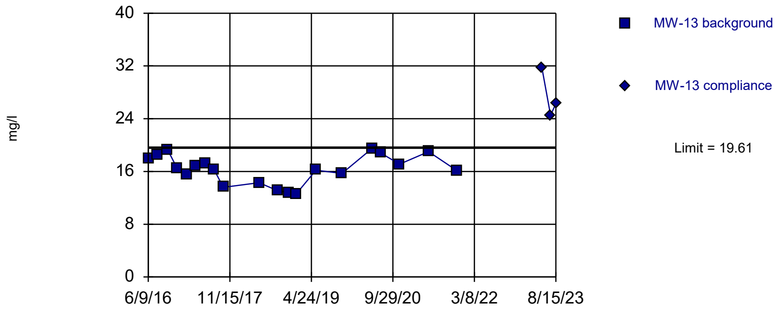
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=16.33, Std. Dev.=2.185, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9421, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/11/2023 8:31 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CALCIUM, CHLORIDE   Analysis Run 9/11/2023 8:42 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-804	MW-804	MW-805	MW-805	MW-10	MW-10	MW-13	MW-13
6/6/2016					56.7			
6/7/2016			422					
6/8/2016	68.5							
6/9/2016							18	
8/10/2016	63.7		437					
8/11/2016					60.2		18.5	
10/11/2016	65.1		422					
10/12/2016					62.7			
10/13/2016							19.2	
12/6/2016			422					
12/7/2016	65.7							
12/9/2016					66.6			
12/13/2016							16.4	
2/6/2017			435					
2/7/2017	63.5							
2/8/2017					67			
2/10/2017							15.6	
4/4/2017	65.1		444					
4/6/2017					63.7		16.8	
6/13/2017	63.2		430					
6/15/2017					63.6		17.2	
8/8/2017	63.8		414				16.2	
8/10/2017					63.8			
10/4/2017					62.8			
10/5/2017	65.9		467				13.6	
12/12/2017			525					
1/9/2018			439					
5/23/2018	67.8		434		57.9		14.3	
9/17/2018							13.1	
11/30/2018	67.6		455		55.5		12.8	
1/14/2019	68.4		473				12.5	
3/11/2019			468					
5/23/2019	66.8		442		52.5		16.2	
7/17/2019	67		453					
11/7/2019	68.2		475		52.2		15.7	
5/19/2020	66.7		450		51.8		19.5	
7/13/2020							18.8	
11/12/2020	66.2		464		51.5		17.1	
5/18/2021	65.1		443		50.6		19	
8/30/2021	64.4							
11/18/2021	66.8		452		50.3		16.1	
5/17/2023		63.3		447		47.3		31.7
7/12/2023								24.5 1st verification
8/15/2023		63.1 Extra						26.3 2nd verification

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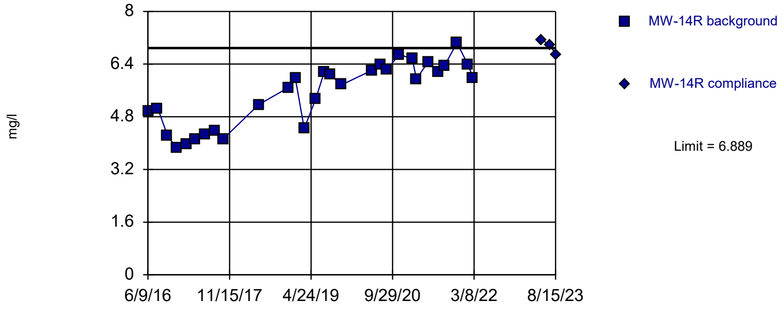
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.514, Std. Dev.=0.9668, n=29. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9001, critical = 0.898. Kappa = 1.422 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/11/2023 8:31 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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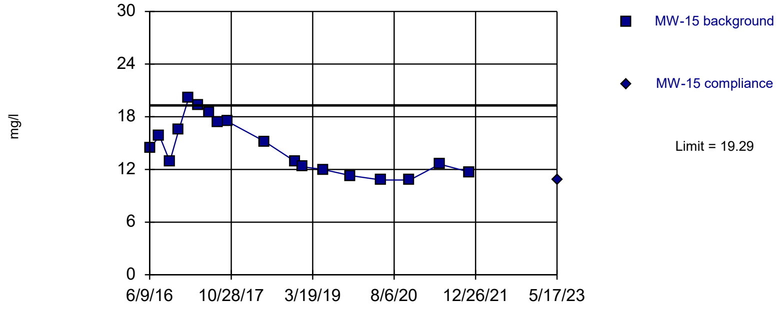
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=14.56, Std. Dev.=3.071, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9188, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/11/2023 8:31 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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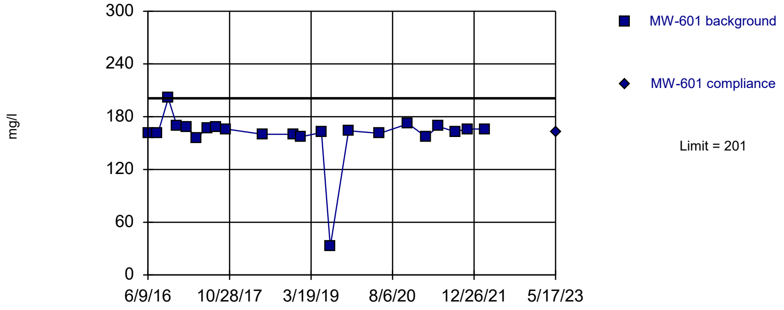
Within Limit

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 22 background values. Well-constituent pair annual alpha = 0.0009186. Individual comparison alpha = 0.0004594 (1 of 3).

Constituent: CHLORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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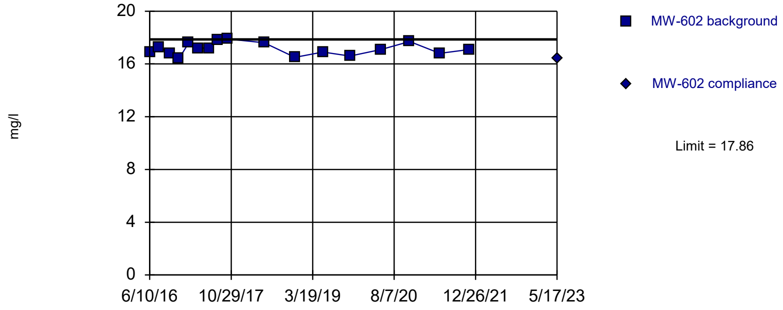
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=17.14, Std. Dev.=0.4597, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.959, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CHLORIDE Analysis Run 9/11/2023 8:42 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-14R	MW-14R	MW-15	MW-15	MW-601	MW-601	MW-602	MW-602
6/9/2016	4.95		14.4		161			
6/10/2016							16.9	
8/9/2016			15.8		161		17.3	
8/11/2016	5.05							
10/12/2016			12.9					
10/13/2016	4.22				201		16.8	
12/7/2016			16.5		169			
12/9/2016	3.86						16.4	
2/7/2017			20.2					
2/8/2017					168		17.6	
2/9/2017	3.98							
4/5/2017			19.3					
4/6/2017					156			
4/7/2017	4.11						17.2	
6/14/2017			18.5					
6/15/2017	4.25				167		17.2	
8/9/2017					168			
8/10/2017	4.38		17.4				17.8	
10/3/2017			17.5					
10/5/2017	4.12						17.9	
10/6/2017					166			
5/23/2018	5.17		15.2		160		17.6	
11/30/2018	5.69		12.9		160		16.5	
1/14/2019	5.96		12.3		157			
3/11/2019	4.44							
5/23/2019	5.33		12		162		16.9	
7/17/2019	6.14				32.3			
8/23/2019	6.08							
11/7/2019	5.77		11.3		164		16.6	
5/19/2020	6.21		10.8		161		17.1	
7/13/2020	6.38							
8/27/2020	6.25							
11/12/2020	6.69		10.8		172		17.7	
2/4/2021	6.56							
3/3/2021	5.95				157			
5/18/2021	6.47		12.6		169		16.8	
7/21/2021	6.15							
8/30/2021	6.35				163			
11/18/2021	7.04		11.7		166		17.1	
1/27/2022	6.39							
3/3/2022	5.97				166			
5/17/2023		7.13		10.8		163		16.4
7/12/2023		6.99 1st verification						
8/15/2023		6.67 2nd verification						

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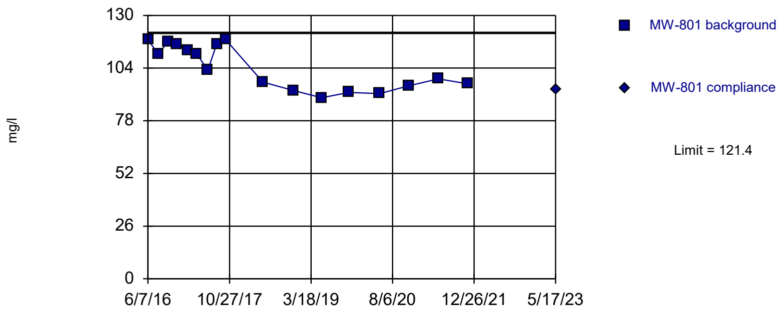
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=104.5, Std. Dev.=10.84, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8663, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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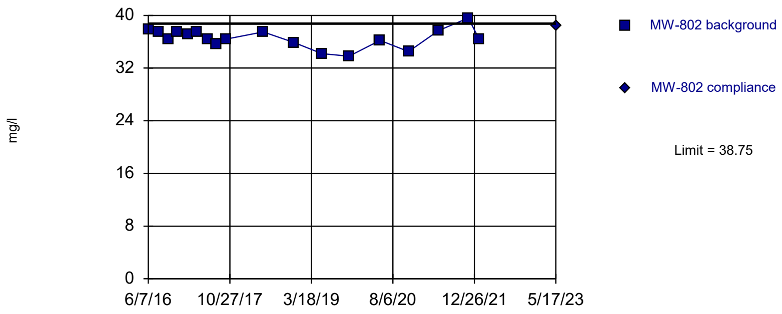
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=36.54, Std. Dev.=1.433, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9535, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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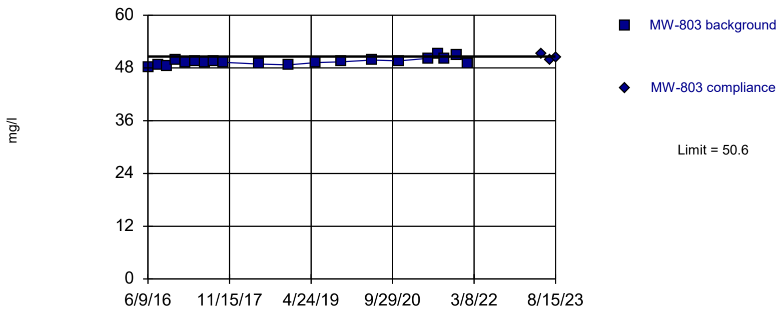
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=49.45, Std. Dev.=0.7626, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9605, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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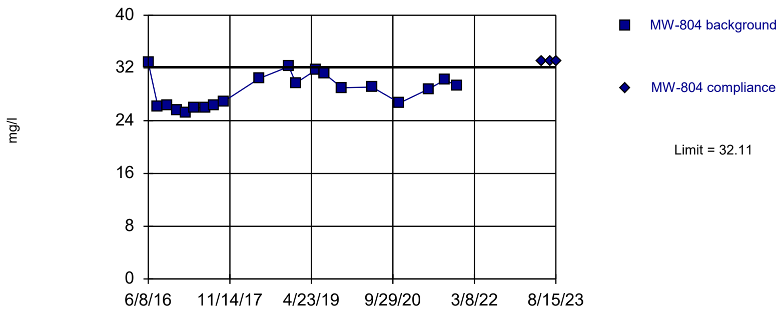
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=28.47, Std. Dev.=2.422, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9151, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CHLORIDE Analysis Run 9/11/2023 8:42 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-801	MW-801	MW-802	MW-802	MW-803	MW-803	MW-804	MW-804
6/7/2016	118		37.9					
6/8/2016							32.8	
6/9/2016					48.1			
8/9/2016	111							
8/10/2016			37.5				26.1	
8/12/2016					48.8			
10/11/2016	117		36.3				26.3	
10/13/2016					48.4			
12/6/2016	116		37.4		49.9			
12/7/2016							25.5	
2/7/2017	113		37.1				25.3	
2/8/2017					49.3			
4/4/2017			37.4				26	
4/6/2017	111							
4/7/2017					49.5			
6/13/2017			36.4		49.2		26	
6/14/2017	103							
8/7/2017			35.6					
8/8/2017							26.3	
8/9/2017	116				49.5			
10/4/2017	118		36.4		49.3			
10/5/2017							26.9	
5/23/2018	97.1		37.5		48.9		30.4	
11/30/2018	92.9		35.9		48.7		32.2	
1/14/2019							29.7	
5/23/2019	89.4		34.2		49.2		31.7	
7/17/2019							31.1	
11/7/2019	92		33.8		49.4		29	
5/19/2020	91.4		36.2		49.8		29.1	
11/12/2020	95.2		34.5		49.6		26.7	
5/18/2021	98.7		37.7		50.2		28.8	
7/21/2021					51.1			
8/30/2021					50.1		30.2	
11/18/2021	96.2		39.6		51		29.3	
1/27/2022			36.3		49			
5/17/2023		93.6		38.4		51.1		33
7/12/2023						49.85 (D) 1st verification		33 1st verification
8/15/2023						50.4 (D) 2nd verification		33.1 2nd verification

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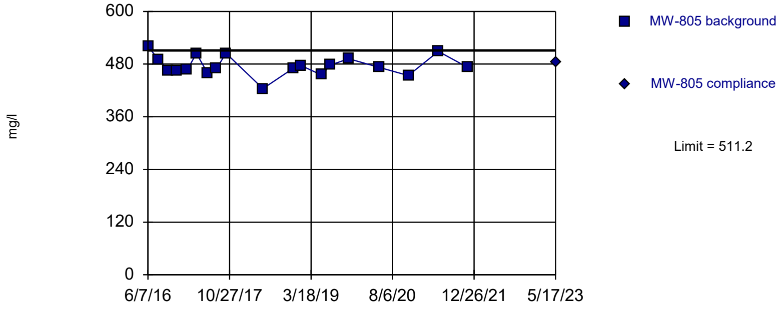
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=476.3, Std. Dev.=22.94, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9582, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: CHLORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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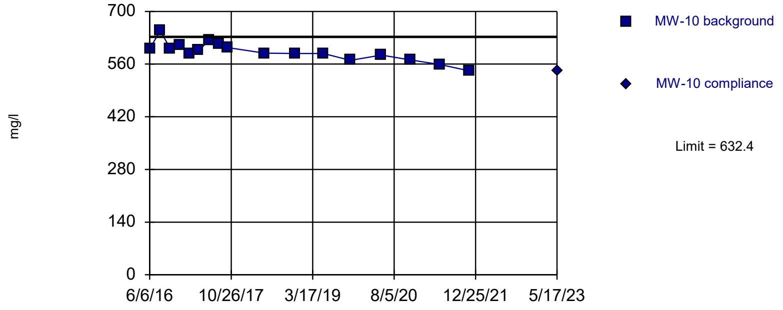
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=592.9, Std. Dev.=25.25, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9822, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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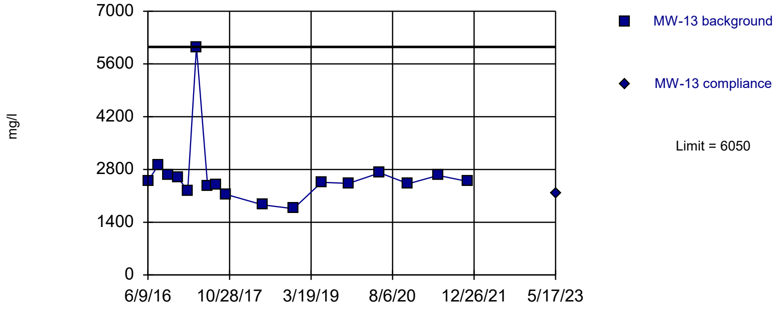
Within Limit

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 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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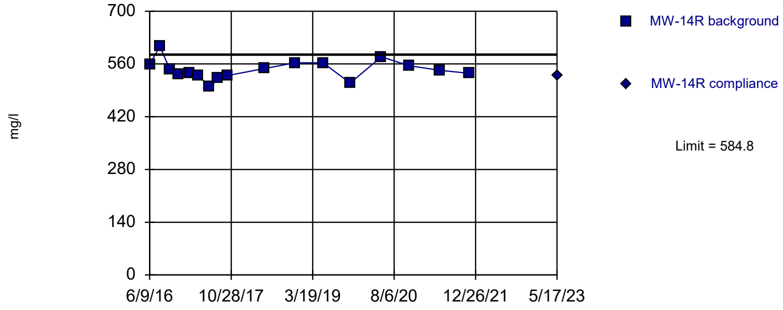
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=544.4, Std. Dev.=25.91, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9706, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: CHLORIDE, DISSOLVED SOLIDS Analysis Run 9/11/2023 8:42 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-805	MW-805	MW-10	MW-10	MW-13	MW-13	MW-14R	MW-14R
6/6/2016			601					
6/7/2016	520							
6/9/2016					2490		559	
8/10/2016	491							
8/11/2016			649		2910		607	
10/11/2016	466							
10/12/2016			600					
10/13/2016					2640		545	
12/6/2016	464							
12/9/2016			612				533	
12/13/2016					2590			
2/6/2017	467							
2/8/2017			587					
2/9/2017							536	
2/10/2017					2220			
4/4/2017	504							
4/6/2017			596		6050			
4/7/2017							530	
6/13/2017	459							
6/15/2017			625		2350		499	
8/8/2017	470				2380			
8/10/2017			615				521	
10/4/2017			604					
10/5/2017	505				2140		529	
5/23/2018	424		589		1860		548	
11/30/2018	471		588		1760		563	
1/14/2019	477							
5/23/2019	455		588		2460		563	
7/17/2019	478							
11/7/2019	492		570		2430		509	
5/19/2020	472		584		2710		579	
11/12/2020	454		571		2420		555	
5/18/2021	509		559		2640		543	
11/18/2021	472		542		2480		535	
5/17/2023		484		542		2170		530

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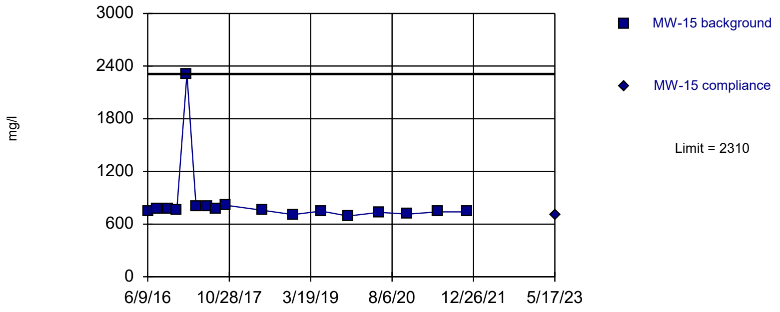
Within Limit

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 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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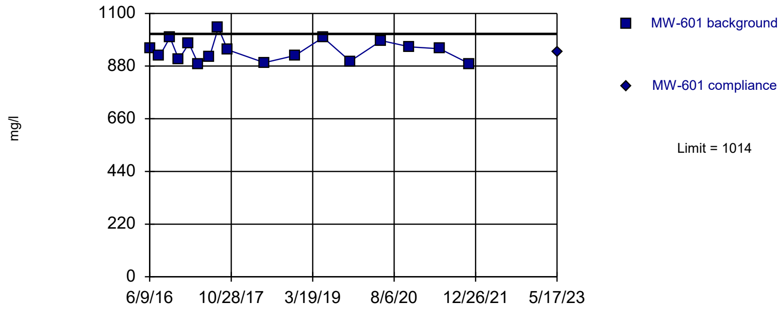
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=944.7, Std. Dev.=44.62, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.939, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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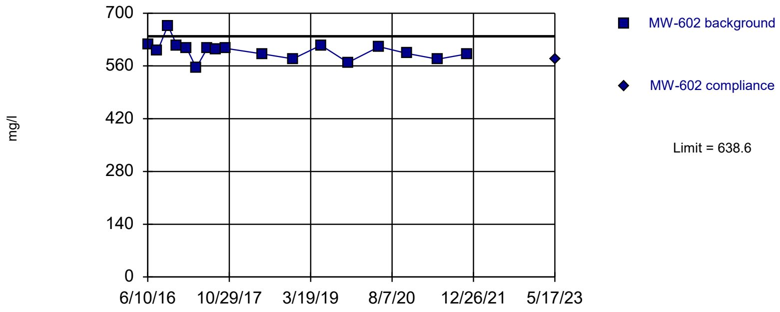
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=600.4, Std. Dev.=24.48, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9179, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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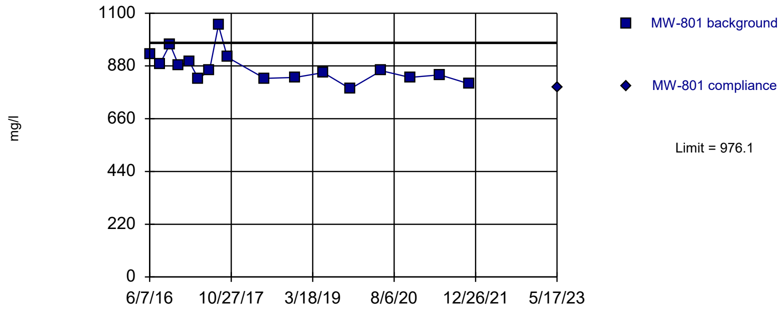
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=874.1, Std. Dev.=65.39, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9076, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: DISSOLVED SOLIDS Analysis Run 9/11/2023 8:42 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-15	MW-15	MW-601	MW-601	MW-602	MW-602	MW-801	MW-801
6/7/2016							930	
6/9/2016	751		956					
6/10/2016					618			
8/9/2016	777		922		600		888	
10/11/2016							970	
10/12/2016	772							
10/13/2016			1000		667			
12/6/2016							880	
12/7/2016	767		908					
12/9/2016					614			
2/7/2017	2310						900	
2/8/2017			974		606			
4/5/2017	803							
4/6/2017			890				826	
4/7/2017					555			
6/14/2017	808						862	
6/15/2017			916		607			
8/9/2017			1040				1050	
8/10/2017	775				604			
10/3/2017	815							
10/4/2017							916	
10/5/2017					607			
10/6/2017			948					
5/23/2018	757		894		592		828	
11/30/2018	709		924		579		832	
5/23/2019	748		1000		615		852	
11/7/2019	692		900		569		785	
5/19/2020	734		986		611		860	
11/12/2020	713		960		593		832	
5/18/2021	740		952		578		843	
11/18/2021	740		890		592		805	
5/17/2023		705		940		579		792

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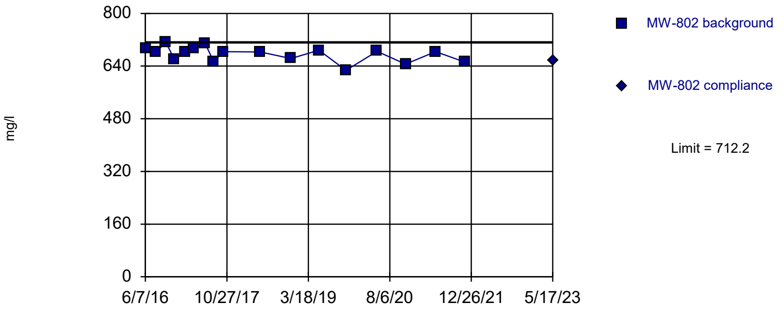
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=676.4, Std. Dev.=22.98, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9449, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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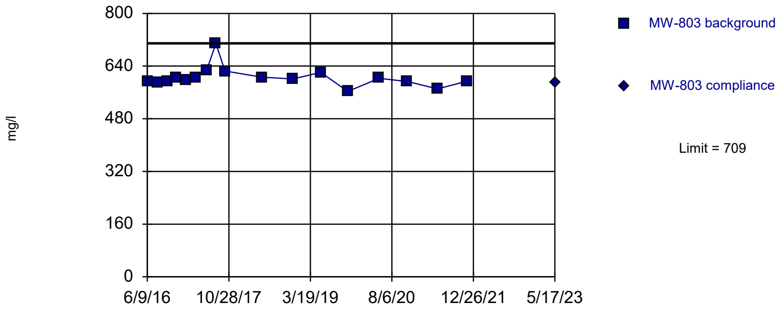
Within Limit

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 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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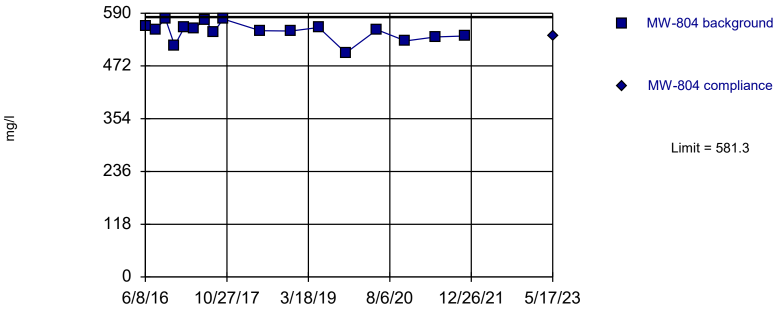
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=549.5, Std. Dev.=20.34, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.933, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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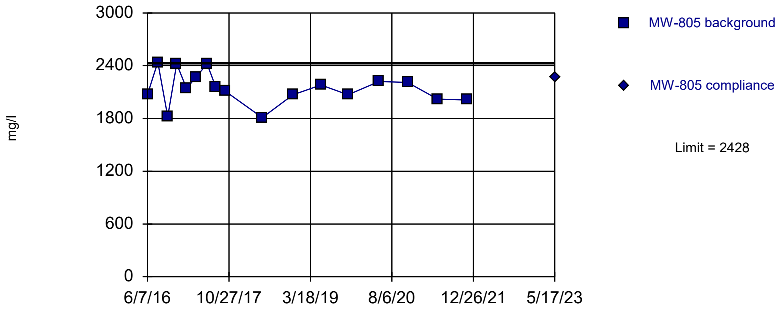
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2143, Std. Dev.=182.8, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9453, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: DISSOLVED SOLIDS Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: DISSOLVED SOLIDS   Analysis Run 9/11/2023 8:42 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-802	MW-802	MW-803	MW-803	MW-804	MW-804	MW-805	MW-805
6/7/2016	695						2070	
6/8/2016					562			
6/9/2016			594					
8/10/2016	681				554		2440	
8/12/2016			591					
10/11/2016	713				577		1820	
10/13/2016			592					
12/6/2016	659		603				2420	
12/7/2016					518			
2/6/2017							2140	
2/7/2017	683				559			
2/8/2017			599					
4/4/2017	693				555		2270	
4/7/2017			605					
6/13/2017	709		627		575		2420	
8/7/2017	653							
8/8/2017					548		2150	
8/9/2017			709					
10/4/2017	684		625					
10/5/2017					577		2110	
5/23/2018	683		606		551		1810	
11/30/2018	663		601		550		2070	
5/23/2019	688		621		558		2180	
11/7/2019	627		563		501		2070	
5/19/2020	685		603		553		2220	
11/12/2020	646		593		528		2210	
5/18/2021	684		571		537		2020	
11/18/2021	652		594		539		2010	
5/17/2023		656		591		540		2270

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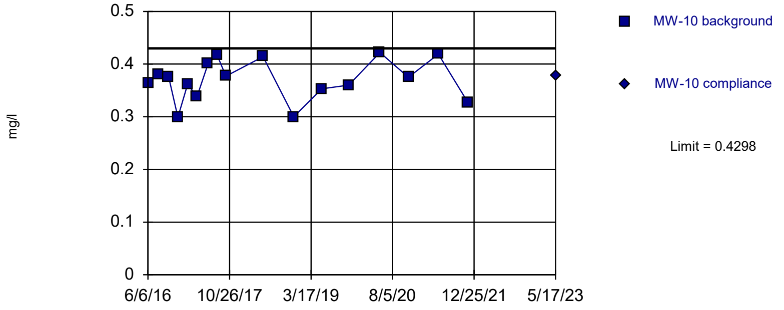
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.3697, Std. Dev.=0.0385, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9368, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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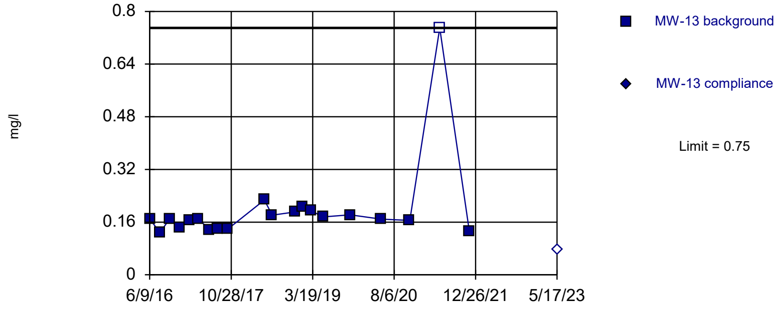
Hollow symbols indicate censored values.

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. 5% NDs. Well-constituent pair annual alpha = 0.001125. Individual comparison alpha = 0.0005627 (1 of 3).

Constituent: FLUORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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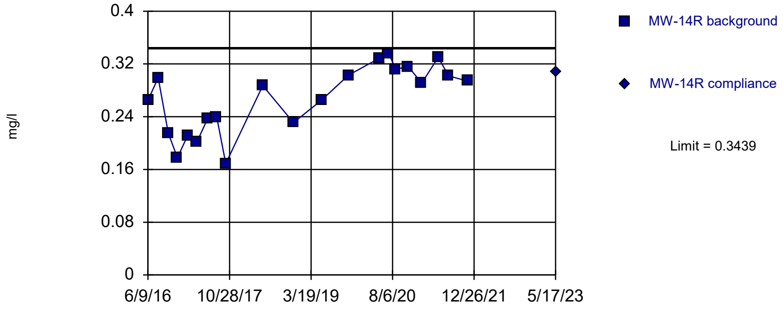
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2671, Std. Dev.=0.05146, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9327, critical = 0.873. Kappa = 1.491 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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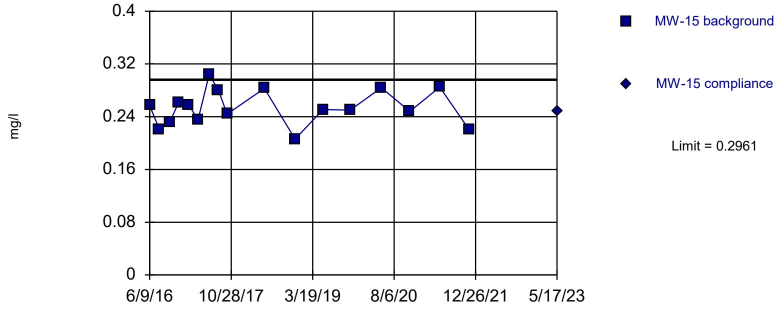
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2541, Std. Dev.=0.02691, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.973, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: FLUORIDE Analysis Run 9/11/2023 8:42 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-10	MW-10	MW-13	MW-13	MW-14R	MW-14R	MW-15	MW-15
6/6/2016	0.365							
6/9/2016			0.17		0.265		0.257	
8/9/2016							0.22	
8/11/2016	0.38		0.128		0.299			
10/12/2016	0.376						0.232	
10/13/2016			0.171		0.215			
12/7/2016							0.262	
12/9/2016	0.299				0.178			
12/13/2016			0.142					
2/7/2017							0.258	
2/8/2017	0.362							
2/9/2017					0.211			
2/10/2017			0.167					
4/5/2017							0.235	
4/6/2017	0.338		0.171					
4/7/2017					0.201			
6/14/2017							0.304	
6/15/2017	0.401		0.137		0.237			
8/8/2017			0.139					
8/10/2017	0.417				0.239		0.28	
10/3/2017							0.244	
10/4/2017	0.377							
10/5/2017			0.138		0.169			
5/23/2018	0.414		0.227		0.287		0.283	
7/11/2018			0.181					
11/30/2018	0.3		0.191		0.231		0.206	
1/14/2019			0.208					
3/11/2019			0.194					
5/23/2019	0.353		0.176		0.265		0.251	
11/7/2019	0.36		0.182		0.303		0.25	
5/19/2020	0.422		0.169		0.329		0.284	
7/13/2020					0.336			
8/27/2020					0.312			
11/12/2020	0.375		0.165		0.316		0.248	
2/4/2021					0.291			
5/18/2021	0.419		<1.5		0.33		0.285	
7/21/2021					0.302			
11/18/2021	0.327		0.132		0.294		0.22	
5/17/2023		0.379		<0.15		0.308		0.249

ND substitution: RL/2.

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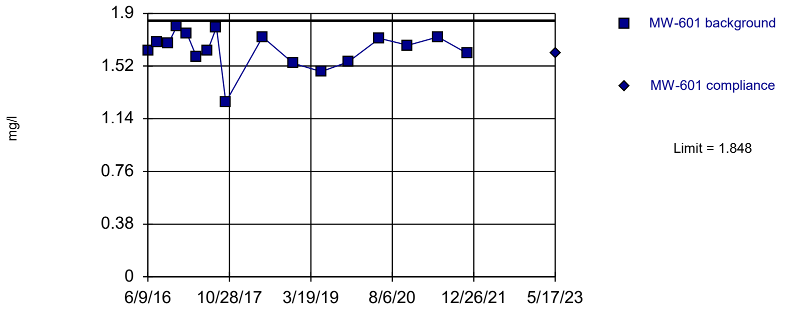
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.639, Std. Dev.=0.1337, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8983, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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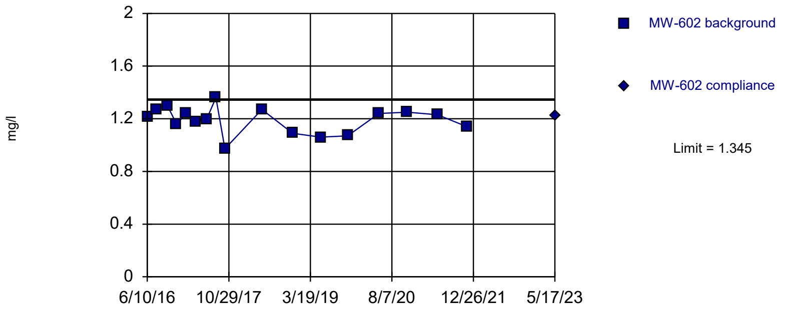
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.191, Std. Dev.=0.099, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9648, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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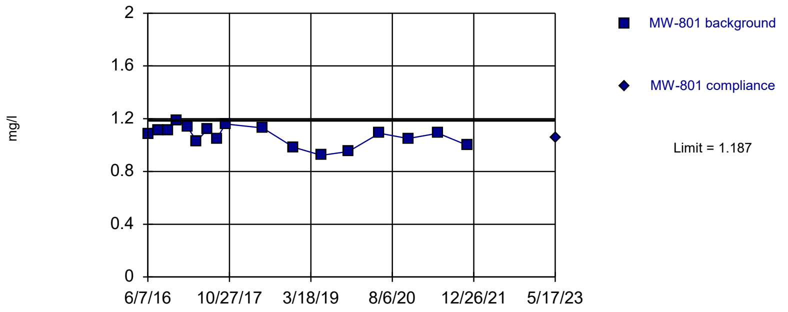
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.071, Std. Dev.=0.07449, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.965, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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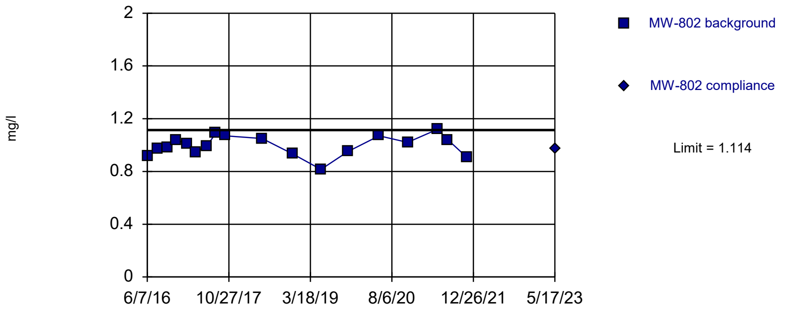
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.9963, Std. Dev.=0.07611, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9747, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: FLUORIDE Analysis Run 9/11/2023 8:42 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-601	MW-601	MW-602	MW-602	MW-801	MW-801	MW-802	MW-802
6/7/2016					1.08		0.92	
6/9/2016	1.63							
6/10/2016			1.21					
8/9/2016	1.69		1.27		1.11			
8/10/2016							0.972	
10/11/2016					1.11		0.986	
10/13/2016	1.68		1.3					
12/6/2016					1.19		1.04	
12/7/2016	1.81							
12/9/2016			1.16					
2/7/2017					1.14		1.01	
2/8/2017	1.75		1.24					
4/4/2017							0.947	
4/6/2017	1.59				1.03			
4/7/2017			1.18					
6/13/2017							0.995	
6/14/2017					1.12			
6/15/2017	1.63		1.2					
8/7/2017							1.09	
8/9/2017	1.8				1.05			
8/10/2017			1.36					
10/4/2017					1.16		1.07	
10/5/2017			0.972					
10/6/2017	1.26							
5/23/2018	1.73		1.27		1.13		1.05	
11/30/2018	1.54		1.09		0.984		0.932	
5/23/2019	1.48		1.06		0.922		0.816	
11/7/2019	1.55		1.07		0.951		0.952	
5/19/2020	1.72		1.24		1.09		1.07	
11/12/2020	1.67		1.25		1.05		1.02	
5/18/2021	1.73		1.23		1.09		1.12	
7/21/2021							1.04	
11/18/2021	1.61		1.14		0.997		0.904	
5/17/2023		1.61		1.22		1.06		0.972

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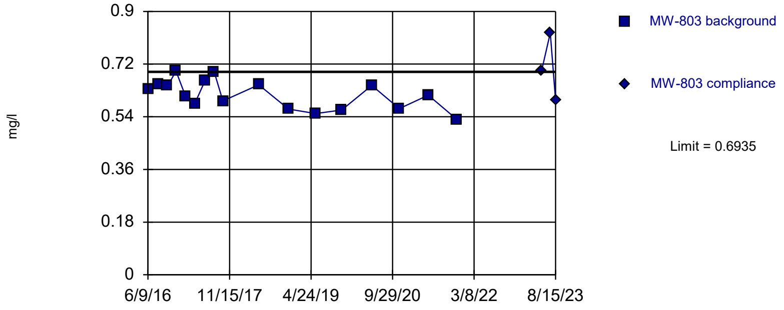
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.6155, Std. Dev.=0.04995, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9575, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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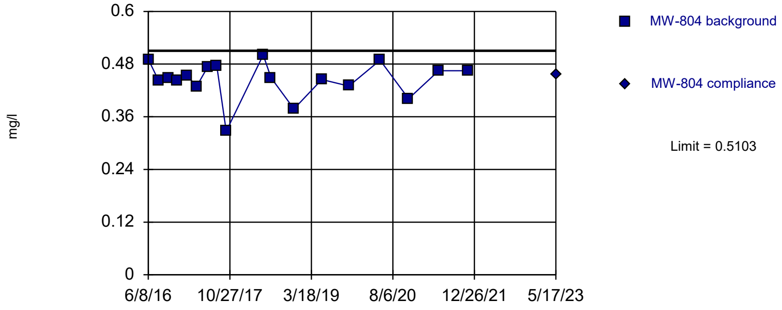
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.4447, Std. Dev.=0.04251, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8955, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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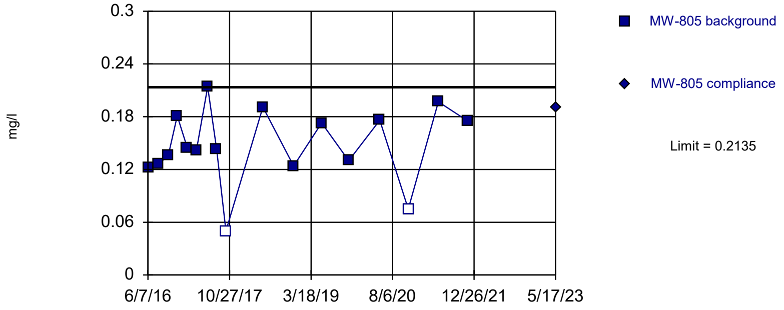
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1471, Std. Dev.=0.04259, n=17, 11.76% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9456, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: FLUORIDE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

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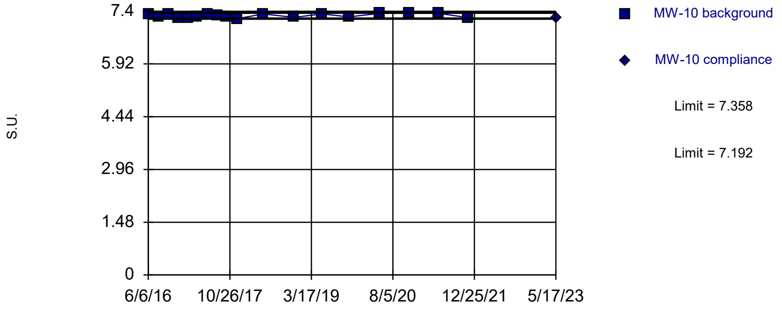
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.275, Std. Dev.=0.05382, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8671, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 9/11/2023 8:32 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: FLUORIDE, pH   Analysis Run 9/11/2023 8:42 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-803	MW-803	MW-804	MW-804	MW-805	MW-805	MW-10	MW-10
6/6/2016							7.33	
6/7/2016					0.122			
6/8/2016			0.491					
6/9/2016	0.636							
8/10/2016			0.443		0.126			
8/11/2016							7.26	
8/12/2016	0.653							
10/11/2016			0.448		0.136			
10/12/2016							7.33	
10/13/2016	0.645							
12/6/2016	0.696				0.181			
12/7/2016			0.441					
12/9/2016							7.22	
2/6/2017					0.145			
2/7/2017			0.453					
2/8/2017	0.607						7.21	
4/4/2017			0.429		0.142			
4/6/2017							7.23	
4/7/2017	0.586							
6/13/2017	0.665		0.474		0.214			
6/15/2017							7.31	
8/8/2017			0.476		0.143			
8/9/2017	0.693							
8/10/2017							7.29	
10/4/2017	0.594						7.23	
10/5/2017			0.327		<0.1			
12/12/2017							7.19	
5/23/2018	0.649		0.501		0.191		7.32	
7/11/2018			0.449					
11/30/2018	0.566		0.378		0.124		7.23	
5/23/2019	0.551		0.445		0.173		7.32	
11/7/2019	0.563		0.43		0.13		7.24	
5/19/2020	0.647		0.489		0.176		7.34	
11/12/2020	0.568		0.401		<0.15		7.34	
5/18/2021	0.614		0.465		0.197		7.34	
11/18/2021	0.531		0.465		0.175		7.22	
5/17/2023		0.698		0.457		0.191		7.2
7/12/2023		0.8265 (D) 1st verification						
8/15/2023		0.5955 (D) 2nd verification						

ND substitution: RL/2.

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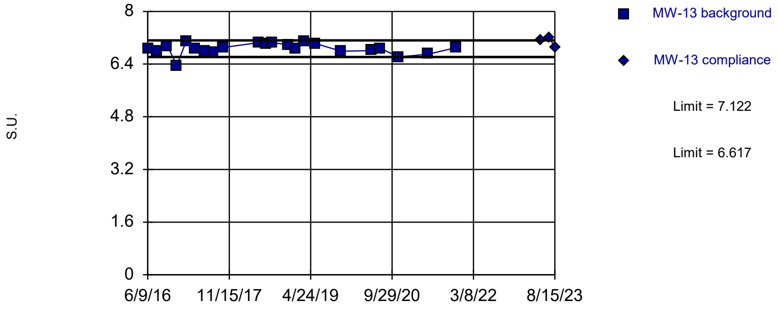
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.87, Std. Dev.=0.1706, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9044, critical = 0.878. Kappa = 1.48 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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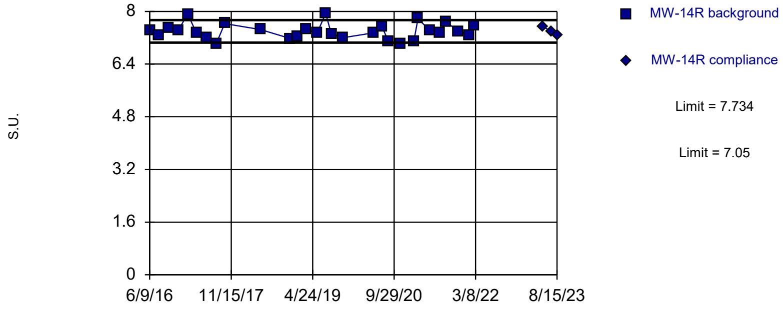
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.392, Std. Dev.=0.2405, n=29. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9552, critical = 0.898. Kappa = 1.422 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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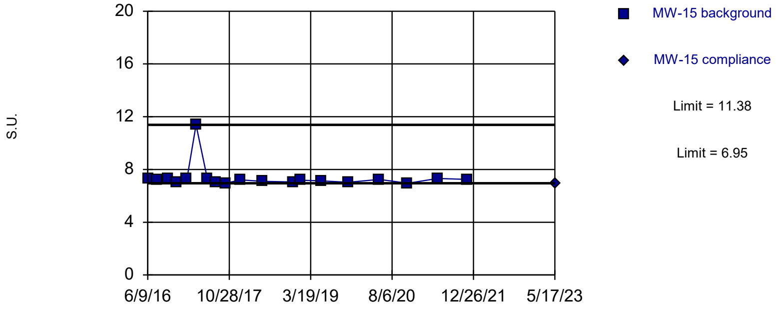
Within Limits

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 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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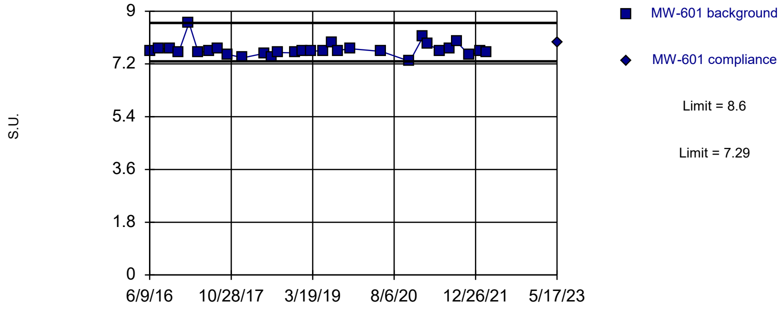
Within Limits

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 30 background values. Well-constituent pair annual alpha = 0.0007322. Individual comparison alpha = 0.0003661 (1 of 3).

Constituent: pH Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: pH   Analysis Run 9/11/2023 8:42 AM   View: LF LAQC III

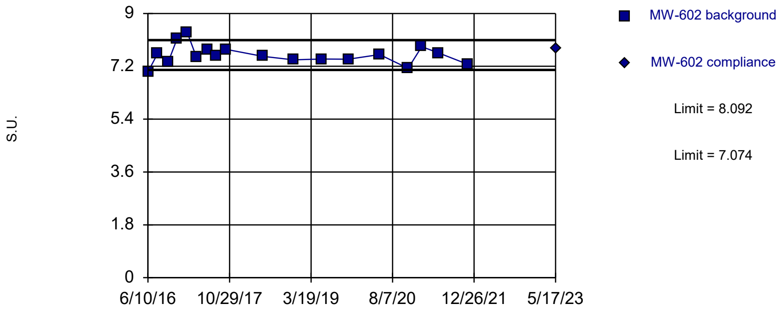
LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-13	MW-13	MW-14R	MW-14R	MW-15	MW-15	MW-601	MW-601
6/9/2016	6.88		7.42		7.31		7.66	
8/9/2016					7.23		7.72	
8/11/2016	6.78		7.26					
10/12/2016					7.28			
10/13/2016	6.95		7.51				7.71	
12/7/2016					7.02		7.61	
12/9/2016			7.42					
12/13/2016	6.36							
2/7/2017					7.28			
2/8/2017							8.6	
2/9/2017			7.92					
2/10/2017	7.08							
4/5/2017					11.38			
4/6/2017	6.86						7.61	
4/7/2017			7.34					
6/14/2017					7.34			
6/15/2017	6.8		7.19				7.62	
8/8/2017	6.74							
8/9/2017							7.72	
8/10/2017			7.01		7.02			
10/3/2017					6.95			
10/5/2017	6.9		7.63					
10/6/2017							7.53	
1/9/2018					7.21		7.41	
5/23/2018	7.05		7.45		7.1		7.56	
7/11/2018	7.02						7.43	
8/16/2018	7.05						7.59	
11/30/2018	6.99		7.18		7.05		7.58	
1/14/2019	6.87		7.25		7.18		7.63	
3/11/2019	7.07		7.45				7.64	
5/23/2019	7.03		7.35		7.14		7.65	
7/17/2019			7.94				7.95	
8/23/2019			7.31				7.66	
11/7/2019	6.79		7.2		7.03		7.72	
5/19/2020	6.81		7.35		7.25		7.63	
7/13/2020	6.88		7.54					
8/27/2020			7.07					
11/12/2020	6.62		7.01		6.95		7.29	
2/4/2021			7.09				8.14	
3/3/2021			7.78				7.88	
5/18/2021	6.7		7.42		7.32		7.66	
7/21/2021			7.36				7.73	
8/30/2021			7.69				7.96	
11/18/2021	6.9		7.39		7.25		7.5	
1/27/2022			7.29				7.63	
3/3/2022			7.56				7.6	
5/17/2023		7.12		7.54		6.95		7.92
7/12/2023		7.2 Extra		7.38 Extra				
8/15/2023		6.89 Extra		7.28 Extra				

Within Limits

Prediction Limit

Intrawell Parametric



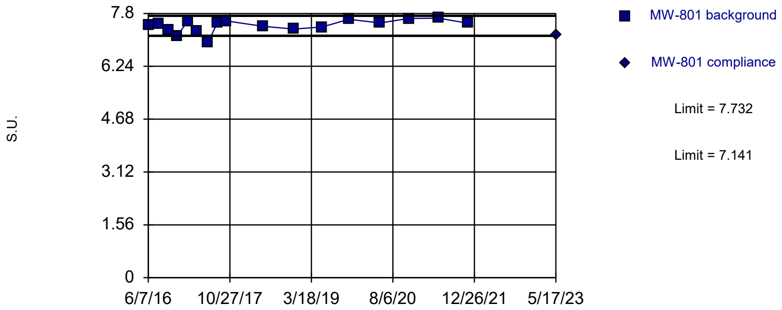
Background Data Summary: Mean=7.583, Std. Dev.=0.3302, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9633, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit

Intrawell Parametric



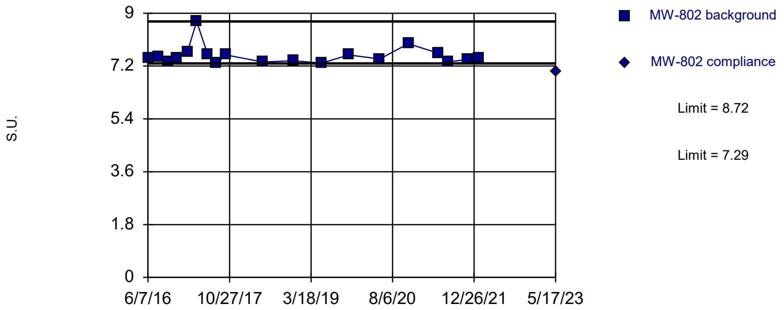
Background Data Summary: Mean=7.436, Std. Dev.=0.1896, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9092, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Exceeds Limits

Prediction Limit

Intrawell Non-parametric



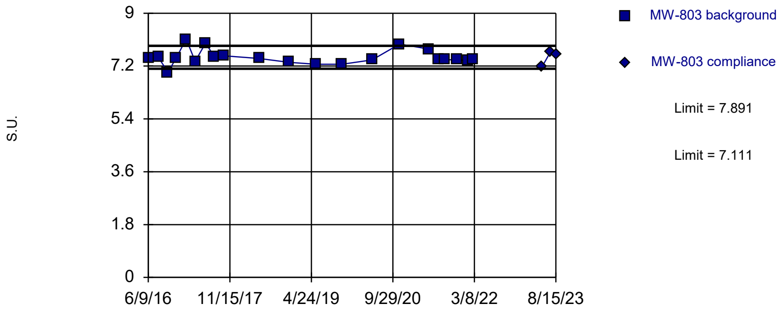
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 19 background values. Well-constituent pair annual alpha = 0.002713. Individual comparison alpha = 0.001357 (1 of 3).

Constituent: pH Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.501, Std. Dev.=0.2615, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8827, critical = 0.873. Kappa = 1.491 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: pH   Analysis Run 9/11/2023 8:42 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-602	MW-602	MW-801	MW-801	MW-802	MW-802	MW-803	MW-803	
6/7/2016			7.47		7.46				
6/9/2016							7.48		
6/10/2016	7.01								
8/9/2016	7.64		7.48						
8/10/2016					7.52				
8/12/2016							7.51		
10/11/2016			7.32		7.34				
10/13/2016	7.34						6.99		
12/6/2016			7.14		7.48		7.48		
12/9/2016	8.15								
2/7/2017			7.58		7.67				
2/8/2017	8.36						8.12		
4/5/2017					8.72				
4/6/2017			7.26						
4/7/2017	7.51						7.36		
6/13/2017					7.6		7.98		
6/14/2017			6.95						
6/15/2017	7.77								
8/7/2017					7.29				
8/8/2017							7.52		
8/9/2017			7.51						
8/10/2017	7.56								
10/4/2017			7.58		7.58		7.55		
10/5/2017	7.78								
5/23/2018	7.54		7.42		7.34		7.46		
11/30/2018	7.42		7.34		7.38		7.33		
5/23/2019	7.45		7.4		7.3		7.26		
11/7/2019	7.44		7.63		7.58		7.26		
5/19/2020	7.6		7.52		7.44		7.41		
11/12/2020	7.13		7.65		7.96		7.95		
2/4/2021	7.87								
5/18/2021	7.66		7.66		7.64		7.78		
7/21/2021					7.35		7.44		
8/30/2021							7.41		
11/18/2021	7.27		7.51		7.42		7.42		
1/27/2022					7.46		7.39		
3/3/2022							7.43		
5/17/2023		7.79		7.18		7		7.17	
7/12/2023								7.69	Extra
8/15/2023								7.59	Extra

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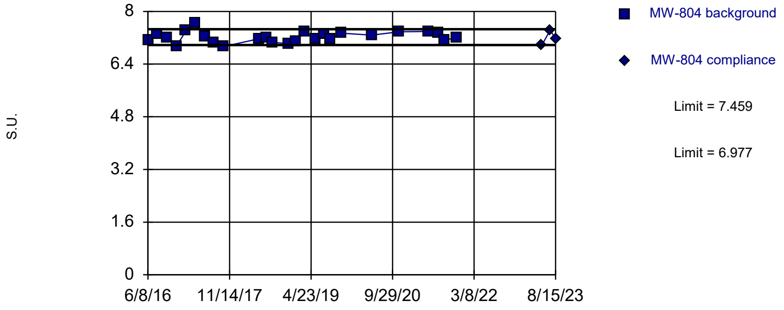
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.218, Std. Dev.=0.1662, n=25. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9671, critical = 0.888. Kappa = 1.448 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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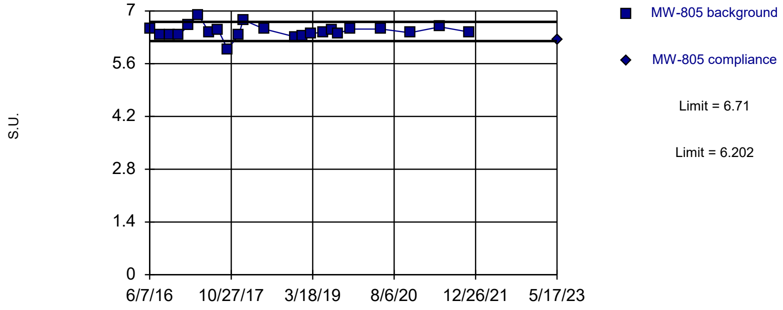
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.456, Std. Dev.=0.1728, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9122, critical = 0.881. Kappa = 1.47 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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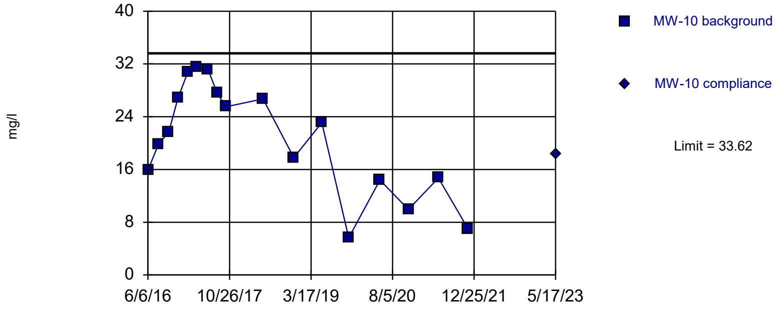
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=20.59, Std. Dev.=8.347, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9412, critical = 0.851. Kappa = 1.561 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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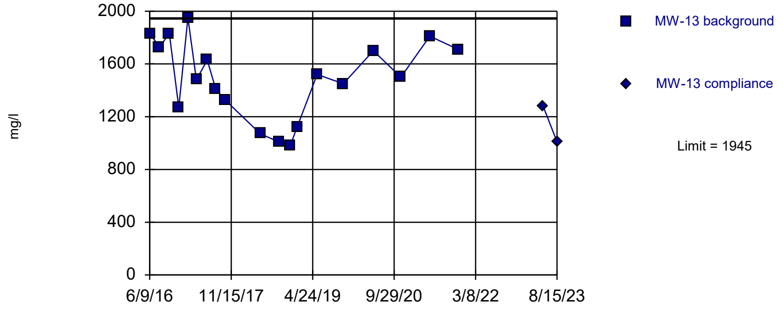
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1491, Std. Dev.=298.5, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9465, critical = 0.863. Kappa = 1.522 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: pH, SULFATE   Analysis Run 9/11/2023 8:42 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-804	MW-804	MW-805	MW-805	MW-10	MW-10	MW-13	MW-13
6/6/2016					15.9			
6/7/2016			6.52					
6/8/2016	7.13							
6/9/2016							1830	
8/10/2016	7.32		6.35					
8/11/2016					19.9		1730	
10/11/2016	7.2		6.36					
10/12/2016					21.6			
10/13/2016							1830	
12/6/2016			6.36					
12/7/2016	6.93							
12/9/2016					26.8			
12/13/2016							1270	
2/6/2017			6.62					
2/7/2017	7.41							
2/8/2017					30.7			
2/10/2017							1950	
4/5/2017	7.65		6.9					
4/6/2017					31.6		1480	
6/13/2017	7.22		6.43					
6/15/2017					31.1		1630	
8/8/2017	7.06		6.49				1410	
8/10/2017					27.6			
10/4/2017					25.5			
10/5/2017	6.93		5.99				1330	
12/12/2017			6.35					
1/9/2018			6.76					
5/23/2018	7.17		6.52		26.7		1070	
7/11/2018	7.21							
8/16/2018	7.06							
9/17/2018							1010	
11/30/2018	7.02		6.31		17.8		978	
1/14/2019	7.07		6.32				1120	
3/11/2019	7.38		6.4					
5/23/2019	7.15		6.44		23.1		1520	
7/17/2019	7.31		6.48					
8/22/2019	7.16		6.4					
11/7/2019	7.34		6.52		5.64		1450	
5/19/2020	7.28		6.52		14.4		1700	
11/12/2020	7.38		6.42		9.92		1500	
5/18/2021	7.39		6.58		14.7		1810	
7/21/2021	7.35							
8/30/2021	7.14							
11/18/2021	7.19		6.44		7.03		1710	
5/17/2023		6.96		6.23		18.4		1280
7/12/2023		7.44 Extra						
8/15/2023		7.15 Extra						1010 Extra

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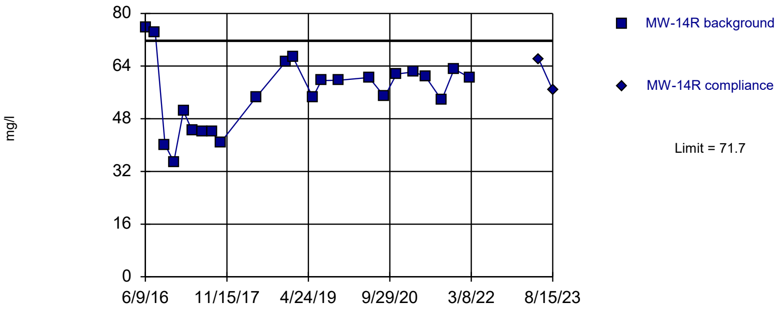
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=55.92, Std. Dev.=10.73, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9616, critical = 0.881. Kappa = 1.47 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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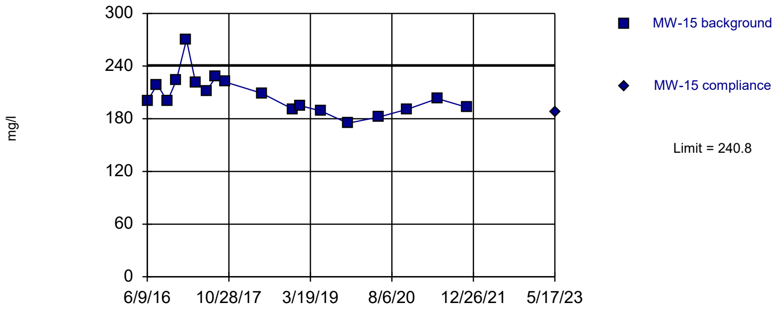
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=206.9, Std. Dev.=22.01, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9067, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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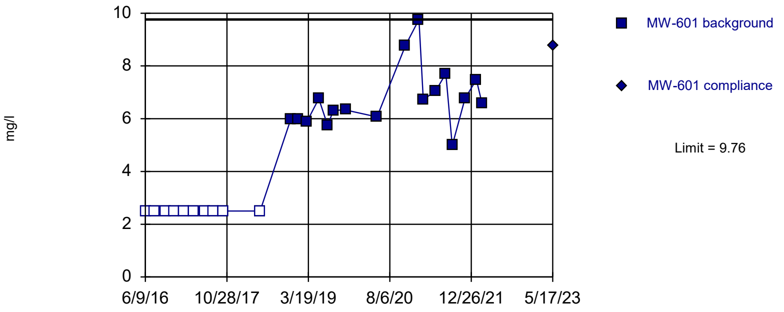
Hollow symbols indicate censored values.

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 27 background values. 37.04% NDs. Well-constituent pair annual alpha = 0.0005119. Individual comparison alpha = 0.000256 (1 of 3).

Constituent: SULFATE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

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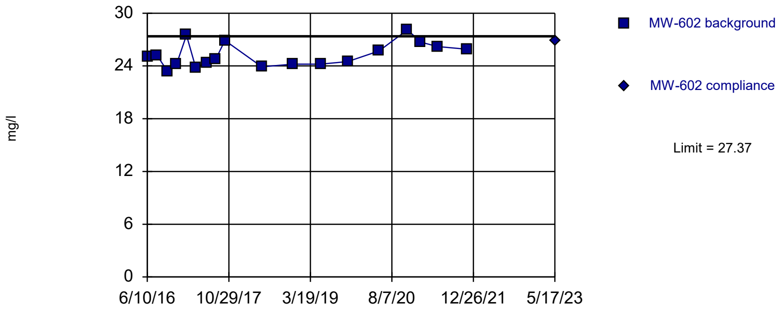
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=25.26, Std. Dev.=1.366, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9342, critical = 0.858. Kappa = 1.541 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III
LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: SULFATE   Analysis Run 9/11/2023 8:42 AM   View: LF LAQC III

LaCygne   Client: SCS Engineers   Data: LaC GW Data

	MW-14R	MW-14R	MW-15	MW-15	MW-601	MW-601	MW-602	MW-602
6/9/2016	75.8		200		<5			
6/10/2016							25.1	
8/9/2016			219		<5		25.2	
8/11/2016	74.2							
10/12/2016			200					
10/13/2016	40.1				<5		23.4	
12/7/2016			224		<5			
12/9/2016	34.9						24.2	
2/7/2017			270					
2/8/2017					<5		27.5	
2/9/2017	50.4							
4/5/2017			221					
4/6/2017					<5			
4/7/2017	44.3						23.8	
6/14/2017			212					
6/15/2017	44.2				<5		24.4	
8/9/2017					<5			
8/10/2017	44		228				24.8	
10/3/2017			222					
10/5/2017	40.7						26.9	
10/6/2017					<5			
5/23/2018	54.5		209		<5		23.9	
11/30/2018	65.4		191		5.98		24.2	
1/14/2019	66.9		195		5.97			
3/11/2019					5.89			
5/23/2019	54.5		189		6.76		24.2	
7/17/2019	59.6				5.75			
8/23/2019					6.32			
11/7/2019	59.7		175		6.33		24.5	
5/19/2020	60.5		182		6.07		25.7	
8/27/2020	54.7							
11/12/2020	61.6		191		8.78		28.1	
2/4/2021					9.76		26.7	
3/3/2021	62.2				6.73			
5/18/2021	60.8		203		7.04		26.2	
7/21/2021					7.71			
8/30/2021	53.7				4.98			
11/18/2021	63.1		193		6.77		25.9	
1/27/2022					7.48			
3/3/2022	60.4				6.58			
5/17/2023		66.1		188		8.77		26.9
8/15/2023		56.7 Extra						

ND substitution: RL/2.

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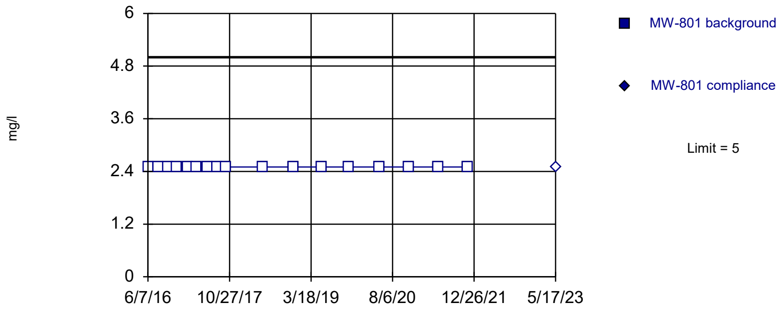
Hollow symbols indicate censored values.

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).

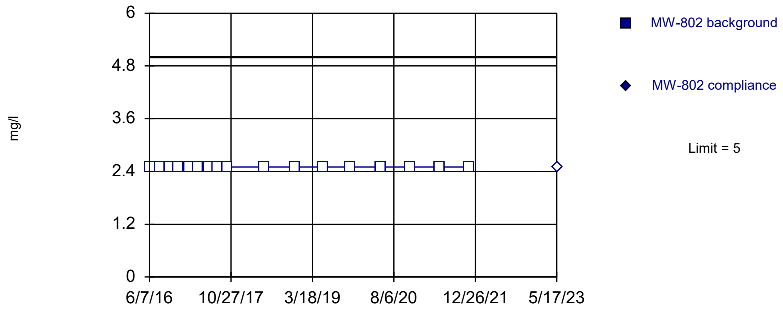
Constituent: SULFATE   Analysis Run 9/11/2023 8:32 AM   View: LF LAQC III
LaCygne   Client: SCS Engineers   Data: LaC GW Data

Sanitas™ v.10.0.06 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

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 9/11/2023 8:32 AM   View: LF LAQC III
LaCygne   Client: SCS Engineers   Data: LaC GW Data

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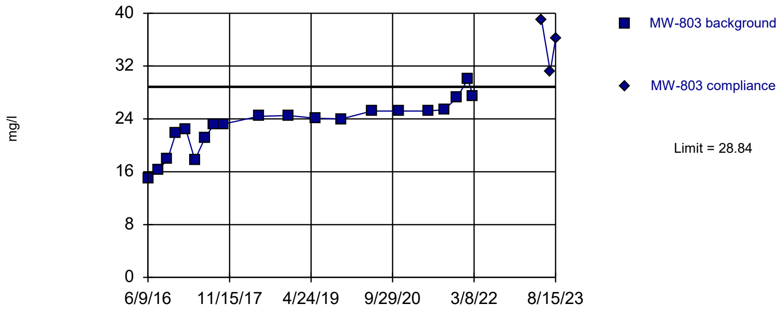
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=23.07, Std. Dev.=3.844, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9364, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

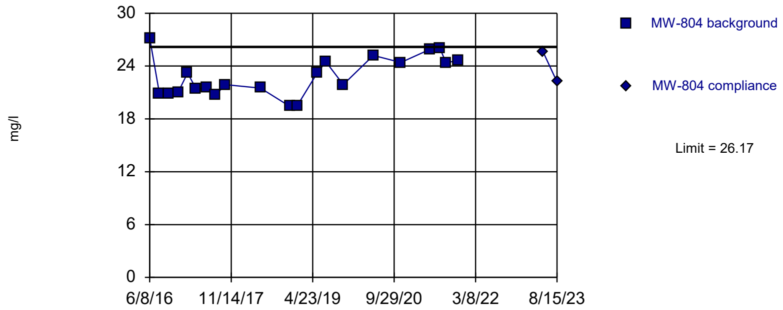
Constituent: SULFATE   Analysis Run 9/11/2023 8:32 AM   View: LF LAQC III
LaCygne   Client: SCS Engineers   Data: LaC GW Data

Sanitas™ v.10.0.06 Software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=22.82, Std. Dev.=2.245, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.945, critical = 0.873. Kappa = 1.491 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE   Analysis Run 9/11/2023 8:32 AM   View: LF LAQC III
LaCygne   Client: SCS Engineers   Data: LaC GW Data

Prediction Limit

Constituent: SULFATE   Analysis Run 9/11/2023 8:42 AM   View: LF LAQC III
LaCygne   Client: SCS Engineers   Data: LaC GW Data

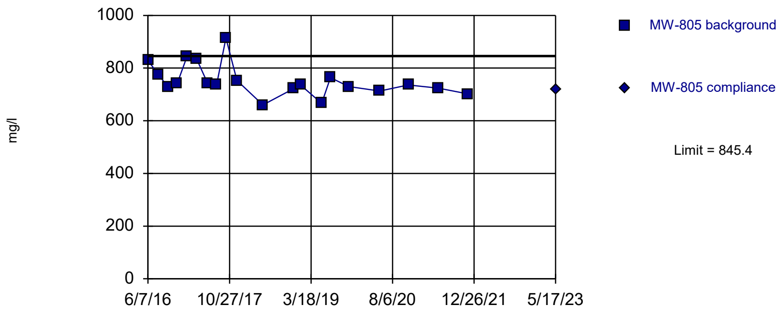
	MW-801	MW-801	MW-802	MW-802	MW-803	MW-803	MW-804	MW-804
6/7/2016	<5		<5					
6/8/2016							27.2	
6/9/2016					15			
8/9/2016	<5							
8/10/2016			<5				20.9	
8/12/2016					16.2			
10/11/2016	<5		<5				20.9	
10/13/2016					17.9			
12/6/2016	<5		<5		21.9			
12/7/2016							21	
2/7/2017	<5		<5				23.2	
2/8/2017					22.4			
4/4/2017			<5				21.4	
4/6/2017	<5							
4/7/2017					17.8			
6/13/2017			<5		21.2		21.5	
6/14/2017	<5							
8/7/2017			<5					
8/8/2017							20.7	
8/9/2017	<5				23.2			
10/4/2017	<5		<5		23.2			
10/5/2017							21.9	
5/23/2018	<5		<5		24.4		21.5	
11/30/2018	<5		<5		24.5		19.4	
1/14/2019							19.5	
5/23/2019	<5		<5		24.1		23.2	
7/17/2019							24.5	
11/7/2019	<5		<5		24		21.9	
5/19/2020	<5		<5		25.2		25.2	
11/12/2020	<5		<5		25.2		24.4	
5/18/2021	<5		<5		25.2		25.9	
7/21/2021							26	
8/30/2021					25.4		24.4	
11/18/2021	<5		<5		27.2		24.6	
1/27/2022					30			
3/3/2022					27.4			
5/17/2023		<5		<5		38.9		25.6
7/12/2023						31.15 (D) 1st Verificatioin		
8/15/2023						36.15 (D) 2nd Verification		22.2 Extra

ND substitution: RL/2.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=752.7, Std. Dev.=61.76, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8968, critical = 0.868. Kappa = 1.502 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: SULFATE Analysis Run 9/11/2023 8:32 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

Prediction Limit

Constituent: SULFATE Analysis Run 9/11/2023 8:42 AM View: LF LAQC III

LaCygne Client: SCS Engineers Data: LaC GW Data

	MW-805	MW-805
6/7/2016	829	
8/10/2016	776	
10/11/2016	726	
12/6/2016	742	
2/6/2017	846	
4/4/2017	836	
6/13/2017	742	
8/8/2017	737	
10/5/2017	914	
12/12/2017	753	
5/23/2018	660	
11/30/2018	722	
1/14/2019	735	
5/23/2019	666	
7/17/2019	764	
11/7/2019	730	
5/19/2020	713	
11/12/2020	736	
5/18/2021	724	
11/18/2021	702	
5/17/2023		717

Prediction Limit

LaCygne Client: SCS Engineers Data: LaC GW Data Printed 9/11/2023, 8:42 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
BORON (mg/l)	MW-10	1.002	n/a	5/17/2023	0.807	No	18	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-13	0.5808	n/a	5/17/2023	0.353	No	21	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-14R	0.8542	n/a	5/17/2023	0.851	No	19	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-15	0.2947	n/a	5/17/2023	0.228	No	18	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-601	1.912	n/a	5/17/2023	1.88	No	17	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-602	2.442	n/a	5/17/2023	2.32	No	17	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-801	2.384	n/a	5/17/2023	2.17	No	17	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-802	2.559	n/a	5/17/2023	2.44	No	17	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-803	2.165	n/a	5/17/2023	2.05	No	17	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-804	1.74	n/a	5/17/2023	1.53	No	23	0	No	0.001075	Param Intra 1 of 3
BORON (mg/l)	MW-805	0.5733	n/a	5/17/2023	0.531	No	19	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-10	61.29	n/a	5/17/2023	46.4	No	17	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-13	413.3	n/a	8/15/2023	266	No	19	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-14R	61.34	n/a	8/15/2023	49.3	No	22	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-15	108.6	n/a	5/17/2023	100	No	18	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-601	23.9	n/a	5/17/2023	15.9	No	22	0	n/a	0.000...	NP Intra (normality) ...
CALCIUM (mg/l)	MW-602	25.44	n/a	5/17/2023	22.6	No	17	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-801	35.09	n/a	5/17/2023	24.6	No	17	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-802	38.75	n/a	5/17/2023	28.8	No	17	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-803	49.12	n/a	8/15/2023	39.7	No	19	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-804	68.52	n/a	8/15/2023	63.1	No	20	0	No	0.001075	Param Intra 1 of 3
CALCIUM (mg/l)	MW-805	484.6	n/a	5/17/2023	447	No	22	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-10	67.5	n/a	5/17/2023	47.3	No	17	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	**MW-13**	**19.61**	**n/a**	**8/15/2023**	**26.3**	**Yes**	**20**	**0**	**No**	**0.001075**	**Param Intra 1 of 3**
CHLORIDE (mg/l)	MW-14R	6.889	n/a	8/15/2023	6.67	No	29	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-15	19.29	n/a	5/17/2023	10.8	No	18	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-601	201	n/a	5/17/2023	163	No	22	0	n/a	0.000...	NP Intra (normality) ...
CHLORIDE (mg/l)	MW-602	17.86	n/a	5/17/2023	16.4	No	17	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-801	121.4	n/a	5/17/2023	93.6	No	17	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-802	38.75	n/a	5/17/2023	38.4	No	18	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	MW-803	50.6	n/a	8/15/2023	50.4	No	20	0	No	0.001075	Param Intra 1 of 3
CHLORIDE (mg/l)	**MW-804**	**32.11**	**n/a**	**8/15/2023**	**33.1**	**Yes**	**20**	**0**	**No**	**0.001075**	**Param Intra 1 of 3**
CHLORIDE (mg/l)	MW-805	511.2	n/a	5/17/2023	484	No	19	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-10	632.4	n/a	5/17/2023	542	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-13	6050	n/a	5/17/2023	2170	No	17	0	n/a	0.000...	NP Intra (normality) ...
DISSOLVED SOLIDS (mg/l)	MW-14R	584.8	n/a	5/17/2023	530	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-15	2310	n/a	5/17/2023	705	No	17	0	n/a	0.000...	NP Intra (normality) ...
DISSOLVED SOLIDS (mg/l)	MW-601	1014	n/a	5/17/2023	940	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-602	638.6	n/a	5/17/2023	579	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-801	976.1	n/a	5/17/2023	792	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-802	712.2	n/a	5/17/2023	656	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-803	709	n/a	5/17/2023	591	No	17	0	n/a	0.000...	NP Intra (normality) ...
DISSOLVED SOLIDS (mg/l)	MW-804	581.3	n/a	5/17/2023	540	No	17	0	No	0.001075	Param Intra 1 of 3
DISSOLVED SOLIDS (mg/l)	MW-805	2428	n/a	5/17/2023	2270	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-10	0.4298	n/a	5/17/2023	0.379	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-13	0.75	n/a	5/17/2023	0.075ND	No	20	5	n/a	0.000...	NP Intra (normality) ...
FLUORIDE (mg/l)	MW-14R	0.3439	n/a	5/17/2023	0.308	No	21	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-15	0.2961	n/a	5/17/2023	0.249	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-601	1.848	n/a	5/17/2023	1.61	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-602	1.345	n/a	5/17/2023	1.22	No	17	0	No	0.001075	Param Intra 1 of 3

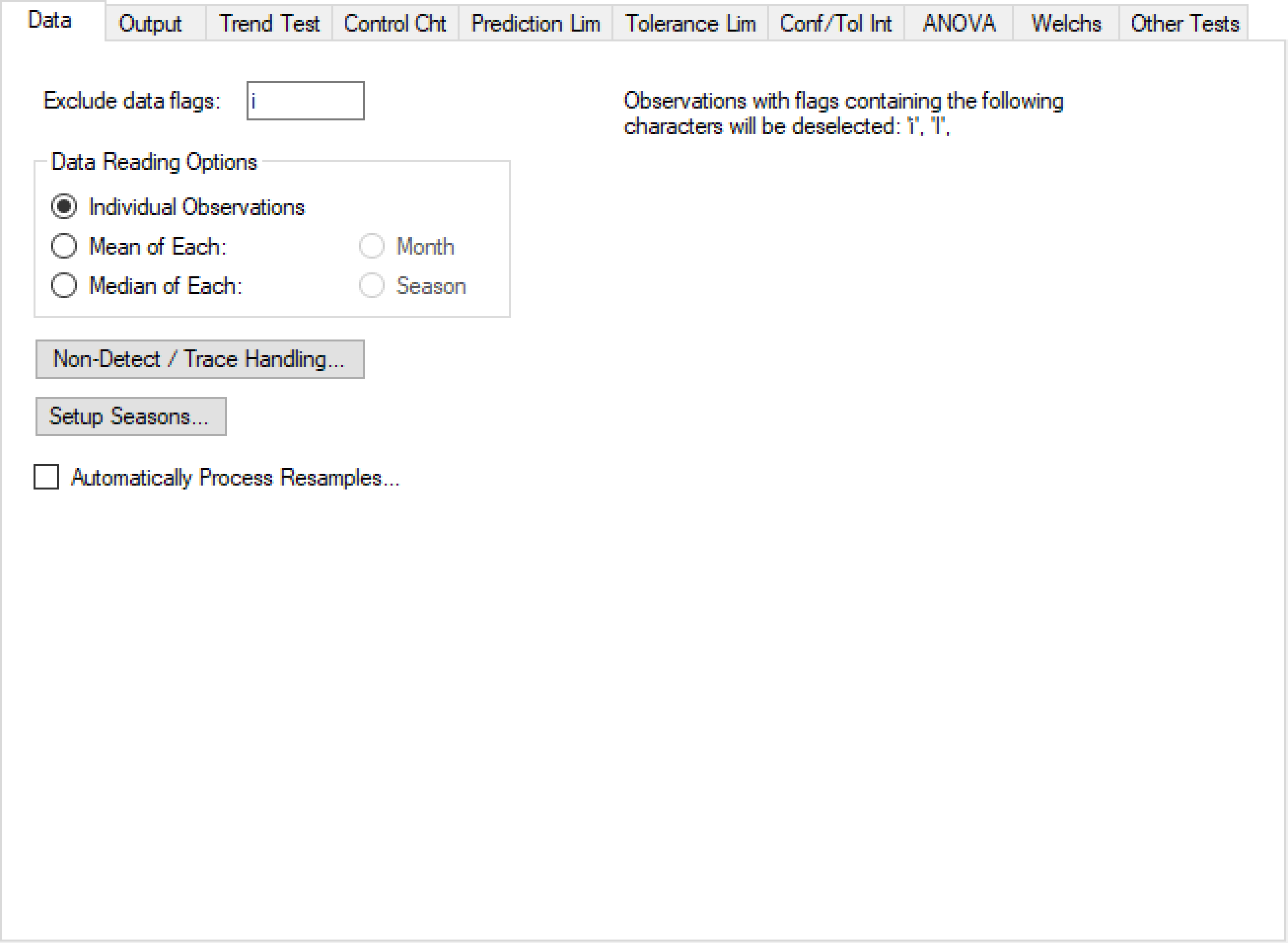
Prediction Limit

LaCygne   Client: SCS Engineers   Data: LaC GW Data   Printed 9/11/2023, 8:42 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
FLUORIDE (mg/l)	MW-801	1.187	n/a	5/17/2023	1.06	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-802	1.114	n/a	5/17/2023	0.972	No	18	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-803	0.6935	n/a	8/15/2023	0.5955	No	17	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-804	0.5103	n/a	5/17/2023	0.457	No	18	0	No	0.001075	Param Intra 1 of 3
FLUORIDE (mg/l)	MW-805	0.2135	n/a	5/17/2023	0.191	No	17	11.76	No	0.001075	Param Intra 1 of 3
pH (S.U.)	MW-10	7.358	7.192	5/17/2023	7.2	No	18	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-13	7.122	6.617	8/15/2023	6.89	No	22	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-14R	7.734	7.05	8/15/2023	7.28	No	29	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-15	11.38	6.95	5/17/2023	6.95	No	19	0	n/a	0.001357	NP Intra (normality) ...
pH (S.U.)	MW-601	8.6	7.29	5/17/2023	7.92	No	30	0	n/a	0.000...	NP Intra (normality) ...
pH (S.U.)	MW-602	8.092	7.074	5/17/2023	7.79	No	18	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-801	7.732	7.141	5/17/2023	7.18	No	17	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	**MW-802**	**8.72**	**7.29**	**5/17/2023**	**7**	**Yes**	**19**	**0**	**n/a**	**0.001357**	**NP Intra (normality) ...**
pH (S.U.)	MW-803	7.891	7.111	8/15/2023	7.59	No	21	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-804	7.459	6.977	8/15/2023	7.15	No	25	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	MW-805	6.71	6.202	5/17/2023	6.23	No	23	0	No	0.000...	Param Intra 1 of 3
SULFATE (mg/l)	MW-10	33.62	n/a	5/17/2023	18.4	No	17	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-13	1945	n/a	8/15/2023	1010	No	19	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-14R	71.7	n/a	8/15/2023	56.7	No	23	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-15	240.8	n/a	5/17/2023	188	No	18	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-601	9.76	n/a	5/17/2023	8.77	No	27	37.04	n/a	0.000256	NP Intra (normality) ...
SULFATE (mg/l)	MW-602	27.37	n/a	5/17/2023	26.9	No	18	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-801	5	n/a	5/17/2023	2.5ND	No	17	100	n/a	0.000...	NP Intra (NDs) 1 of 3
SULFATE (mg/l)	MW-802	5	n/a	5/17/2023	2.5ND	No	17	100	n/a	0.000...	NP Intra (NDs) 1 of 3
SULFATE (mg/l)	**MW-803**	**28.84**	**n/a**	**8/15/2023**	**36.15**	**Yes**	**20**	**0**	**No**	**0.001075**	**Param Intra 1 of 3**
SULFATE (mg/l)	MW-804	26.17	n/a	8/15/2023	22.2	No	21	0	No	0.001075	Param Intra 1 of 3
SULFATE (mg/l)	MW-805	845.4	n/a	5/17/2023	717	No	20	0	No	0.001075	Param Intra 1 of 3

ATTACHMENT 2

Sanitas™ Configuration Settings



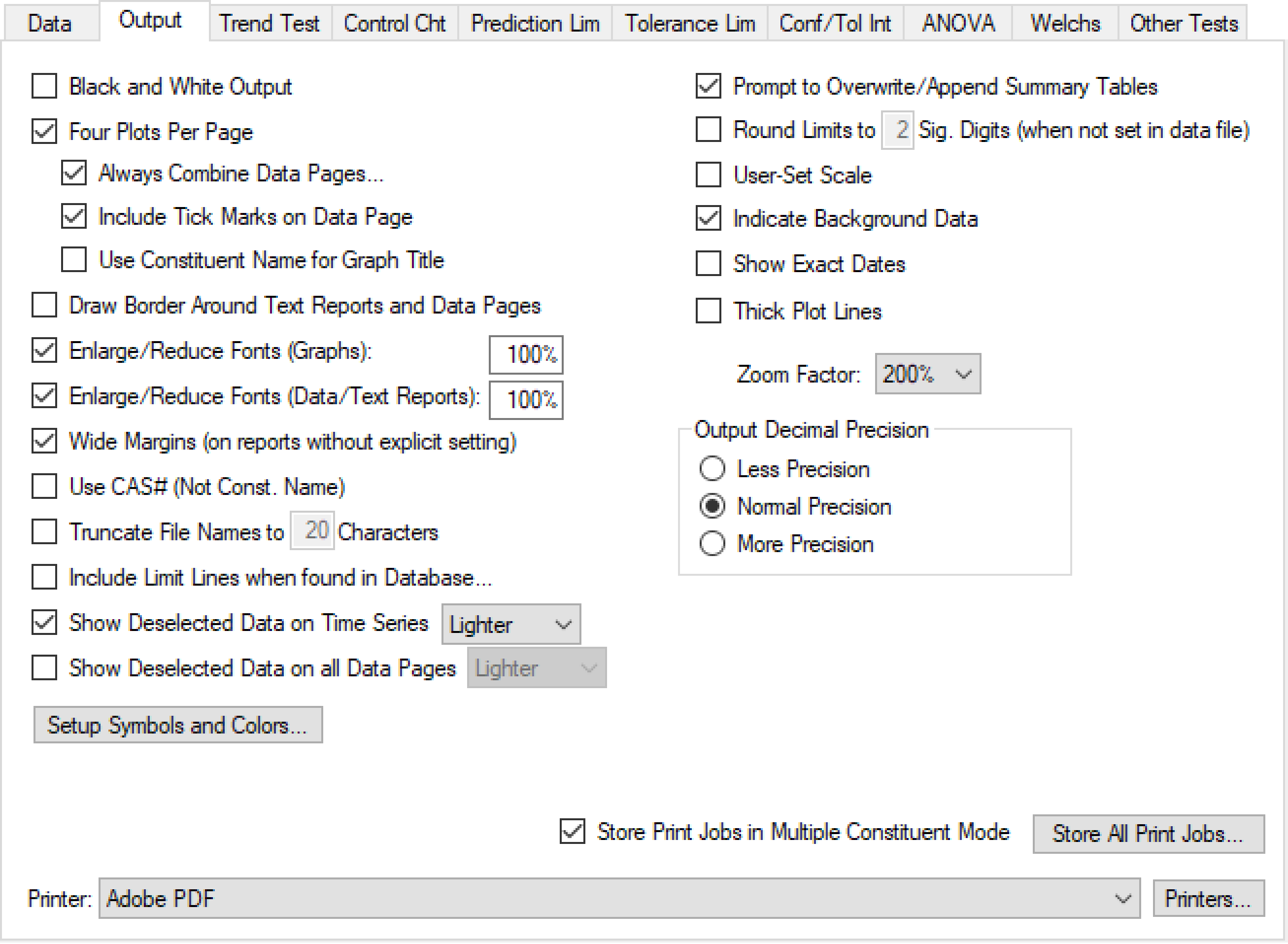
Exclude data flags: i

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): 100%

☑ Enlarge/Reduce Fonts (Data/Text Reports): 100%

☑ Wide Margins (on reports without explicit setting)

☐ Use CAS# (Not Const. Name)

☐ Truncate File Names to 20 Characters

☐ Include Limit Lines when found in Database...

☑ Show Deselected Data on Time Series: Lighter

☐ Show Deselected Data on all Data Pages: Lighter

☑ Prompt to Overwrite/Append Summary Tables

☐ Round Limits to 2 Sig. Digits (when not set in data file)

☐ User-Set Scale

☑ Indicate Background Data

☐ Show Exact Dates

☐ Thick Plot Lines

Zoom Factor: 200%

Output Decimal Precision

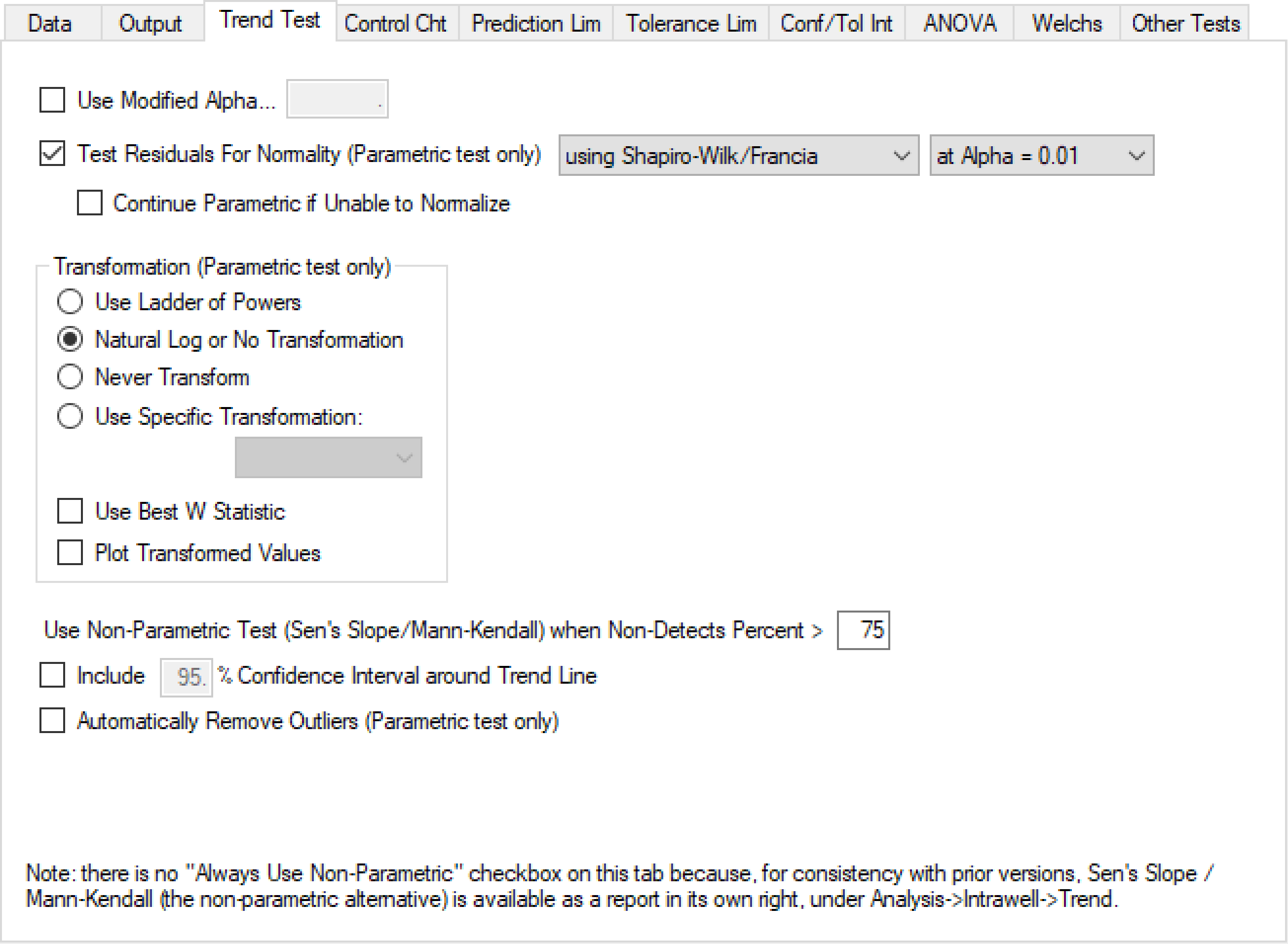
○ Less Precision

● Normal Precision

○ More Precision

☑ Store Print Jobs in Multiple Constituent Mode

Printer: Adobe PDF



☐ Use Modified Alpha...

☑ Test Residuals For Normality (Parametric test only) using Shapiro-Wilk/Francia at Alpha = 0.01

☐ Continue Parametric if Unable to Normalize

Transformation (Parametric test only)

○ Use Ladder of Powers
● Natural Log or No Transformation
○ Never Transform
○ Use Specific Transformation:

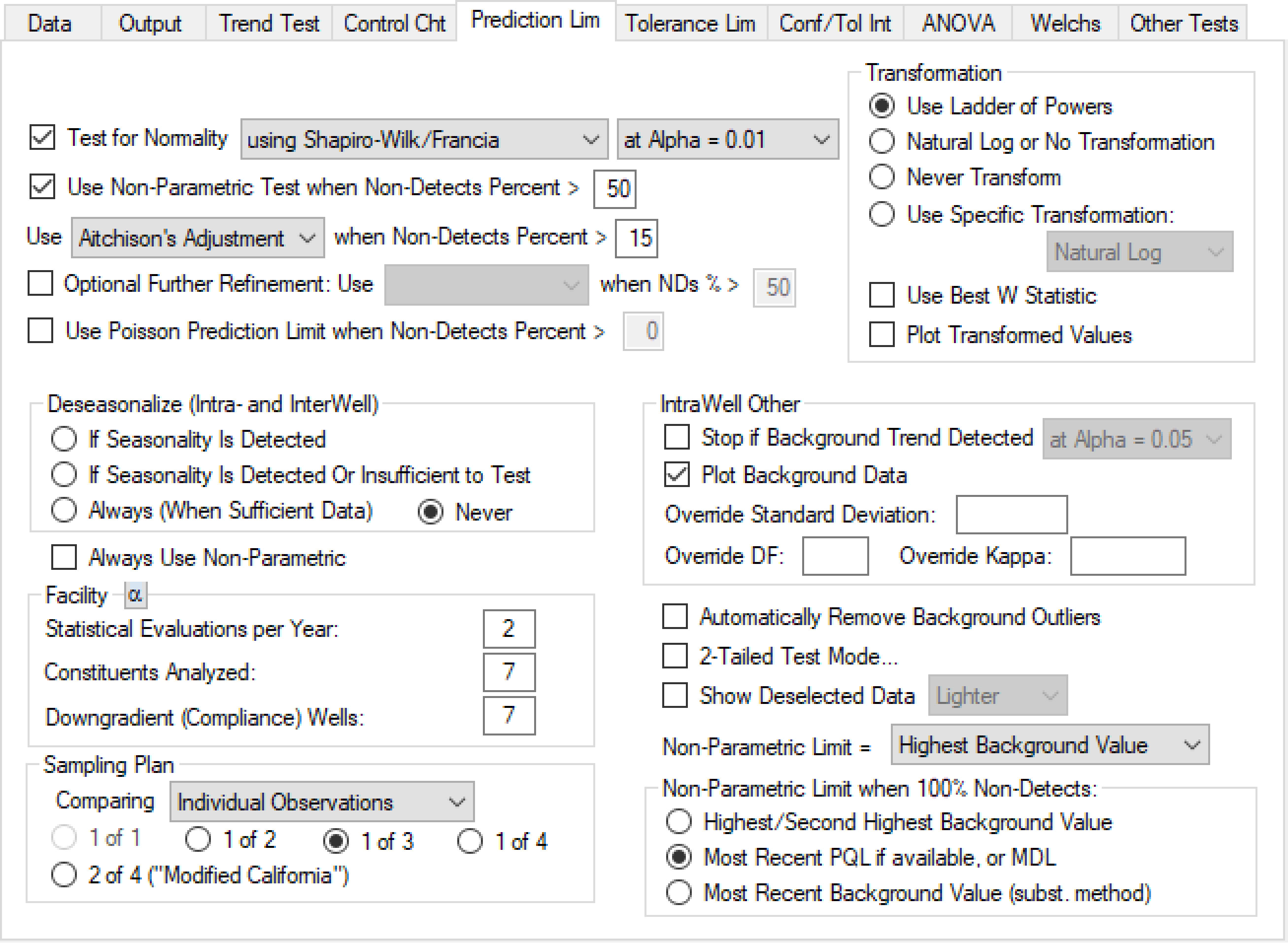
☐ Use Best W Statistic
☐ Plot Transformed Values

Use Non-Parametric Test (Sen's Slope/Mann-Kendall) when Non-Detects Percent > 75

☐ Include 95. % Confidence Interval around Trend Line

☐ Automatically Remove Outliers (Parametric test only)

Note: there is no "Always Use Non-Parametric" checkbox on this tab because, for consistency with prior versions, Sen's Slope / Mann-Kendall (the non-parametric alternative) is available as a report in its own right, under Analysis->Intrawell->Trend.



☑ Test for Normality using Shapiro-Wilk/Francia at Alpha = 0.01

☑ Use Non-Parametric Test when Non-Detects Percent > 50

Use Aitchison's Adjustment when Non-Detects Percent > 15

☐ Optional Further Refinement: Use 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 α
- Statistical Evaluations per Year: 2
- Constituents Analyzed: 7
- Downgradient (Compliance) Wells: 7

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:

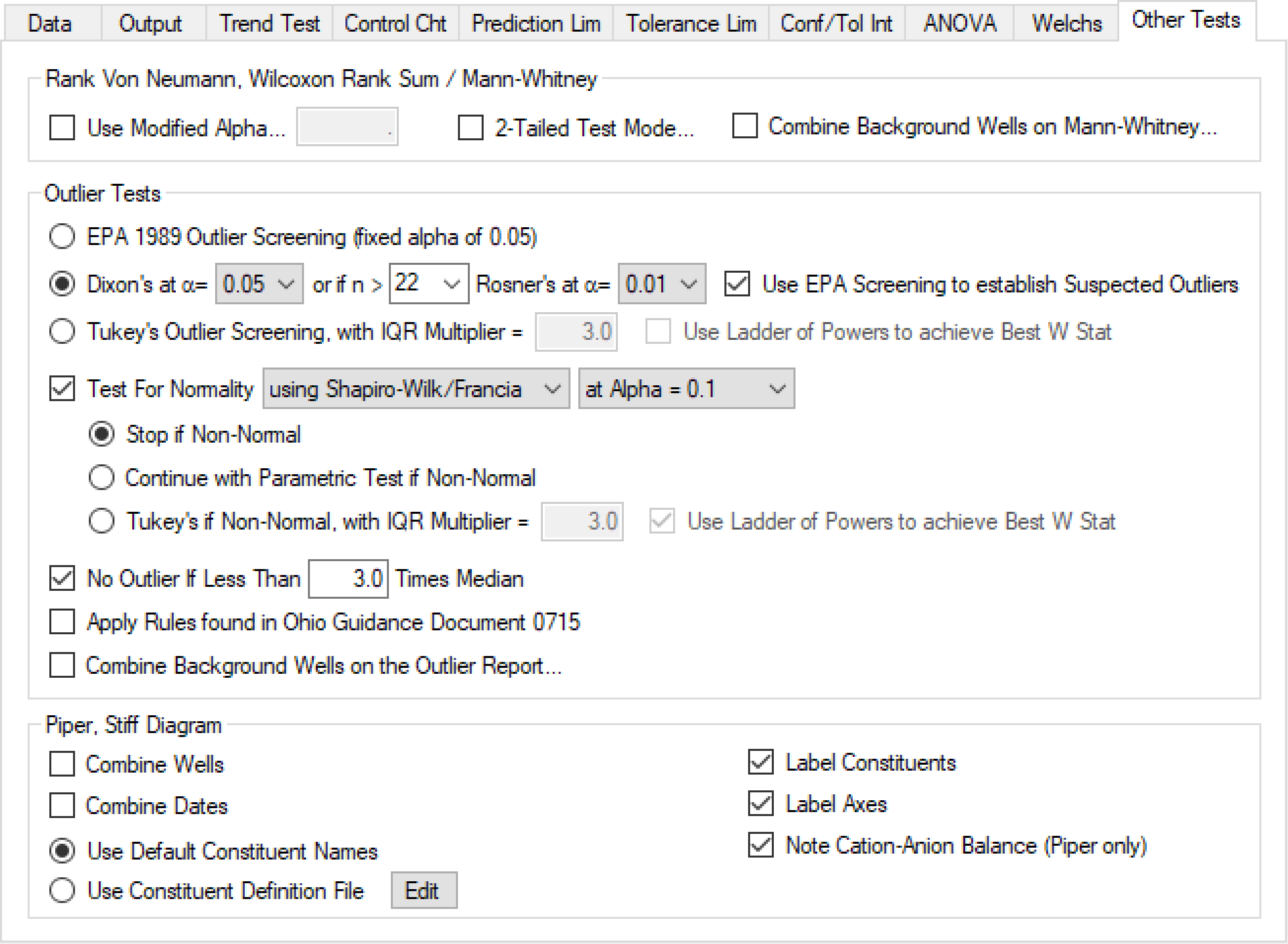
☐ Automatically Remove Background Outliers

☐ 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 α= 0.05 or if n > 22 Rosner's at α= 0.01 ☑ Use EPA Screening to establish Suspected Outliers

○ Tukey's Outlier Screening, with IQR Multiplier = 3.0 ☐ Use Ladder of Powers to achieve Best W Stat

☑ Test For Normality using Shapiro-Wilk/Francia at Alpha = 0.1

- ● Stop if Non-Normal
- ○ Continue with Parametric Test if Non-Normal
- ○ Tukey's if Non-Normal, with IQR Multiplier = 3.0 ☑ Use Ladder of Powers to achieve Best W Stat

☑ No Outlier If Less Than 3.0 Times Median

☐ Apply Rules found in Ohio Guidance Document 0715

☐ Combine Background Wells on the Outlier Report...

Piper, Stiff Diagram

☐ Combine Wells

☐ Combine Dates

● Use Default Constituent Names

○ Use Constituent Definition File

☑ Label Constituents

☑ Label Axes

☑ Note Cation-Anion Balance (Piper only)