2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

CCR LANDFILL
MONTROSE GENERATING STATION
CLINTON, MISSOURI

Presented To:
Evergy Metro, Inc.

SCS ENGINEERS

27213168.22 | January 2023

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Overland Park, Kansas 66210
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CERTIFICATIONS

I, John R. Rockhold, being a qualified groundwater scientist and Registered Geologist in the State of Missouri, do hereby certify that the 2022 Annual Groundwater Monitoring and Corrective Action Report for the CCR Landfill at the Montrose Generating Station was prepared by me or under my direct supervision and fulfills the requirements of 40 CFR 257.90(e).

John R. Rockhold, R.G.

SCS Engineers

I, Douglas L. Doerr, being a qualified licensed Professional Engineer in the State of Missouri, do hereby certify that the 2022 Annual Groundwater Monitoring and Corrective Action Report for the CCR Landfill at the Montrose Generating Station was prepared by me or under my direct supervision and fulfills the requirements of 40 CFR 257.90(e).
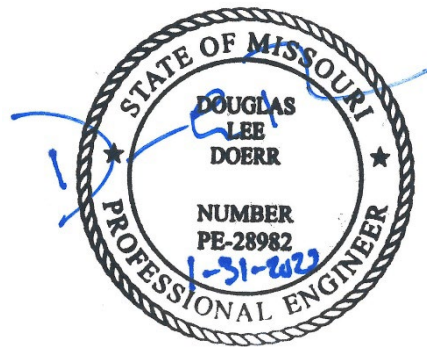
Douglas L. Doerr, P.E.

SCS Engineers

Revision Number	Revision Date	Revision Sections	Summary of Revisions
0	January 31, 2023	NA	Original

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Appendices

1 INTRODUCTION

This 2022 Annual Groundwater Monitoring and Corrective Action Report was prepared to support compliance with the groundwater monitoring requirements of the "Coal Combustion Residuals (CCR) Final Rule" (Rule) published by the United States Environmental Protection Agency (USEPA) in the *Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule*, dated April 17, 2015 (USEPA, 2015), and subsequent revisions. Specifically, this report was prepared for Evergy Metro, Inc. (Evergy) to fulfill the requirements of 40 CFR 257.90 (e). The applicable sections of the Rule are provided below in *italics*, followed by applicable information relative to the 2022 Annual Groundwater Monitoring and Corrective Action Report for the CCR Landfill at the Montrose Generating Station.

1.1 § 257.90(e)(6) SUMMARY

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

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

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

At the start of the current annual reporting period, (January 1, 2022), the CCR Landfill was operating under a detection monitoring program in compliance with § 257.94.

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

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

At the end of the current annual reporting period, (December 31, 2022), the CCR Landfill was operating under a detection monitoring program in compliance with § 257.94.

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

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

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

Monitoring Event	Monitoring Well	Constituent	ASD
Fall 2021	MW-604	Chloride	Successful
Spring 2022	MW-604	Chloride	Successful
Spring 2022	MW-605	Calcium	Successful

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

Not applicable because an assessment monitoring program was not initiated.

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

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

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

Not applicable because there was no assessment monitoring conducted.

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

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

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

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

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

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

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

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

Not applicable because corrective measures are not required.

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

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

Not applicable because corrective measures are not required.

2 § 257.90(E) ANNUAL REPORT REQUIREMENTS

Annual groundwater monitoring and corrective action report. For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action

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

2.1 § 257.90(E)(1) SITE MAP

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

A site map with an aerial image showing the CCR Landfill and all background (or upgradient) and downgradient monitoring wells with identification numbers for the CCR Landfill groundwater monitoring program is provided as **Figure 1** in **Appendix A**.

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

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

No new monitoring wells were installed and no wells were decommissioned as part of the CCR groundwater monitoring program for the CCR Landfill in 2022.

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

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

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

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

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

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

2.5 § 257.90(e)(5) OTHER REQUIREMENTS

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

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

2.5.1 § 257.90(e) Program Status

Status of Groundwater Monitoring and Corrective Action Program.

> The groundwater monitoring and corrective action program is in detection monitoring.

Summary of Key Actions Completed.

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

Description of Any Problems Encountered.

No noteworthy problems were encountered.

Discussion of Actions to Resolve the Problems.

Not applicable because no noteworthy problems were encountered.

Projection of Key Activities for the Upcoming Year (2023).

Completion of verification sampling and data analysis, and the statistical evaluation of Fall 2022 detection monitoring sampling and analysis event, and, if required, alternative source demonstration(s). Semiannual Spring and Fall 2023 groundwater sampling and analysis. Completion of the statistical evaluation of the Spring 2023 detection monitoring sampling and analysis event, and, if required, alternative source demonstration(s).

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

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

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

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

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

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

C.1 CCR Landfill Groundwater Monitoring Alternative Source Demonstration Report November 2021 Groundwater Monitoring Event, CCR Landfill, Montrose Generating Station (May 2022).

C.2 CCR Landfill Groundwater Monitoring Alternative Source Demonstration Report May 2022 Groundwater Monitoring Event, CCR Landfill, Montrose Generating Station (December 2022).

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

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

Not applicable because there was no assessment monitoring conducted.

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

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

Not applicable because there was no assessment monitoring conducted.

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

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

Not applicable because there was no assessment monitoring conducted.

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

Within 90 days of finding that any constituent listed in appendix IV to this part has been detected at a statistically significant level exceeding the groundwater protection standard defined under § 257.95(h), or immediately upon detection of a release from a CCR unit, the owner or operator must initiate an assessment of corrective measures to prevent further releases, to remediate any releases and to restore affected area to original conditions. The assessment of corrective measures must be completed within 90 days, unless the owner or operator demonstrates the need for additional time to complete the assessment of corrective measures due to site-specific conditions or circumstances. The owner or operator must obtain a certification from a qualified professional engineer attesting that

the demonstration is accurate. The 90-day deadline to complete the assessment of corrective measures may be extended for no longer than 60 days. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer or the approval from the Participating State Director or approval from EPA where EPA is the permitting authority.

Not applicable because there was no assessment monitoring conducted.

2.6 § 257.90(E)(6) OVERVIEW SUMMARY

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

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

3 SUPPLEMENTAL INFORMATION AND DATA

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

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

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

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

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

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

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

  Includes summary of statistical results, prediction limit plots, prediction limit background data, detection sample results, first and second verification re-sample results (when applicable), extra sample results for pH (collected as part of the approved sampling procedures), input parameters, and a Prediction Limit summary table. Statistical analyses completed in 2022 included the following:

  - o Fall 2021 semiannual detection monitoring statistical analyses.
  - o Spring 2022 semiannual detection monitoring statistical analyses.

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

  Includes revised groundwater potentiometric surface maps with the measured groundwater elevations at each well and the generalized groundwater flow direction and the calculated groundwater flow rate. Maps for the following sampling events are provided:

  - o Figure 2 - Spring 2022 semiannual detection monitoring sampling event.
  - o Figure 3 - Fall 2022 semiannual detection monitoring sampling event.

4 GENERAL COMMENTS

This report has been prepared and reviewed under the direction of a qualified groundwater scientist and qualified professional engineer. The information contained in this report is a reflection of the conditions encountered at the Montrose 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 Montrose Generating Station CCR Landfill. No warranties, express or implied, are intended or made.

APPENDIX A

FIGURES

MW-601
(754.50)

MW-506
(753.06)

CCR LANDFILL

STORMWATER POND

MW-604
(750.34)

MW-605
(750.66)

MW-603
(750.43)

MW-602
(750.54)

DISCHARGE CANAL

MONTROSE LAKE

LEGEND:

CCR LANDFILL UNIT BOUNDARY (APPROXIMATE)

MW-506
(747.77)

CCR GROUNDWATER MONITORING
WELL SYSTEM (GROUNDWATER ELEVATION)

NOTES:

1. HORIZONTAL DATUM: MISSOURI
STATE PLANE COORDINATE
SYSTEM, WEST ZONE (NAD 83)

2. VERTICAL DATUM: NAVD 88

3. DRONE IMAGE BY EVERGY,
DATED DECEMBER 3, 2021.

4. APPROXIMATE BOUNDARY LOCATIONS
PROVIDED BY AECOM.

5. MONITOR WELL LOCATIONS PROVIDED
BY SHAFFER, KLINE, & WARREN
SURVEY DATED JULY 21, 2017.

300   0   300   600

SCALE   FEET

MW-601
(754.50)

MW-506
(753.06)

755

754

754

753

CCR LANDFILL

752

65 FT/YR

99 FT/YR

STORMWATER POND

751

MW-603
(750.43)

MW-604
(750.34)

MW-605
(750.66)

MW-602
(750.54)

DISCHARGE CANAL

MONTROSE LAKE

LEGEND:

CCR LANDFILL UNIT BOUNDARY (APPROXIMATE)

MW-506
(747.77) — CCR GROUNDWATER MONITORING WELL SYSTEM (GROUNDWATER ELEVATION)

XX FT/YR — GROUNDWATER FLOW DIRECTION AND CALCULATED GROUNDWATER FLOW RATE (FEET/YEAR)

NOTES:

1. HORIZONTAL DATUM: MISSOURI STATE PLANE COORDINATE SYSTEM, WEST ZONE (NAD 83)

2. VERTICAL DATUM: NAVD 88

3. DRONE IMAGE BY EVERGY, DATED DECEMBER 3, 2021.

4. APPROXIMATE BOUNDARY LOCATIONS PROVIDED BY AECOM.

5. MONITOR WELL LOCATIONS PROVIDED BY SHAFFER, KLINE, & WARREN SURVEY DATED JULY 21, 2017.

6. WATER LEVEL MEASUREMENTS COMPLETED ON MAY 10, 2022

300   0   300   600

SCALE   FEET

N:\KCPL\PROJECTS\GROUNDWATER\DWG\MONTROSE\2022\27213168.20_MONTROSE FIGURE 2 MAY 2022.DWG
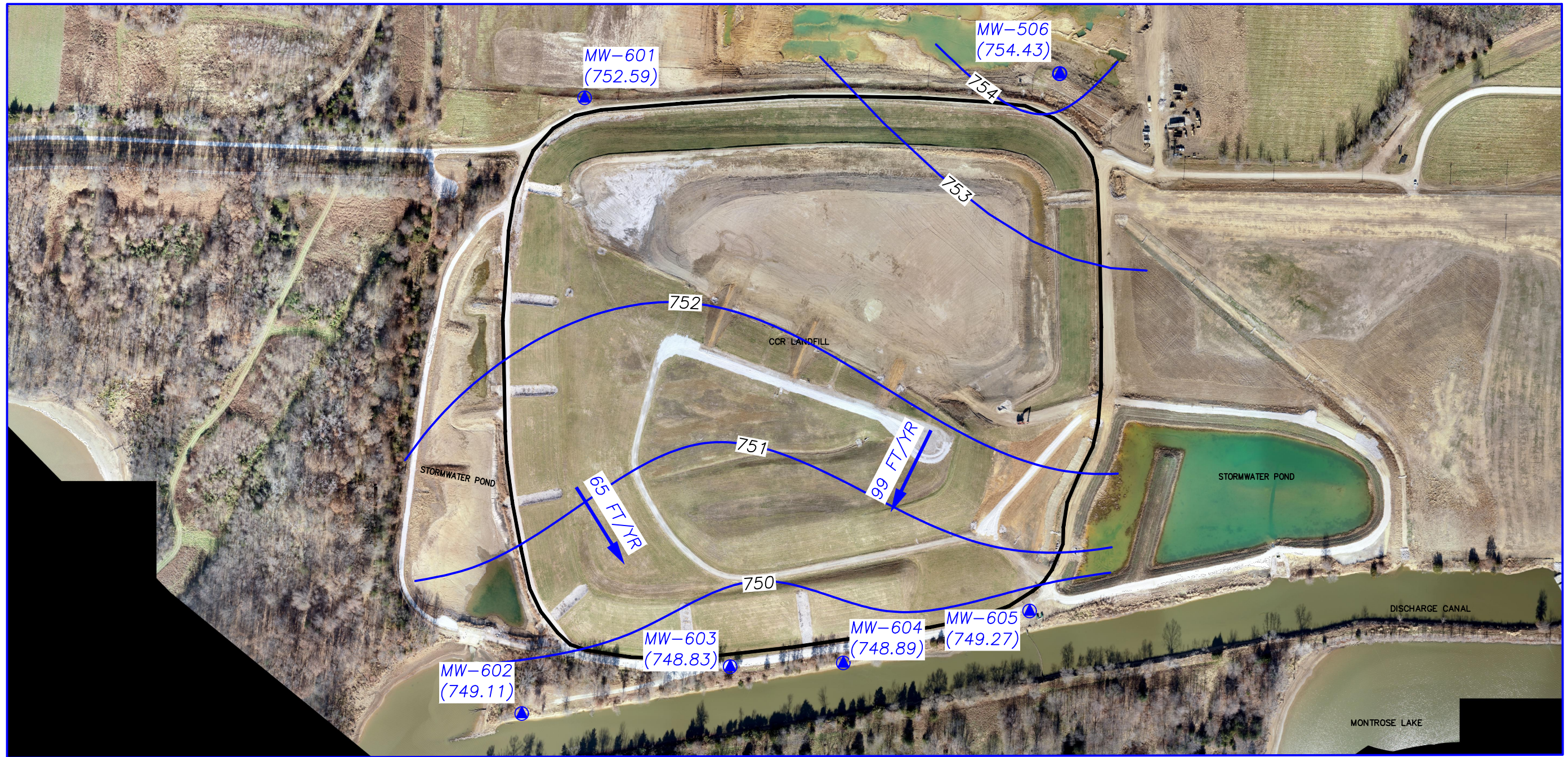
LEGEND:

———————— CCR LANDFILL UNIT BOUNDARY (APPROXIMATE)

MW-506
(747.77)   CCR GROUNDWATER MONITORING
WELL SYSTEM (GROUNDWATER ELEVATION)

XX FT/YR →   GROUNDWATER FLOW DIRECTION
AND CALCULATED GROUNDWATER FLOW RATE (FEET/YEAR)

NOTES:

1. HORIZONTAL DATUM: MISSOURI STATE PLANE COORDINATE SYSTEM, WEST ZONE (NAD 83)

2. VERTICAL DATUM: NAVD 88

3. DRONE IMAGE BY EVERGY, DATED DECEMBER 3, 2021.

4. APPROXIMATE BOUNDARY LOCATIONS PROVIDED BY AECOM.

5. MONITOR WELL LOCATIONS PROVIDED BY SHAFFER, KLINE, & WARREN SURVEY DATED JULY 21, 2017.

6. WATER LEVEL MEASUREMENTS COMPLETED ON NOVEMBER 8, 2022.

Map labels:
MW-601 (752.59)
MW-506 (754.43)
754
753
752
751
750
65 FT/YR
99 FT/YR
CCR LANDFILL
STORMWATER POND
STORMWATER POND
DISCHARGE CANAL
MONTROSE LAKE
MW-602 (749.11)
MW-603 (748.83)
MW-604 (748.89)
MW-605 (749.27)

300   0   300   600
SCALE   FEET

APPENDIX B

TABLES

Table 1
CCR Landfill
Appendix III Detection Monitoring Results
Evergy Montrose 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-506	5/10/2022	0.086 (J)	342	88.8	<0.128 (R)	5.21	1420	2800
MW-506	7/13/2022	---	---	---	0.0844 (J)	**5.74	---	---
MW-506	11/8/2022	0.0985 (J)	343	85.4	<0.320 (R)	5.37	1730	2260
MW-601	5/10/2022	0.128 (J)	439	39.8	0.779 (J)	5.27	3160	4680
MW-601	7/13/2022	---	---	---	*0.266	**5.54	---	---
MW-601	11/8/2022	0.119 (J)	463	62.4	0.819 (J)	5.30	2910	4440
MW-602	5/10/2022	4.05	302	4.22	0.120 (J)	5.68	1070	1680
MW-602	7/13/2022	---	---	---	0.118 (J)	**5.97	---	---
MW-602	11/8/2022	4.20	285	3.73 (B)	0.141 (J)	7.11	1120	1710
MW-603	5/10/2022	5.23	366	7.23 (J)	0.912 (J)	5.04	1810	2430
MW-603	7/13/2022	---	---	*6.64	*0.404	**4.61	---	---
MW-603	11/8/2022	6.96	393	10.5 (B)	1.63	5.04	1930	2930
MW-604	1/24/2022	*5.31	---	*18.8	---	**5.82	---	---
MW-604	3/1/2022	---	---	*17.2	---	**5.77	---	---
MW-604	5/10/2022	5.79	478	16.9	0.691 (J)	5.46	2000	1940
MW-604	7/13/2022	*5.58	---	*17.4	*0.336	*5.82	---	---
MW-604	8/16/2022	*5.14	---	*17.5	---	**5.72	---	---
MW-604	11/8/2022	4.34	459	17.2 (B)	1.58	6.04	1840	2690
MW-605	5/10/2022	5.76	482	16.3	0.765 (J)	5.36	2000	2010
MW-605	7/13/2022	*1.54	*434	---	*0.160	*5.40	---	---
MW-605	8/16/2022	---	*444	---	---	**5.34	---	---
MW-605	11/8/2022	1.57	439	29.7 (B)	1.46 (J)	5.03	1740	2800

* 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

S.U. - Standard Units

--- Not Sampled

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

(R) - Laboratory Reported Detection Limit (RDL)

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

Table 2
CCR Landfill
Detection Monitoring Field Measurements
Evergy Montrose 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-506	5/10/2022	5.21	2990	16.21	6.1	170	0.00	8.51	753.06
MW-506	7/13/2022	**5.74	3120	18.36	0.0	170	0.00	7.86	753.71
MW-506	11/8/2022	5.37	3390	16.73	9.2	253	0.24	7.14	754.43
MW-601	5/10/2022	5.27	4560	18.10	48.7	193	0.64	10.61	754.50
MW-601	7/13/2022	**5.54	4540	18.40	20.4	197	1.96	11.71	753.40
MW-601	11/8/2022	5.30	4930	17.14	27.8	264	0.43	12.52	752.59
MW-602	5/10/2022	5.68	1860	19.77	66.5	59	0.00	5.32	750.54
MW-602	7/13/2022	**5.97	1920	21.11	25.3	39	0.00	7.10	748.76
MW-602	11/8/2022	7.11	2130	15.98	18.1	34	2.10	6.75	749.11
MW-603	5/10/2022	5.04	708	20.79	0.0	204	0.00	13.21	750.43
MW-603	7/13/2022	**4.61	3170	18.39	0.5	359	0.00	15.06	748.58
MW-603	11/8/2022	5.04	3400	16.19	0.0	246	3.74	14.81	748.83
MW-604	1/24/2022	**5.82	3240	16.43	0.0	166	0.00	15.25	748.14
MW-604	3/1/2022	**5.77	3550	16.43	0.0	139	0.00	14.00	749.39
MW-604	5/10/2022	5.46	3130	18.81	15.1	141	0.00	13.05	750.34
MW-604	7/13/2022	*5.82	3150	20.18	2.7	250	0.00	14.75	748.64
MW-604	8/16/2022	**5.72	3380	17.23	0.0	171	0.00	13.91	749.48
MW-604	11/8/2022	6.04	3420	16.72	6.4	190	0.33	14.50	748.89
MW-605	5/10/2022	5.36	3210	20.33	0.0	136	0.00	13.45	750.66
MW-605	7/13/2022	*5.40	3220	20.40	0.0	221	0.00	13.27	750.84
MW-605	8/16/2022	**5.34	3270	18.04	7.3	208	0.05	13.93	750.18
MW-605	11/8/2022	5.03	3190	16.96	0.0	192	0.00	14.84	749.27

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

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

S.U. - Standard Units

µS - microsiemens

°C - Degrees Celsius

ft btoc - Feet Below Top of Casing

ft NGVD - National Geodetic Vertical Datum (NAVD 88)

NTU - Nephelometric Turbidity Unit

APPENDIX C

ALTERNATIVE SOURCE DEMONSTRATIONS

C.1   CCR Landfill Groundwater Monitoring Alternative Source Demonstration Report
November 2021 Groundwater Monitoring Event, CCR Landfill, Montrose Generating
Station (May 2022)

C.2   CCR Landfill Groundwater Monitoring Alternative Source Demonstration Report
May 2022 Groundwater Monitoring Event, CCR Landfill, Montrose Generating Station
(December 2022)

APPENDIX C.1

CCR Groundwater Monitoring Alternative Source Demonstration Report November 2021
Groundwater Monitoring Event, CCR Landfill, Montrose Generating Station (May 2022)

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

CCR LANDFILL

Montrose Generating Station
Evergy Metro, Inc.
Clinton, Missouri

SCS ENGINEERS

CERTIFICATIONS

I, John R. Rockhold, being a qualified groundwater scientist and Registered Geologist in the State of Missouri, do hereby certify the accuracy of the information in the CCR Groundwater Monitoring Alternative Source Demonstration Report for the CCR Landfill at the Montrose 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, R.G.

SCS Engineers

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

Douglas L. Doerr, P.E.

SCS Engineers

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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 a SSI over background levels to include obtaining a certification from a qualified professional engineer verifying the accuracy of the information in the report. If a successful demonstration is completed within the 90-day period, the owner or operator of the CCR unit may continue with a detection monitoring program under § 257.94. If a successful demonstration is not completed within the 90-day period, the owner or operator of the CCR unit must initiate an assessment monitoring program as required under § 257.95. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer.

2   STATISTICAL RESULTS

Statistical analysis of monitoring data from the groundwater monitoring system for the CCR Landfill at the Montrose 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 16, 2021. Review and validation of the results from the November 2021 Detection Monitoring Event was completed on January 6, 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 24, 2022 and March 1, 2022.

The completed statistical evaluation identified one Appendix III constituent above its prediction limit established for monitoring well MW-604.

Monitoring Well Constituents	*UPL	Observation November 16, 2021	1st Verification January 24, 2022	2nd Verification March 1, 2022
MW-604				
Chloride	15.28	16.3	18.8	17.2

*UPL – Upper Prediction Limit

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified an SSI above the background prediction limit for chloride at monitoring well MW-604.

3   ALTERNATIVE SOURCE DEMONSTRATION

An Alternative Source Demonstration (ASD) is a means to provide supporting lines of evidence that something other than a release from a regulated CCR unit caused an SSI. For the above identified SSI for the CCR Landfill at the Montrose Generating Station, there are multiple lines of supporting evidence to indicate the above SSI was not caused by a release from the CCR Landfill. Select multiple lines of supporting evidence are described as follows.

3.1   BOX AND WHISKERS PLOTS

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

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

An SSI was identified in well MW-604 for chloride. Therefore, box and whiskers plots for chloride in MW-604 and the two upgradient wells MW-506 and MW-601 were prepared to allow comparison of the chloride concentrations between wells. The comparison between wells indicates the chloride concentrations in well MW-604 are within or below the range of chloride in upgradient wells. This demonstrates that a source other than the CCR Landfill caused the SSI in chloride over background levels, or that the SSI resulted from natural variation in groundwater quality. Box and whisker plots are provided in **Appendix A**.

3.2   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 generated for MW-604 and landfill leachate is provided in **Appendix B** along with the analytical results and indicates the groundwater from this well does not exhibit the same geochemical

characteristics as the leachate. The groundwater and the leachate plot in different hydrochemical facies indicating there is no mixing of the two types of water (groundwater and leachate). This demonstrates that a source other than the CCR Landfill caused the SSI over background levels for chloride or that the SSI resulted from natural variation in groundwater quality.

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. More than one well can be compared on the same plot to look for differences between wells. Non-detect data is plotted as censored data at one-half of the laboratory reporting limit. Time series plots can also be used to examine the data for trends.

Time series plots for the chloride concentrations in MW-604 were plotted along with the chloride concentrations for upgradient wells MW-506 and MW-601. The plots indicate the chloride concentrations in MW-604 are below the concentrations in MW-506 and are often below or very near the concentrations in MW-601. This demonstrates that a source other than the CCR Landfill caused the SSI over background levels, or that the SSI resulted from natural variation in groundwater quality. Time series plots are provided in **Appendix C**.

4   CONCLUSION

Our opinion is that a sufficient body of evidence is available and presented above to demonstrate that a source other than the CCR Landfill caused the SSI over background levels, or that the SSI resulted from natural variation in groundwater quality. Based on the successful ASD, the owner or operator of the CCR Landfill 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 Montrose 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 signatures. Any opinion or decisions by them are made on the basis of their experience, qualifications, and professional judgement and are not to be construed as warranties or guaranties. In addition, opinions relating to regulatory, environmental, geologic, geochemical and geotechnical conditions interpretations or other estimates are based on available data, and actual conditions may vary from those encountered at the times and locations where data are obtained, despite the use of due care.

Appendix A

Box and Whiskers Plots

Sanitas™ v.9.6.32 Sanitas software licensed to SCS Engineers. UG

Box & Whiskers Plot

Constituent: Chloride   Analysis Run 5/17/2022 2:22 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Box & Whiskers Plot

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose   Printed 5/17/2022, 2:24 PM

Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
Chloride (mg/l)	506 (bg)	18	80.62	7.599	1.791	79	69.3	97.2	0
Chloride (mg/l)	601 (bg)	20	50.24	5.943	1.329	52.45	33.4	56.5	0
Chloride (mg/l)	604	22	13.96	1.963	0.4185	13.3	11.1	18.8	0

Appendix B

Piper Diagram Plots and Analytical Results

Piper Diagram

Cation-Anion Balance = 3.73%.

Legend:
- ◆ 604 11/5/2019
- ■ 604 11/7/2016
- ● 604 2/7/2017
- ▲ 604 3/1/2022
- ▼ 604 5/23/2016
- ◆ 604 7/15/2019
- ■ 604 8/22/2016
- ● LEACHATE 11/5/2019
- ▲ LEACHATE 2/7/2017
- ▼ LEACHATE 8/22/2016
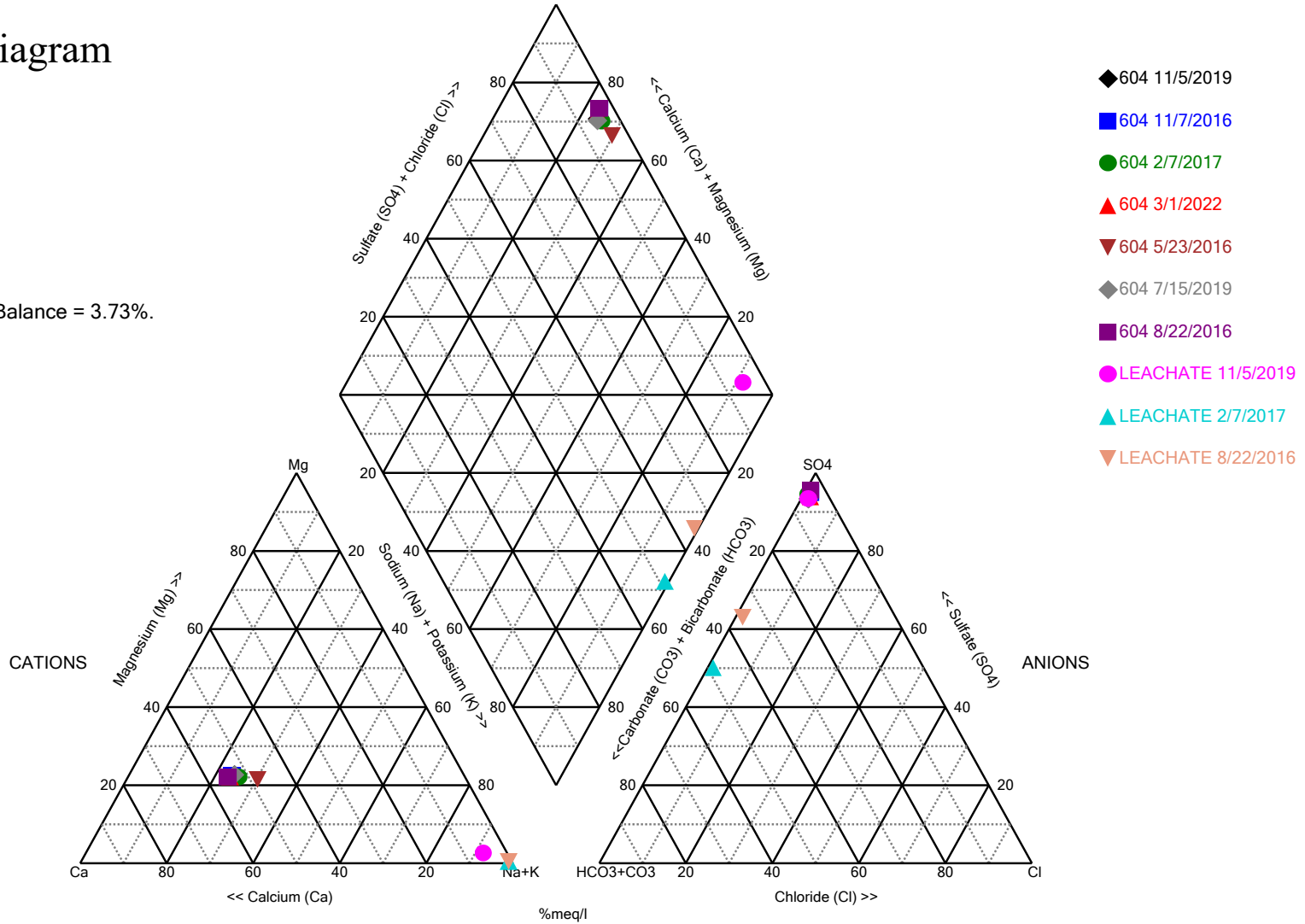
Analysis Run 5/17/2022 2:38 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Piper Diagram

Totals (ppm)	Na	K	Ca	Mg	Cl	SO4	HCO3	CO3
604 5/23/2016	336	2.97	474	127	13.3	1990	94.8	10
604 8/22/2016	214	2.63	440	106	11.7	2290	101	10
604 11/7/2016	206	2.79	412	104	12.5	2070	96.5	10
604 2/7/2017	215	2.88	392	98.4	12.5	1810	101	10
604 7/15/2019	203	2.76	386	99	12.7	1510	99.8	10
604 11/5/2019	210	2.68	407	103	12.5	1650	108	10
604 3/1/2022	236	2.9	483	118	17.2	2000	111	10
LEACHATE 8/22/2016	1010	20.8	5.88	0.5	18.5	1560	10	549
LEACHATE 2/7/2017	1050	23.9	5.47	0.5	16.3	1360	10	840
LEACHATE 11/5/2019	970	17	49.2	14.5	20.3	2240	44.1	64.2

Appendix C

Time Series Plots

Time Series

Legend:
- 506 (bg)
- 601 (bg)
- 604
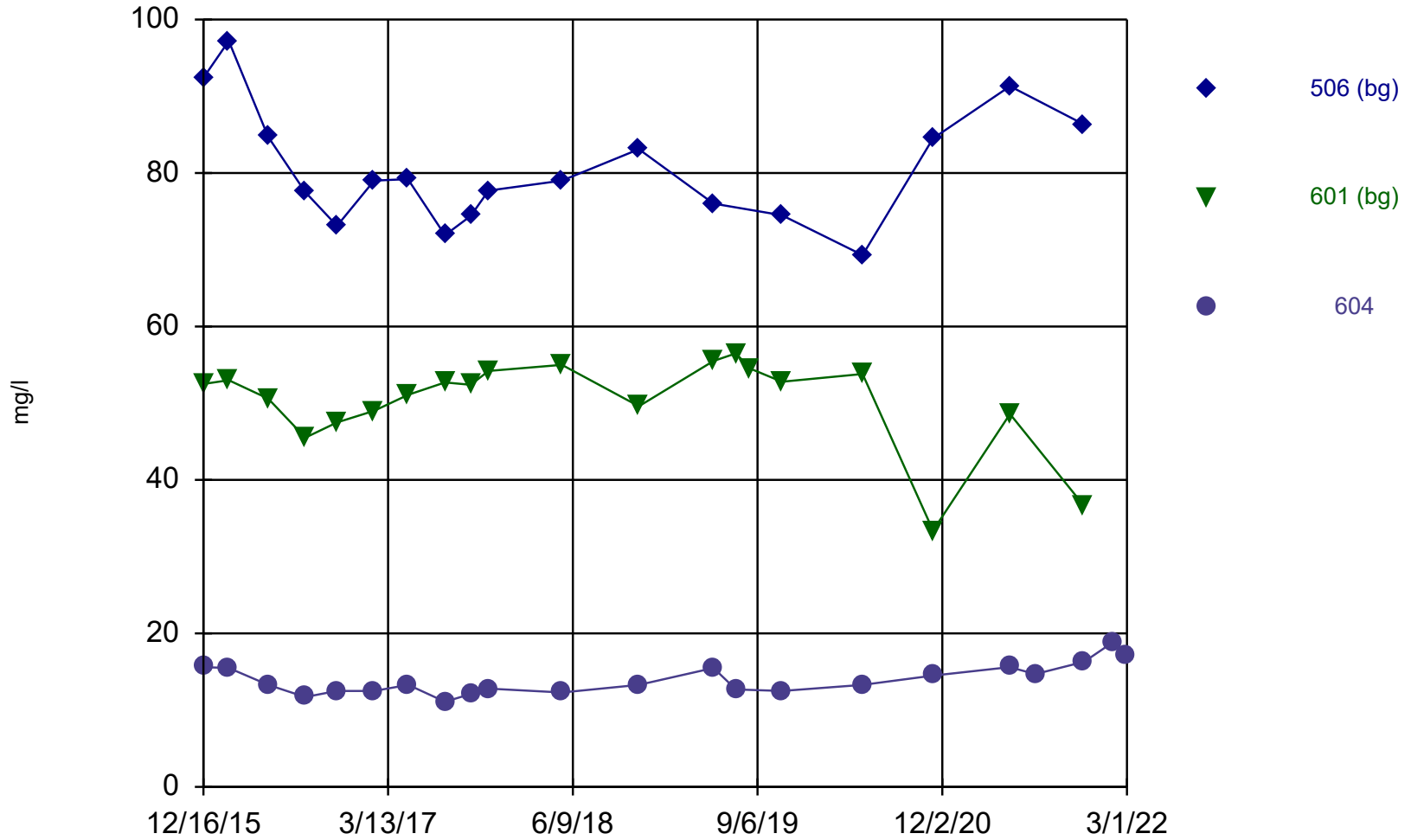
Constituent: Chloride   Analysis Run 5/17/2022 2:20 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Time Series

	506 (bg)	601 (bg)	604
12/16/2015	92.4	52.5	15.6
2/16/2016	97.2	53	15.5
5/23/2016	84.7	50.6	13.3
8/22/2016	77.5	45.5	11.7
11/7/2016			12.5
11/8/2016	73.1	47.5	
2/7/2017	79	49	12.5
5/1/2017	79.2		
5/2/2017		51.1	13.3
7/31/2017	71.9	52.7	11.1
10/2/2017	74.4	52.4	12.1
11/15/2017	77.7	54.2	12.8
5/14/2018	79	55	12.3
11/19/2018	83.1	49.6	13.3
5/21/2019	76	55.5	15.5
7/15/2019		56.5	12.7
8/19/2019		54.5	
11/5/2019	74.5	52.8	12.5
5/21/2020	69.3	53.8	13.3
11/10/2020	84.5	33.4	14.5
5/17/2021			15.6
5/18/2021	91.3	48.6	
7/19/2021			14.7
11/16/2021	86.3	36.6	16.3
1/24/2022			18.8
3/1/2022			17.2

APPENDIX C.2

CCR Groundwater Monitoring Alternative Source Demonstration Report May 2022
Groundwater Monitoring Event, CCR Landfill, Montrose Generating Station (December 2022)

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

CCR LANDFILL

Montrose Generating Station
Evergy Metro, Inc.
Clinton, Missouri

SCS ENGINEERS

CERTIFICATIONS

I, John R. Rockhold, being a qualified groundwater scientist and Registered Geologist in the State of Missouri, do hereby certify the accuracy of the information in the CCR Groundwater Monitoring Alternative Source Demonstration Report for the CCR Landfill at the Montrose 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, R.G.

SCS Engineers

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

Douglas L. Doerr, P.E.

SCS Engineers

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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 at the Montrose 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 10, 2022. Review and validation of the results from the May 2022 Detection Monitoring Event was completed on July 1, 2022, which constitutes completion and finalization of detection monitoring laboratory analyses. A statistical analysis was then conducted to determine whether there was a statistically significant increase (SSI) over background values for each constituent listed in Appendix III to Part 257-Constituents for Detection Monitoring. Two rounds of verification sampling were conducted for certain constituents on July 13, 2022 and August 16, 2022.

The completed statistical evaluation identified two Appendix III constituents above their prediction limits established for monitoring wells MW-604 and MW-605.

Monitoring Well Constituents	*UPL	Observation May 10, 2022	1st Verification July 13, 2022	2nd Verification August 16, 2022
MW-604				
Chloride	16.6	16.9	17.4	17.5
MW-605				
Calcium	437.3	482	434/450**	444

*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 background prediction limits for chloride at monitoring well MW-604 and for calcium at monitoring well MW-605.

3   ALTERNATIVE SOURCE DEMONSTRATION

An Alternative Source Demonstration (ASD) is a means to provide supporting lines of evidence that something other than a release from a regulated CCR unit caused an SSI. For the above identified SSI for the CCR Landfill at the Montrose Generating Station, there are multiple lines of supporting evidence to indicate the above SSI was not caused by a release from the CCR Landfill. Select multiple lines of supporting evidence are described as follows.

3.1   BOX AND WHISKERS PLOTS

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

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

An SSI was identified in well MW-604 for chloride. Therefore, box and whiskers plots for chloride in MW-604 and the two upgradient wells MW-506 and MW-601 were prepared to allow comparison of the chloride concentrations between wells.   The comparison between wells indicates the chloride concentrations in well MW-604 are within or below the range of chloride in upgradient wells. This demonstrates that a source other than the CCR Landfill caused the SSI in chloride over background levels, or that the SSI resulted from natural variation in groundwater quality. Box and whisker plots are provided in **Appendix A**.

An SSI was identified in well MW-605 for calcium. Therefore, box and whiskers plots for calcium in MW-605 and the two upgradient wells MW-506 and MW-601 were prepared to allow comparison of the calcium concentrations between wells.   The comparison between wells indicates the calcium concentrations in well MW-605 are within the range of calcium in upgradient wells. This demonstrates that a source other than the CCR Landfill caused the SSI in calcium over background levels, or that the SSI resulted from natural variation in groundwater quality. Box and whisker plots are provided in **Appendix A**.

3.2   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 generated for MW-604, MW-605, and landfill leachate is provided in **Appendix B** along with the analytical results and indicates the groundwater from these wells do not exhibit the same geochemical characteristics as the leachate. The groundwater and the leachate plot in different hydrochemical facies indicating there is no mixing of the two types of water (groundwater and leachate). This demonstrates that a source other than the CCR Landfill caused the SSIs over background levels for chloride and calcium or that the SSI resulted from natural variation in groundwater quality.

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. More than one well can be compared on the same plot to look for differences between wells. Non-detect data is plotted as censored data at one-half of the laboratory reporting limit. Time series plots can also be used to examine the data for trends.

Time series plots for the chloride concentrations in MW-604 were plotted along with the chloride concentrations for upgradient wells MW-506 and MW-601. The plots indicate the chloride concentrations in MW-604 are below the concentrations in MW-506 and MW-601. This demonstrates that a source other than the CCR Landfill caused the SSI over background levels, or that the SSI resulted from natural variation in groundwater quality. Time series plots are provided in **Appendix C**.

Time series plots for the calcium concentrations in MW-605 were plotted along with the calcium concentrations for upgradient wells MW-506 and MW-601. The plots indicate the calcium concentrations in MW-605 are within the range of the concentrations in MW-506 and MW-601. This demonstrates that a source other than the CCR Landfill caused the SSI over background levels, or that the SSI resulted from natural variation in groundwater quality. Time series plots are provided in **Appendix C**.

4   CONCLUSIONS

Our opinion is that a sufficient body of evidence is available and presented above to demonstrate that a source other than the CCR Landfill caused the SSIs over background levels, or that the SSIs resulted from natural variation in groundwater quality. Based on the successful ASD, the owner or operator of the CCR Landfill 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 Montrose 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 signatures. Any opinion or decisions by them are made on the basis of their experience, qualifications, and professional judgement and are not to be construed as warranties or guaranties. In addition, opinions relating to regulatory, environmental, geologic, geochemical and geotechnical conditions interpretations or other estimates are based on available data, and actual conditions may vary from those encountered at the times and locations where data are obtained, despite the use of due care.

Appendix A

Box and Whiskers Plots

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG

Box & Whiskers Plot

mg/l

n=19 506 (bg)

n=21 601 (bg)

n=25 604

Constituent: Chloride   Analysis Run 11/26/2022 5:32 PM

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Box & Whiskers Plot

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose   Printed 11/26/2022, 5:35 PM

Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
Chloride (mg/l)	506 (bg)	19	81.05	7.62	1.748	79	69.3	97.2	0
Chloride (mg/l)	601 (bg)	21	49.74	6.225	1.358	52.4	33.4	56.5	0
Chloride (mg/l)	604	25	14.36	2.141	0.4282	13.3	11.1	18.8	0

Box & Whiskers Plot
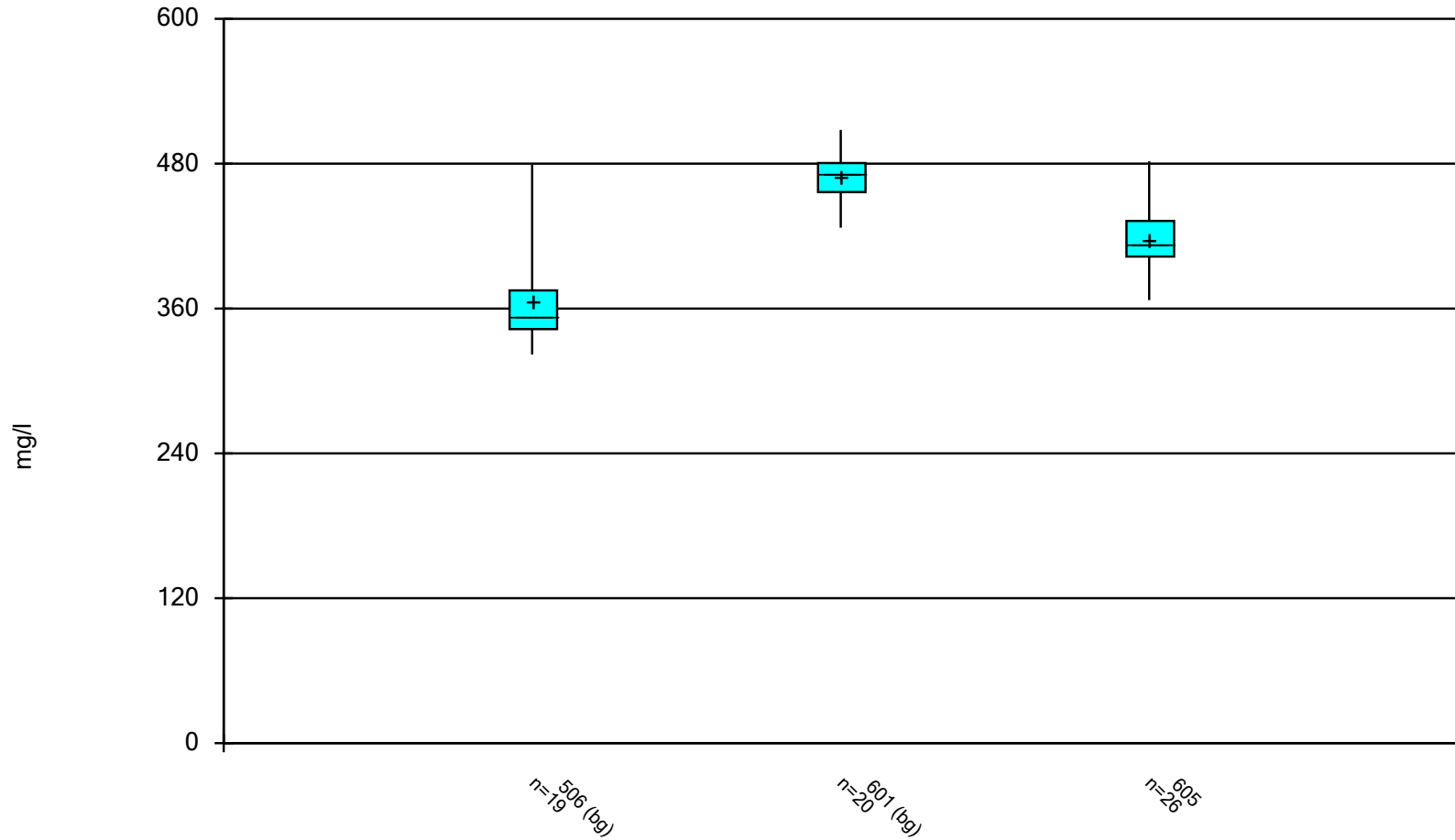
Constituent: Calcium   Analysis Run 11/26/2022 5:37 PM

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Box & Whiskers Plot

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose   Printed 11/26/2022, 5:38 PM

Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
Calcium (mg/l)	506 (bg)	19	367.5	39.15	8.981	354	322	479	0
Calcium (mg/l)	601 (bg)	20	469.1	21.67	4.845	472	427	508	0
Calcium (mg/l)	605	26	416.6	23.57	4.623	413.5	367	482	0

Appendix B

Piper Diagram Plots and Analytical Results

Piper Diagram

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG

Cation-Anion Balance = 3.973%.

Legend:
- ◆ 604 2016-08-22
- ■ 604 2016-11-07
- ● 604 2017-02-07
- ▲ 604 2019-07-15
- ▼ 604 2019-11-05
- ◆ 604 2022-03-01
- ■ 604 2022-08-16
- ● 605 2016-08-22
- ▲ 605 2016-11-07
- ▼ 605 2017-02-07
- ◆ 605 2019-01-10
- ■ 605 2019-07-15
- ● 605 2019-11-05
- ▲ 605 2020-01-14
- ▼ 605 2020-08-26
- ◆ 605 2021-03-01
- ■ 605 2022-08-16
- ● LEACHATE 2016-08-22
- ▲ LEACHATE 2017-02-07
- ▼ LEACHATE 2019-11-05
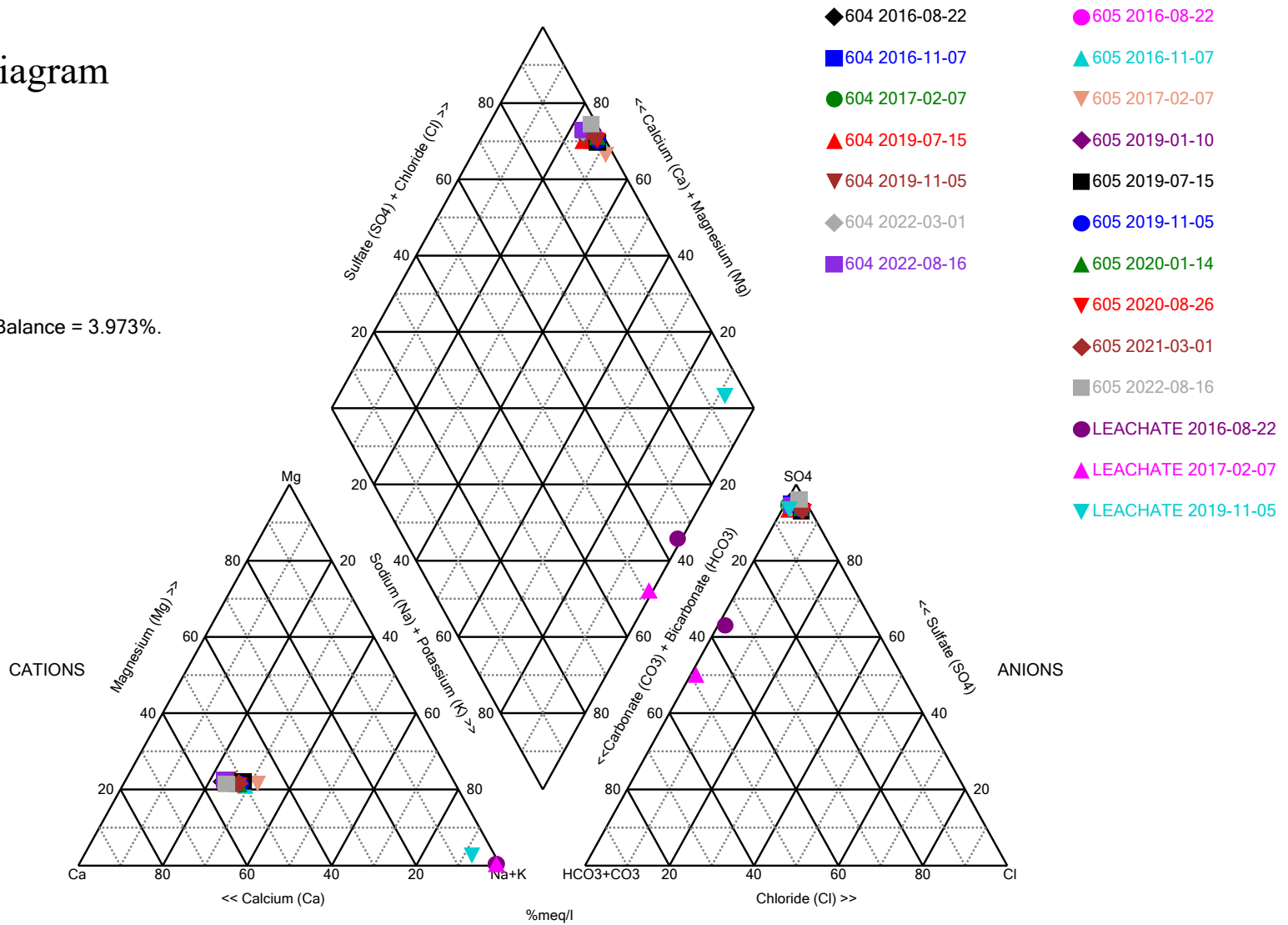
Analysis Run 11/28/2022 8:34 AM   View: LF Piper

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Piper Diagram

Analysis Run 11/28/2022 8:35 AM   View: LF Piper

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Totals (ppm)	Na	K	Ca	Mg	Cl	SO4	HCO3	CO3
604 2016-08-22	214	2.63	440	106	11.7	2290	101	10
604 2016-11-07	206	2.79	412	104	12.5	2070	96.5	10
604 2017-02-07	215	2.88	392	98.4	12.5	1810	101	10
604 2019-07-15	203	2.76	386	99	12.7	1510	99.8	10
604 2019-11-05	210	2.68	407	103	12.5	1650	108	10
604 2022-03-01	236	2.9	483	118	17.2	2000	111	10
604 2022-08-16	218	3.17	449	111	17.5	2130	116	10
605 2016-08-22	270	2.51	431	111	46.5	2230	40.9	10
605 2016-11-07	271	2.63	407	104	48.2	2280	44	10
605 2017-02-07	284	2.71	367	101	48	2050	48.1	10
605 2019-01-10	264	2.79	421	107	50.9	1870	42	10
605 2019-07-15	261	2.73	407	108	57.8	1640	41.6	10
605 2019-11-05	248	2.6	399	102	59.1	1730	42.8	10
605 2020-01-14	240	2.48	395	101	60.5	1860	38.1	10
605 2020-08-26	244	2.44	396	97.5	61.6	1690	36.8	10
605 2021-03-01	244	2.55	407	103	58.2	1720	40.1	10
605 2022-08-16	225	3.03	444	105	36.7	2090	32.6	10
LEACHATE 2016-08-22	1010	20.8	5.88	0.5	18.5	1560	10	549
LEACHATE 2017-02-07	1050	23.9	5.47	0.5	16.3	1360	10	840
LEACHATE 2019-11-05	970	17	49.2	14.5	20.3	2240	44.1	64.2

Appendix C

Time Series Plots
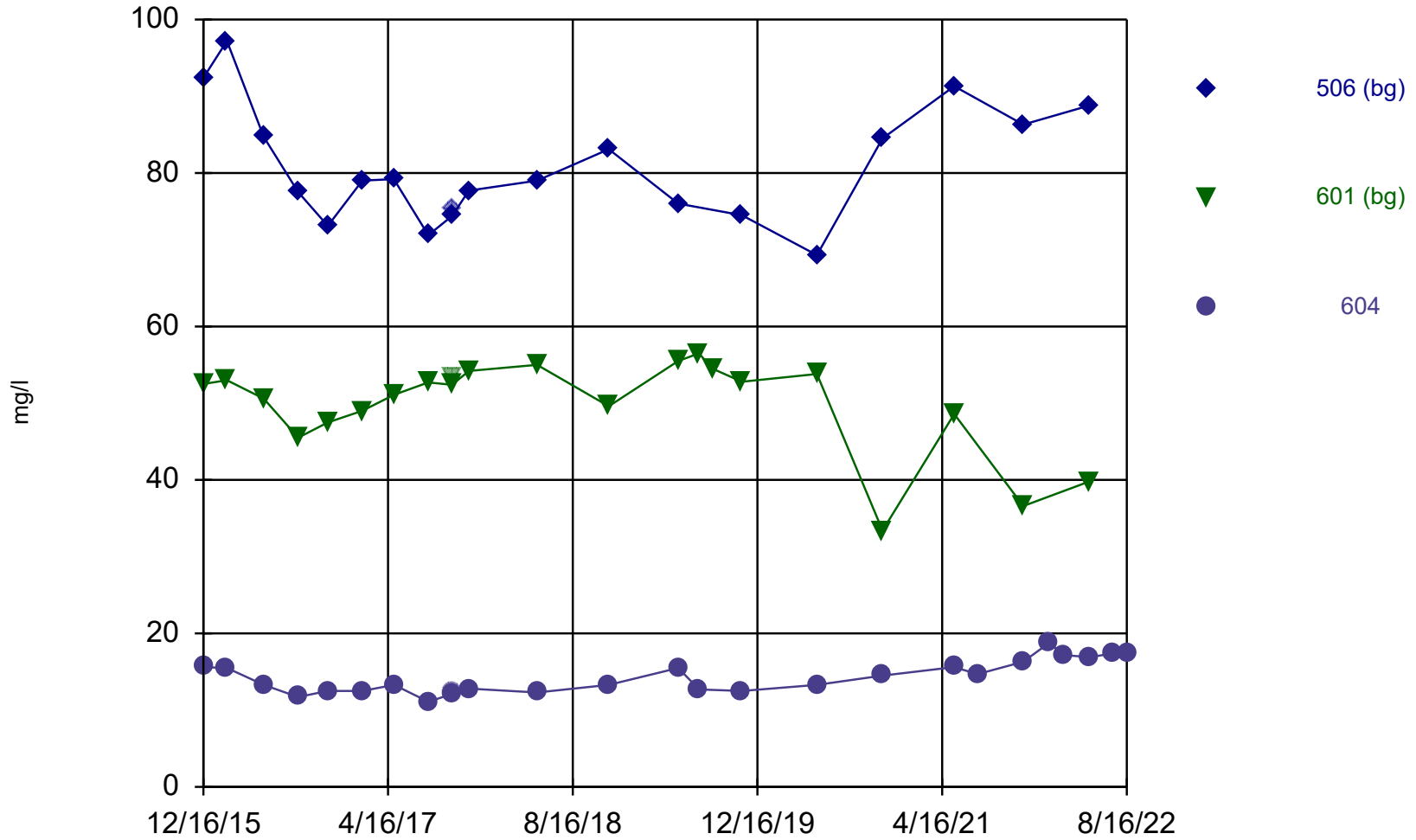
Time Series

Constituent: Chloride   Analysis Run 11/26/2022 5:35 PM

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Time Series

	506 (bg)	601 (bg)	604
12/16/2015	92.4	52.5	15.6
2/16/2016	97.2	53	15.5
5/23/2016	84.7	50.6	13.3
8/22/2016	77.5	45.5	11.7
11/7/2016			12.5
11/8/2016	73.1	47.5	
2/7/2017	79	49	12.5
5/1/2017	79.2		
5/2/2017		51.1	13.3
7/31/2017	71.9	52.7	11.1
10/2/2017	74.4	52.4	12.1
11/15/2017	77.7	54.2	12.8
5/14/2018	79	55	12.3
11/19/2018	83.1	49.6	13.3
5/21/2019	76	55.5	15.5
7/15/2019		56.5	12.7
8/19/2019		54.5	
11/5/2019	74.5	52.8	12.5
5/21/2020	69.3	53.8	13.3
11/10/2020	84.5	33.4	14.5
5/17/2021			15.6
5/18/2021	91.3	48.6	
7/19/2021			14.7
11/16/2021	86.3	36.6	16.3
1/24/2022			18.8
3/1/2022			17.2
5/10/2022	88.8	39.8	16.9
7/13/2022			17.4
8/16/2022			17.5

Time Series

506 (bg)

601 (bg)

605

mg/l

12/16/15 4/16/17 8/16/18 12/16/19 4/16/21 8/16/22
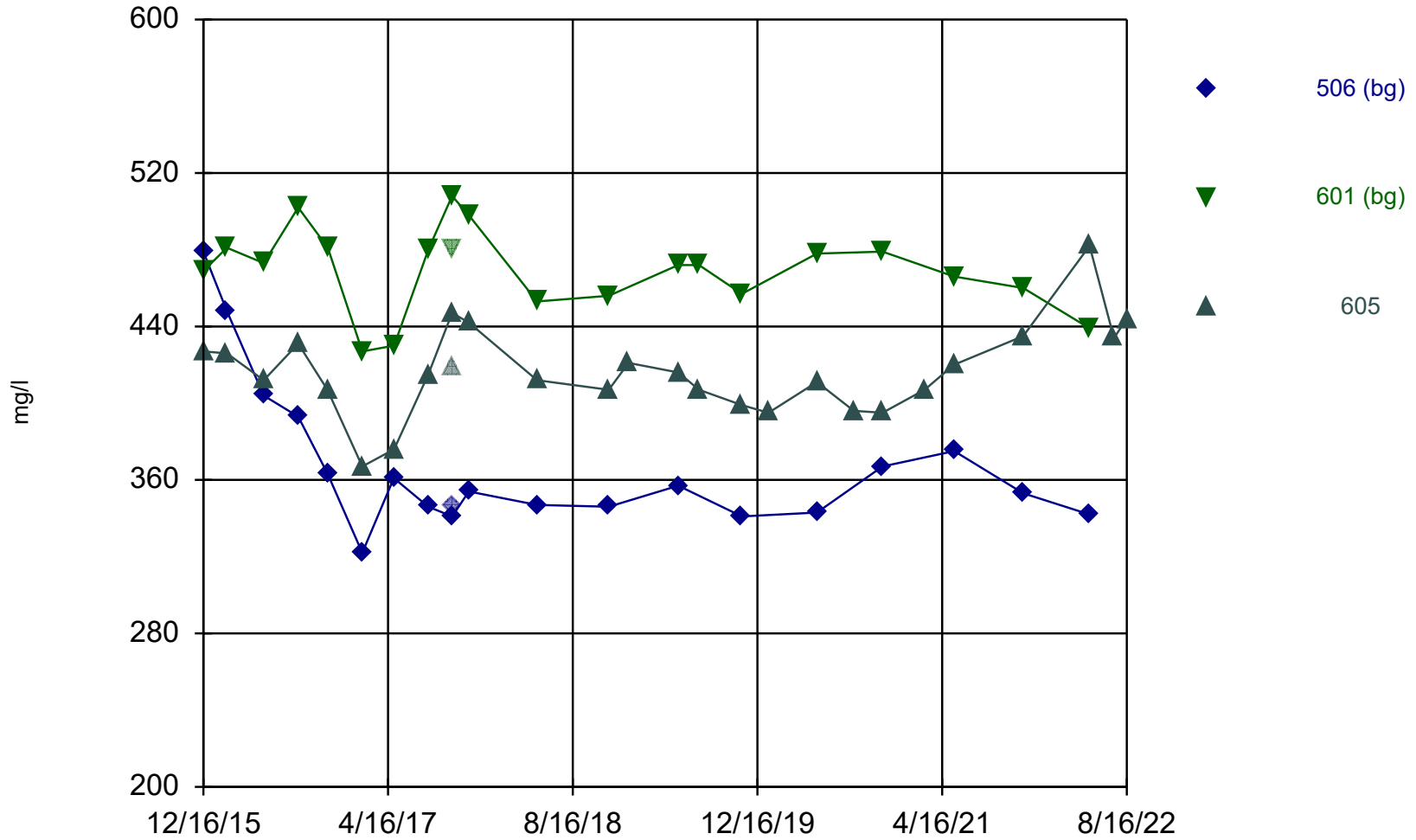
Constituent: Calcium   Analysis Run 11/26/2022 5:36 PM

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Time Series

	506 (bg)	601 (bg)	605
12/16/2015	479	469	
12/17/2015			427
2/16/2016	448	481	426
5/23/2016	404	473	412
8/22/2016	393	502	431
11/7/2016			407
11/8/2016	363	481	
2/7/2017	322	427	367
5/1/2017	361		
5/2/2017		430	376
7/31/2017	346	480	415
10/2/2017	341	508	447
11/15/2017	354	498	442
5/14/2018	347	453	412
11/19/2018	346	456	407
1/10/2019			421
5/21/2019	357	472	416
7/15/2019		472	407
11/5/2019	341	457	399
1/14/2020			395
5/21/2020	343	478	411
8/26/2020			396
11/10/2020	367	479	395
3/1/2021			407
5/17/2021			420
5/18/2021	375	466	
11/16/2021	353	460	435
5/10/2022	342 (M1V)	439	482
7/13/2022			434
8/16/2022			444

APPENDIX D

LABORATORY ANALYTICAL REPORTS

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

ANALYTICAL REPORT

February 03, 2022

Pace Analytical ®

SCS Engineers - KS

Sample Delivery Group:	L1455127
Samples Received:	01/26/2022
Project Number:	27213168.21 - G
Description:	Evergy - Montrose Generating Station

Report To: Jason Franks

8575 W. 110th Street

Overland Park, KS 66210

Entire Report Reviewed By:

Jeff Carr

Project Manager

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

Pace Analytical National

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

TABLE OF CONTENTS

¹Cp
²Tc
³Ss
⁴Cn
⁵Sr
⁶Qc
⁷Gl
⁸Al
⁹Sc

SAMPLE SUMMARY

MW-604 L1455127-01 GW

			Collected by Jason R Franks	Collected date/time 01/24/22 13:50	Received date/time 01/26/22 09:15		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Wet Chemistry by Method 9056A	WG1809058	5	01/27/22 16:06	01/27/22 16:06	LBR	Mt. Juliet, TN	
Metals (ICP) by Method 6010D	WG1810065	1	01/31/22 22:15	02/02/22 22:11	CCE	Mt. Juliet, TN	

DUPLICATE L1455127-02 GW

			Collected by Jason R Franks	Collected date/time 01/24/22 13:50	Received date/time 01/26/22 09:15		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Wet Chemistry by Method 9056A	WG1809058	5	01/27/22 17:12	01/27/22 17:12	LBR	Mt. Juliet, TN	
Metals (ICP) by Method 6010D	WG1810065	1	01/31/22 22:15	02/02/22 22:37	CCE	Mt. Juliet, TN	

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

CASE NARRATIVE

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

Jeff Carr
Project Manager

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	18800		5000	5	01/27/2022 16:06	WG1809058

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	5310	O1	200	1	02/02/2022 22:11	WG1810065

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

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	17900		5000	5	01/27/2022 17:12	WG1809058

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	5290		200	1	02/02/2022 22:37	WG1810065

¹ placeholder

QUALITY CONTROL SUMMARY

L1455127-01,02

Method Blank (MB)

(MB) R3754577-1 01/27/22 10:25

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

L1454168-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1454168-03 01/27/22 13:17 • (DUP) R3754577-3 01/27/22 13:29

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	90500	92000	5	1.65		15

L1455127-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1455127-02 01/27/22 17:12 • (DUP) R3754577-8 01/27/22 17:25

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	17900	18300	5	2.21		15

Laboratory Control Sample (LCS)

(LCS) R3754577-2 01/27/22 10:38

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

L1455247-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1455247-03 01/27/22 13:42 • (MS) R3754577-4 01/27/22 13:56 • (MSD) R3754577-5 01/27/22 14:35

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	102000	148000	145000	91.6	87.1	1	80.0-120	E	E	1.51	15

L1455127-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1455127-01 01/27/22 16:06 • (MS) R3754577-6 01/27/22 16:20 • (MSD) R3754577-7 01/27/22 16:33

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	18800	69100	68100	101	98.5	5	80.0-120			1.51	15

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

L1455321-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1455321-03 01/27/22 17:53 • (MS) R3754577-9 01/27/22 18:07 • (MSD) R3754577-10 01/27/22 18:20

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	3430	53600	54800	100	103	1	80.0-120			2.16	15

WG1810065

Metals (ICP) by Method 6010D

Method Blank (MB)

(MB) R3756387-1 02/02/22 22:06

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

Laboratory Control Sample (LCS)

(LCS) R3756387-2 02/02/22 22:09

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	965	96.5	80.0-120	

L1455127-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1455127-01 02/02/22 22:11 • (MS) R3756387-4 02/02/22 22:17 • (MSD) R3756387-5 02/02/22 22:19

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1000	5310	6170	6210	85.7	90.1	1	75.0-125			0.708	20

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

(OS) L1455811-05 02/02/22 22:22 • (MS) R3756387-6 02/02/22 22:24 • (MSD) R3756387-7 02/02/22 22:27

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	ND	993	984	99.3	98.4	1	75.0-125			0.858	20

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

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier / Description

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

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

ACCREDITATIONS & LOCATIONS

Pace Analytical National   12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660		Nebraska	NE-OS-15-05
Alaska	17-026		Nevada	TN000032021-1
Arizona	AZ0612		New Hampshire	2975
Arkansas	88-0469		New Jersey–NELAP	TN002
California	2932		New Mexico [1]	TN00003
Colorado	TN00003		New York	11742
Connecticut	PH-0197		North Carolina	Env375
Florida	E87487		North Carolina [1]	DW21704
Georgia	NELAP		North Carolina [3]	41
Georgia [1]	923		North Dakota	R-140
Idaho	TN00003		Ohio–VAP	CL0069
Illinois	200008		Oklahoma	9915
Indiana	C-TN-01		Oregon	TN200002
Iowa	364		Pennsylvania	68-02979
Kansas	E-10277		Rhode Island	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:		Billing Information:		Pres Chk	Analysis / Container / Preservative						Chain of Custody Page 1 of 1

SCS Engineers - KS

8575 W. 110th Street
Overland Park, KS 66210

Report to:
Jason Franks

Project Description:
Evergy - Montrose Generating Station

Phone: **913-681-0030**

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

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

City/State Collected: **MONTROSE, MO**   Please Circle: PT MT (CT) ET

Client Project #
27213168.21 - G

Lab Project #
AQUAOPKS-MONTROSE

SDG #

C052

Acctnum: **AQUAOPKS**
Template: **T135965**
Prelogin: **P900449**
PM: **206 - Jeff Carr**
PB:

Collected by (print):
JASON R. FRANKS

Collected by (signature):
Jason R. Franks

Immediately
Packed on Ice N ___ Y ✓

Site/Facility ID #

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

P.O. #

Quote #

Date Results Needed

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Boron - 6010 250mlHDPE-HNO3	Chloride - 9056 125mlHDPE-NoPres					Remarks	Sample # (lab only)
MW-604	GRAB	GW	—	01/24/22	1350	2	X	X						-01
MW-604 MS/MSD	GRAB	GW	—	01/24/22	1350	2	X	X						-01
DUPLICATE	GRAB	GW	—	01/24/22	1350	2	X	X						-02

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

Remarks:

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Jason R. Franks	01/25/22	1408	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) *K. Holder*	Date: 1/26/22	Time: 915

Samples returned via:
___ UPS ___ FedEx ___ Courier ____

Tracking # **5300 4291 1358**

pH _____ Temp _____
Flow _____ Other _____

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 3.5°/3.5 °C   Bottles Received: 6

If preservation required by Login: Date/Time

Hold:

Condition:
NCF / (OK)

ANALYTICAL REPORT

March 07, 2022

Pace Analytical ®

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

SCS Engineers - KS

Sample Delivery Group:	L1466981
Samples Received:	03/02/2022
Project Number:	27213168.21 - G
Description:	Evergy - Montrose Generating Station

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

Entire Report Reviewed By:

Jeff Carr

Project Manager

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

Pace Analytical National

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

SAMPLE SUMMARY

MW-604 L1466981-01 GW

		Collected by	Collected date/time	Received date/time
		Jason R Franks	03/01/22 14:35	03/02/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1826668	5	03/03/22 17:40	03/03/22 17:40	LBR	Mt. Juliet, TN

DUPLICATE L1466981-02 GW

		Collected by	Collected date/time	Received date/time
		Jason R Franks	03/01/22 14:35	03/02/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1826668	5	03/03/22 18:25	03/03/22 18:25	LBR	Mt. Juliet, TN

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

CASE NARRATIVE

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

Jeff Carr
Project Manager

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	17200	B	5000	5	03/03/2022 17:40	WG1826668

¹Cp
²Tc
³Ss
⁴Cn
⁵Sr
⁶Qc
⁷Gl
⁸Al
⁹Sc

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	16900	B	5000	5	03/03/2022 18:25	WG1826668

QUALITY CONTROL SUMMARY
L1466981-01,02

Method Blank (MB)

(MB) R3766741-1 03/03/22 09:53

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	399	J	379	1000

L1466230-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1466230-01 03/03/22 11:42 • (DUP) R3766741-3 03/03/22 11:57

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1600	1600	1	0.0750		15

L1466889-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1466889-05 03/03/22 15:26 • (DUP) R3766741-6 03/03/22 15:41

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	337000	337000	1	0.0773	E	15

Laboratory Control Sample (LCS)

(LCS) R3766741-2 03/03/22 10:08

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

L1466230-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1466230-01 03/03/22 11:42 • (MS) R3766741-4 03/03/22 12:12 • (MSD) R3766741-5 03/03/22 12:27

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	1600	52800	52800	102	102	1	80.0-120			0.0673	15

L1466889-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1466889-06 03/03/22 15:55 • (MS) R3766741-7 03/03/22 16:10 • (MSD) R3766741-8 03/03/22 16:55

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	624000	647000	655000	46.2	60.7	20	80.0-120	V	V	1.11	15

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

L1466981-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1466981-01 03/03/22 17:40 • (MS) R3766741-9 03/03/22 17:55 • (MSD) R3766741-10 03/03/22 18:10

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	17200	66400	65600	98.3	96.8	5	80.0-120			1.18	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

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Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
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.
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Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

State/Accreditation	Number	State/Accreditation	Number
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.

---

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

Chain of Custody

Company Name/Address:

SCS Engineers - KS

8575 W. 110th Street
Overland Park, KS 66210

Report to:
Jason Franks

Billing Information:

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

Pres Chk

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

Analysis / Container / Preservative

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

Project Description: Evergy - Montrose Generating Station	City/State Collected: CLINTON MO Please Circle: PT MT (CT) ET

SDG # 1466981

E036

Phone: 913-681-0030

Client Project # **27213168.21 - G**

Lab Project # **AQUAOPKS-MONTROSE**

Acctnum: **AQUAOPKS**
Template: **T135965**
Prelogin: **P908199**
PM: **206 - Jeff Carr**
PB:

Collected by (print):
JASON R. FRANKS

Site/Facility ID #

P.O. #

Collected by (signature):

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

Quote #

Date Results Needed

Shipped Via:

Immediately
Packed on Ice N ____ Y ✓

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	Chloride - 9056 125mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-604	GRAB	GW	—	03/01/22	1435	1	X		-01
MW-604 MS/MSD		GW	—		1435	1	X		
DUPLICATE	↓	GW	—	↓	1435	1	X		-02

* 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 # 530042943695

Relinquished by : (Signature)	Date: 03/01/22	Time: 1600	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeOH TBR
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: NS4°C Bottles Received: 3 4.7 to =4.7
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 03/02/22 Time: 0915

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

March 09, 2022

Pace Analytical ®

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

SCS Engineers - KS

Sample Delivery Group:	L1466979
Samples Received:	03/02/2022
Project Number:	27213168.21-G
Description:	Evergy - Montrose Generating Station

Report To: Jason Franks

8575 W. 110th Street

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-604 L1466979-01 GW

			Collected by Jason R Franks	Collected date/time 03/01/22 14:35	Received date/time 03/02/22 09:15		
Method	Batch	Dilution	Preparation date/time	Analysis date/time		Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG1828038	1	03/06/22 04:51	03/06/22 04:51		ARD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1827867	100	03/05/22 20:14	03/05/22 20:14		VRP	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1826688	1	03/06/22 23:25	03/07/22 13:20		ZSA	Mt. Juliet, TN

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

CASE NARRATIVE

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

Jeff Carr
Project Manager

Wet Chemistry by Method 2320 B-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Alkalinity,Bicarbonate	111000		20000	1	03/06/2022 04:51	WG1828038
Alkalinity,Carbonate	ND		20000	1	03/06/2022 04:51	WG1828038

Sample Narrative:

L1466979-01 WG1828038: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Sulfate	2000000		500000	100	03/05/2022 20:14	WG1827867

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	483000	V	1000	1	03/07/2022 13:20	WG1826688
Magnesium	118000	V	1000	1	03/07/2022 13:20	WG1826688
Potassium	2900		2000	1	03/07/2022 13:20	WG1826688
Sodium	236000	V	3000	1	03/07/2022 13:20	WG1826688

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

QUALITY CONTROL SUMMARY

L1466979-01

Method Blank (MB)

(MB) R3766782-2 03/06/22 03:16

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

Sample Narrative:

BLANK: Endpoint pH 4.5

L1466889-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1466889-06 03/06/22 03:46 • (DUP) R3766782-4 03/06/22 03:50

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	832000	845000	1	1.53		20
Alkalinity,Carbonate	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1466979-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1466979-01 03/06/22 04:51 • (DUP) R3766782-6 03/06/22 04:54

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Bicarbonate	111000	112000	1	0.851		20
Alkalinity,Carbonate	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

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

WG1827867

Wet Chemistry by Method 9056A
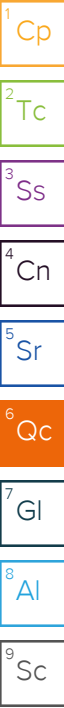
Method Blank (MB)

(MB) R3767047-1 03/05/22 10:05

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

L1466573-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1466573-01 03/05/22 12:32 • (DUP) R3767047-3 03/05/22 12:47

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	18200	18400	1	0.628		15

L1467119-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1467119-01 03/05/22 19:14 • (DUP) R3767047-6 03/05/22 19:29

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	311000	310000	20	0.278		15

Laboratory Control Sample (LCS)

(LCS) R3767047-2 03/05/22 10:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	40000	39000	97.5	80.0-120	

L1467119-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1467119-01 03/05/22 19:14 • (MS) R3767047-7 03/05/22 19:44 • (MSD) R3767047-8 03/05/22 19:59

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	50000	311000	346000	344000	70.0	65.2	20	80.0-120	V	V	0.701	15

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

Method Blank (MB)

(MB) R3767307-1 03/07/22 13:04

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

Laboratory Control Sample (LCS)

(LCS) R3767307-2 03/07/22 13:07

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	10000	9530	95.3	80.0-120	
Magnesium	10000	9690	96.9	80.0-120	
Potassium	10000	9190	91.9	80.0-120	
Sodium	10000	9990	99.9	80.0-120	

L1466975-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1466975-02 03/07/22 13:09 • (MS) R3767307-4 03/07/22 13:14 • (MSD) R3767307-5 03/07/22 13:17

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium	10000	162000	170000	171000	76.6	86.1	1	75.0-125			0.554	20
Magnesium	10000	30900	39300	39100	84.4	82.6	1	75.0-125			0.452	20
Potassium	10000	8020	17400	18300	94.2	103	1	75.0-125			5.05	20
Sodium	10000	7430	16900	16900	94.5	95.0	1	75.0-125			0.324	20

L1466979-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1466979-01 03/07/22 13:20 • (MS) R3767307-6 03/07/22 13:22 • (MSD) R3767307-7 03/07/22 13:25

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium	10000	483000	484000	484000	4.57	5.48	1	75.0-125	V	V	0.0189	20
Magnesium	10000	118000	124000	125000	64.9	70.0	1	75.0-125	V	V	0.412	20
Potassium	10000	2900	13000	13000	101	101	1	75.0-125			0.123	20
Sodium	10000	236000	241000	240000	50.1	46.3	1	75.0-125	V	V	0.157	20

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

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SDG	Sample Delivery Group.
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Qualifier	Description
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1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

ACCREDITATIONS & LOCATIONS

Pace Analytical National   12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	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.

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

Company Name/Address:	**Billing Information:**		Pres Chk	Analysis / Container / Preservative

Company Name/Address:

SCS Engineers - KS

8575 W. 110th Street
Overland Park, KS 66210

Billing Information:

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

Report to:
Jason Franks

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

Project Description:
Evergy - Montrose Generating Station

City/State Collected: CLINTON, MO

Please Circle: PT MT CT ET

Phone: 913-681-0030

Client Project #
27213168.21

Lab Project #
AQUAOPKS-MONTROSE

Collected by (print): JASON R FRANKS

Site/Facility ID #

P.O. #

Collected by (signature)

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

Quote #

Date Results Needed

Immediately
Packed on Ice N ___ Y ✓

SDG # 1466979

E037

Acctnum: **AQUAOPKS**
Template:**T144751**
Prelogin: **P908202**
PM: 206 - Jeff Carr
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALKBI, ALKCA 125mlHDPE-NoPres	Ca, Mg, Na, K - 6010 250mlHDPE-HNO3	Sulfate 125mlHDPE-NoPres				Remarks	Sample # (lab only)
MW-604	GRAB	GW	—	03/01/22	1435	3	X	X	X					-01

* 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 # 530042943695

Relinquished by : (Signature)   Date: 03/01/22   Time: 1600   Received by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

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

Temp: NSRVC   Bottles Received: 3

If preservation required by Login: Date/Time

4.7±0.47

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

Date: 03/02/22   Time: 0915

Hold:

Condition:
NCF / OK

ANALYTICAL REPORT

June 27, 2022

Revised Report

Pace Analytical ®

SCS Engineers - KS

Sample Delivery Group: L1492460

Samples Received: 05/11/2022

Project Number: 27213168.22-A

Description: Evergy - Montrose Generating Station

Report To: Jason Franks

                         8575 W. 110th Street

                         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-506 L1492460-01 GW

	Collected by	Collected date/time	Received date/time
	Matt Vander Puttey	05/10/22 11:40	05/11/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1865200	1	05/17/22 14:51	05/17/22 16:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1871277	100	05/29/22 13:40	05/29/22 13:40	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1871277	2	05/29/22 13:27	05/29/22 13:27	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1865405	1	05/18/22 13:54	05/20/22 03:26	CCE	Mt. Juliet, TN

DUPLICATE L1492460-02 GW

	Collected by	Collected date/time	Received date/time
	Matt Vander Puttey	05/10/22 11:40	05/11/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1865200	1	05/17/22 14:51	05/17/22 16:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1871277	100	05/29/22 14:30	05/29/22 14:30	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1871277	2	05/29/22 14:17	05/29/22 14:17	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1865405	1	05/18/22 13:54	05/20/22 04:21	CCE	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: 05/31/22 14:02

Project Narrative

This report has been revised by reporting to the MDLs.

SAMPLE RESULTS - 01
L1492460

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2800000		50000	1	05/17/2022 16:36	WG1865200

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	88800		758	2000	2	05/29/2022 13:27	WG1871277
Fluoride	U		128	300	2	05/29/2022 13:27	WG1871277
Sulfate	1420000	V	59400	500000	100	05/29/2022 13:40	WG1871277

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	86.0	J	20.0	200	1	05/20/2022 03:26	WG1865405
Calcium	342000	O1 V	79.3	1000	1	05/20/2022 03:26	WG1865405

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	2790000		13300	1	05/17/2022 16:36	WG1865200

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	89300		758	2000	2	05/29/2022 14:17	WG1871277
Fluoride	U		128	300	2	05/29/2022 14:17	WG1871277
Sulfate	1390000		59400	500000	100	05/29/2022 14:30	WG1871277

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	96.1	J	20.0	200	1	05/20/2022 04:21	WG1865405
Calcium	345000		79.3	1000	1	05/20/2022 04:21	WG1865405

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

Method Blank (MB)

(MB) R3793937-1 05/17/22 16:36

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

L1491768-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1491768-01 05/17/22 16:36 • (DUP) R3793937-3 05/17/22 16:36

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1600000	1640000	1	2.16		5

L1492151-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1492151-03 05/17/22 16:36 • (DUP) R3793937-4 05/17/22 16:36

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	815000	801000	1	1.65		5

Laboratory Control Sample (LCS)

(LCS) R3793937-2 05/17/22 16:36

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2460000	2600000	106	81.7-118	

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

WG1871277

Wet Chemistry by Method 9056A

Method Blank (MB)

(MB) R3797697-1 05/29/22 12:31

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

L1492766-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1492766-02 05/29/22 20:03 • (DUP) R3797697-5 05/29/22 20:15

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	35200	35300	1	0.154		15
Sulfate	33800	33800	1	0.0222		15

Laboratory Control Sample (LCS)

(LCS) R3797697-2 05/29/22 12:43

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	7970	99.6	80.0-120	
Sulfate	40000	38900	97.2	80.0-120	

L1492460-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492460-01 05/29/22 13:27 • (MS) R3797697-3 05/29/22 13:52 • (MSD) R3797697-4 05/29/22 14:05

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	88800	134000	135000	90.3	92.3	2	80.0-120			0.754	15
Fluoride	5000	U	4260	4320	85.2	86.3	2	80.0-120			1.27	15
Sulfate	50000	1620000	1640000	1650000	39.0	60.3	2	80.0-120	E V	E V	0.649	15

L1492766-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1492766-02 05/29/22 20:03 • (MS) R3797697-6 05/29/22 20:28

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	35200	85400	100	1	80.0-120	
Sulfate	50000	33800	84500	102	1	80.0-120	

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

QUALITY CONTROL SUMMARY
L1492460-01,02

Method Blank (MB)

(MB) R3794050-1 05/20/22 03:21

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) R3794050-2 05/20/22 03:23

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	1010	101	80.0-120	
Calcium	10000	10100	101	80.0-120	

L1492460-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492460-01 05/20/22 03:26 • (MS) R3794050-4 05/20/22 03:32 • (MSD) R3794050-5 05/20/22 03:35

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1000	86.0	1110	1100	103	102	1	75.0-125			1.06	20
Calcium	10000	342000	344000	344000	16.1	18.0	1	75.0-125	V	V	0.0535	20

¹Cp
²Tc
³Ss
⁴Cn
⁵Sr
⁶Qc
⁷Gl
⁸Al
⁹Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

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

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

ACCREDITATIONS & LOCATIONS

Pace Analytical National   12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	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.

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

Chain of Custody

Page ___ of ___

Company Name/Address:
SCS Engineers - KS

8575 W. 110th Street
Overland Park, KS 66210

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

Pres Chk

Report to:
Jason Franks

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

Project Description:
Evergy - Montrose Generating Station

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

Phone: 913-681-0030

Client Project #
27213168.22-A

Lab Project #
AQUAOPKS-MONTROSE

SDG # 4892860

K134

Tab

Acctnum: **AQUAOPKS**

Collected by (print):
Matt Vander Putten

Site/Facility ID #

P.O. #

Template: T166717

Prelogin: P922355

PM: 206 - Jeff Carr

PB:

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 ✗

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-506	Grab	GW		5/10/22	1140	3	X	X	X								-01
MW-506 MS/MSD	Grab	GW		5/10/22	1140	3	X	X	X								02
DUPLICATE	Grab	GW		5/10/22	1140	3	X	X	X								03

* 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 5324 7166

Relinquished by : (Signature)	Date: 05/10/22	Time: 1655	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: DR06 °C 3.3, 0.3.3 Bottles Received: 12	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/11/22 Time: 0900	Hold: Condition: NCF / OK

ANALYTICAL REPORT

June 27, 2022

Revised Report

Pace Analytical ®

SCS Engineers - KS

Sample Delivery Group:	L1494160
Samples Received:	05/11/2022
Project Number:	27213168.22-A
Description:	Evergy - Montrose Generating Station

Report To:

Jason Franks

8575 W. 110th Street

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

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

TABLE OF CONTENTS

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

MW-602 L1494160-01 GW

		Collected by B. Coleman	Collected date/time 05/10/22 12:45	Received date/time 05/11/22 09:30		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1865300	1	05/17/22 16:59	05/17/22 19:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1874222	1	06/04/22 19:50	06/04/22 19:50	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1874222	50	06/04/22 20:06	06/04/22 20:06	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1866298	1	05/19/22 22:12	05/20/22 18:41	ZSA	Mt. Juliet, TN

MW-603 L1494160-02 GW

		Collected by B. Coleman	Collected date/time 05/10/22 14:45	Received date/time 05/11/22 09:30		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1865300	1	05/17/22 16:59	05/17/22 19:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1874222	10	06/04/22 20:22	06/04/22 20:22	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1874222	100	06/04/22 20:38	06/04/22 20:38	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1866298	1	05/19/22 22:12	05/20/22 18:44	ZSA	Mt. Juliet, TN

MW-604 L1494160-03 GW

		Collected by B. Coleman	Collected date/time 05/10/22 14:15	Received date/time 05/11/22 09:30		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1865300	1	05/17/22 16:59	05/17/22 19:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1874222	10	06/04/22 20:54	06/04/22 20:54	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1874222	100	06/04/22 21:10	06/04/22 21:10	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1866298	1	05/19/22 22:12	05/20/22 17:37	ZSA	Mt. Juliet, TN

MW-605 L1494160-04 GW

		Collected by B. Coleman	Collected date/time 05/10/22 14:29	Received date/time 05/11/22 09:30		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1865300	1	05/17/22 16:59	05/17/22 19:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1874222	10	06/04/22 21:26	06/04/22 21:26	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1874222	100	06/04/22 21:42	06/04/22 21:42	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1866298	1	05/19/22 22:12	05/20/22 18:47	ZSA	Mt. Juliet, TN

DUPLICATE L1494160-05 GW

		Collected by B. Coleman	Collected date/time 05/10/22 00:00	Received date/time 05/11/22 09:30		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1865300	1	05/17/22 16:59	05/17/22 19:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1874222	10	06/04/22 22:29	06/04/22 22:29	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1874222	100	06/04/22 22:45	06/04/22 22:45	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1866298	1	05/19/22 22:12	05/20/22 18:50	ZSA	Mt. Juliet, TN

MW-601 L1494160-06 GW

		Collected by B. Coleman	Collected date/time 05/10/22 11:10	Received date/time 05/11/22 09:30		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1865300	1	05/17/22 16:59	05/17/22 19:15	JD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1874222	10	06/04/22 23:01	06/04/22 23:01	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1874222	100	06/04/22 23:17	06/04/22 23:17	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1866943	1	05/20/22 12:31	05/23/22 02:52	CCE	Mt. Juliet, TN

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

CASE NARRATIVE

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

Jeff Carr
Project Manager

Report Revision History

Level II Report - Version 1: 06/06/22 16:56

Project Narrative

This report has been revised by reporting to the MDLs.

SAMPLE RESULTS - 01

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1680000	J3	20000	1	05/17/2022 19:15	WG1865300

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	4220		379	1000	1	06/04/2022 19:50	WG1874222
Fluoride	120	J	64.0	150	1	06/04/2022 19:50	WG1874222
Sulfate	1070000		29700	250000	50	06/04/2022 20:06	WG1874222

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	4050		20.0	200	1	05/20/2022 18:41	WG1866298
Calcium	302000		79.3	1000	1	05/20/2022 18:41	WG1866298

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	2430000		50000	1	05/17/2022 19:15	WG1865300

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	7230	J	3790	10000	10	06/04/2022 20:22	WG1874222
Fluoride	912	J	640	1500	10	06/04/2022 20:22	WG1874222
Sulfate	1810000		59400	500000	100	06/04/2022 20:38	WG1874222

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	5230		20.0	200	1	05/20/2022 18:44	WG1866298
Calcium	366000		79.3	1000	1	05/20/2022 18:44	WG1866298

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

MW-604

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1940000		50000	1	05/17/2022 19:15	WG1865300

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	16900		3790	10000	10	06/04/2022 20:54	WG1874222
Fluoride	691	J	640	1500	10	06/04/2022 20:54	WG1874222
Sulfate	2000000		59400	500000	100	06/04/2022 21:10	WG1874222

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	5790	O1	20.0	200	1	05/20/2022 17:37	WG1866298
Calcium	478000	O1 V	79.3	1000	1	05/20/2022 17:37	WG1866298

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	2010000		50000	1	05/17/2022 19:15	WG1865300

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	16300		3790	10000	10	06/04/2022 21:26	WG1874222
Fluoride	765	J	640	1500	10	06/04/2022 21:26	WG1874222
Sulfate	2000000		59400	500000	100	06/04/2022 21:42	WG1874222

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	5760		20.0	200	1	05/20/2022 18:47	WG1866298
Calcium	482000		79.3	1000	1	05/20/2022 18:47	WG1866298

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	2430000		50000	1	05/17/2022 19:15	WG1865300

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	16100		3790	10000	10	06/04/2022 22:29	WG1874222
Fluoride	778	J	640	1500	10	06/04/2022 22:29	WG1874222
Sulfate	1960000		59400	500000	100	06/04/2022 22:45	WG1874222

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	5790		20.0	200	1	05/20/2022 18:50	WG1866298
Calcium	482000		79.3	1000	1	05/20/2022 18:50	WG1866298

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

MW-601
Collected date/time: 05/10/22 11:10

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4680000		10000	1	05/17/2022 19:15	WG1865300

Sample Narrative:

L1494160-06 WG1865300: In hold results confirmed by OOH analysis.

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	39800		3790	10000	10	06/04/2022 23:01	WG1874222
Fluoride	779	J	640	1500	10	06/04/2022 23:01	WG1874222
Sulfate	3160000		59400	500000	100	06/04/2022 23:17	WG1874222

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	128	J	20.0	200	1	05/23/2022 02:52	WG1866943
Calcium	439000		79.3	1000	1	05/23/2022 02:52	WG1866943

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

WG1865300
Gravimetric Analysis by Method 2540 C-2011

Method Blank (MB)

(MB) R3793593-1 05/17/22 19:15

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

L1493470-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1493470-02 05/17/22 19:15 • (DUP) R3793593-3 05/17/22 19:15

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	199000	136000	1	37.6	J3	5

L1494160-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1494160-01 05/17/22 19:15 • (DUP) R3793593-4 05/17/22 19:15

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1680000	1530000	1	9.33	J3	5

Laboratory Control Sample (LCS)

(LCS) R3793593-2 05/17/22 19:15

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2460000	2510000	102	81.7-118	

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

Method Blank (MB)

(MB) R3799968-1 06/04/22 10:29

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

L1493603-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1493603-01 06/04/22 15:20 • (DUP) R3799968-3 06/04/22 15:36

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	6130	6100	1	0.365		15
Fluoride	153	154	1	0.391		15
Sulfate	13900	13900	1	0.394		15

L1493603-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1493603-09 06/04/22 23:33 • (DUP) R3799968-6 06/04/22 23:49

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	6110	6110	1	0.123		15
Fluoride	153	152	1	0.786		15
Sulfate	13900	13900	1	0.0519		15

Laboratory Control Sample (LCS)

(LCS) R3799968-2 06/04/22 10:45

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40200	101	80.0-120	
Fluoride	8000	8180	102	80.0-120	
Sulfate	40000	40000	100	80.0-120	

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

L1493603-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1493603-01 06/04/22 15:20 • (MS) R3799968-4 06/04/22 16:23 • (MSD) R3799968-5 06/04/22 16:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	6130	56700	56800	101	101	1	80.0-120			0.0876	15
Fluoride	5000	153	5190	5180	101	101	1	80.0-120			0.00771	15
Sulfate	50000	13900	63600	63600	99.5	99.4	1	80.0-120			0.142	15

L1493603-09 Original Sample (OS) • Matrix Spike (MS)

(OS) L1493603-09 06/04/22 23:33 • (MS) R3799968-7 06/05/22 00:05

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	6110	56500	101	1	80.0-120	
Fluoride	5000	153	5160	100	1	80.0-120	
Sulfate	50000	13900	63700	99.6	1	80.0-120	

¹Cp
²Tc
³Ss
⁴Cn
⁵Sr
⁶Qc
⁷Gl
⁸Al
⁹Sc

QUALITY CONTROL SUMMARY

L1494160-01,02,03,04,05

Method Blank (MB)

(MB) R3794633-1 05/20/22 17:31

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) R3794633-2 05/20/22 17:34

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	990	99.0	80.0-120	
Calcium	10000	9670	96.7	80.0-120	

L1494160-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1494160-03 05/20/22 17:37 • (MS) R3794633-4 05/20/22 17:43 • (MSD) R3794633-5 05/20/22 17:46

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1000	5790	6610	6610	82.4	82.0	1	75.0-125			0.0607	20
Calcium	10000	478000	475000	478000	0.000	3.70	1	75.0-125	V	V	0.687	20

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

WG1866943
Metals (ICP) by Method 6010D

QUALITY CONTROL SUMMARY

L1494160-06

Method Blank (MB)

(MB) R3794747-1 05/23/22 01:34

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) R3794747-2 05/23/22 01:36

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	937	93.7	80.0-120	
Calcium	10000	9400	94.0	80.0-120	

L1493787-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1493787-15 05/23/22 01:39 • (MS) R3794747-4 05/23/22 01:44 • (MSD) R3794747-5 05/23/22 01:47

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1000	309	1240	1240	93.4	93.1	1	75.0-125			0.291	20
Calcium	10000	78200	86400	86400	81.8	81.2	1	75.0-125			0.0750	20

Cp Tc Ss Cn Sr Qc Gl Al Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

State	Code	State	Code
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.

<div>

[1] Cp

[2] Tc

[3] Ss

[4] Cn

[5] Sr

[6] Qc

[7] Gl

[8] Al

[9] Sc

</div>

Company Name/Address:
SCS Engineers - KS

8575 W. 110th Street
Overland Park, KS 66210

Report to:
Jason Franks

Project Description:
Evergy - Montrose Generating Station

Phone: 913-681-0030

Collected by (print):
B. Coleman

Collected by (signature):

Immediately
Packed on Ice   N ____   Y ✓

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

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

City/State
Collected: Montrose, MO

Client Project #
27213168.22-A

Site/Facility ID #

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

Pres Chk

Please Circle:
PT MT CT ET

Lab Project #
AQUAOPKS-MONTROSE

P.O. #

Quote #

Date Results Needed
STD

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 # L492956

Table # L494160

Acctnum: AQUAOPKS

Template: T135966

Prelogin: P922356

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-601	Grab	GW	~	5/10/22	1110	3	X	X	X						-01
MW-602		GW			1245	3	X	X	X					-11	-02
MW-603		GW			1445	3	X	X	X					-12	-02
MW-604		GW			1415	3	X	X	X					-13	-03
MW-605		GW			1425	3	X	X	X					-14	-04
MS / MSD		GW			1447	3	X	X	X					-13	-05
DUPLICATE	✓	GW			1111	3	X	X	X					-15	-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 # 5719 6180 7054

Relinquished by : (Signature)	Date: 5/10/22	Time: 1730	Received by: (Signature)	Trip Blank Received: Yes/No 3 (HCL) MeoH TBR	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: JAA 7°C 2.7 +0 = 2.7 Bottles Received: 60	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/11/22 Time: 0930	Hold: Condition: (NCF) / OK

L1494160

5/12-NCF-L1492956 AQUAOPKS

R5

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

Members

HM Hailey Melson (responsible)   AV Andy Vann   JAC Jeffrey A. Carr

✎ Due on *16 May 2022 8:00 AM for target Done*

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

Comments

Hailey Melson		*12 May 2022 7:41 PM*
Did not receive ID: MW-601		

Jeffrey A. Carr		*13 May 2022 10:27 AM*
MW-601 was logged to L1492460-03. (Refer to NCF for L1492460)		~ 07
This needs to be re-labeled and moved to L1492956.		

Hailey Melson		*14 May 2022 9:31 PM*
Done		

L14941600

AQUAOPKS L149256-11 thru -16 Relog to a separate SDG

R5

Please relog AQUAOPKS samples L149256-11 thru -16 to a separates SDG. All products have been removed.

Jeffrey A. Carr
Project Manager II
Pace National
12065 Lebanon Road I Mt. Juliet, TN 37122
(615) 758-5858 I Ext. 9667

Jeffrey.Carr@pacelabs.com <mailto:Jeffrey.Carr@pacelabs.com> |
pacenational.com<https://pacenational.com/>

New email address is Jeffrey.Carr@pacelabs.com <mailto:Jeffrey.Carr@pacelabs.com>
Please update your records accordingly.

MAKE YOUR PAYMENTS ONLINE<file://filesrv/users$/carr_j/My%20Documents/Adobe>

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P Please consider the environment before printing this email

Time estimate: 0h   **Time spent:** 0h

Members

JAC   Jeffrey A. Carr (responsible)

ANALYTICAL REPORT

July 29, 2022

Pace Analytical®

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

SCS Engineers - KS

Sample Delivery Group:	L1515065
Samples Received:	07/14/2022
Project Number:	27213168.22-F
Description:	Evergy Montrose Gen Station LF GW 2022-23

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

Entire Report Reviewed By:

Jeff Carr
Project Manager

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

Pace Analytical National

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

TABLE OF CONTENTS

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

MW-506 L1515065-01 GW

			Collected by A Thompson	Collected date/time 07/13/22 12:55	Received date/time 07/14/22 09:15		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Wet Chemistry by Method 9056A	WG1898953	1	07/22/22 01:54	07/22/22 01:54	LBR	Mt. Juliet, TN	

MW-601 L1515065-02 GW

			Collected by A Thompson	Collected date/time 07/13/22 12:05	Received date/time 07/14/22 09:15		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Wet Chemistry by Method 9056A	WG1898953	1	07/22/22 02:07	07/22/22 02:07	LBR	Mt. Juliet, TN	

MW-602 L1515065-03 GW

			Collected by A Thompson	Collected date/time 07/13/22 10:45	Received date/time 07/14/22 09:15		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Wet Chemistry by Method 9056A	WG1898953	1	07/22/22 02:20	07/22/22 02:20	LBR	Mt. Juliet, TN	

MW-603 L1515065-04 GW

			Collected by A Thompson	Collected date/time 07/13/22 11:40	Received date/time 07/14/22 09:15		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Wet Chemistry by Method 9056A	WG1898953	1	07/22/22 02:45	07/22/22 02:45	LBR	Mt. Juliet, TN	

MW-604 L1515065-05 GW

			Collected by A Thompson	Collected date/time 07/13/22 12:34	Received date/time 07/14/22 09:15		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Wet Chemistry by Method 9056A	WG1898953	1	07/22/22 03:23	07/22/22 03:23	LBR	Mt. Juliet, TN	
Metals (ICP) by Method 6010D	WG1900448	1	07/27/22 20:01	07/28/22 19:00	ZSA	Mt. Juliet, TN	

DUPLICATE 1 L1515065-06 GW

			Collected by A Thompson	Collected date/time 07/13/22 12:44	Received date/time 07/14/22 09:15		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Wet Chemistry by Method 9056A	WG1898953	1	07/22/22 04:01	07/22/22 04:01	LBR	Mt. Juliet, TN	
Metals (ICP) by Method 6010D	WG1900448	1	07/27/22 20:01	07/28/22 19:04	ZSA	Mt. Juliet, TN	

MW-605 L1515065-07 GW

			Collected by A Thompson	Collected date/time 07/13/22 13:25	Received date/time 07/14/22 09:15		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Wet Chemistry by Method 9056A	WG1898953	1	07/22/22 04:14	07/22/22 04:14	LBR	Mt. Juliet, TN	
Metals (ICP) by Method 6010D	WG1900514	1	07/28/22 18:25	07/29/22 01:12	CCE	Mt. Juliet, TN	

DUPLICATE 2 L1515065-08 GW

			Collected by A Thompson	Collected date/time 07/13/22 13:35	Received date/time 07/14/22 09:15		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Wet Chemistry by Method 9056A	WG1898953	1	07/22/22 04:52	07/22/22 04:52	LBR	Mt. Juliet, TN	
Metals (ICP) by Method 6010D	WG1900448	1	07/27/22 20:01	07/28/22 19:07	ZSA	Mt. Juliet, TN	

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

CASE NARRATIVE

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

Jeff Carr
Project Manager

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Fluoride	84.4	J	64.0	150	1	07/22/2022 01:54	WG1898953

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

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Fluoride	266		64.0	150	1	07/22/2022 02:07	WG1898953

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Fluoride	118	J P1	64.0	150	1	07/22/2022 02:20	WG1898953

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

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	6640	B	379	1000	1	07/22/2022 02:45	WG1898953
Fluoride	404		64.0	150	1	07/22/2022 02:45	WG1898953

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

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	17400		379	1000	1	07/22/2022 03:23	WG1898953
Fluoride	336		64.0	150	1	07/22/2022 03:23	WG1898953

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	5580		20.0	200	1	07/28/2022 19:00	WG1900448

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

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	17300		379	1000	1	07/22/2022 04:01	WG1898953
Fluoride	323		64.0	150	1	07/22/2022 04:01	WG1898953

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	5550		20.0	200	1	07/28/2022 19:04	WG1900448

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

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Fluoride	160		64.0	150	1	07/22/2022 04:14	WG1898953

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	1540		20.0	200	1	07/29/2022 01:12	WG1900514
Calcium	434000		79.3	1000	1	07/29/2022 01:12	WG1900514

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Fluoride	170		64.0	150	1	07/22/2022 04:52	WG1898953

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	1600		20.0	200	1	07/28/2022 19:07	WG1900448
Calcium	450000		79.3	1000	1	07/28/2022 19:07	WG1900448

¹Cp
²Tc
³Ss
⁴Cn
⁵Sr
⁶Qc
⁷Gl
⁸Al
⁹Sc

WG1898953

Wet Chemistry by Method 9056A

Method Blank (MB)

(MB) R3818475-1 07/22/22 00:50

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	703	J	379	1000
Fluoride	U		64.0	150

L1515065-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1515065-03 07/22/22 02:20 • (DUP) R3818475-3 07/22/22 02:32

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	4370	3920	1	10.8		15
Fluoride	118	167	1	34.9	P1	15

L1515302-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1515302-02 07/22/22 08:42 • (DUP) R3818475-16 07/22/22 08:54

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	2870	2820	1	1.80		15
Fluoride	96.6	94.7	1	1.99	J	15

Laboratory Control Sample (LCS)

(LCS) R3818475-2 07/22/22 01:03

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40500	101	80.0-120	
Fluoride	8000	8520	106	80.0-120	

L1515065-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515065-05 07/22/22 03:23 • (MS) R3818475-4 07/22/22 03:36 • (MSD) R3818475-5 07/22/22 03:49

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	17400	66700	66800	98.7	99.0	1	80.0-120			0.185	15
Fluoride	5000	336	4970	4940	92.6	92.1	1	80.0-120			0.583	15

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

L1515065-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515065-07 07/22/22 04:14 • (MS) R3818475-6 07/22/22 04:27 • (MSD) R3818475-7 07/22/22 04:40

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	38300	86500	87600	96.4	98.5	1	80.0-120			1.21	15
Fluoride	5000	160	4500	4600	86.8	88.8	1	80.0-120			2.16	15

L1515205-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515205-01 07/22/22 05:05 • (MS) R3818475-8 07/22/22 05:18 • (MSD) R3818475-9 07/22/22 05:56

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	391000	423000	422000	64.7	61.5	1	80.0-120	E V	E V	0.380	15
Fluoride	5000	269	5160	5150	97.8	97.5	1	80.0-120			0.229	15

L1515205-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515205-02 07/22/22 06:09 • (MS) R3818475-10 07/22/22 06:22 • (MSD) R3818475-11 07/22/22 06:34

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	346000	380000	383000	66.9	73.6	1	80.0-120	E V	E V	0.880	15
Fluoride	5000	321	5520	5590	104	105	1	80.0-120			1.23	15

L1515205-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515205-04 07/22/22 07:25 • (MS) R3818475-14 07/22/22 07:38 • (MSD) R3818475-15 07/22/22 07:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	330000	364000	365000	67.8	69.9	1	80.0-120	E V	E V	0.297	15
Fluoride	5000	477	5710	5750	105	105	1	80.0-120			0.735	15

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

WG1900448

Metals (ICP) by Method 6010D

QUALITY CONTROL SUMMARY

L1515065-05,06,08

Method Blank (MB)

(MB) R3820416-6 07/28/22 18:14

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) R3820416-7 07/28/22 18:17

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	996	99.6	80.0-120	
Calcium	10000	10000	100	80.0-120	

L1515046-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515046-05 07/28/22 18:20 • (MS) R3820416-9 07/28/22 18:25 • (MSD) R3820416-10 07/28/22 18:28

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1000	88.1	1110	1100	102	102	1	75.0-125			0.626	20
Calcium	10000	171000	179000	178000	80.1	74.1	1	75.0-125		V	0.337	20

¹Cp ²Tc ³Ss ⁴Cn ⁵Sr ⁶Qc ⁷Gl ⁸Al ⁹Sc

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3820454-1 07/29/22 01:06

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) R3820454-2 07/29/22 01:09

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	1010	101	80.0-120	
Calcium	10000	9990	99.9	80.0-120	

L1515065-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515065-07 07/29/22 01:12 • (MS) R3820454-4 07/29/22 01:18 • (MSD) R3820454-5 07/29/22 01:21

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1000	1540	2530	2530	98.9	98.8	1	75.0-125			0.0300	20
Calcium	10000	434000	436000	437000	20.9	24.0	1	75.0-125	V	V	0.0710	20

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

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	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.

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

							Analysis / Container / Preservative						Chain of Custody	Page ___ of ___

Company Name/Address:
SCS Engineers - KS

8575 W. 110th Street
Overland Park, KS 66210

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

Pres Chk: 3 ✓ 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

Report to:
Jason Franks

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

Project Description:
Evergy Montrose Gen Station LF GW 2022-23

City/State Collected:

Please Circle:
PT MT CT ET

SDG #: 4515065
C027

Phone: 913-681-0030

Client Project #
27213168.22-F

Lab Project #
AQUAOPKS-MONTROSE

Acctnum: **AQUAOPKS**
Template: T212738
Prelogin: P937487
PM: 206 - Jeff Carr
PB:

Collected by (print):
A Thompson

Collected by (signature):

Immediately
Packed on Ice N ___ Y ✓

Site/Facility ID #

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

P.O. #

Quote #

Date Results Needed

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Boron - 6010 250mlHDPE-HNO3	Boron, Ca - 6010 250mlHDPE-HNO3	Chloride, Fluoride 125mlHDPE-NoPres	Fluoride 125mlHDPE-NoPres			Remarks	Sample # (lab only)
MW-506	Grab	GW		7/13/22	1255	1				X				~01
MW-601		GW			1205	1				X				~02
MW-602		GW			1045	1				X				~03
MW-603		GW			1140	1			X					~04
MW-604		GW			1234	2	X		X					~05
MW-604 MS/MSD		GW			1239	2	X		X					~05
DUPLICATE 1		GW			1244	2	X		X					~06
MW-605		GW			1325	2			X	X				~07
MW-605 MS/MSD		GW			1330	2			X	X				~07
DUPLICATE 2		GW			1335	2			X	X				~08

* 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: ___Y ✓N ___NP
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 # 5016 1234 8562
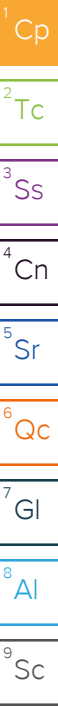
Trip Blank Received: Yes / (No)
HCL / MeoH
TBR

Relinquished by: (Signature) | Date: 7/13/22 | Time: 1700 | Received by: (Signature) | | |

Relinquished by: (Signature) | Date: | Time: | Received by: (Signature) | Temp: MS A 2C 4.2+0=4.2 Bottles Received: 16 | If preservation required by Login: Date/Time |

Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: 7-14-22 Time: 9:15 | Hold: | Condition: NCF / (OK) |

ANALYTICAL REPORT

August 25, 2022

Pace Analytical®

SCS Engineers - KS

Sample Delivery Group:	L1526481
Samples Received:	08/17/2022
Project Number:	27213168.22 - F
Description:	Evergy Montrose Gen Station LF GW 2022-23

Report To: Jason Franks

8575 W. 110th Street

Overland Park, KS 66210

Entire Report Reviewed By:

[signature]

Jason Romer

Project Manager

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

Pace Analytical National

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

ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
SCS Engineers - KS	27213168.22 - F	L1526481	08/25/22 12:11	1 of 14

TABLE OF CONTENTS

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

SAMPLE SUMMARY

MW-604 L1526481-01 GW

			Collected by A. Thompson	Collected date/time 08/16/22 10:00	Received date/time 08/17/22 08:45		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Wet Chemistry by Method 9056A	WG1912781	1	08/20/22 05:32	08/20/22 05:32	LBR	Mt. Juliet, TN	
Metals (ICP) by Method 6010D	WG1914319	1	08/23/22 01:38	08/23/22 16:32	ABL	Mt. Juliet, TN	

DUPLICATE 1 L1526481-03 GW

			Collected by A. Thompson	Collected date/time 08/16/22 10:05	Received date/time 08/17/22 08:45		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Wet Chemistry by Method 9056A	WG1912781	1	08/20/22 06:47	08/20/22 06:47	LBR	Mt. Juliet, TN	
Metals (ICP) by Method 6010D	WG1914389	1	08/23/22 20:44	08/24/22 16:19	ABL	Mt. Juliet, TN	

MW-605 L1526481-04 GW

			Collected by A. Thompson	Collected date/time 08/16/22 11:15	Received date/time 08/17/22 08:45		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Metals (ICP) by Method 6010D	WG1914389	1	08/23/22 20:44	08/24/22 15:59	ABL	Mt. Juliet, TN	

DUPLICATE 2 L1526481-06 GW

			Collected by A. Thompson	Collected date/time 08/16/22 11:25	Received date/time 08/17/22 08:45		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Metals (ICP) by Method 6010D	WG1914389	1	08/23/22 20:44	08/24/22 16:27	ABL	Mt. Juliet, TN	

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

CASE NARRATIVE

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

Jason Romer
Project Manager

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

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	17500		379	1000	1	08/20/2022 05:32	WG1912781

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	5140		20.0	200	1	08/23/2022 16:32	WG1914319

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

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	17600		379	1000	1	08/20/2022 06:47	WG1912781

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	5270		20.0	200	1	08/24/2022 16:19	WG1914389

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

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	444000		79.3	1000	1	08/24/2022 15:59	WG1914389

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

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Calcium	452000		79.3	1000	1	08/24/2022 16:27	WG1914389

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

Method Blank (MB)

(MB) R3828564-1 08/19/22 23:00

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

L1526481-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1526481-01 08/20/22 05:32 • (DUP) R3828564-5 08/20/22 05:45

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	17500	17500	1	0.0696		15

L1526435-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1526435-01 08/20/22 02:00 • (DUP) R3828564-3 08/20/22 02:13

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	93200	91800	1	1.45		15

Laboratory Control Sample (LCS)

(LCS) R3828564-2 08/19/22 23:13

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

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

(OS) L1526481-01 08/20/22 05:32 • (MS) R3828564-6 08/20/22 05:57 • (MSD) R3828564-7 08/20/22 06:10

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	17500	67900	69300	101	104	1	80.0-120			2.06	15

L1526435-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1526435-01 08/20/22 02:00 • (MS) R3828564-4 08/20/22 02:25

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	93200	139000	92.6	1	80.0-120	

QUALITY CONTROL SUMMARY

L1526481-01

Method Blank (MB)

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

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

Laboratory Control Sample (LCS)

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

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	970	97.0	80.0-120	

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

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

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1000	5140	6080	5980	93.6	84.4	1	75.0-125			1.53	20

WG1914389

Metals (ICP) by Method 6010D

Method Blank (MB)

(MB) R3830148-1 08/24/22 15:54

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) R3830148-2 08/24/22 15:56

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	997	99.7	80.0-120	
Calcium	10000	10200	102	80.0-120	

L1526481-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1526481-04 08/24/22 15:59 • (MS) R3830148-4 08/24/22 16:05 • (MSD) R3830148-5 08/24/22 16:08

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	1560	2530	2520	97.2	95.5	1	75.0-125			0.675	20
Calcium	10000	444000	446000	442000	26.9	0.000	1	75.0-125	V	V	0.908	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.
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Qualifier	Description
V	The sample concentration is too high to evaluate accurate spike recoveries.

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

ACCREDITATIONS & LOCATIONS

Pace Analytical National   12065 Lebanon Rd Mount Juliet, TN 37122

State	Code	State	Code
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.

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

Company Name/Address:		Billing Information:				Analysis / Container / Preservative						Chain of Custody Page 1 of 1	
SCS Engineers - KS 8575 W. 110th Street Overland Park, KS 66210		**Accounts Payable** 8575 W. 110th Street Overland Park, KS 66210		Pres Chk									
Report to: **Jason Franks**		Email To: jfranks@scsengineers.com;jay.martin@evergy.c										SDG # U526481	
Project Description: **Evergy Montrose Gen Station LF GW 2022-23**		City/State Collected:		Please Circle: PT MT CT ET								**B188**	
Phone: **913-681-0030**	Client Project # **27213168.22 - F**	Lab Project # **AQUAOPKS-MONTROSE**										Acctnum: **AQUAOPKS** Template:**T212738** Prelogin: **P943623** PM: 206 - Jeff Carr PB:	
Collected by (print): A Thompson	Site/Facility ID #	P.O. #											
Collected by (signature): A Thom	**Rush?** (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day	Quote #											
Immediately Packed on Ice N ___ Y ✓		Date Results Needed		No. of Cntrs	Boron - 6010 250mlHDPE-HNO3	Calcium - 6010 250mlHDPE-HNO3	Chloride - 9056 125mlHDPE-NoPres					Shipped Via: **FedEX Ground**	
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time							Remarks	Sample # (lab only)
MW-604	G	GW		8/16	1000 ~~0945~~	2	X	X					-01
MW-604 MS/MSD	G	GW		8/16	1010	2	X	X					-02
DUPLICATE 1	G	GW		8/16	1005	2	X	X					-03
MW-605	G	GW		8/16	1115	1		X					-04
MW-605 MS/MSD	G	GW		8/16	1120	1		X					-05
DUPLICATE 2	G	GW		8/16	1125	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 _____	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 # 5300 4291 2766		Trip Blank Received: Yes / No HCL / MeoH TBR	
Relinquished by : (Signature) A Thom	Date: 8/16	Time: 1930	Received by: (Signature)		If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C .37°=.3 Bottles Received: 9	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) M. Welch	Date: 8/17/22 Time: 845	Hold:	Condition: NCF / OK

ANALYTICAL REPORT

November 21, 2022

Pace Analytical ®

SCS Engineers - KS

Sample Delivery Group:	L1555862
Samples Received:	11/09/2022
Project Number:	27213168.22-A
Description:	Evergy Montrose Gen Station LF GW 2022-23

Report To: Jason Franks

8575 W. 110th Street

Overland Park, KS 66210

Entire Report Reviewed By:

Jeff Carr

Project Manager

Pace Analytical National

TABLE OF CONTENTS

SAMPLE SUMMARY

MW-506 L1555862-01 GW

			Collected by	Collected date/time	Received date/time	
			Whit Martin	11/08/22 12:25	11/09/22 09:00	

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1959436	1	11/15/22 08:54	11/15/22 10:07	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1957815	20	11/12/22 15:26	11/12/22 15:26	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1957815	5	11/11/22 02:57	11/11/22 02:57	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959169	1	11/15/22 00:22	11/16/22 10:58	ABL	Mt. Juliet, TN

DUPLICATE L1555862-02 GW

			Collected by	Collected date/time	Received date/time	
			Whit Martin	11/08/22 12:25	11/09/22 09:00	

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1959436	1	11/15/22 08:54	11/15/22 10:07	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1957815	20	11/11/22 04:20	11/11/22 04:20	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1957815	5	11/11/22 04:06	11/11/22 04:06	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959142	1	11/15/22 15:47	11/18/22 19:11	ZSA	Mt. Juliet, TN

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

CASE NARRATIVE

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

Jeff Carr
Project Manager

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2260000		50000	1	11/15/2022 10:07	WG1959436

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	85400		1900	5000	5	11/11/2022 02:57	WG1957815
Fluoride	U		320	750	5	11/11/2022 02:57	WG1957815
Sulfate	1730000		11900	100000	20	11/12/2022 15:26	WG1957815

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	98.5	J	20.0	200	1	11/16/2022 10:58	WG1959169
Calcium	343000	O1 V	79.3	1000	1	11/16/2022 10:58	WG1959169

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	2190000		50000	1	11/15/2022 10:07	WG1959436

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	85900		1900	5000	5	11/11/2022 04:06	WG1957815
Fluoride	U		320	750	5	11/11/2022 04:06	WG1957815
Sulfate	1620000		11900	100000	20	11/11/2022 04:20	WG1957815

Sample Narrative:

    L1555862-02 WG1957815: DILUTION DUE TO MATRIX

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	97.4	J	20.0	200	1	11/18/2022 19:11	WG1959142
Calcium	340000		79.3	1000	1	11/18/2022 19:11	WG1959142

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

Method Blank (MB)

(MB) R3862450-1 11/15/22 10:07

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

L1555546-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1555546-02 11/15/22 10:07 • (DUP) R3862450-3 11/15/22 10:07

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1270000	1350000	1	6.42	J3	5

L1555546-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1555546-03 11/15/22 10:07 • (DUP) R3862450-4 11/15/22 10:07

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1640000	1910000	1	15.4	J3	5

Laboratory Control Sample (LCS)

(LCS) R3862450-2 11/15/22 10:07

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	8140000	92.5	77.3-123	

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

Method Blank (MB)

(MB) R3860319-1 11/11/22 02:30

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

L1555862-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1555862-01 11/11/22 02:57 • (DUP) R3860319-4 11/11/22 03:11

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	85400	85200	5	0.184		15
Fluoride	U	U	5	0.000		15

L1555863-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1555863-09 11/11/22 06:51 • (DUP) R3860319-7 11/11/22 07:04

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	26900	27500	1	2.22		15
Fluoride	179	172	1	4.11		15
Sulfate	99400	101000	1	1.91		15

L1555862-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1555862-01 11/12/22 15:26 • (DUP) R3860353-1 11/12/22 15:42

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	1730000	1700000	20	1.78		15

Laboratory Control Sample (LCS)

(LCS) R3860319-2 11/11/22 02:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	38700	96.8	80.0-120	
Fluoride	8000	7780	97.2	80.0-120	
Sulfate	40000	37900	94.7	80.0-120	

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

QUALITY CONTROL SUMMARY
L1555862-01,02

L1555862-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1555862-01 11/11/22 02:57 • (MS) R3860319-5 11/11/22 03:25 • (MSD) R3860319-6 11/11/22 03:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	85400	127000	127000	82.8	83.1	5	80.0-120			0.139	15
Fluoride	5000	U	5040	4960	101	99.1	5	80.0-120			1.69	15
Sulfate	50000	1610000	1550000	1550000	0.000	0.000	5	80.0-120	E V	E V	0.353	15

L1555863-09 Original Sample (OS) • Matrix Spike (MS)

(OS) L1555863-09 11/11/22 06:51 • (MS) R3860319-8 11/11/22 07:18

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	26900	74600	95.5	1	80.0-120	
Fluoride	5000	179	5130	99.0	1	80.0-120	
Sulfate	50000	99400	143000	87.4	1	80.0-120	

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

WG1959142
Metals (ICP) by Method 6010D

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3863186-1 11/18/22 17:51

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) R3863186-2 11/18/22 17:54

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	997	99.7	80.0-120	
Calcium	10000	10200	102	80.0-120	

L1555720-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1555720-09 11/18/22 17:57 • (MS) R3863186-4 11/18/22 18:02 • (MSD) R3863186-5 11/18/22 18:05

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1000	103	1080	1100	97.5	99.2	1	75.0-125			1.51	20
Calcium	10000	345000	343000	346000	0.000	13.0	1	75.0-125	V	V	0.909	20

WG1959169

Metals (ICP) by Method 6010D

Method Blank (MB)

(MB) R3861697-1 11/16/22 10:53

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) R3861697-2 11/16/22 10:55

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	1000	100	80.0-120	
Calcium	10000	10100	101	80.0-120	

L1555862-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1555862-01 11/16/22 10:58 • (MS) R3861697-4 11/16/22 11:04 • (MSD) R3861697-5 11/16/22 11:07

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1000	98.5	1120	1090	102	98.8	1	75.0-125			2.77	20
Calcium	10000	343000	345000	341000	22.1	0.000	1	75.0-125	V	V	1.20	20

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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.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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

ACCREDITATIONS & LOCATIONS

Pace Analytical National   12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	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.

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

Chain of Custody

Company Name/Address:

SCS Engineers - KS

8575 W. 110th Street
Overland Park, KS 66210

Billing Information:

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

Pres Chk: ✓²

Analysis / Container / Preservative

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;jay.martin@evergy.c

Project Description:
Evergy Montrose Gen Station LF GW 2022-23

City/State Collected: Montrose, MO

Please Circle: PT MT (CT) ET

SDG # 1555862

J087

Phone: 913-681-0030

Client Project #
27213168.22-A

Lab Project #
AQUAOPKS-MONTROSE

Acctnum: **AQUAOPKS**

Template: **T166717**

Prelogin: **P958827**

PM: **206 - Jeff Carr**

PB:

Collected by (print):
Whit Martin

Collected by (signature):
[signature]

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

Site/Facility ID #

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

P.O. #

Quote #

Date Results Needed
Std

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-506	Grab	GW		11/8/22	1225	3	X	X	X				7-01
MW-506 MS/MSD	Grab	GW		11/8/22	1225	3	X	X	X				-01
DUPLICATE	Grab	GW		11/8/22	1225	3	X	X	X				-02

* 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 #

Relinquished by : (Signature) [signature]	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes /(No) HCL / MeoH TBR	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.1 °C Bottles Received: 9	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 11/19/22 Time: 0900	Hold: Condition: NCF /(OK)

ANALYTICAL REPORT

November 22, 2022

Pace Analytical®

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

SCS Engineers - KS

Sample Delivery Group:	L1555864
Samples Received:	11/09/2022
Project Number:	27213168.22-A
Description:	Evergy Montrose Gen Station LF GW 2022-23

Report To: Jason Franks

8575 W. 110th Street

Overland Park, KS 66210

Entire Report Reviewed By:

Jeff Carr

Project Manager

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

Pace Analytical National

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

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

MW-601 L1555864-01 GW

			Collected by B. Coleman	Collected date/time 11/08/22 11:35	Received date/time 11/09/22 09:00		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Gravimetric Analysis by Method 2540 C-2011	WG1959791	1	11/15/22 15:32	11/15/22 16:34	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958318	10	11/12/22 04:23	11/12/22 04:23	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958318	100	11/12/22 04:39	11/12/22 04:39	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959169	1	11/15/22 00:22	11/16/22 11:13	ABL	Mt. Juliet, TN

MW-602 L1555864-02 GW

			Collected by B. Coleman	Collected date/time 11/08/22 10:55	Received date/time 11/09/22 09:00		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Gravimetric Analysis by Method 2540 C-2011	WG1959791	1	11/15/22 15:32	11/15/22 16:34	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	1	11/14/22 15:15	11/14/22 15:15	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	10	11/14/22 15:33	11/14/22 15:33	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959169	1	11/15/22 00:22	11/16/22 11:16	ABL	Mt. Juliet, TN

MW-603 L1555864-03 GW

			Collected by B. Coleman	Collected date/time 11/08/22 11:40	Received date/time 11/09/22 09:00		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Gravimetric Analysis by Method 2540 C-2011	WG1959791	1	11/15/22 15:32	11/15/22 16:34	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	10	11/14/22 15:51	11/14/22 15:51	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	100	11/14/22 16:09	11/14/22 16:09	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959169	1	11/15/22 00:22	11/16/22 11:19	ABL	Mt. Juliet, TN

MW-604 L1555864-04 GW

			Collected by B. Coleman	Collected date/time 11/08/22 12:35	Received date/time 11/09/22 09:00		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Gravimetric Analysis by Method 2540 C-2011	WG1959964	1	11/15/22 13:20	11/15/22 14:27	SLP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	10	11/14/22 16:27	11/14/22 16:27	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	100	11/14/22 16:45	11/14/22 16:45	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959191	1	11/20/22 20:30	11/21/22 19:55	ZSA	Mt. Juliet, TN

MW-605 L1555864-05 GW

			Collected by B. Coleman	Collected date/time 11/08/22 11:55	Received date/time 11/09/22 09:00		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Gravimetric Analysis by Method 2540 C-2011	WG1959967	1	11/15/22 14:34	11/15/22 15:23	SLP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	10	11/14/22 18:32	11/14/22 18:32	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	100	11/14/22 18:50	11/14/22 18:50	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959169	1	11/15/22 00:22	11/16/22 11:27	ABL	Mt. Juliet, TN

DUPLICATE L1555864-06 GW

			Collected by B. Coleman	Collected date/time 11/08/22 00:00	Received date/time 11/09/22 09:00		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Gravimetric Analysis by Method 2540 C-2011	WG1959964	1	11/15/22 13:20	11/15/22 14:27	SLP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	10	11/14/22 19:08	11/14/22 19:08	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1958664	100	11/14/22 19:26	11/14/22 19:26	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1959169	1	11/15/22 00:22	11/16/22 11:30	ABL	Mt. Juliet, TN

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

CASE NARRATIVE

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

Jeff Carr
Project Manager

<table>
<tr><td>1</td><td>Cp</td></tr>
<tr><td>2</td><td>Tc</td></tr>
<tr><td>3</td><td>Ss</td></tr>
<tr><td>4</td><td>Cn</td></tr>
<tr><td>5</td><td>Sr</td></tr>
<tr><td>6</td><td>Qc</td></tr>
<tr><td>7</td><td>Gl</td></tr>
<tr><td>8</td><td>Al</td></tr>
<tr><td>9</td><td>Sc</td></tr>
</table>

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4440000		50000	1	11/15/2022 16:34	WG1959791

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	62400		3790	10000	10	11/12/2022 04:23	WG1958318
Fluoride	819	J	640	1500	10	11/12/2022 04:23	WG1958318
Sulfate	2910000		59400	500000	100	11/12/2022 04:39	WG1958318

Sample Narrative:

L1555864-01 WG1958318: Dilution due to matrix impact on instrumentation at lower dilution

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	119	J	20.0	200	1	11/16/2022 11:13	WG1959169
Calcium	463000		79.3	1000	1	11/16/2022 11:13	WG1959169

SAMPLE RESULTS - 02

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1710000		20000	1	11/15/2022 16:34	WG1959791

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	3730	B	379	1000	1	11/14/2022 15:15	WG1958664
Fluoride	141	J	64.0	150	1	11/14/2022 15:15	WG1958664
Sulfate	1120000		5940	50000	10	11/14/2022 15:33	WG1958664

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	4200		20.0	200	1	11/16/2022 11:16	WG1959169
Calcium	285000		79.3	1000	1	11/16/2022 11:16	WG1959169

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	2930000		50000	1	11/15/2022 16:34	WG1959791

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	10500	B	3790	10000	10	11/14/2022 15:51	WG1958664
Fluoride	1630		640	1500	10	11/14/2022 15:51	WG1958664
Sulfate	1930000		59400	500000	100	11/14/2022 16:09	WG1958664

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	6960		20.0	200	1	11/16/2022 11:19	WG1959169
Calcium	393000		79.3	1000	1	11/16/2022 11:19	WG1959169

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2690000		50000	1	11/15/2022 14:27	WG1959964

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	17200	B	3790	10000	10	11/14/2022 16:27	WG1958664
Fluoride	1580	J6	640	1500	10	11/14/2022 16:27	WG1958664
Sulfate	1840000		59400	500000	100	11/14/2022 16:45	WG1958664

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	4340		20.0	200	1	11/21/2022 19:55	WG1959191
Calcium	459000	V	79.3	1000	1	11/21/2022 19:55	WG1959191

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	2800000	J3	50000	1	11/15/2022 15:23	WG1959967

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	29700	B	3790	10000	10	11/14/2022 18:32	WG1958664
Fluoride	1460	J	640	1500	10	11/14/2022 18:32	WG1958664
Sulfate	1740000		59400	500000	100	11/14/2022 18:50	WG1958664

Sample Narrative:

  L1555864-05 WG1958664: DILUTION DUE TO MATRIX

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	1570		20.0	200	1	11/16/2022 11:27	WG1959169
Calcium	439000		79.3	1000	1	11/16/2022 11:27	WG1959169

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2310000		50000	1	11/15/2022 14:27	WG1959964

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	17100	B	3790	10000	10	11/14/2022 19:08	WG1958664
Fluoride	1580		640	1500	10	11/14/2022 19:08	WG1958664
Sulfate	1740000		59400	500000	100	11/14/2022 19:26	WG1958664

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Boron	4550		20.0	200	1	11/16/2022 11:30	WG1959169
Calcium	475000		79.3	1000	1	11/16/2022 11:30	WG1959169

Method Blank (MB)

(MB) R3862970-1 11/15/22 16:34

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

L1555740-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1555740-17 11/15/22 16:34 • (DUP) R3862970-3 11/15/22 16:34

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	674000	688000	1	2.06		5

L1555740-19 Original Sample (OS) • Duplicate (DUP)

(OS) L1555740-19 11/15/22 16:34 • (DUP) R3862970-4 11/15/22 16:34

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	421000	430000	1	2.12		5

Laboratory Control Sample (LCS)

(LCS) R3862970-2 11/15/22 16:34

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	8770000	99.7	77.3-123	

WG1959964
Gravimetric Analysis by Method 2540 C-2011

Method Blank (MB)

(MB) R3862644-1 11/15/22 14:27

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

L1555577-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1555577-05 11/15/22 14:27 • (DUP) R3862644-3 11/15/22 14:27

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2110000	2370000	1	11.6	J3	5

L1555577-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1555577-11 11/15/22 14:27 • (DUP) R3862644-4 11/15/22 14:27

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2150000	2460000	1	13.7	J3	5

Laboratory Control Sample (LCS)

(LCS) R3862644-2 11/15/22 14:27

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	8390000	95.3	77.3-123	

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

QUALITY CONTROL SUMMARY

L1555864-05

Method Blank (MB)

(MB) R3862626-1 11/15/22 15:23

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

L1555864-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1555864-05 11/15/22 15:23 • (DUP) R3862626-3 11/15/22 15:23

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2800000	2970000	1	6.07	J3	5

L1555890-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1555890-01 11/15/22 15:23 • (DUP) R3862626-4 11/15/22 15:23

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1170000	1280000	1	8.96	J3	5

Laboratory Control Sample (LCS)

(LCS) R3862626-2 11/15/22 15:23

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	8580000	97.5	77.3-123	

WG1958318

Wet Chemistry by Method 9056A

Method Blank (MB)

(MB) R3860346-1 11/11/22 12:39

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

L1555228-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1555228-04 11/11/22 19:09 • (DUP) R3860346-3 11/11/22 19:24

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1840	1800	1	2.06		15
Fluoride	335	318	1	4.93		15
Sulfate	39900	39400	1	1.18		15

L1555565-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1555565-03 11/11/22 21:12 • (DUP) R3860346-6 11/11/22 21:27

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	46700	46700	1	0.0777		15
Fluoride	452	458	1	1.21		15
Sulfate	184000	185000	1	0.488		15

Laboratory Control Sample (LCS)

(LCS) R3860346-2 11/11/22 12:55

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	38300	95.8	80.0-120	
Fluoride	8000	7960	99.5	80.0-120	
Sulfate	40000	39500	98.7	80.0-120	

QUALITY CONTROL SUMMARY

L1555864-01

L1555228-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1555228-04 11/11/22 19:09 • (MS) R3860346-4 11/11/22 19:39 • (MSD) R3860346-5 11/11/22 19:54

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	1840	49500	49700	95.3	95.7	1	80.0-120			0.389	15
Fluoride	5000	335	5200	5160	97.4	96.4	1	80.0-120			0.886	15
Sulfate	50000	39900	90700	89200	102	98.6	1	80.0-120			1.65	15

L1555565-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1555565-03 11/11/22 21:12 • (MS) R3860346-7 11/11/22 22:13

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	46700	93300	93.2	1	80.0-120	
Fluoride	5000	452	5160	94.1	1	80.0-120	
Sulfate	50000	184000	226000	85.0	1	80.0-120	E

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

WG1958664

Wet Chemistry by Method 9056A

Method Blank (MB)

(MB) R3861086-1 11/14/22 11:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	546	J	379	1000
Fluoride	U		64.0	150
Sulfate	U		594	5000

L1555864-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1555864-04 11/14/22 16:27 • (DUP) R3861086-3 11/14/22 17:02

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	17200	17300	10	0.104		15
Fluoride	1580	1560	10	1.51		15

L1556298-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1556298-07 11/14/22 23:00 • (DUP) R3861086-6 11/14/22 23:18

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	94700	94700	1	0.0259		15
Fluoride	932	933	1	0.182		15
Sulfate	4120	4090	1	0.904	J	15

Laboratory Control Sample (LCS)

(LCS) R3861086-2 11/14/22 12:07

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	41100	103	80.0-120	
Fluoride	8000	8610	108	80.0-120	
Sulfate	40000	41600	104	80.0-120	

L1555864-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1555864-04 11/14/22 16:27 • (MS) R3861086-4 11/14/22 17:56 • (MSD) R3861086-5 11/14/22 18:14

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	17200	59500	58900	84.5	83.3	10	80.0-120			1.01	15
Fluoride	5000	1580	5480	5440	77.9	77.2	10	80.0-120	J6	J6	0.683	15

L1556298-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1556298-07 11/14/22 23:00 • (MS) R3861086-7 11/14/22 23:36 • (MSD) R3861086-8 11/14/22 23:54

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	94700	142000	142000	94.2	95.3	1	80.0-120			0.377	15
Fluoride	5000	932	5900	5970	99.5	101	1	80.0-120			1.18	15
Sulfate	50000	4120	53200	53700	98.1	99.2	1	80.0-120			1.02	15

¹Cp
²Tc
³Ss
⁴Cn
⁵Sr
⁶Qc
⁷Gl
⁸Al
⁹Sc

WG1959169
Metals (ICP) by Method 6010D

Method Blank (MB)

(MB) R3861697-1 11/16/22 10:53

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) R3861697-2 11/16/22 10:55

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	1000	100	80.0-120	
Calcium	10000	10100	101	80.0-120	

L1555862-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1555862-01 11/16/22 10:58 • (MS) R3861697-4 11/16/22 11:04 • (MSD) R3861697-5 11/16/22 11:07

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1000	98.5	1120	1090	102	98.8	1	75.0-125			2.77	20
Calcium	10000	343000	345000	341000	22.1	0.000	1	75.0-125	V	V	1.20	20

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

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3863693-1 11/21/22 19:49

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) R3863693-2 11/21/22 19:52

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	952	95.2	80.0-120	
Calcium	10000	9520	95.2	80.0-120	

L1555864-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1555864-04 11/21/22 19:55 • (MS) R3863693-4 11/21/22 20:00 • (MSD) R3863693-5 11/21/22 20:03

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 %
Boron	1000	4340	5240	5190	90.3	85.2	1	75.0-125			0.978	20
Calcium	10000	459000	460000	456000	13.2	0.000	1	75.0-125	V	V	0.881	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
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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

ACCREDITATIONS & LOCATIONS

Pace Analytical National   12065 Lebanon Rd Mount Juliet, TN 37122

State	Code	State	Code
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.

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

Chain of Custody

Company Name/Address:
SCS Engineers - KS

8575 W. 110th Street
Overland Park, KS 66210

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

Pres Chk: √2

Report to: Jason Franks

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

Project Description: Evergy Montrose Gen Station LF GW 2022-23

City/State Collected: Montrose, Mo

Please Circle: PT MT (CT) ET

Phone: 913-681-0030

Client Project #: 27213168.22-A

Lab Project #: AQUAOPKS-MONTROSE

Collected by (print): B.Uhman

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 √

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 # L155864

J086

Acctnum: AQUAOPKS

Template: T135966

Prelogin: P958828

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-601	G	GW	—	11-8-22	1135	3	X	X	X		-01
MW-602		GW			1055	3	X	X	X		-02
MW-603		GW			1140	3	X	X	X		-03
MW-604		GW			1235	3	X	X	X		-04
MW-605		GW			1155	3	X	X	X		-05
604 MS / MSD		GW		—		3	X	X	X		-04
DUPLICATE	↓	GW	↓	↓	—	3	X	X	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 _____

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 #:

	Date:	Time:	Received by: (Signature)	
Relinquished by : (Signature)	11-8-22	1400		Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.1 °C Bottles Received: 21
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11/9/22 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

APPENDIX E

STATISTICAL ANALYSES

Appendix E.1

Fall 2021 Semiannual Detection Monitoring Statistical Analyses

MEMORANDUM

April 1, 2022

To: **Montrose Generating Station**
          400 SW Highway P
          Clinton, MO 64735
          Evergy Metro, Inc.

From: SCS Engineers

RE: **Determination of Statistically Significant Increases - CCR Landfill**
         Fall 2021 Semiannual Detection Monitoring 40 CFR 257.94

Statistical analysis of monitoring data from the groundwater monitoring system for the CCR Landfill at the Montrose 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 16, 2021. Review and validation of the results from the November 2021 Detection Monitoring Event was completed on January 6, 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 24, 2022 and March 1, 2022.

The completed statistical evaluation identified one Appendix III constituent above its prediction limit established for monitoring well MW-604.

Monitoring Well Constituents	*UPL	Observation November 16, 2021	1st Verification January 24, 2022	2nd Verification March 1, 2022
MW-604				
Chloride	15.28	16.3	18.8	17.2

*UPL – Upper Prediction Limit

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified an SSI above background prediction limits for chloride at monitoring well MW-604.

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

A T T A C H M E N T 1

Sanitas^{TM} Output

Within Limit

Prediction Limit
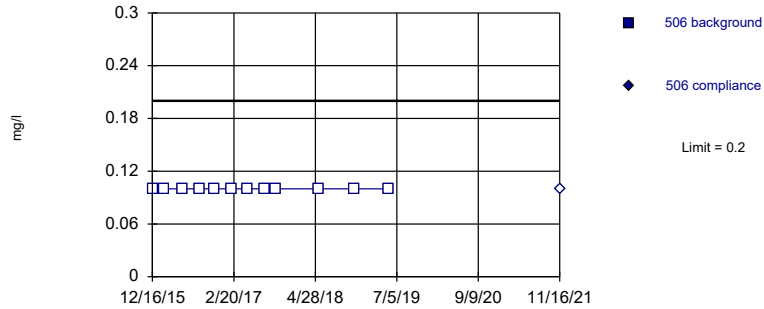
Intrawell Non-parametric

- ■ 506 background
- ◆ 506 compliance

Limit = 0.2

Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit

Intrawell Non-parametric

- ■ 601 background
- ◆ 601 compliance

Limit = 0.203

Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit

Intrawell Parametric

- ■ 602 background
- ◆ 602 compliance

Limit = 5.168

Background Data Summary: Mean=4.707, Std. Dev.=0.2995, n=12. Insufficient data to test for seasonality: data were not deseasonalized.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9228, critical = 0.805.   Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: Boron   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit

Intrawell Parametric

- ■ 603 background
- ◆ 603 compliance

Limit = 7.275

Background Data Summary: Mean=6.496, Std. Dev.=0.5141, n=13. Insufficient data to test for seasonality: data were not deseasonalized.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9744, critical = 0.814.   Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: Boron   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Prediction Limit

Constituent: Boron   Analysis Run 3/30/2022 3:15 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

	506	506	601	601	602	602	603	603
12/16/2015	<0.2		<0.2		5.08		6.28	
2/16/2016	<0.2		<0.2		5.04		6.81	
5/23/2016	<0.2		<0.2		5.17		7.06	
8/22/2016	<0.2		0.203		4.62		6.91	
11/7/2016					4.84		6.43	
11/8/2016	<0.2		<0.2					
2/7/2017	<0.2		<0.2		4.62		6.39	
5/1/2017	<0.2							
5/2/2017			<0.2		4.35		5.83	
7/31/2017	<0.2		<0.2		4.63		6.9	
10/2/2017	<0.2		<0.2		4.94		6.5	
5/14/2018	<0.2		<0.2		4.39		5.94	
11/19/2018	<0.2		<0.2		4.32		5.56	
5/21/2019	<0.2		<0.2		4.48		7.35	
7/15/2019							6.49	
11/16/2021		<0.2		<0.2		4.09		5.25

Within Limit

Prediction Limit

Intrawell Parametric

mg/l

■ 604 background

◆ 604 compliance

Limit = 5.376

12/16/15 3/6/17 5/26/18 8/15/19 11/3/20 1/24/22

Background Data Summary: Mean=4.864, Std. Dev.=0.3316, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9664, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron Analysis Run 3/30/2022 3:09 PM View: LF CCR III
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

---

Within Limit

Prediction Limit

Intrawell Parametric

mg/l

■ 605 background

◆ 605 compliance

Limit = 2.045

12/17/15 2/21/17 4/29/18 7/5/19 9/9/20 11/16/21

Background Data Summary: Mean=1.842, Std. Dev.=0.132, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9267, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron Analysis Run 3/30/2022 3:09 PM View: LF CCR III
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

---

Within Limit

Prediction Limit

Intrawell Parametric

mg/l

■ 506 background

◆ 506 compliance

Limit = 442.8

12/16/15 2/20/17 4/28/18 7/5/19 9/9/20 11/16/21

Background Data Summary: Mean=373.9, Std. Dev.=45.49, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8335, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 3/30/2022 3:09 PM View: LF CCR III
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

---

Within Limit

Prediction Limit

Intrawell Parametric

mg/l

■ 601 background

◆ 601 compliance

Limit = 507.3

12/16/15 2/20/17 4/28/18 7/5/19 9/9/20 11/16/21

Background Data Summary: Mean=471.6, Std. Dev.=24.04, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9414, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 3/30/2022 3:09 PM View: LF CCR III
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Prediction Limit

Constituent: Boron, Calcium   Analysis Run 3/30/2022 3:15 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

	604	604	605	605	506	506	601	601
12/16/2015	4.62				479		469	
12/17/2015			2.02					
2/16/2016	4.88		2.03		448		481	
5/23/2016	5.06		2.02		404		473	
8/22/2016	5.5		1.89		393		502	
11/7/2016	4.98		1.85					
11/8/2016					363		481	
2/7/2017	5.13		1.84		322		427	
5/1/2017					361			
5/2/2017	4.74		1.78				430	
7/31/2017	4.75		1.74		346		480	
10/2/2017	5.14		1.87		341		508	
11/15/2017					354		498	
5/14/2018	4.35		1.73		347		453	
11/19/2018	4.36		1.68		346		456	
5/21/2019	4.86		1.65		357		472	
7/15/2019							472	
11/16/2021		5.92		1.63		353		460
1/24/2022		5.31 1st Verification						

Within Limit

Prediction Limit
Intrawell Parametric

■ 602 background

◆ 602 compliance

Limit = 379.5

mg/l

Background Data Summary: Mean=348.4, Std. Dev.=20.89, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.929, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

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Within Limit

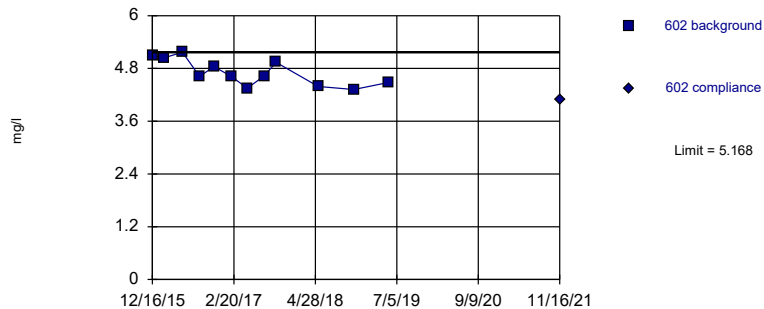## Prediction Limit
Intrawell Parametric
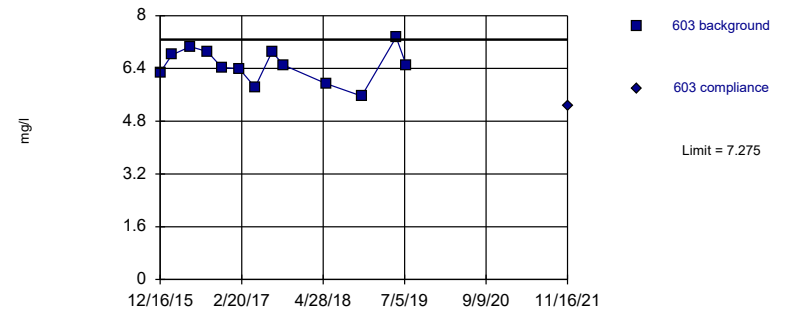

■ 603 background

◆ 603 compliance

Limit = 466

mg/l

Background Data Summary: Mean=436.8, Std. Dev.=20.01, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9561, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

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Within Limit

Prediction Limit
Intrawell Parametric

■ 604 background

◆ 604 compliance

Limit = 478

mg/l

Background Data Summary: Mean=425.3, Std. Dev.=35.45, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9457, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

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Within Limit

Prediction Limit
Intrawell Parametric

■ 605 background

◆ 605 compliance

Limit = 445.2

mg/l

Background Data Summary: Mean=414.2, Std. Dev.=21.27, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9188, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III
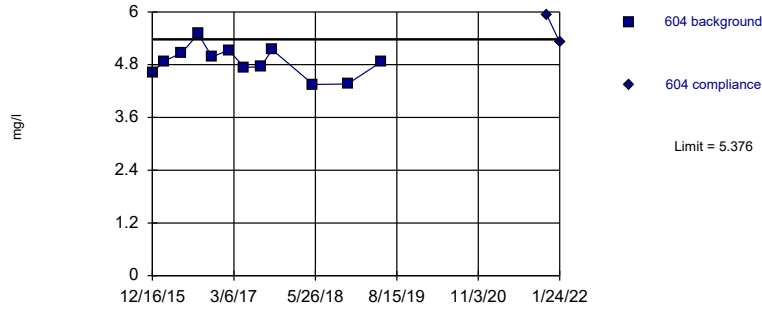Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Prediction Limit

	602	602	603	603	604	604	605	605
12/16/2015	373		444		454			
12/17/2015							427	
2/16/2016	372		445		470		426	
5/23/2016	355		429		474		412	
8/22/2016	353		445		440		431	
11/7/2016	353		437		412		407	
2/7/2017	314		409		392		367	
5/2/2017	310		405		381		376	
7/31/2017	354		434		369		415	
10/2/2017	375		476		442		447	
11/15/2017	370		471		417		442	
12/29/2017			455					
5/14/2018	340		426		421		412	
11/19/2018	332		423		420		407	
1/10/2019	335						421	
5/21/2019	342		429		476		416	
7/15/2019			424		386		407	
11/16/2021		292		370		472		435

Within Limit

Prediction Limit
Intrawell Parametric
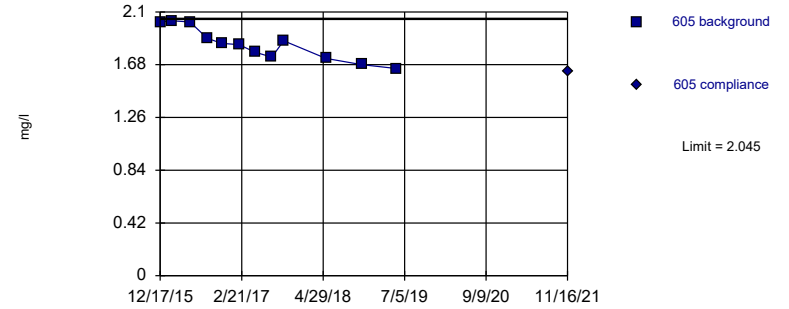

- 506 background
- 506 compliance

Limit = 91.58

Background Data Summary: Mean=80.4, Std. Dev.=7.382, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8755, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit
Intrawell Parametric
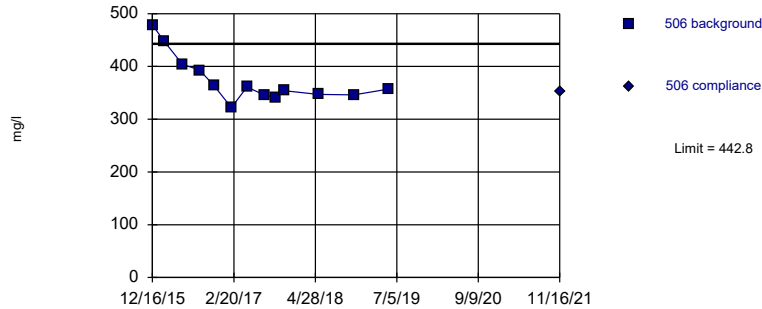

- 601 background
- 601 compliance

Limit = 56.49
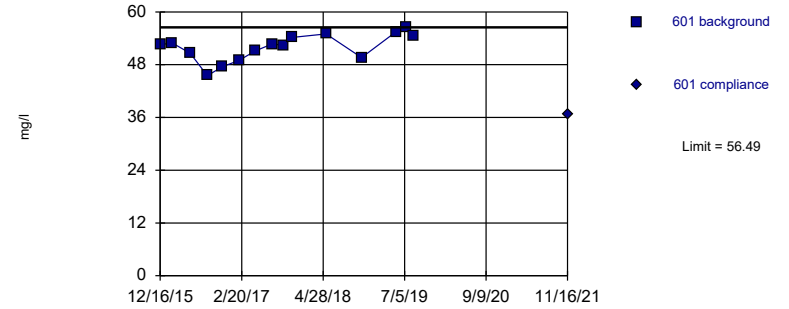
Background Data Summary: Mean=51.97, Std. Dev.=3.1, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9652, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit
Intrawell Parametric

- 602 background
- 602 compliance

Limit = 5.212
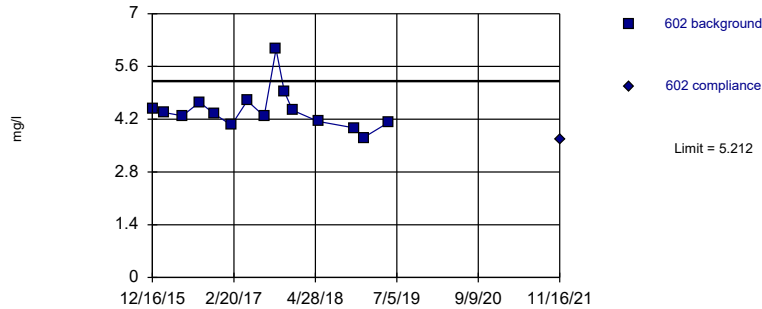
Background Data Summary (based on square root transformation): Mean=2.102, Std. Dev.=0.1238, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8603, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.
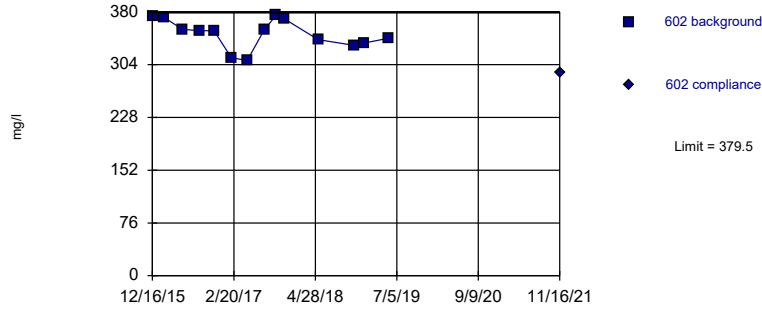
Constituent: Chloride   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit
Intrawell Parametric

- 603 background
- 603 compliance

Limit = 8.511

Background Data Summary: Mean=7.659, Std. Dev.=0.5838, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9807, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Prediction Limit

Constituent: Chloride   Analysis Run 3/30/2022 3:15 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

	506	506	601	601	602	602	603	603
12/16/2015	92.4		52.5		4.48		7.33	
2/16/2016	97.2		53		4.38		7.65	
5/23/2016	84.7		50.6		4.29		7.64	
8/22/2016	77.5		45.5		4.65		7.9	
11/7/2016					4.35		7.67	
11/8/2016	73.1		47.5					
2/7/2017	79		49		4.04		7.35	
5/1/2017	79.2							
5/2/2017			51.1		4.69		7.67	
7/31/2017	71.9		52.7		4.28		8.03	
10/2/2017	74.4		52.4		6.06		8.37	
11/15/2017	77.7		54.2		4.93		7.83	
12/29/2017					4.44			
5/14/2018	79		55		4.14		7.16	
11/19/2018	83.1		49.6		3.97		6.76	
1/10/2019					3.71			
5/21/2019	76		55.5		4.11		8.24	
7/15/2019			56.5				8.75	
8/19/2019			54.5				6.54	
11/16/2021		86.3		36.6		3.65		5.53

Exceeds Limit

Prediction Limit

Intrawell Parametric
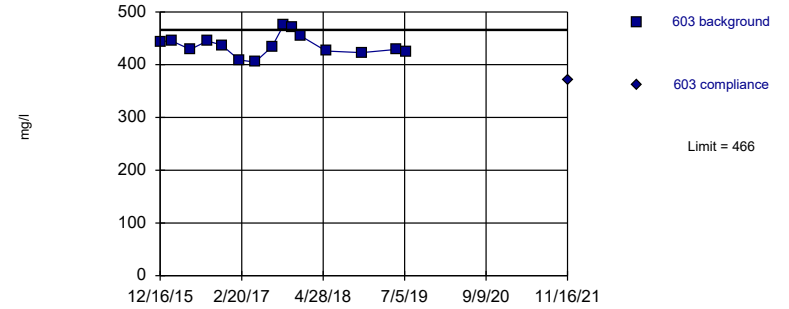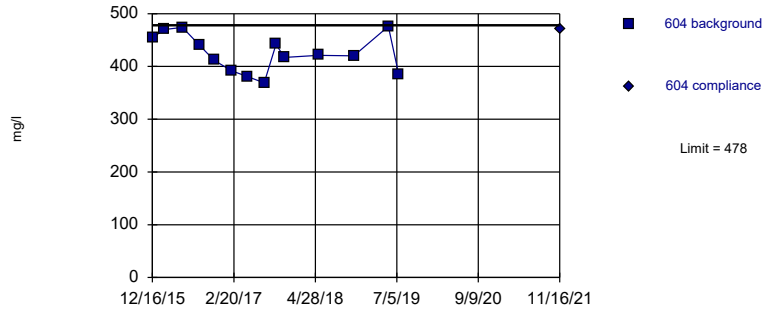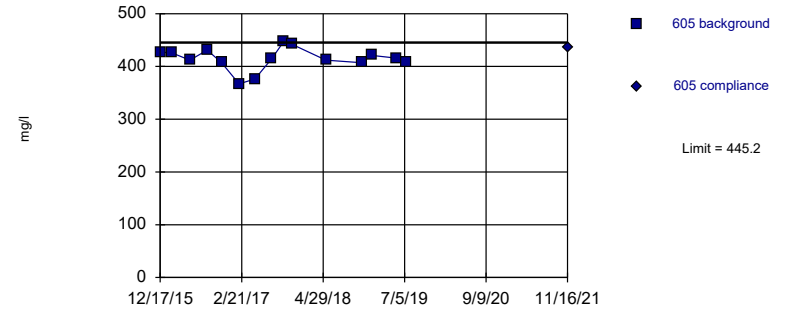
■ 604 background

♦ 604 compliance

Limit = 15.28

Background Data Summary: Mean=13.16, Std. Dev.=1.425, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8723, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit

Intrawell Parametric

■ 605 background

♦ 605 compliance

Limit = 55.57
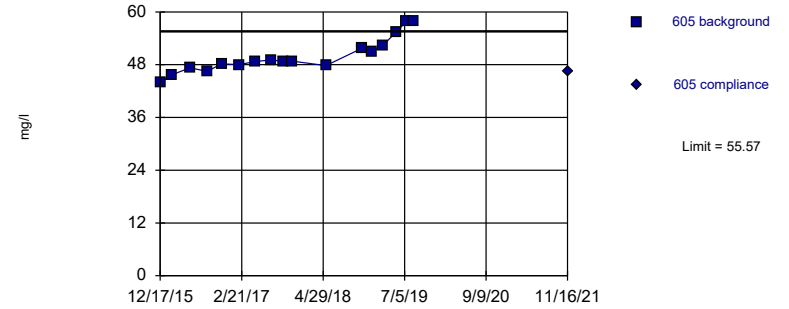
Background Data Summary: Mean=49.93, Std. Dev.=3.99, n=17. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.904, critical = 0.851. Kappa = 1.413 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.
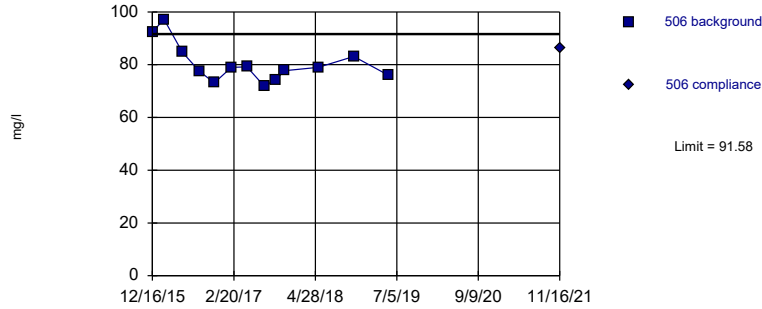
Constituent: Chloride   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit

Intrawell Parametric

■ 506 background

♦ 506 compliance

Limit = 3374

Background Data Summary: Mean=2833, Std. Dev.=351.4, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8961, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit

Intrawell Parametric

■ 601 background

♦ 601 compliance

Limit = 4871

Background Data Summary: Mean=4477, Std. Dev.=255.5, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9477, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

	604	604	605	605	506	506	601	601
12/16/2015	15.6				3540		4470	
12/17/2015			43.9					
2/16/2016	15.5		45.7		3280		4280	
5/23/2016	13.3		47.3		2910		4530	
8/22/2016	11.7		46.5		3260		4810	
11/7/2016	12.5		48.2					
11/8/2016					2710		4370	
2/7/2017	12.5		48		2790		4640	
5/1/2017					2760			
5/2/2017	13.3		48.7				4530	
7/31/2017	11.1		49.1		2620		4030	
10/2/2017	12.1		48.7		2670		4790	
11/15/2017	12.8		48.8					
5/14/2018	12.3		47.8		2560		4760	
11/19/2018	13.3		51.7		2430		4100	
1/10/2019			50.9					
3/13/2019			52.4					
5/21/2019	15.5		55.4		2460		4410	
7/15/2019	12.7		57.8					
8/19/2019			57.9					
11/16/2021		16.3		46.6		2670		3710
1/24/2022		18.8 1st Verification						
3/1/2022		17.2 2nd Verification						

Within Limit

Prediction Limit
Intrawell Non-parametric

■ 602 background

◆ 602 compliance

Limit = 4900

Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 13 background values. Well-constituent pair annual alpha = 0.003769. Individual comparison alpha = 0.001886 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Dissolved Solids   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III

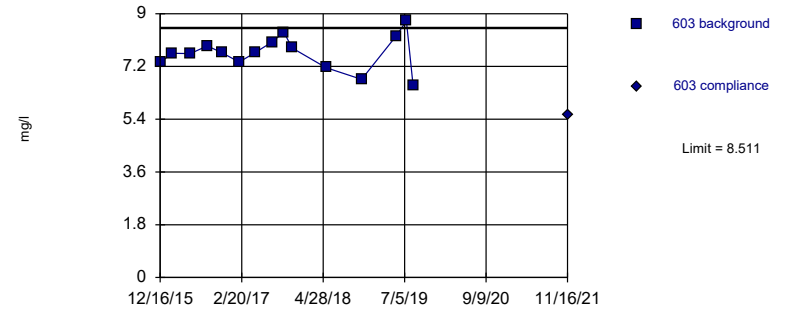Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit
Intrawell Parametric

■ 603 background

◆ 603 compliance

Limit = 3310
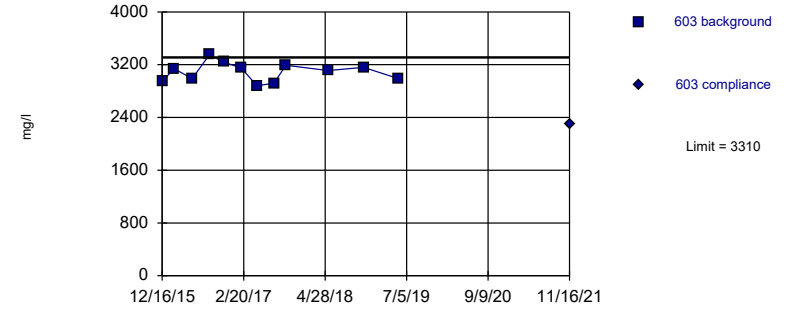
Background Data Summary: Mean=3088, Std. Dev.=143.6, n=12. Insufficient data to test for seasonality: data were not deseasonalized.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9528, critical = 0.805.   Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: Dissolved Solids   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit
Intrawell Parametric

■ 604 background

◆ 604 compliance

Limit = 3150

Background Data Summary: Mean=2648, Std. Dev.=331.5, n=13. Insufficient data to test for seasonality: data were not deseasonalized.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9778, critical = 0.814.   Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: Dissolved Solids   Analysis Run 3/30/2022 3:09 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit
Intrawell Parametric

■ 605 background

◆ 605 compliance

Limit = 3020
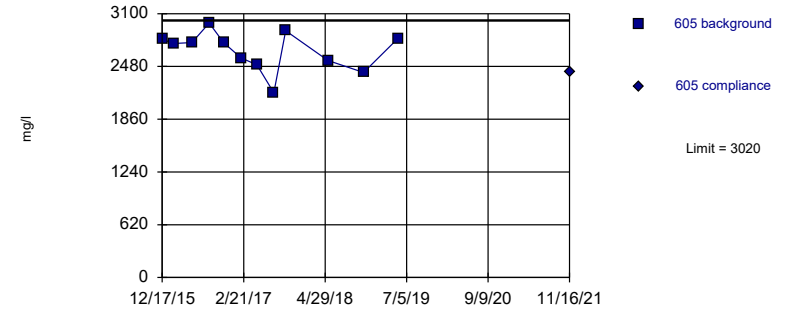
Background Data Summary: Mean=2665, Std. Dev.=230.2, n=12. Insufficient data to test for seasonality: data were not deseasonalized.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9421, critical = 0.805.   Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: Dissolved Solids   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose
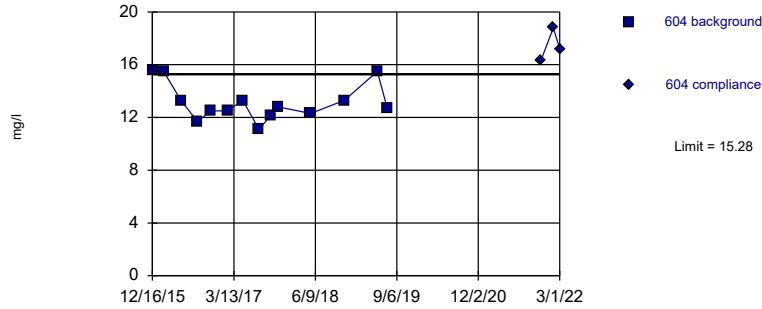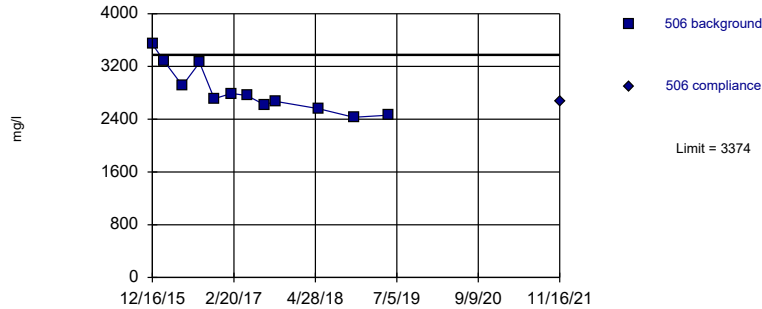
Prediction Limit

Constituent: Dissolved Solids   Analysis Run 3/30/2022 3:15 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

	602	602	603	603	604	604	605	605
12/16/2015	2100		2940		2820			
12/17/2015							2800	
2/16/2016	2080		3140		2690		2750	
5/23/2016	2180		2990		3010		2760	
8/22/2016	2060		3350		2890		2990	
11/7/2016	1990		3240		2270		2760	
2/7/2017	1890		3150		2670		2580	
5/2/2017	2080		2880		2350		2500	
7/31/2017	1860		2920		2070		2170	
10/2/2017	2100		3190		2570		2900	
5/14/2018	1970		3110		2820		2550	
11/19/2018	4900		3160		2320		2410	
1/10/2019	1870							
5/21/2019	1870		2990		3270		2810	
7/15/2019					2680			
11/16/2021		1690		2290		2710		2410

Hollow symbols indicate censored values.

Prediction Limit

Within Limit

Intrawell Non-parametric

- ■ 506 background
- ◆ 506 compliance

Limit = 0.12

Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Fluoride   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

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Prediction Limit

Within Limit

Intrawell Parametric

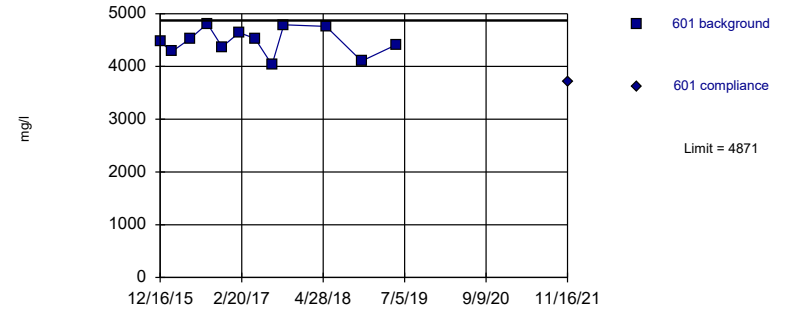
- ■ 601 background
- ◆ 601 compliance

Limit = 0.5348

Background Data Summary: Mean=0.4313, Std. Dev.=0.06712, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9364, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

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Hollow symbols indicate censored values.

Prediction Limit

Within Limit

Intrawell Parametric

- ■ 602 background
- ◆ 602 compliance

Limit = 0.1691

Background Data Summary (after Aitchison`s Adjustment): Mean=0.07108, Std. Dev.=0.06358, n=12, 41.67% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8063, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose
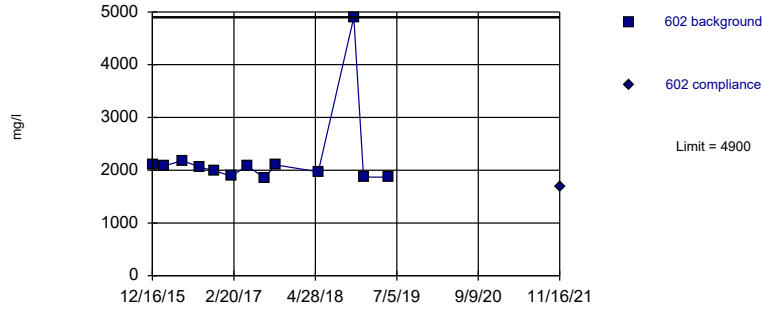

Prediction Limit

Within Limit

Intrawell Parametric

- ■ 603 background
- ◆ 603 compliance

Limit = 0.7176

Background Data Summary: Mean=0.5403, Std. Dev.=0.1171, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9546, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Prediction Limit

Constituent: Fluoride   Analysis Run 3/30/2022 3:15 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

	506	506	601	601	602	602	603	603
12/16/2015	0.12		0.45		0.148		0.673	
2/16/2016	<0.1		0.406		<0.1		0.552	
5/23/2016	<0.1		0.276		<0.1		0.523	
8/22/2016	<0.1		0.435		0.114		0.431	
11/7/2016					<0.1		0.442	
11/8/2016	<0.1		0.446					
2/7/2017	<0.1		0.399		<0.1		0.459	
5/1/2017	<0.1							
5/2/2017			0.36		0.122		0.585	
7/31/2017	<0.1		0.526		0.116		0.388	
10/2/2017	<0.1		0.488		0.108		0.666	
5/14/2018	<0.1		0.483		0.113		0.727	
6/26/2018							0.568	
11/19/2018	0.111		0.42		<0.1		0.645	
5/21/2019	0.108		0.487		0.132		0.365	
11/16/2021		<0.15		0.384		<0.15		0.54

Within Limit

Prediction Limit

Intrawell Parametric

■ 604 background

◆ 604 compliance

Limit = 0.5655

Background Data Summary: Mean=0.4936, Std. Dev.=0.04663, n=12. Insufficient data to test for seasonality: data were not deseasonalized.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9142, critical = 0.805.   Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

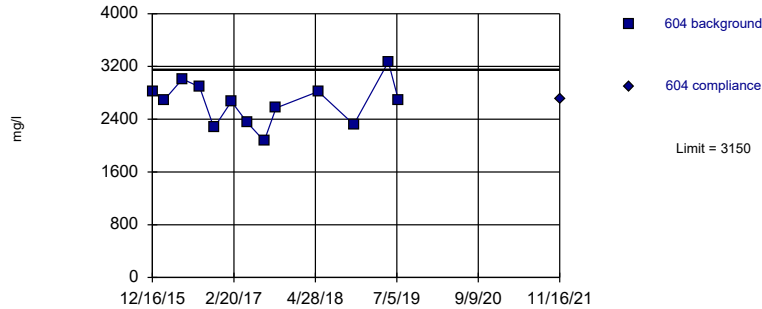**Prediction Limit**

Intrawell Parametric

■ 605 background

◆ 605 compliance

Limit = 0.2359

Background Data Summary: Mean=0.1971, Std. Dev.=0.02515, n=12. Insufficient data to test for seasonality: data were not deseasonalized.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9677, critical = 0.805.   Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limits

Prediction Limit

Intrawell Non-parametric

■ 506 background

◆ 506 compliance

Limit = 9.26

Limit = 5.11

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 13 background values. Well-constituent pair annual alpha = 0.007539. Individual comparison alpha = 0.003773 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: pH   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limits

Prediction Limit

Intrawell Parametric

■ 601 background

◆ 601 compliance

Limit = 5.762

Limit = 5.202

Background Data Summary: Mean=5.482, Std. Dev.=0.1956, n=16. Insufficient data to test for seasonality: data were not deseasonalized.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9558, critical = 0.844.   Kappa = 1.43 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III

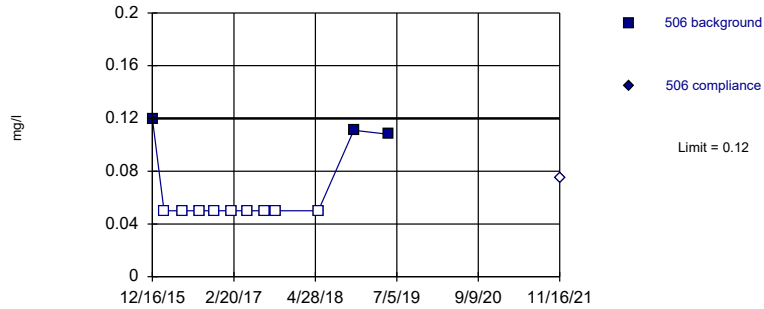Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Prediction Limit

	604	604	605	605	506	506	601	601
12/16/2015	0.515				5.11		5.12	
12/17/2015			0.246					
2/16/2016	0.497		0.156		5.56		5.73	
5/23/2016	0.437		0.166		5.47		5.58	
8/22/2016	0.468		0.191		5.57		5.44	
11/7/2016	0.468		0.203					
11/8/2016					6.04		5.26	
2/7/2017	0.467		0.187		9.26		5.41	
5/1/2017					5.51			
5/2/2017	0.45		0.197				5.45	
7/31/2017	0.601		0.2		5.51		5.44	
10/2/2017	0.542		0.184		5.59		5.61	
11/15/2017					5.58		5.49	
5/14/2018	0.506		0.226		5.61		5.64	
6/26/2018							5.35	
11/19/2018	0.453		0.187		5.55		5.48	
5/21/2019	0.519		0.222		5.49		5.34	
7/15/2019							5.96	
8/19/2019							5.41	
11/16/2021		0.425		0.212		5.53		5.3

Within Limits

Prediction Limit
Intrawell Non-parametric

- ■ 602 background
- ◆ 602 compliance

Limit = 7.05

Limit = 5.63

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 16 background values. Well-constituent pair annual alpha = 0.004102. Individual comparison alpha = 0.002052 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: pH   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limits

Prediction Limit
Intrawell Non-parametric

- ■ 603 background
- ◆ 603 compliance

Limit = 5.13

Limit = 4.29
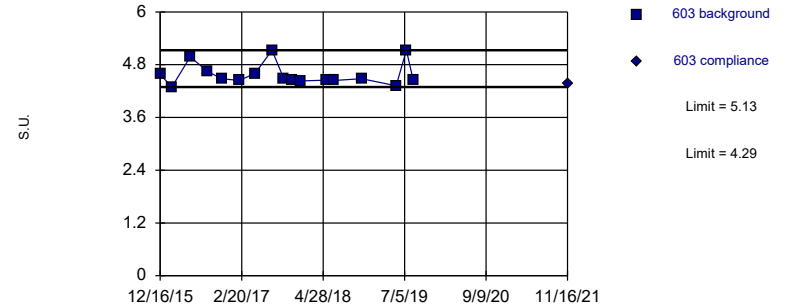
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 17 background values. Well-constituent pair annual alpha = 0.003639. Individual comparison alpha = 0.00182 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: pH   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limits

Prediction Limit
Intrawell Parametric

- ■ 604 background
- ◆ 604 compliance

Limit = 6.182

Limit = 5.514

Background Data Summary: Mean=5.848, Std. Dev.=0.2249, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8937, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limits

Prediction Limit
Intrawell Parametric

- ■ 605 background
- ◆ 605 compliance

Limit = 5.851

Limit = 5.347
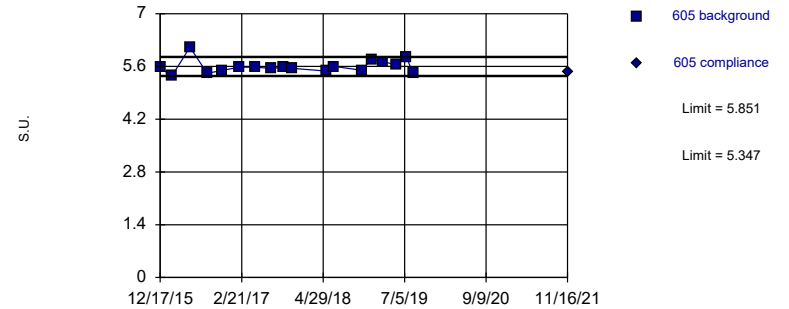
Background Data Summary: Mean=5.599, Std. Dev.=0.1804, n=18. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8888, critical = 0.858. Kappa = 1.396 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose
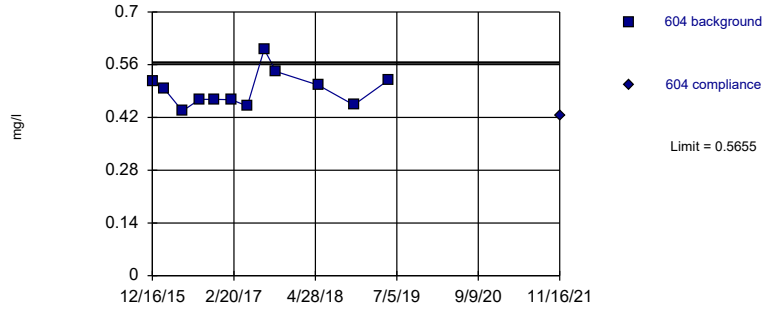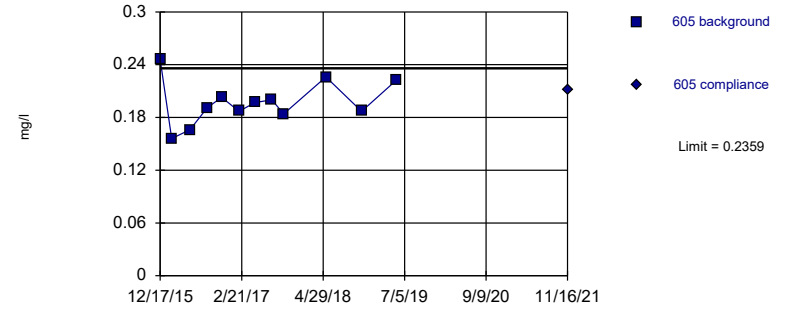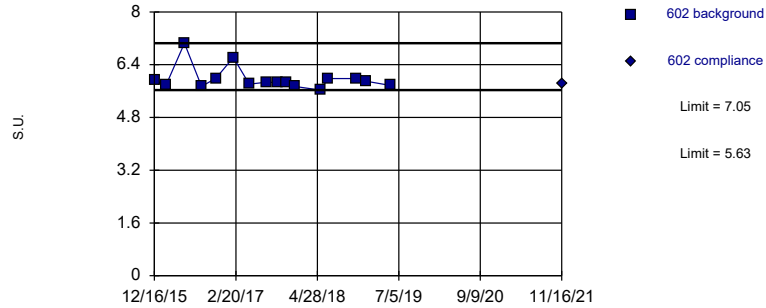
Prediction Limit

Constituent: pH   Analysis Run 3/30/2022 3:16 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

	602	602	603	603	604	604	605	605
12/16/2015	5.93		4.58		5.79			
12/17/2015							5.57	
2/16/2016	5.78		4.29		5.51		5.34	
5/23/2016	7.05		4.98		6.3		6.11	
8/22/2016	5.74		4.65		5.67		5.42	
11/7/2016	5.99		4.48		6.04		5.49	
2/7/2017	6.62		4.44		6.1		5.58	
5/2/2017	5.81		4.6		5.72		5.58	
7/31/2017	5.87		5.13		5.82		5.55	
10/2/2017	5.86		4.48		5.72		5.58	
11/15/2017	5.87		4.44		5.73		5.55	
12/29/2017	5.74		4.43					
5/14/2018	5.63		4.45		5.7		5.48	
6/26/2018	5.98		4.44				5.6	
11/19/2018	5.98		4.48		5.75		5.5	
1/10/2019	5.9						5.79	
3/13/2019							5.73	
5/21/2019	5.77		4.32		5.82		5.64	
7/15/2019			5.13		6.2		5.85	
8/19/2019			4.46				5.42	
11/16/2021		5.82		4.37		5.66		5.44
1/24/2022						5.82 Extra Sample		
3/1/2022						5.77 Extra Sample		

Within Limit

Prediction Limit
Intrawell Parametric

- 506 background
- 506 compliance

Limit = 2407

Background Data Summary: Mean=2019, Std. Dev.=251.7, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8935, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose
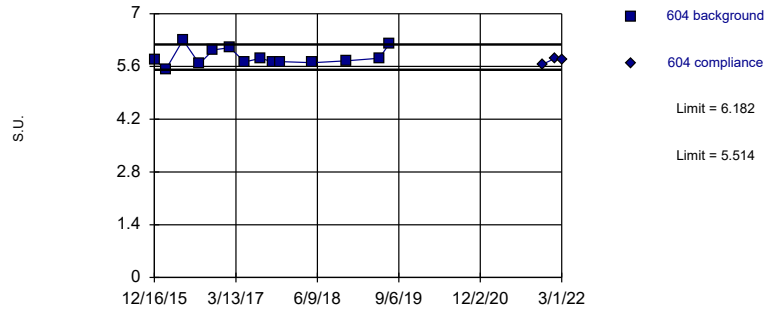
Within Limit

Prediction Limit
Intrawell Parametric

- 601 background
- 601 compliance

Limit = 3735

Background Data Summary: Mean=3331, Std. Dev.=272, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9196, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

## Prediction Limit
Intrawell Parametric

- 602 background
- 602 compliance

Limit = 1569

Background Data Summary: Mean=1369, Std. Dev.=134.2, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.956, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit
Intrawell Parametric

- 603 background
- 603 compliance

Limit = 2801
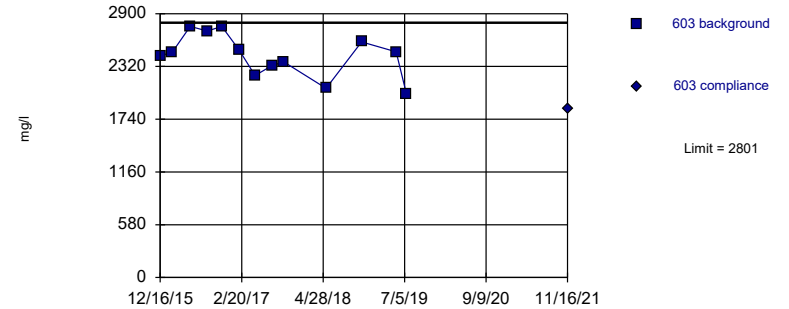
Background Data Summary: Mean=2441, Std. Dev.=237.6, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9483, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose
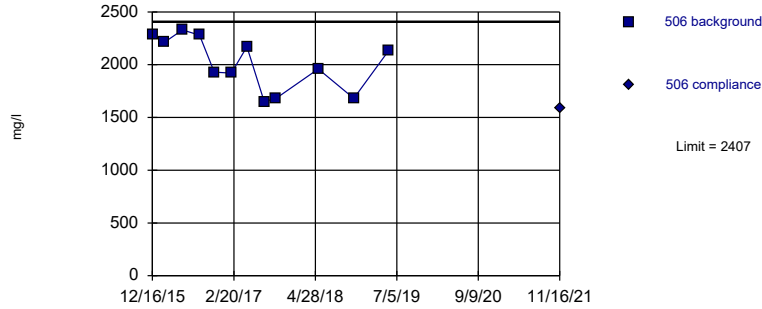
Prediction Limit

Constituent: Sulfate   Analysis Run 3/30/2022 3:16 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

	506	506	601	601	602	602	603	603
12/16/2015	2290		3430		1540		2440	
2/16/2016	2210		3200		1410		2470	
5/23/2016	2330		3360		1490		2760	
8/22/2016	2280		3590		1320		2710	
11/7/2016					1370		2760	
11/8/2016	1930		3160					
2/7/2017	1920		3180		1430		2500	
5/1/2017	2170							
5/2/2017			3590		1190		2220	
7/31/2017	1650		3110		1210		2330	
10/2/2017	1680		3150		1340		2370	
5/14/2018	1960		3950		1660		2080	
6/26/2018			3190		1270			
11/19/2018	1680		3590		1430		2590	
1/10/2019					1250			
5/21/2019	2130		3230		1260		2480	
7/15/2019			2900				2020	
11/16/2021		1590		3030		1170		1860

Within Limit

Prediction Limit
Intrawell Parametric

- ■ 604 background
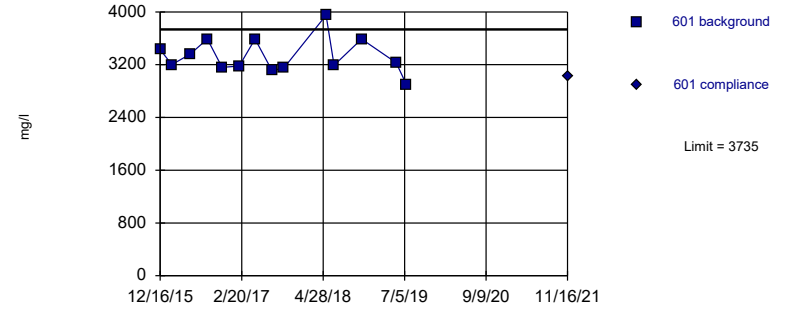- ◆ 604 compliance

Limit = 2295
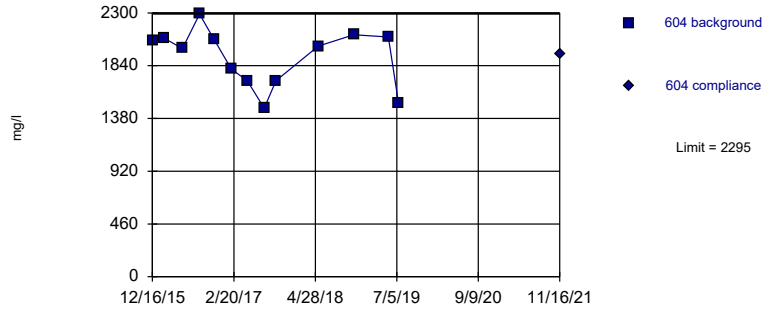
Background Data Summary: Mean=1916, Std. Dev.=250.6, n=13.   Insufficient data to test for seasonality: data were not deseasonalized.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9059, critical = 0.814.   Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: Sulfate   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit
Intrawell Parametric

- ■ 605 background
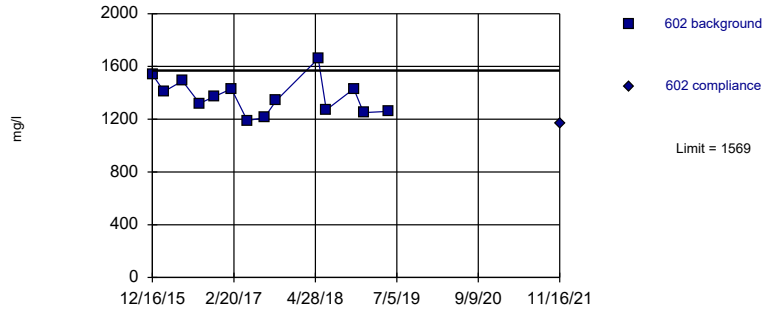- ◆ 605 compliance

Limit = 2352
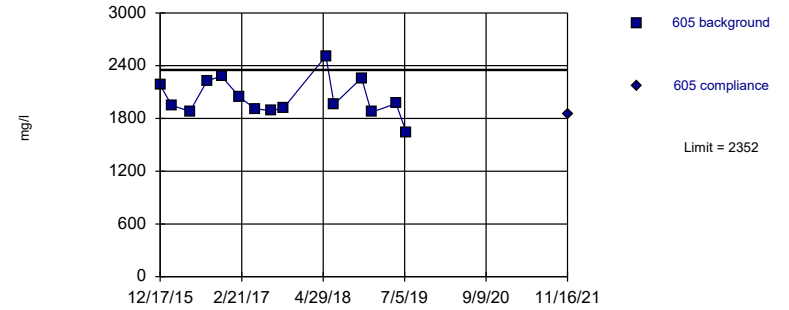
Background Data Summary: Mean=2033, Std. Dev.=218.7, n=15.   Insufficient data to test for seasonality: data were not deseasonalized.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9344, critical = 0.835.   Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: Sulfate   Analysis Run 3/30/2022 3:10 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Prediction Limit

	604	604	605	605
12/16/2015	2060			
12/17/2015			2180	
2/16/2016	2080		1950	
5/23/2016	1990		1880	
8/22/2016	2290		2230	
11/7/2016	2070		2280	
2/7/2017	1810		2050	
5/2/2017	1710		1910	
7/31/2017	1470		1890	
10/2/2017	1710		1920	
5/14/2018	2010		2510	
6/26/2018			1960	
11/19/2018	2110		2260	
1/10/2019			1870	
5/21/2019	2090		1970	
7/15/2019	1510		1640	
11/16/2021		1940		1850

Prediction Limit

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose   Printed 3/30/2022, 3:16 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/l)	506	0.2	n/a	11/16/2021	0.1ND	No	12	100	n/a	0.002173	NP Intra (NDs) 1 of 3
Boron (mg/l)	601	0.203	n/a	11/16/2021	0.1ND	No	12	91.67	n/a	0.002173	NP Intra (NDs) 1 of 3
Boron (mg/l)	602	5.168	n/a	11/16/2021	4.09	No	12	0	No	0.00188	Param Intra 1 of 3
Boron (mg/l)	603	7.275	n/a	11/16/2021	5.25	No	13	0	No	0.00188	Param Intra 1 of 3
Boron (mg/l)	604	5.376	n/a	1/24/2022	5.31	No	12	0	No	0.00188	Param Intra 1 of 3
Boron (mg/l)	605	2.045	n/a	11/16/2021	1.63	No	12	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	506	442.8	n/a	11/16/2021	353	No	13	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	601	507.3	n/a	11/16/2021	460	No	14	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	602	379.5	n/a	11/16/2021	292	No	14	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	603	466	n/a	11/16/2021	370	No	15	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	604	478	n/a	11/16/2021	472	No	14	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	605	445.2	n/a	11/16/2021	435	No	15	0	No	0.00188	Param Intra 1 of 3
Chloride (mg/l)	506	91.58	n/a	11/16/2021	86.3	No	13	0	No	0.00188	Param Intra 1 of 3
Chloride (mg/l)	601	56.49	n/a	11/16/2021	36.6	No	15	0	No	0.00188	Param Intra 1 of 3
Chloride (mg/l)	602	5.212	n/a	11/16/2021	3.65	No	15	0	sqrt(x)	0.00188	Param Intra 1 of 3
Chloride (mg/l)	603	8.511	n/a	11/16/2021	5.53	No	15	0	No	0.00188	Param Intra 1 of 3
Chloride (mg/l)	**604**	**15.28**	**n/a**	**3/1/2022**	**17.2**	**Yes**	**14**	**0**	**No**	**0.00188**	**Param Intra 1 of 3**
Chloride (mg/l)	605	55.57	n/a	11/16/2021	46.6	No	17	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	506	3374	n/a	11/16/2021	2670	No	12	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	601	4871	n/a	11/16/2021	3710	No	12	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	602	4900	n/a	11/16/2021	1690	No	13	0	n/a	0.001886	NP Intra (normality) ...
Dissolved Solids (mg/l)	603	3310	n/a	11/16/2021	2290	No	12	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	604	3150	n/a	11/16/2021	2710	No	13	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	605	3020	n/a	11/16/2021	2410	No	12	0	No	0.00188	Param Intra 1 of 3
Fluoride (mg/l)	506	0.12	n/a	11/16/2021	0.075ND	No	12	75	n/a	0.002173	NP Intra (NDs) 1 of 3
Fluoride (mg/l)	601	0.5348	n/a	11/16/2021	0.384	No	12	0	No	0.00188	Param Intra 1 of 3
Fluoride (mg/l)	602	0.1691	n/a	11/16/2021	0.075ND	No	12	41.67	No	0.00188	Param Intra 1 of 3
Fluoride (mg/l)	603	0.7176	n/a	11/16/2021	0.54	No	13	0	No	0.00188	Param Intra 1 of 3
Fluoride (mg/l)	604	0.5655	n/a	11/16/2021	0.425	No	12	0	No	0.00188	Param Intra 1 of 3
Fluoride (mg/l)	605	0.2359	n/a	11/16/2021	0.212	No	12	0	No	0.00188	Param Intra 1 of 3
pH (S.U.)	506	9.26	5.11	11/16/2021	5.53	No	13	0	n/a	0.003773	NP Intra (normality) ...
pH (S.U.)	601	5.762	5.202	11/16/2021	5.3	No	16	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	602	7.05	5.63	11/16/2021	5.82	No	16	0	n/a	0.002052	NP Intra (normality) ...
pH (S.U.)	603	5.13	4.29	11/16/2021	4.37	No	17	0	n/a	0.00182	NP Intra (normality) ...
pH (S.U.)	604	6.182	5.514	3/1/2022	5.77	No	14	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	605	5.851	5.347	11/16/2021	5.44	No	18	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/l)	506	2407	n/a	11/16/2021	1590	No	12	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	601	3735	n/a	11/16/2021	3030	No	14	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	602	1569	n/a	11/16/2021	1170	No	14	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	603	2801	n/a	11/16/2021	1860	No	13	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	604	2295	n/a	11/16/2021	1940	No	13	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	605	2352	n/a	11/16/2021	1850	No	15	0	No	0.00188	Param Intra 1 of 3

ATTACHMENT 2

Sanitas™ Configuration Settings

Exclude data flags: [i]

Data Reading Options

- (•) Individual Observations
- ( ) Mean of Each: ( ) Month
- ( ) Median of Each: ( ) Season

[Non-Detect / Trace Handling...]

[Setup Seasons...]

☐ 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　Light ▾

[Setup Symbols and Colors...]

☑ 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　[Store All Print Jobs...]

Printer:　Adobe PDF　▾　[Printers...]

☐ 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 [Aitchison's ▾] when NDs % > [50]

☐ Use Poisson Prediction Limit when Non-Detects Percent > [90]

Transformation
- ◉ Use Ladder of Powers
- ○ Natural Log or No Transformation
- ○ Never Transform
- ○ Use Specific Transformation:
     [Natural Log ▾]

☐ Use Best W Statistic
☐ Plot Transformed Values

Deseasonalize (Intra- and InterWell)
- ◉ If Seasonality Is Detected
- ○ If Seasonality Is Detected Or Insufficient to Test
- ○ Always (When Sufficient Data)   ○ Never

☐ Always Use Non-Parametric

Facility [α]

Statistical Evaluations per Year:	[2]
Constituents Analyzed:	[7]
Downgradient (Compliance) Wells:	[4]

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　　　　　　　　　　☑ Label Constituents

☐ Combine Dates　　　　　　　　　　☑ Label Axes

◉ Use Default Constituent Names　　　☑ Note Cation-Anion Balance (Piper only)

○ Use Constituent Definition File　[Edit]

APPENDIX E.2

Spring 2022 Semiannual Detection Monitoring Statistical Analyses

MEMORANDUM

September 28, 2022

To: Montrose Generating Station
400 SW Highway P
Clinton, MO 64735
Evergy Metro, Inc.

From: SCS Engineers

RE: Determination of Statistically Significant Increases - CCR Landfill
Spring 2022 Semiannual Detection Monitoring 40 CFR 257.94

Statistical analysis of monitoring data from the groundwater monitoring system for the
CCR Landfill at the Montrose 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 10, 2022.
Review and validation of the results from the May 2022 Detection Monitoring Event was
completed on Jul 1, 2022, which constitutes completion and finalization of detection monitoring
laboratory analyses. A statistical analysis was then conducted to determine whether there was a
statistically significant increase (SSI) over background values for each constituent listed in
Appendix III to Part 257-Constituents for Detection Monitoring. Two rounds of verification
sampling were conducted for certain constituents on July 13, 2022 and August 16, 2022.

The completed statistical evaluation identified two Appendix III constituents above their
prediction limits established for monitoring wells MW-604 and MW-605.

Monitoring Well Constituents	*UPL	Observation May 10, 2022	1st Verification July 13, 2022	2nd Verification August 16, 2022
MW-604				
Chloride	16.6	16.9	17.4	17.5
MW-605				
Calcium	437.3	482	434/450**	444

*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 background prediction limits for chloride at
monitoring well MW-604 and for calcium at monitoring well MW-605.

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

Prediction Limit

Intrawell Non-parametric

Within Limit

- ■ 506 background
- ◆ 506 compliance

Limit = 0.2

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: Boron   Analysis Run 9/7/2022 12:11 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

---

Prediction Limit

Intrawell Non-parametric

Within Limit

- ■ 601 background
- ◆ 601 compliance

Limit = 0.203
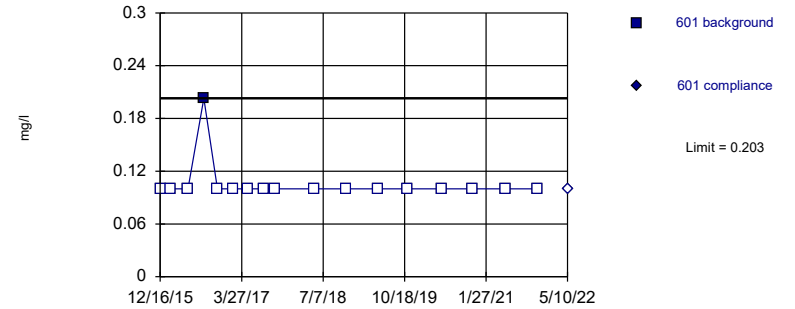
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 17 background values. 94.12% NDs. Well-constituent pair annual alpha = 0.00182. Individual comparison alpha = 0.0009102 (1 of 3).

Constituent: Boron   Analysis Run 9/7/2022 12:11 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

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Prediction Limit

Intrawell Parametric

Within Limit

- ■ 602 background
- ◆ 602 compliance

Limit = 5.05
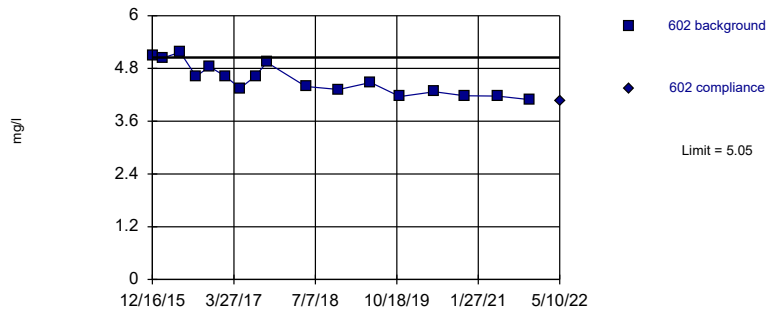
Background Data Summary: Mean=4.55, Std. Dev.=0.354, n=17.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9211, critical = 0.851.   Kappa = 1.413 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron   Analysis Run 9/7/2022 12:11 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

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Prediction Limit

Intrawell Parametric

Within Limit

- ■ 603 background
- ◆ 603 compliance

Limit = 7.112
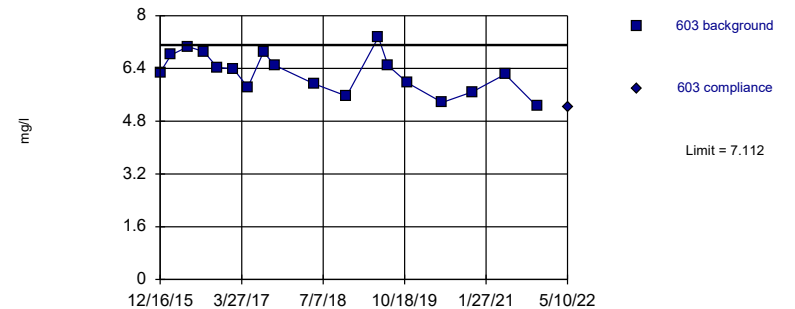
Background Data Summary: Mean=6.274, Std. Dev.=0.6001, n=18.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9764, critical = 0.858.   Kappa = 1.396 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron   Analysis Run 9/7/2022 12:11 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Prediction Limit

Constituent: Boron   Analysis Run 9/7/2022 12:44 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

|	506	506	601	601	602	602	603	603
12/16/2015	<0.2		<0.2		5.08		6.28	
2/16/2016	<0.2		<0.2		5.04		6.81	
5/23/2016	<0.2		<0.2		5.17		7.06	
8/22/2016	<0.2		0.203		4.62		6.91	
11/7/2016					4.84		6.43	
11/8/2016	<0.2		<0.2					
2/7/2017	<0.2		<0.2		4.62		6.39	
5/1/2017	<0.2							
5/2/2017			<0.2		4.35		5.83	
7/31/2017	<0.2		<0.2		4.63		6.9	
10/2/2017	<0.2		<0.2		4.94		6.5	
5/14/2018	<0.2		<0.2		4.39		5.94	
11/19/2018	<0.2		<0.2		4.32		5.56	
5/21/2019	<0.2		<0.2		4.48		7.35	
7/15/2019							6.49	
11/5/2019	<0.2		<0.2		4.16		5.96	
5/21/2020	<0.2		<0.2		4.27		5.37	
11/10/2020	<0.2		<0.2		4.18		5.69	
5/17/2021					4.17		6.22	
5/18/2021	<0.2		<0.2					
11/16/2021	<0.2		<0.2		4.09		5.25	
5/10/2022		<0.2		<0.2		4.05		5.23

Within Limit

Prediction Limit
Intrawell Parametric

- ■ 604 background
- ◆ 604 compliance

Limit = 5.577
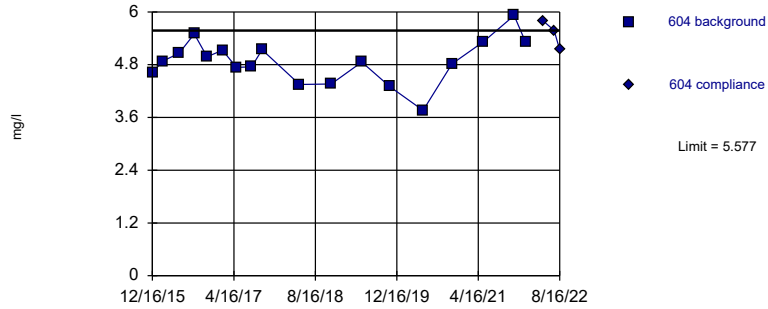
Background Data Summary: Mean=4.878, Std. Dev.=0.501, n=18.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9842, critical = 0.858.   Kappa = 1.396 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron   Analysis Run 9/7/2022 12:11 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit
Intrawell Parametric

- ■ 605 background
- ◆ 605 compliance

Limit = 2.016
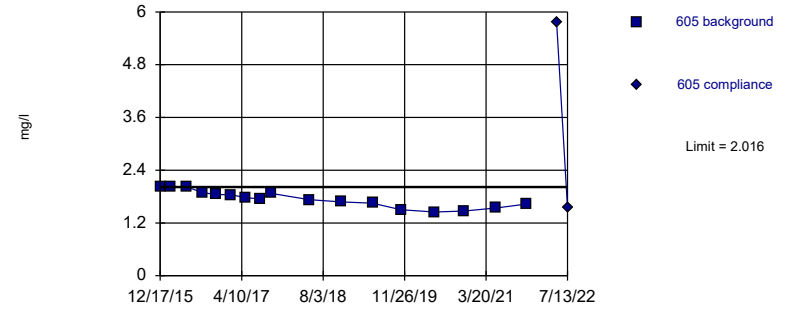
Background Data Summary: Mean=1.746, Std. Dev.=0.1907, n=17.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9463, critical = 0.851.   Kappa = 1.413 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron   Analysis Run 9/7/2022 12:11 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit
### Intrawell Non-parametric

- ■ 506 background
- ◆ 506 compliance

Limit = 479

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 18 background values. Well-constituent pair annual alpha = 0.001588. Individual comparison alpha = 0.0007943 (1 of 3).

Constituent: Calcium   Analysis Run 9/7/2022 12:11 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit
Intrawell Parametric

- ■ 601 background
- ◆ 601 compliance

Limit = 499.6

Background Data Summary: Mean=470.6, Std. Dev.=21.04, n=19.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9534, critical = 0.863.   Kappa = 1.379 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium   Analysis Run 9/7/2022 12:11 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Prediction Limit

Date	604	604	605	605	506	506	601	601
12/16/2015	4.62				479		469	
12/17/2015			2.02					
2/16/2016	4.88		2.03		448		481	
5/23/2016	5.06		2.02		404		473	
8/22/2016	5.5		1.89		393		502	
11/7/2016	4.98		1.85					
11/8/2016					363		481	
2/7/2017	5.13		1.84		322		427	
5/1/2017					361			
5/2/2017	4.74		1.78				430	
7/31/2017	4.75		1.74		346		480	
10/2/2017	5.14		1.87		341		508	
11/15/2017					354		498	
5/14/2018	4.35		1.73		347		453	
11/19/2018	4.36		1.68		346		456	
5/21/2019	4.86		1.65		357		472	
7/15/2019							472	
11/5/2019	4.3		1.5		341		457	
5/21/2020	3.76		1.45		343		478	
11/10/2020	4.82		1.47		367		479	
5/17/2021	5.32		1.54					
5/18/2021					375		466	
11/16/2021	5.92		1.63		353		460	
1/24/2022	5.31							
5/10/2022		5.79		5.76		342		439
7/13/2022		5.58 1st Verification		1.54				
8/16/2022		5.14 2nd Verification						

Within Limit

Prediction Limit
Intrawell Parametric

mg/l

■ 602 background

◆ 602 compliance

Limit = 373.3

Background Data Summary: Mean=338.5, Std. Dev.=25.22, n=19.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9391, critical = 0.863.   Kappa = 1.379 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: Calcium   Analysis Run 9/7/2022 12:11 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

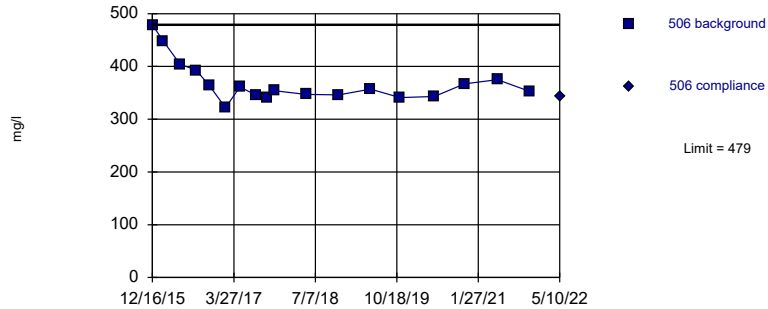Within Limit

Prediction Limit
Intrawell Parametric

mg/l

■ 603 background

◆ 603 compliance

Limit = 461.8

Background Data Summary: Mean=427.1, Std. Dev.=25.5, n=20.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9795, critical = 0.868.   Kappa = 1.362 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: Calcium   Analysis Run 9/7/2022 12:11 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit
Intrawell Parametric

mg/l

■ 604 background

◆ 604 compliance

Limit = 481.4
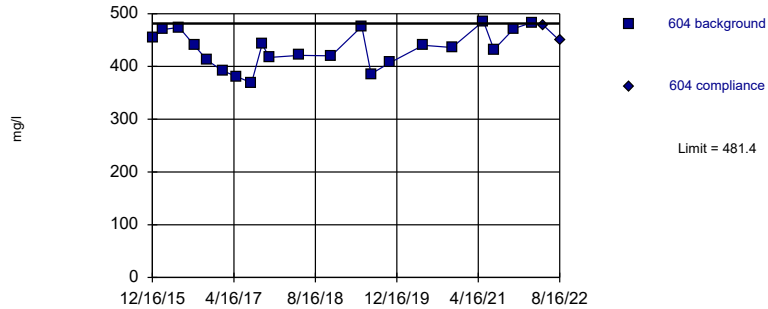
Background Data Summary: Mean=433.8, Std. Dev.=35.16, n=21.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.957, critical = 0.873.   Kappa = 1.353 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: Calcium   Analysis Run 9/7/2022 12:11 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Exceeds Limit

Prediction Limit
Intrawell Parametric

mg/l

■ 605 background

◆ 605 compliance

Limit = 437.3
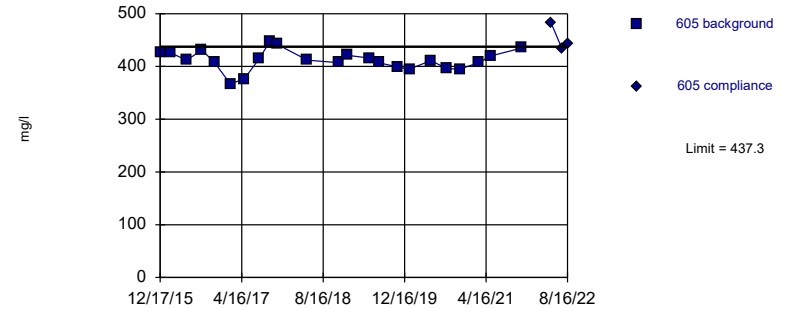
Background Data Summary: Mean=411.8, Std. Dev.=19.1, n=23.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9727, critical = 0.881.   Kappa = 1.336 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: Calcium   Analysis Run 9/7/2022 12:11 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose
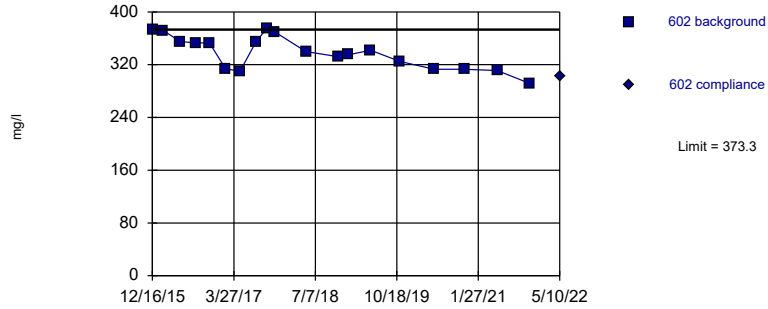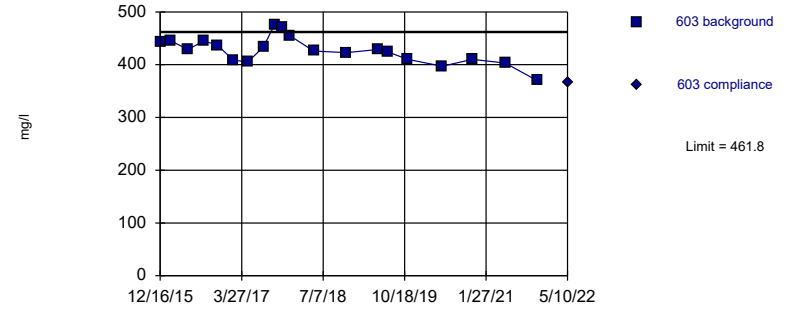
Prediction Limit

Constituent: Calcium   Analysis Run 9/7/2022 12:44 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Date	602	602	603	603	604	604	605	605
12/16/2015	373		444		454			
12/17/2015							427	
2/16/2016	372		445		470		426	
5/23/2016	355		429		474		412	
8/22/2016	353		445		440		431	
11/7/2016	353		437		412		407	
2/7/2017	314		409		392		367	
5/2/2017	310		405		381		376	
7/31/2017	354		434		369		415	
10/2/2017	375		476		442		447	
11/15/2017	370		471		417		442	
12/29/2017			455					
5/14/2018	340		426		421		412	
11/19/2018	332		423		420		407	
1/10/2019	335						421	
5/21/2019	342		429		476		416	
7/15/2019			424		386		407	
11/5/2019	325		410		407		399	
1/14/2020							395	
5/21/2020	313		397		440		411	
8/26/2020							396	
11/10/2020	313		410		436		395	
3/1/2021							407	
5/17/2021	311		403		486		420	
7/19/2021					432			
11/16/2021	292		370		472		435	
3/1/2022					483			
5/10/2022		302		366		478		482
7/13/2022								434 1st Verification
8/16/2022						449 Extra Sample		444 2nd Verification

Within Limit

Prediction Limit
Intrawell Parametric

■ 506 background

◆ 506 compliance

Limit = 91.22

mg/l

12/16/15   3/27/17   7/7/18   10/18/19   1/27/21   5/10/22

Background Data Summary: Mean=80.62, Std. Dev.=7.599, n=18.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9501, critical = 0.858.   Kappa = 1.396 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: Chloride   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

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Within Limit

Prediction Limit
Intrawell Parametric

■ 601 background

◆ 601 compliance

Limit = 56.74

mg/l

12/16/15   3/27/17   7/7/18   10/18/19   1/27/21   5/10/22

Background Data Summary (based on cube transformation): Mean=131532, Std. Dev.=37536, n=20.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.885, critical = 0.868.   Kappa = 1.362 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: Chloride   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

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Within Limit

Prediction Limit
Intrawell Parametric

■ 602 background

◆ 602 compliance

Limit = 5.007

mg/l

12/16/15   3/27/17   7/7/18   10/18/19   1/27/21   5/10/22

Background Data Summary (based on square root transformation): Mean=2.065, Std. Dev.=0.1269, n=20.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.876, critical = 0.868.   Kappa = 1.362 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: Chloride   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Parametric

■ 603 background

◆ 603 compliance

Limit = 8.46

mg/l

12/16/15   4/9/17   8/2/18   11/25/19   3/19/21   7/13/22

Background Data Summary: Mean=7.273, Std. Dev.=0.8721, n=20.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9664, critical = 0.868.   Kappa = 1.362 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: Chloride   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose
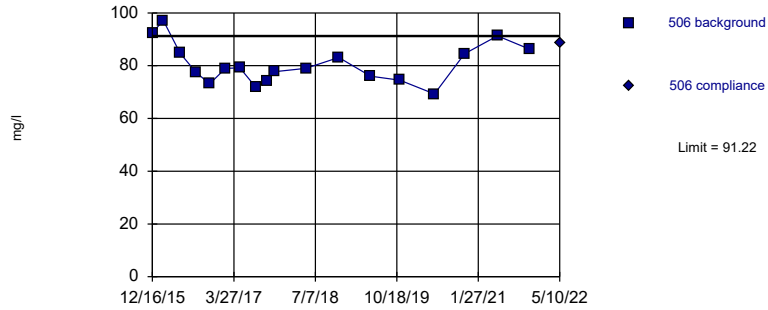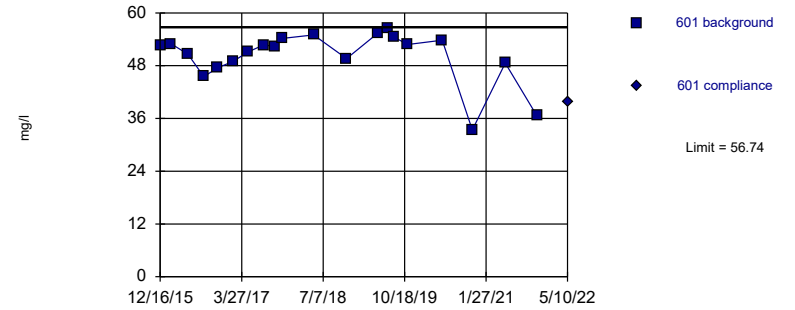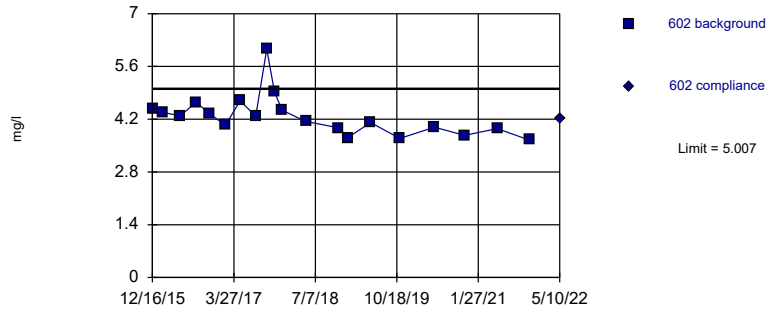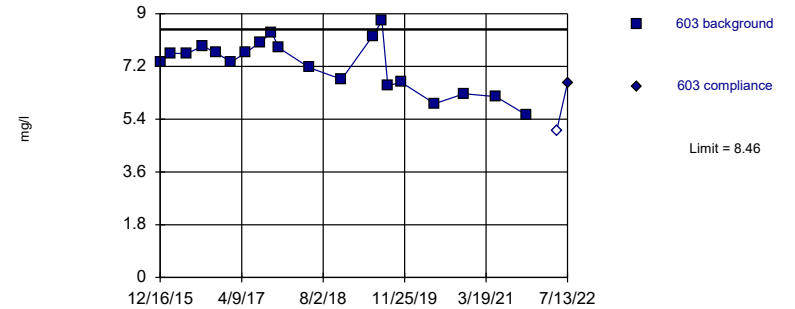
Prediction Limit

Constituent: Chloride   Analysis Run 9/7/2022 12:44 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

	506	506	601	601	602	602	603	603	
12/16/2015	92.4		52.5		4.48		7.33		
2/16/2016	97.2		53		4.38		7.65		
5/23/2016	84.7		50.6		4.29		7.64		
8/22/2016	77.5		45.5		4.65		7.9		
11/7/2016					4.35		7.67		
11/8/2016	73.1		47.5						
2/7/2017	79		49		4.04		7.35		
5/1/2017	79.2								
5/2/2017			51.1		4.69		7.67		
7/31/2017	71.9		52.7		4.28		8.03		
10/2/2017	74.4		52.4		6.06		8.37		
11/15/2017	77.7		54.2		4.93		7.83		
12/29/2017					4.44				
5/14/2018	79		55		4.14		7.16		
11/19/2018	83.1		49.6		3.97		6.76		
1/10/2019					3.71				
5/21/2019	76		55.5		4.11		8.24		
7/15/2019			56.5				8.75		
8/19/2019			54.5				6.54		
11/5/2019	74.5		52.8		3.69		6.66		
5/21/2020	69.3		53.8		3.99		5.93		
11/10/2020	84.5		33.4		3.77		6.27		
5/17/2021					3.95		6.17		
5/18/2021	91.3		48.6						
11/16/2021	86.3		36.6		3.65		5.53		
5/10/2022		88.8		39.8		4.22		<10	
7/13/2022							6.64		1st Verification

Exceeds Limit

Prediction Limit
Intrawell Parametric

- 604 background
- 604 compliance

Limit = 16.6

Background Data Summary: Mean=13.96, Std. Dev.=1.963, n=22.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9263, critical = 0.878.   Kappa = 1.344 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit
Intrawell Parametric

- 605 background
- 605 compliance

Limit = 60.82

Background Data Summary (based on square root transformation): Mean=7.28, Std. Dev.=0.3988, n=28.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8962, critical = 0.896.   Kappa = 1.3 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

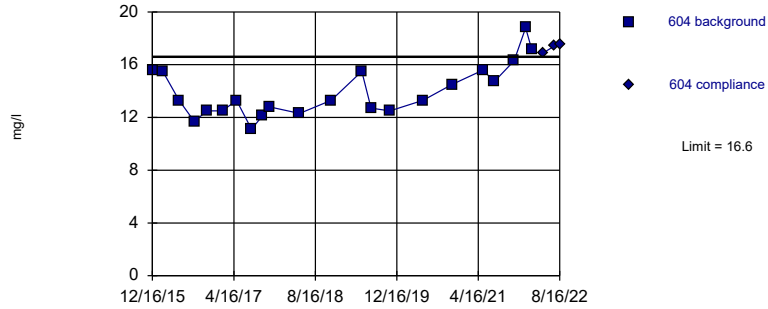Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit
Intrawell Parametric

- 506 background
- 506 compliance

Limit = 3232

Background Data Summary: Mean=2774, Std. Dev.=324, n=17.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9102, critical = 0.851.   Kappa = 1.413 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit
Intrawell Parametric

- 601 background
- 601 compliance

Limit = 4866
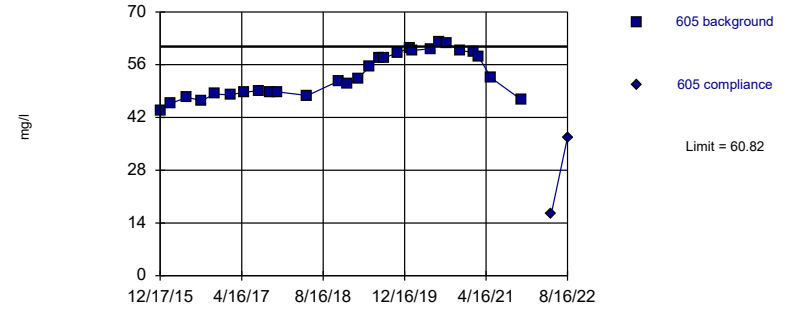
Background Data Summary: Mean=4407, Std. Dev.=324.9, n=17.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9357, critical = 0.851.   Kappa = 1.413 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose
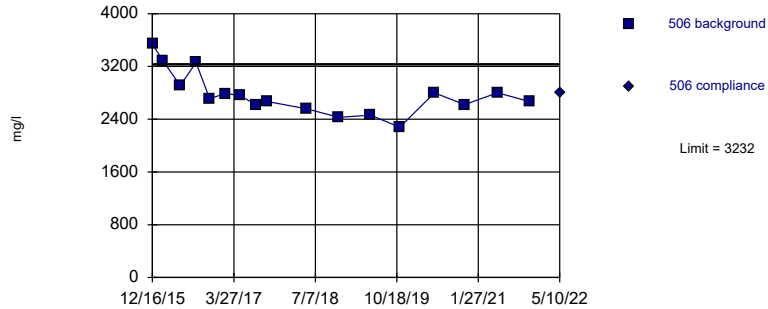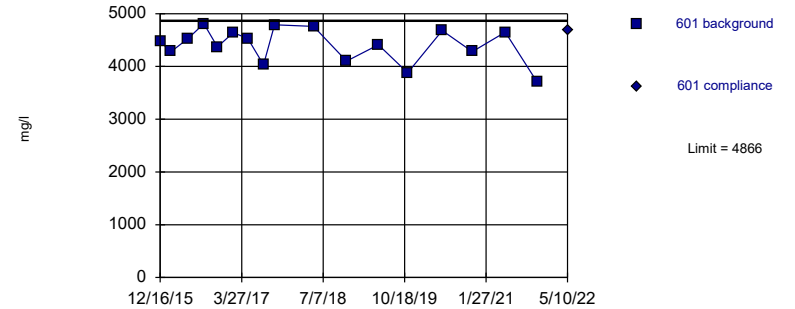
Prediction Limit

Constituent: Chloride, Dissolved Solids   Analysis Run 9/7/2022 12:45 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Date	604	604	605	605	506	506	601	601
12/16/2015	15.6				3540		4470	
12/17/2015			43.9					
2/16/2016	15.5		45.7		3280		4280	
5/23/2016	13.3		47.3		2910		4530	
8/22/2016	11.7		46.5		3260		4810	
11/7/2016	12.5		48.2					
11/8/2016					2710		4370	
2/7/2017	12.5		48		2790		4640	
5/1/2017					2760			
5/2/2017	13.3		48.7				4530	
7/31/2017	11.1		49.1		2620		4030	
10/2/2017	12.1		48.7		2670		4790	
11/15/2017	12.8		48.8					
5/14/2018	12.3		47.8		2560		4760	
11/19/2018	13.3		51.7		2430		4100	
1/10/2019			50.9					
3/13/2019			52.4					
5/21/2019	15.5		55.4		2460		4410	
7/15/2019	12.7		57.8					
8/19/2019			57.9					
11/5/2019	12.5		59.1		2280		3880	
1/14/2020			60.5					
2/3/2020			59.8					
5/21/2020	13.3		60.2		2800		4680	
7/14/2020			62.1					
8/26/2020			61.6					
11/10/2020	14.5		59.7		2620		4280	
2/3/2021			59.3					
3/1/2021			58.2					
5/17/2021	15.6		52.5					
5/18/2021					2800		4650	
7/19/2021	14.7							
11/16/2021	16.3		46.6		2670		3710	
1/24/2022	18.8							
3/1/2022	17.2							
5/10/2022		16.9		16.3		2800		4680
7/13/2022		17.4 1st Verification						
8/16/2022		17.5 2nd Verification		36.7 Extra Sample				

Within Limit

Prediction Limit

Intrawell Non-parametric

- ■ 602 background
- ◆ 602 compliance

Limit = 4900

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 18 background values. Well-constituent pair annual alpha = 0.001588. Individual comparison alpha = 0.0007943 (1 of 3).

Constituent: Dissolved Solids   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

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Within Limit

Prediction Limit

Intrawell Parametric

- ■ 603 background
- ◆ 603 compliance

Limit = 3340
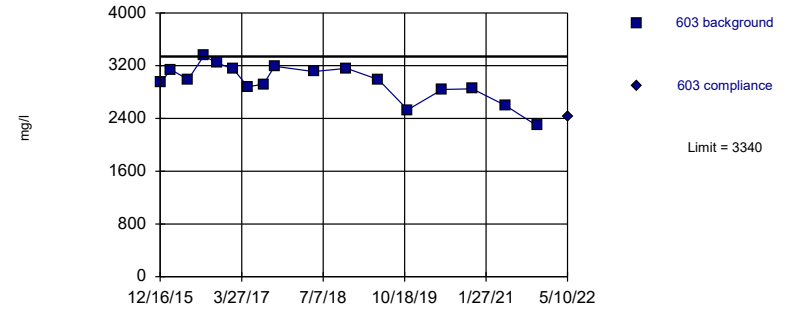
Background Data Summary: Mean=2951, Std. Dev.=275.4, n=17.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9307, critical = 0.851.   Kappa = 1.413 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

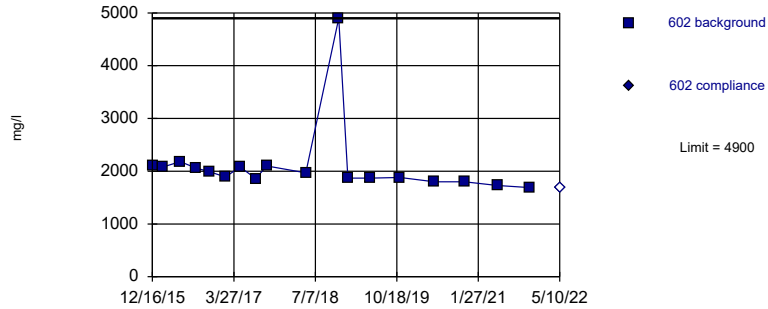Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

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Within Limit

Prediction Limit

Intrawell Parametric

- ■ 604 background
- ◆ 604 compliance

Limit = 3088
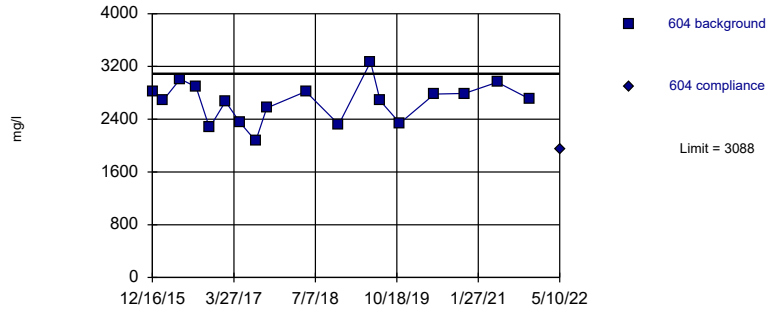
Background Data Summary: Mean=2667, Std. Dev.=301.5, n=18.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9659, critical = 0.858.   Kappa = 1.396 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

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Within Limit

Prediction Limit

Intrawell Parametric

- ■ 605 background
- ◆ 605 compliance

Limit = 2953
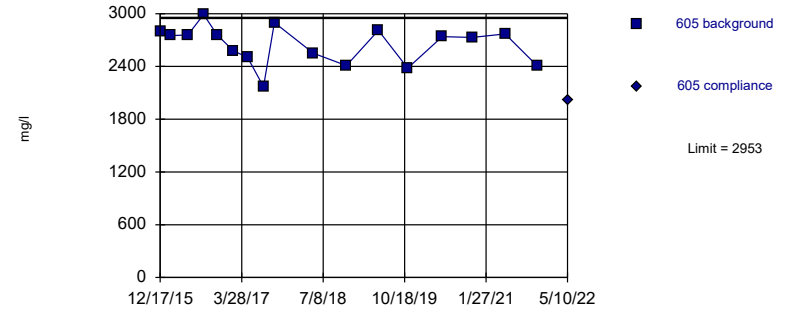
Background Data Summary: Mean=2648, Std. Dev.=215.8, n=17.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9355, critical = 0.851.   Kappa = 1.413 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Prediction Limit

Constituent: Dissolved Solids   Analysis Run 9/7/2022 12:45 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

	602	602	603	603	604	604	605	605
12/16/2015	2100		2940		2820			
12/17/2015							2800	
2/16/2016	2080		3140		2690		2750	
5/23/2016	2180		2990		3010		2760	
8/22/2016	2060		3350		2890		2990	
11/7/2016	1990		3240		2270		2760	
2/7/2017	1890		3150		2670		2580	
5/2/2017	2080		2880		2350		2500	
7/31/2017	1860		2920		2070		2170	
10/2/2017	2100		3190		2570		2900	
5/14/2018	1970		3110		2820		2550	
11/19/2018	4900		3160		2320		2410	
1/10/2019	1870							
5/21/2019	1870		2990		3270		2810	
7/15/2019					2680			
11/5/2019	1880		2530		2340		2380	
5/21/2020	1800		2840		2780		2740	
11/10/2020	1800		2850		2790		2730	
5/17/2021	1730		2600		2960		2770	
11/16/2021	1690		2290		2710		2410	
5/10/2022		1680		2430		1940		2010

Within Limit

Prediction Limit

Intrawell Non-parametric

mg/l

■ 506 background

◆ 506 compliance

Limit = 0.12

Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 17 background values. 82.35% NDs. Well-constituent pair annual alpha = 0.00182. Individual comparison alpha = 0.0009102 (1 of 3).

Constituent: Fluoride   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit

Intrawell Parametric

mg/l

■ 601 background

◆ 601 compliance

Limit = 0.5112
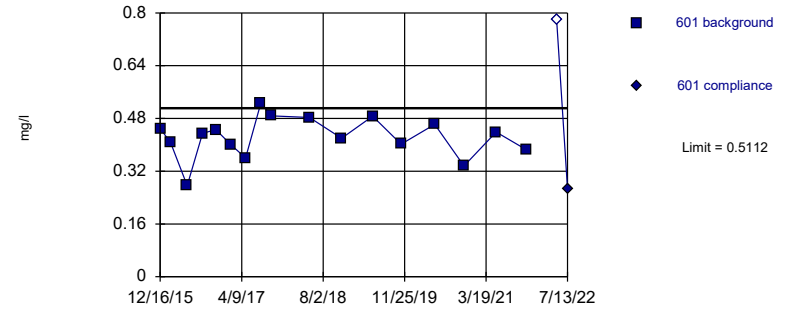
Background Data Summary: Mean=0.4235, Std. Dev.=0.06209, n=17.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9682, critical = 0.851.   Kappa = 1.413 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit

Intrawell Non-parametric

mg/l

■ 602 background

◆ 602 compliance

Limit = 0.148
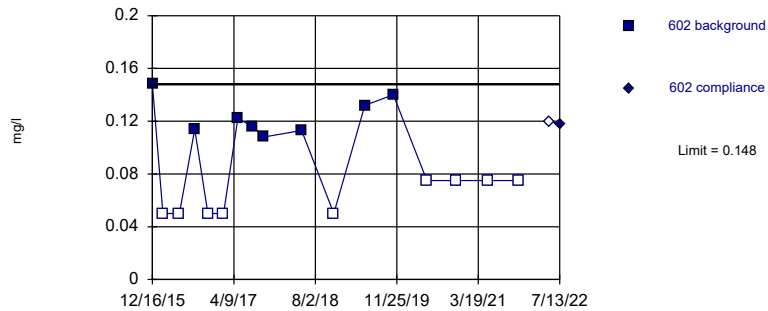
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 17 background values. 52.94% NDs. Well-constituent pair annual alpha = 0.00182. Individual comparison alpha = 0.0009102 (1 of 3).

Constituent: Fluoride   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit

Intrawell Parametric

mg/l

■ 603 background

◆ 603 compliance

Limit = 0.6847
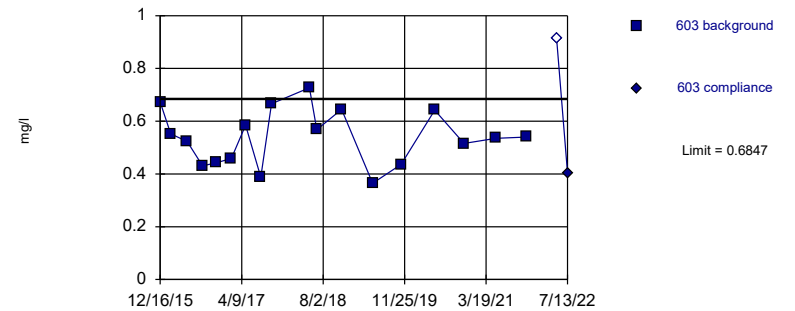
Background Data Summary: Mean=0.5385, Std. Dev.=0.1047, n=18.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9676, critical = 0.858.   Kappa = 1.396 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

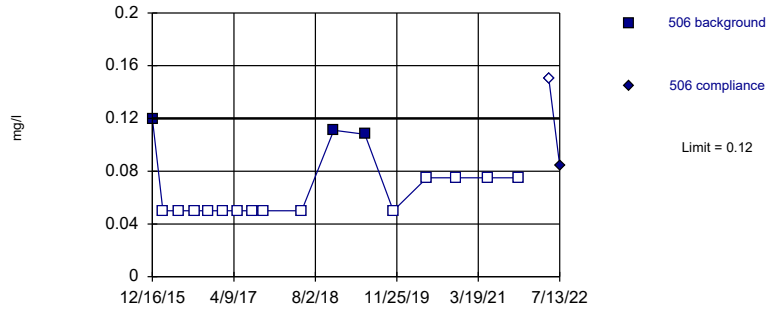Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Prediction Limit

Constituent: Fluoride   Analysis Run 9/7/2022 12:45 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

	506	506	601	601	602	602	603	603
12/16/2015	0.12		0.45		0.148		0.673	
2/16/2016	<0.1		0.406		<0.1		0.552	
5/23/2016	<0.1		0.276		<0.1		0.523	
8/22/2016	<0.1		0.435		0.114		0.431	
11/7/2016					<0.1		0.442	
11/8/2016	<0.1		0.446					
2/7/2017	<0.1		0.399		<0.1		0.459	
5/1/2017	<0.1							
5/2/2017			0.36		0.122		0.585	
7/31/2017	<0.1		0.526		0.116		0.388	
10/2/2017	<0.1		0.488		0.108		0.666	
5/14/2018	<0.1		0.483		0.113		0.727	
6/26/2018							0.568	
11/19/2018	0.111		0.42		<0.1		0.645	
5/21/2019	0.108		0.487		0.132		0.365	
11/5/2019	<0.1		0.402		0.14		0.436	
5/21/2020	<0.15		0.462		<0.15		0.642	
11/10/2020	<0.15		0.336		<0.15		0.516	
5/17/2021					<0.15		0.535	
5/18/2021	<0.15		0.439					
11/16/2021	<0.15		0.384		<0.15		0.54	
5/10/2022		<0.3		0.779 (j)		0.12 (j)		0.912 (j)
7/13/2022		0.0844 1st Verification		0.266 1st Verification		0.118 1st Verification		0.404 1st Verification

Within Limit

Prediction Limit

Intrawell Parametric

■ 604 background

◆ 604 compliance

Limit = 0.5483

Background Data Summary: Mean=0.4803, Std. Dev.=0.04815, n=17.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9547, critical = 0.851.   Kappa = 1.413 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit

Intrawell Parametric

■ 605 background

◆ 605 compliance

Limit = 0.2313

Background Data Summary: Mean=0.1994, Std. Dev.=0.02259, n=17.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9858, critical = 0.851.   Kappa = 1.413 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

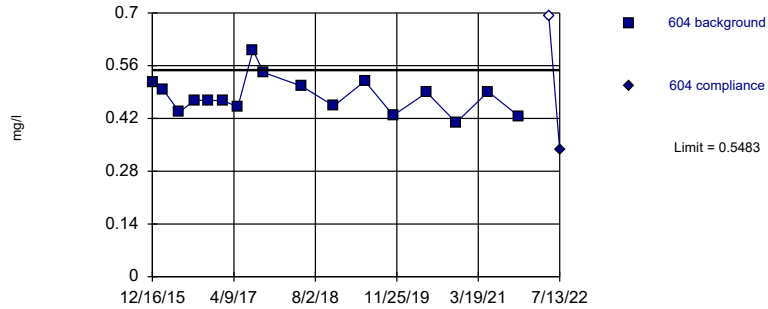Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limits

Prediction Limit

Intrawell Non-parametric

■ 506 background

◆ 506 compliance

Limit = 9.26

Limit = 5.11

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 18 background values. Well-constituent pair annual alpha = 0.003176. Individual comparison alpha = 0.001589 (1 of 3).

Constituent: pH   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limits

Prediction Limit

Intrawell Parametric

■ 601 background

◆ 601 compliance

Limit = 5.721

Limit = 5.221
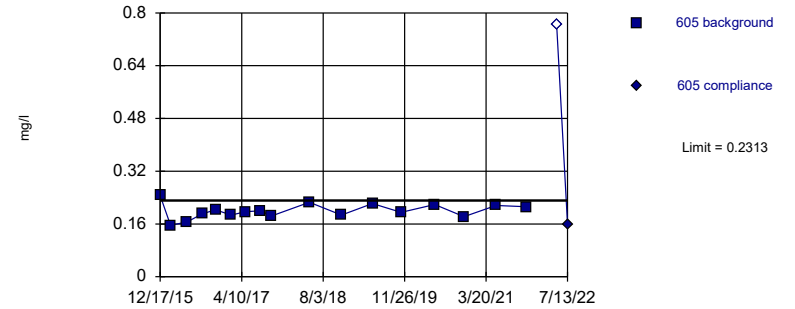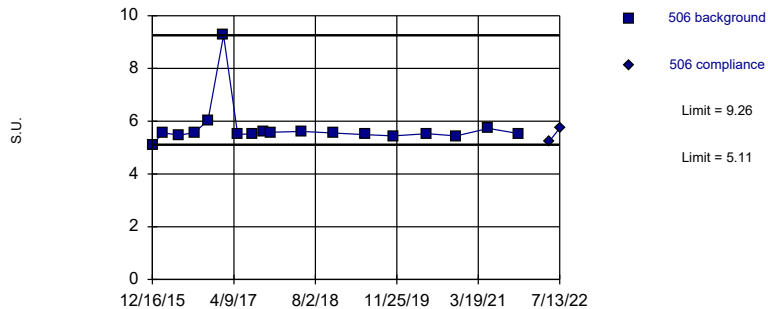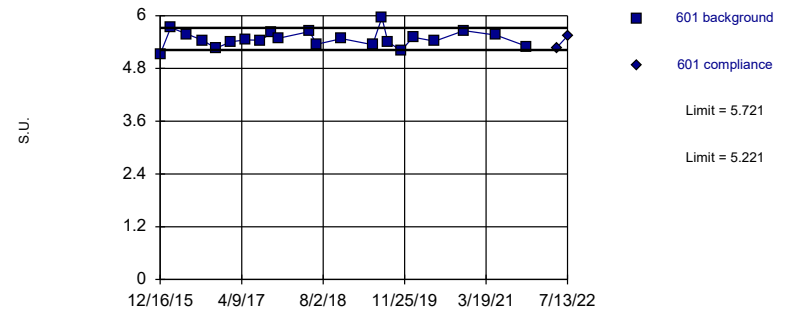
Background Data Summary: Mean=5.471, Std. Dev.=0.186, n=22.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9737, critical = 0.878.   Kappa = 1.344 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Prediction Limit

Constituent: Fluoride, pH   Analysis Run 9/7/2022 12:45 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

	604	604	605	605	506	506	601	601
12/16/2015	0.515				5.11		5.12	
12/17/2015			0.246					
2/16/2016	0.497		0.156		5.56		5.73	
5/23/2016	0.437		0.166		5.47		5.58	
8/22/2016	0.468		0.191		5.57		5.44	
11/7/2016	0.468		0.203					
11/8/2016					6.04		5.26	
2/7/2017	0.467		0.187		9.26		5.41	
5/1/2017					5.51			
5/2/2017	0.45		0.197				5.45	
7/31/2017	0.601		0.2		5.51		5.44	
10/2/2017	0.542		0.184		5.59		5.61	
11/15/2017					5.58		5.49	
5/14/2018	0.506		0.226		5.61		5.64	
6/26/2018							5.35	
11/19/2018	0.453		0.187		5.55		5.48	
5/21/2019	0.519		0.222		5.49		5.34	
7/15/2019							5.96	
8/19/2019							5.41	
11/5/2019	0.428		0.195		5.44		5.2	
1/14/2020							5.51	
5/21/2020	0.489		0.219		5.53		5.42	
11/10/2020	0.409		0.182		5.44		5.66	
5/17/2021	0.491		0.216				5.56	
5/18/2021					5.73			
11/16/2021	0.425		0.212		5.53		5.3	
5/10/2022		0.691 (j)		0.765 (j)		5.21		5.27
7/13/2022		0.336 1st Verification		0.16 1st Verification		5.74 1st Verification		5.54 1st Verification

Within Limits

Prediction Limit
Intrawell Non-parametric

- 602 background
- 602 compliance

Limit = 7.05

Limit = 5.63

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 21 background values. Well-constituent pair annual alpha = 0.002044. Individual comparison alpha = 0.001022 (1 of 3).

Constituent: pH   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limits

Prediction Limit
Intrawell Non-parametric

- 603 background
- 603 compliance

Limit = 5.13

Limit = 4.29
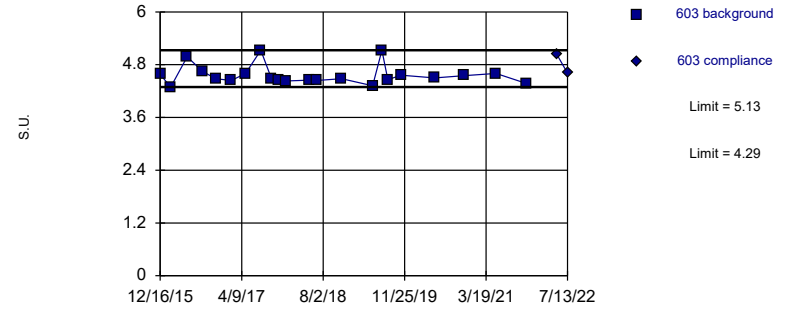
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 22 background values. Well-constituent pair annual alpha = 0.001837. Individual comparison alpha = 0.0009189 (1 of 3).

Constituent: pH   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limits

Prediction Limit
Intrawell Parametric

- 604 background
- 604 compliance

Limit = 6.084

Limit = 5.534
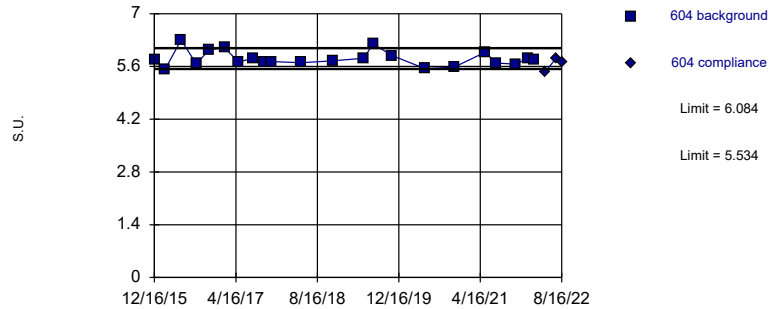
Background Data Summary: Mean=5.809, Std. Dev.=0.2044, n=22.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9239, critical = 0.878.   Kappa = 1.344 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: pH   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limits

Prediction Limit
Intrawell Parametric

- 605 background
- 605 compliance

Limit = 5.814

Limit = 5.366
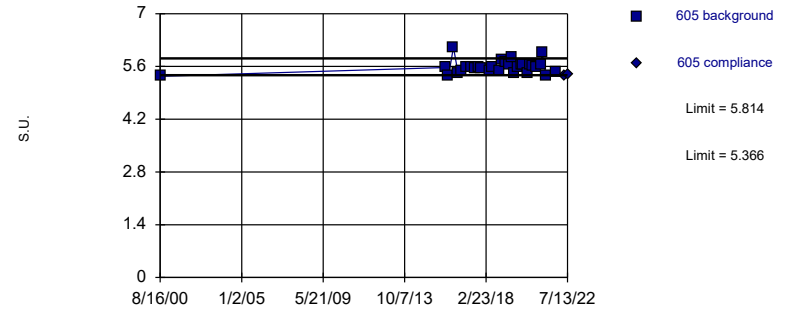
Background Data Summary: Mean=5.59, Std. Dev.=0.1739, n=30.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.919, critical = 0.9.   Kappa = 1.288 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: pH   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III
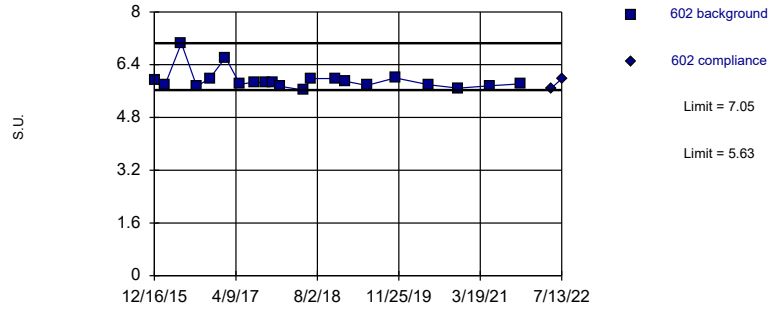Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Prediction Limit

Constituent: pH   Analysis Run 9/7/2022 12:45 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

| Date	602	602	603	603	604	604	605	605
8/16/2000							5.34	
12/16/2015	5.93		4.58		5.79			
12/17/2015							5.57	
2/16/2016	5.78		4.29		5.51		5.34	
5/23/2016	7.05		4.98		6.3		6.11	
8/22/2016	5.74		4.65		5.67		5.42	
11/7/2016	5.99		4.48		6.04		5.49	
2/7/2017	6.62		4.44		6.1		5.58	
5/2/2017	5.81		4.6		5.72		5.58	
7/31/2017	5.87		5.13		5.82		5.55	
10/2/2017	5.86		4.48		5.72		5.58	
11/15/2017	5.87		4.44		5.73		5.55	
12/29/2017	5.74		4.43					
5/14/2018	5.63		4.45		5.7		5.48	
6/26/2018	5.98		4.44				5.6	
11/19/2018	5.98		4.48		5.75		5.5	
1/10/2019	5.9						5.79	
3/13/2019							5.73	
5/21/2019	5.77		4.32		5.82		5.64	
7/15/2019			5.13		6.2		5.85	
8/19/2019			4.46				5.42	
11/5/2019	6		4.56		5.89		5.59	
1/14/2020							5.66	
2/3/2020							5.64	
5/21/2020	5.79		4.5		5.54		5.42	
7/14/2020							5.66	
8/26/2020							5.62	
11/10/2020	5.69		4.55		5.58		5.58	
2/3/2021							5.66	
3/1/2021							5.96	
5/17/2021	5.76		4.6		5.98		5.36	
7/19/2021					5.69			
11/16/2021	5.82		4.37		5.66		5.44	
1/24/2022					5.82			
3/1/2022					5.77			
5/10/2022		5.68		5.04		5.46		5.36
7/13/2022		5.97 Extra Sample		4.61 Extra Sample		5.82 1st Verification		5.4 1st Verification
8/16/2022						5.72 Extra Sample		

Within Limit

Prediction Limit
Intrawell Parametric

- 506 background
- 506 compliance

Limit = 2293

Background Data Summary: Mean=1945, Std. Dev.=246.3, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9263, critical = 0.851. Kappa = 1.413 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

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Within Limit

## Prediction Limit
Intrawell Parametric

- 601 background
- 601 compliance

Limit = 3635

Background Data Summary: Mean=3258, Std. Dev.=273.4, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9249, critical = 0.863. Kappa = 1.379 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

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Within Limit

Prediction Limit
Intrawell Parametric

- 602 background
- 602 compliance

Limit = 1524

Background Data Summary: Mean=1315, Std. Dev.=151.2, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.97, critical = 0.863. Kappa = 1.379 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

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Within Limit

Prediction Limit
Intrawell Parametric

- 603 background
- 603 compliance

Limit = 2716

Background Data Summary: Mean=2331, Std. Dev.=275.9, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.951, critical = 0.858. Kappa = 1.396 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate   Analysis Run 9/7/2022 12:12 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose
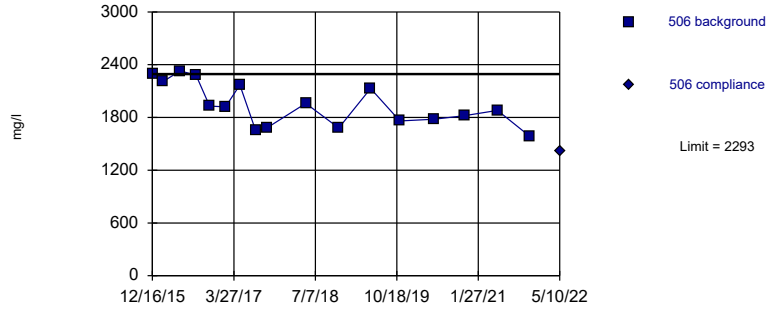
Prediction Limit

Constituent: Sulfate   Analysis Run 9/7/2022 12:45 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

	506	506	601	601	602	602	603	603
12/16/2015	2290		3430		1540		2440	
2/16/2016	2210		3200		1410		2470	
5/23/2016	2330		3360		1490		2760	
8/22/2016	2280		3590		1320		2710	
11/7/2016					1370		2760	
11/8/2016	1930		3160					
2/7/2017	1920		3180		1430		2500	
5/1/2017	2170							
5/2/2017			3590		1190		2220	
7/31/2017	1650		3110		1210		2330	
10/2/2017	1680		3150		1340		2370	
5/14/2018	1960		3950		1660		2080	
6/26/2018			3190		1270			
11/19/2018	1680		3590		1430		2590	
1/10/2019					1250			
5/21/2019	2130		3230		1260		2480	
7/15/2019			2900				2020	
11/5/2019	1760		2950		1110		2010	
5/21/2020	1780		3230		1270		2140	
11/10/2020	1820		2860		1080		2090	
5/17/2021					1190		2130	
5/18/2021	1880		3200					
11/16/2021	1590		3030		1170		1860	
5/10/2022		1420		3160		1070		1810

Within Limit

Prediction Limit
Intrawell Parametric

- ■ 604 background
- ◆ 604 compliance

Limit = 2215

Background Data Summary: Mean=1908, Std. Dev.=222.6, n=19.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9335, critical = 0.863.   Kappa = 1.379 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: Sulfate   Analysis Run 9/7/2022 12:13 PM   View: LF CCR III
Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Within Limit

Prediction Limit
Intrawell Parametric

- ■ 605 background
- ◆ 605 compliance

Limit = 2245

Background Data Summary: Mean=1962, Std. Dev.=212.3, n=23.   Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9378, critical = 0.881.   Kappa = 1.336 (c=7, w=4, 1 of 3, event alpha = 0.05132).   Report alpha = 0.00188.

Constituent: Sulfate   Analysis Run 9/7/2022 12:13 PM   View: LF CCR III
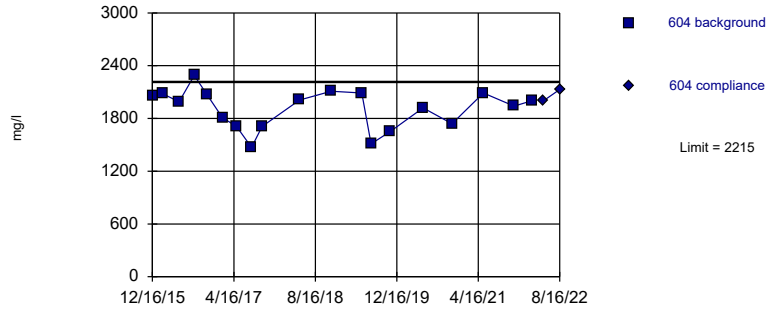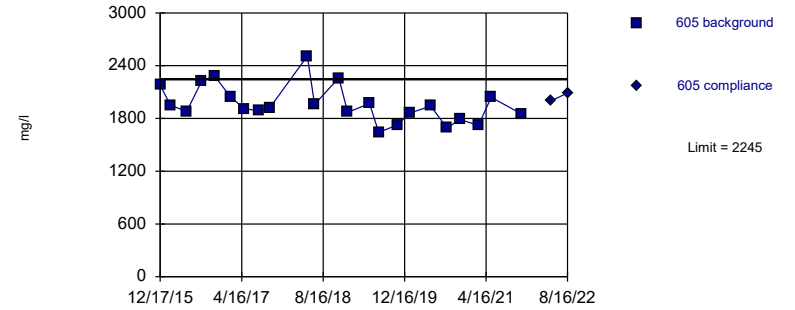Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

Prediction Limit

Constituent: Sulfate   Analysis Run 9/7/2022 12:45 PM   View: LF CCR III

Montrose Generating Station UWL   Client: SCS Engineers   Data: Montrose

	604	604	605	605	
12/16/2015	2060				
12/17/2015			2180		
2/16/2016	2080		1950		
5/23/2016	1990		1880		
8/22/2016	2290		2230		
11/7/2016	2070		2280		
2/7/2017	1810		2050		
5/2/2017	1710		1910		
7/31/2017	1470		1890		
10/2/2017	1710		1920		
5/14/2018	2010		2510		
6/26/2018			1960		
11/19/2018	2110		2260		
1/10/2019			1870		
5/21/2019	2090		1970		
7/15/2019	1510		1640		
11/5/2019	1650		1730		
1/14/2020			1860		
5/21/2020	1920		1940		
8/26/2020			1690		
11/10/2020	1740		1790		
3/1/2021			1720		
5/17/2021	2090		2040		
11/16/2021	1940		1850		
3/1/2022	2000				
5/10/2022		2000		2000	
8/16/2022		2130	Extra Sample	2090	Extra Sample

Prediction Limit

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/l)	506	0.2	n/a	5/10/2022	0.1ND	No	17	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Boron (mg/l)	601	0.203	n/a	5/10/2022	0.1ND	No	17	94.12	n/a	0.000...	NP Intra (NDs) 1 of 3
Boron (mg/l)	602	5.05	n/a	5/10/2022	4.05	No	17	0	No	0.00188	Param Intra 1 of 3
Boron (mg/l)	603	7.112	n/a	5/10/2022	5.23	No	18	0	No	0.00188	Param Intra 1 of 3
Boron (mg/l)	604	5.577	n/a	8/16/2022	5.14	No	18	0	No	0.00188	Param Intra 1 of 3
Boron (mg/l)	605	2.016	n/a	7/13/2022	1.54	No	17	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	506	479	n/a	5/10/2022	342	No	18	0	n/a	0.000...	NP Intra (normality) ...
Calcium (mg/l)	601	499.6	n/a	5/10/2022	439	No	19	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	602	373.3	n/a	5/10/2022	302	No	19	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	603	461.8	n/a	5/10/2022	366	No	20	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	604	481.4	n/a	8/16/2022	449	No	21	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	**605**	**437.3**	**n/a**	**8/16/2022**	**444**	**Yes**	**23**	**0**	**No**	**0.00188**	**Param Intra 1 of 3**
Chloride (mg/l)	506	91.22	n/a	5/10/2022	88.8	No	18	0	No	0.00188	Param Intra 1 of 3
Chloride (mg/l)	601	56.74	n/a	5/10/2022	39.8	No	20	0	x^3	0.00188	Param Intra 1 of 3
Chloride (mg/l)	602	5.007	n/a	5/10/2022	4.22	No	20	0	sqrt(x)	0.00188	Param Intra 1 of 3
Chloride (mg/l)	603	8.46	n/a	7/13/2022	6.64	No	20	0	No	0.00188	Param Intra 1 of 3
Chloride (mg/l)	**604**	**16.6**	**n/a**	**8/16/2022**	**17.5**	**Yes**	**22**	**0**	**No**	**0.00188**	**Param Intra 1 of 3**
Chloride (mg/l)	605	60.82	n/a	8/16/2022	36.7	No	28	0	sqrt(x)	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	506	3232	n/a	5/10/2022	2800	No	17	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	601	4866	n/a	5/10/2022	4680	No	17	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	602	4900	n/a	5/10/2022	1680J	No	18	0	n/a	0.000...	NP Intra (normality) ...
Dissolved Solids (mg/l)	603	3340	n/a	5/10/2022	2430	No	17	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	604	3088	n/a	5/10/2022	1940	No	18	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	605	2953	n/a	5/10/2022	2010	No	17	0	No	0.00188	Param Intra 1 of 3
Fluoride (mg/l)	506	0.12	n/a	7/13/2022	0.0844	No	17	82.35	n/a	0.000...	NP Intra (NDs) 1 of 3
Fluoride (mg/l)	601	0.5112	n/a	7/13/2022	0.266	No	17	0	No	0.00188	Param Intra 1 of 3
Fluoride (mg/l)	602	0.148	n/a	7/13/2022	0.118	No	17	52.94	n/a	0.000...	NP Intra (NDs) 1 of 3
Fluoride (mg/l)	603	0.6847	n/a	7/13/2022	0.404	No	18	0	No	0.00188	Param Intra 1 of 3
Fluoride (mg/l)	604	0.5483	n/a	7/13/2022	0.336	No	17	0	No	0.00188	Param Intra 1 of 3
Fluoride (mg/l)	605	0.2313	n/a	7/13/2022	0.16	No	17	0	No	0.00188	Param Intra 1 of 3
pH (S.U.)	506	9.26	5.11	7/13/2022	5.74	No	18	0	n/a	0.001589	NP Intra (normality) ...
pH (S.U.)	601	5.721	5.221	7/13/2022	5.54	No	22	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	602	7.05	5.63	7/13/2022	5.97	No	21	0	n/a	0.001022	NP Intra (normality) ...
pH (S.U.)	603	5.13	4.29	7/13/2022	4.61	No	22	0	n/a	0.000...	NP Intra (normality) ...
pH (S.U.)	604	6.084	5.534	8/16/2022	5.72	No	22	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	605	5.819	5.379	7/13/2022	5.4	No	29	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/l)	506	2293	n/a	5/10/2022	1420	No	17	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	601	3635	n/a	5/10/2022	3160	No	19	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	602	1524	n/a	5/10/2022	1070	No	19	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	603	2716	n/a	5/10/2022	1810	No	18	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	604	2215	n/a	8/16/2022	2130	No	19	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	605	2245	n/a	8/16/2022	2090	No	23	0	No	0.00188	Param Intra 1 of 3

ATTACHMENT 2

Sanitas™ Configuration Settings

Exclude data flags: i

Data Reading Options

- (●) Individual Observations
- ( ) Mean of Each: ( ) Month
- ( ) Median of Each: ( ) Season

[Non-Detect / Trace Handling...]

[Setup Seasons...]

[ ] Automatically Process Resamples...

| Data | Output | Trend Test | Control Cht | Prediction Lim | Tolerance Lim | Conf/Tol Int | ANOVA | Welchs | Other Tests |

Exclude data flags: i

Data Reading Options

- (●) Individual Observations
- ( ) Mean of Each: ( ) Month
- ( ) Median of Each: ( ) Season

☐ 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 `Light ▾`

[Setup Symbols and Colors...]

☑ 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 [Store All Print Jobs...]

Printer: `Adobe PDF ▾` [Printers...]

☐ 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 | Aitchison's ▾ | when NDs % > 50

☐ Use Poisson Prediction Limit when Non-Detects Percent > 90

Transformation
- ⦿ Use Ladder of Powers
- ◯ Natural Log or No Transformation
- ◯ Never Transform
- ◯ Use Specific Transformation:
  - Natural Log ▾
- ☐ Use Best W Statistic
- ☐ Plot Transformed Values

Deseasonalize (Intra- and InterWell)
- ◯ If Seasonality Is Detected
- ◯ If Seasonality Is Detected Or Insufficient to Test
- ◯ Always (When Sufficient Data)   ⦿ Never
- ☐ Always Use Non-Parametric

Facility [α]

Statistical Evaluations per Year: 2

Constituents Analyzed: 7

Downgradient (Compliance) Wells: 4

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   ☑ Label Constituents

☐ Combine Dates   ☑ Label Axes

◉ Use Default Constituent Names   ☑ Note Cation-Anion Balance (Piper only)

○ Use Constituent Definition File [Edit]