

# 2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

## CCR LANDFILL MONTROSE GENERATING STATION CLINTON, MISSOURI

Presented To:  
Evergy Metro, Inc.

**SCS ENGINEERS**

27213168.20 | January 2021  
Revision 1, April 2021  
Revision 2, December 20, 2022

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

## CERTIFICATIONS

I, John R. Rockhold, being a qualified groundwater scientist and Registered Geologist in the State of Missouri, do hereby certify that the 2020 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).

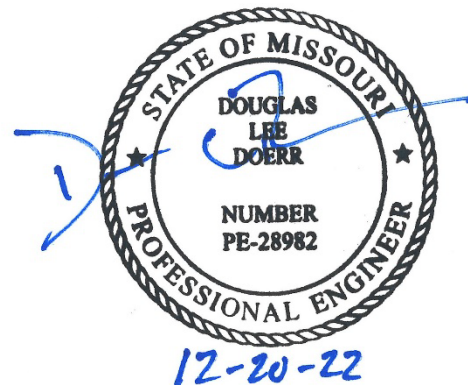


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John R. Rockhold, R.G.

SCS Engineers

I, Douglas L. Doerr, being a qualified licensed Professional Engineer in the State of Missouri, do hereby certify that the 2020 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).



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Douglas L. Doerr, P.E.

SCS Engineers

# 2020 Groundwater Monitoring and Corrective Action Report

| Revision Number | Revision Date     | Revision Sections               | Summary of Revisions                                   |
|-----------------|-------------------|---------------------------------|--|
| 0               | January 29, 2021  | N A                             | Original   |
| 1               | April 7, 2021     | Table of Contents<br>Appendix A | Addition of Potentiometric Surface Maps to Appendix A. |
| 2               | December 20, 2022 | Addendum 1                      | Added Addendum 1                                       |
|                 |                   |                                 |  |
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#### Addendum 1 2020 Annual Groundwater Monitoring and Corrective Action Report Addendum 1



# 1 INTRODUCTION

This 2020 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 2020 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, 2020), 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, 2020), 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 2019        | MW-605          | Chloride    | Successful |
| Spring 2020      | MW-605          | Chloride    | Successful |

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

Not applicable because an assessment monitoring program was not initiated.

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

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

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

Not applicable because there was no assessment monitoring conducted.

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

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

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

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

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

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

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

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

Not applicable because corrective measures are not required.

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

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

Not applicable because corrective measures are not required.

## 2 § 257.90(E) ANNUAL REPORT REQUIREMENTS

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

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

### 2.1 § 257.90(E)(1) SITE MAP

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

A site map with an aerial image showing the 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 2020.

### 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 (2020). Samples collected in 2020 were collected and analyzed for Appendix III detection monitoring constituents. Additionally, Appendix IV constituents were analyzed with the spring event for potential future updating of background data in conformance with EPA Unified Guidance and industry standards. Results of the sampling events are provided in **Appendix B, Table 1** (Appendix III with Supplemental Appendix IV Detection Monitoring Results), and **Table 2** (Detection Monitoring Field Measurements). These tables include Fall 2019 semiannual detection monitoring event verification sample data collected and analyzed in 2020; Spring 2020 semiannual detection monitoring data, verification sample data, and supplementary Appendix IV sample data; and, the initial Fall 2020 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 2020. Only detection monitoring was conducted in 2020.

## 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 2019 verification sampling and analyses per the certified statistical method,
- b. completion of the statistical evaluation of the Fall 2019 semiannual detection monitoring sampling and analysis event per the certified statistical method,
- c. completion of the 2019 Annual Groundwater Monitoring and Corrective Action Report,
- d. completion of a successful alternative source demonstration for the Fall 2019 semiannual detection monitoring sampling and analysis event,
- e. completion of the Spring 2020 semiannual detection monitoring sampling and analysis event with subsequent verification sampling per the certified statistical method, and supplemental Appendix IV sample analysis,
- f. completion of the statistical evaluation of the Spring 2020 semiannual detection monitoring sampling and analysis event per the certified statistical method,
- g. completion of a successful alternative source demonstration for the Spring 2020 semiannual detection monitoring sampling and analysis event, and
- h. initiation of the Fall 2020 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 (2021).*

Completion of verification sampling and data analysis, and the statistical evaluation of Fall 2020 detection monitoring sampling and analysis event. Semiannual Spring and Fall 2021 groundwater sampling and analysis. Completion of the statistical evaluation of the Spring 2021 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 2019 Groundwater Monitoring Event, CCR Landfill, Montrose Generating Station (June 2020).
- C.2 CCR Landfill Groundwater Monitoring Alternative Source Demonstration Report May 2020 Groundwater Monitoring Event, CCR Landfill, Montrose Generating Station (December 2020).

## 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 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

Figure 1: Site Map

Figure 2: Potentiometric Surface Map (May 2020)

Figure 3: Potentiometric Surface Map (November 2020)



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**LEGEND:**

- PERMITTED SOLID WASTE FACILITY BOUNDARY (APPROXIMATE)
- CCR LANDFILL UNIT BOUNDARY (APPROXIMATE)
- ▲ MW-506 CCR GROUNDWATER MONITORING WELL SYSTEM
- ASH IMPOUNDMENT UNIT BOUNDARY (APPROXIMATE)

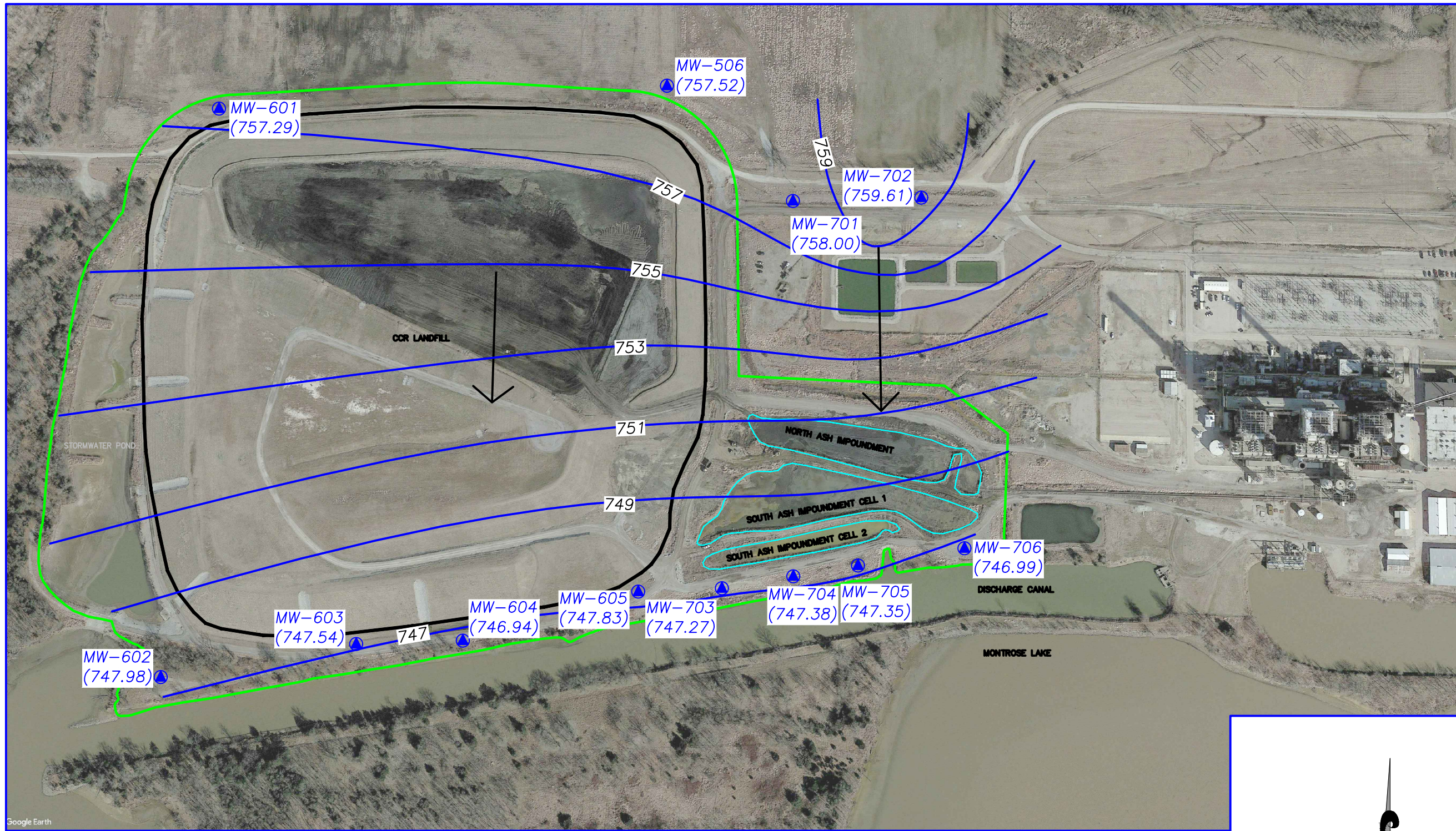
**NOTES:**

1. HORIZONTAL DATUM: MISSOURI STATE PLANE COORDINATE SYSTEM, WEST ZONE (NAD 83)
2. VERTICAL DATUM: NAVD 88
3. GOOGLE EARTH IMAGE DATED MARCH 2020.
4. APPROXIMATE BOUNDARY LOCATIONS PROVIDED BY AECOM.
5. MONITOR WELL LOCATIONS PROVIDED BY SHAFFER, KLINE, & WARREN SURVEY DATED JULY 21, 2017.



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|--|--|---|--|
| <p><b>SCS ENGINEERS</b><br/>ENVIRONMENTAL CONSULTANTS AND CONTRACTORS<br/>8575 W. 110th St. Ste. 100<br/>Overland Park, Kansas 66210<br/>PH. (913) 881-0030 FAX. (913) 881-0012</p> <p>PROJ. NO. 27213168.20<br/>DATE: 1/14/2021</p> | <p>CLIENT<br/><b>EVERGY METRO, INC.</b><br/>MONTROSE GENERATING STATION<br/>MONTROSE, MISSOURI</p> | <p>SHEET TITLE<br/><b>SITE MAP<br/>CCR LANDFILL<br/>CCR GROUNDWATER MONITORING SYSTEM</b></p> | <p>PROJECT TITLE<br/><b>2020 GROUNDWATER MONITORING<br/>AND CORRECTIVE ACTION REPORT</b></p> |
| <p>DATE: 1/14/2021</p> <p>FIGURE NO.<br/><b>1</b> of 1</p>   | <p>CK BY: —</p> <p>REV. DATE: —</p>  | <p>DATE: —</p> <p>DATE: —</p> <p>DATE: —</p> <p>DATE: —</p> <p>DATE: —</p>                    | <p>DATE: —</p> <p>DATE: —</p> <p>DATE: —</p> <p>DATE: —</p> <p>DATE: —</p>                   |



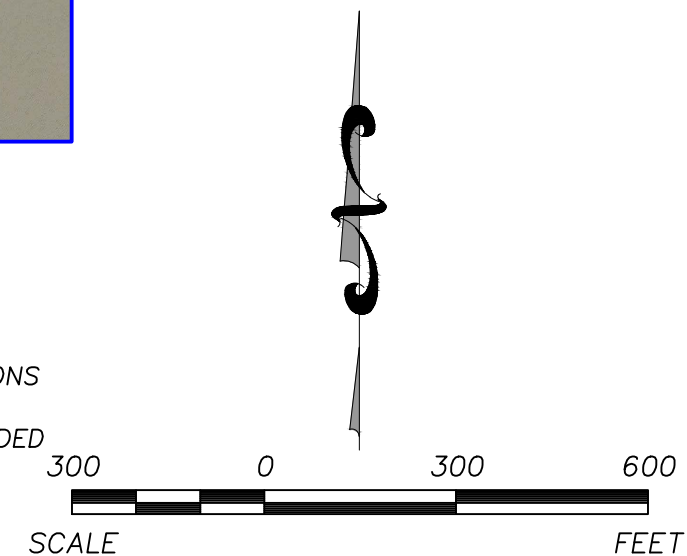


**LEGEND:**

- PERMITTED SOLID WASTE FACILITY BOUNDARY (APPROXIMATE)
- CCR LANDFILL UNIT BOUNDARY (APPROXIMATE)
- ▲ MW-506 (757.17) CCR GROUNDWATER MONITORING WELL SYSTEM
- ASH IMPOUNDMENT UNIT BOUNDARY (APPROXIMATE)
- GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS (REPRESENTATIVE OF THIS UNIT)
- GROUNDWATER FLOW ARROW

**NOTES:**

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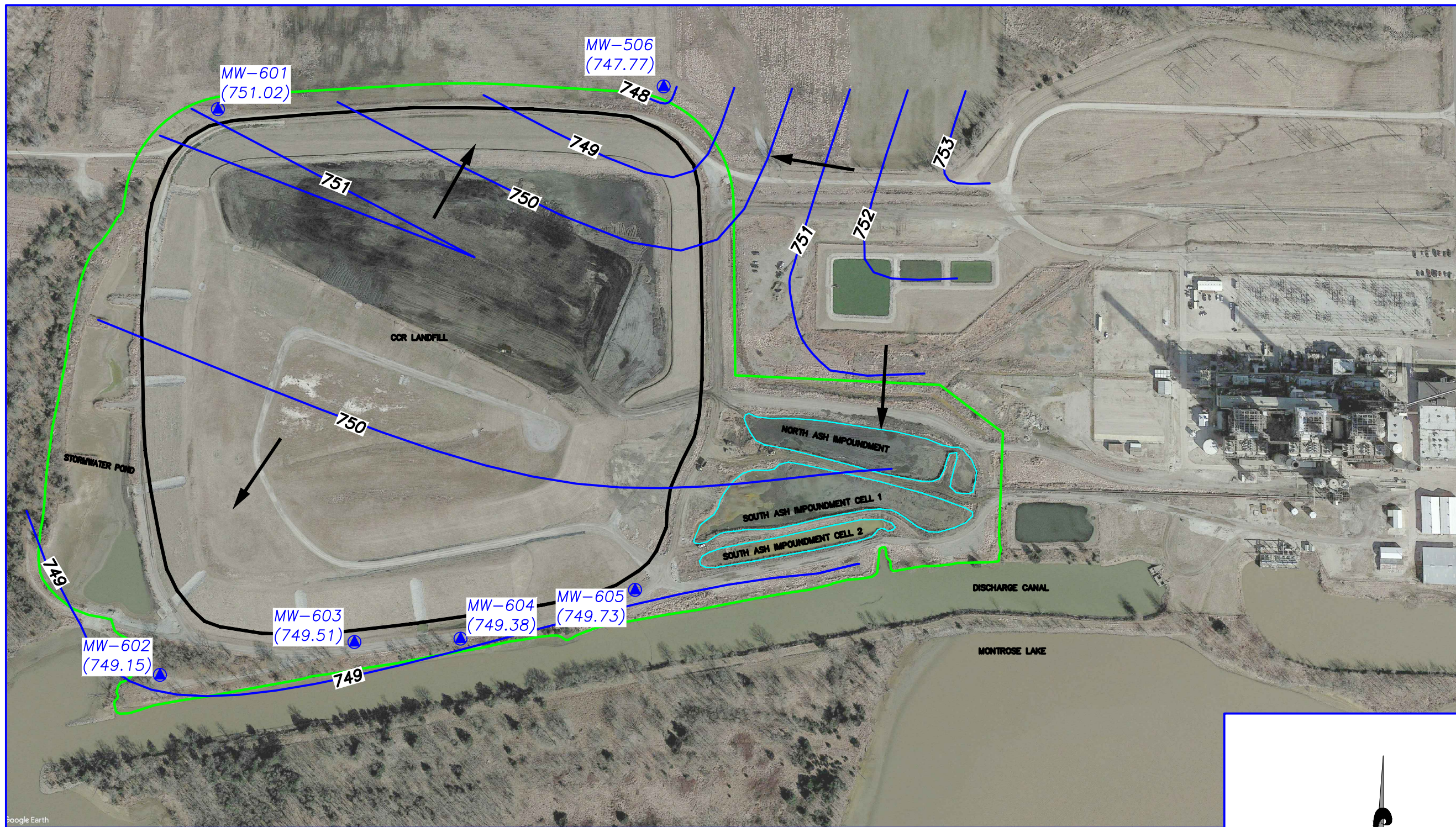


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| <b>SHEET TITLE</b>  |  | <b>POTENTIOMETRIC SURFACE MAP (MAY 2020)</b>                                     |             |   |
| <b>CLIENT</b>   |  | <b>EVERGY METRO, INC.<br/>MONTROSE GENERATING STATION<br/>MONTROSE, MISSOURI</b> |             |   |
| <b>PROJECT TITLE</b>  |  | <b>MONTROSE GROUNDWATER 2020</b>   |             |   |
| <b>SCS ENGINEERS</b>  |  | <b>ENVIRONMENTAL CONSULTANTS AND CONTRACTORS</b>                                 |             |   |
| 8575 W. 110th St. Ste. 100<br>Overland Park, Kansas 66210<br>PH. (913) 881-0030 FAX. (913) 881-0012 |  | D/WN. BY: MIBJ<br>CHK. BY: JRR<br>O/A R/W BY: JRR<br>PROJ. MGR. BY: JRR          |             |   |
| <b>CADD FILE:</b><br>27213168.20_FIG2_MAY20.DWG   |  | <b>DATE:</b><br>6/29/2020  |             |   |
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**LEGEND:**

- PERMITTED SOLID WASTE FACILITY BOUNDARY (APPROXIMATE)
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- ASH IMPOUNDMENT UNIT BOUNDARY (APPROXIMATE)
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- GROUNDWATER MONITORING WELL SYSTEM
- GROUNDWATER FLOW ARROW

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| <b>CLIENT</b><br>EVERGY METRO, INC.<br>MONTROSE GENERATING STATION<br>MONTROSE, MISSOURI   | <b>SHEET TITLE</b><br>POTENTIOMETRIC SURFACE MAP<br>(NOVEMBER 2020) | <b>REV.</b><br>DATE   | <b>CK BY</b><br>DATE          |          |          |      |           |           |      |          |    |     |   |          |    |     |  |  |  |  |  |  |  |
| <b>CLIENT</b><br>EVERGY METRO, INC.<br>MONTROSE GENERATING STATION<br>MONTROSE, MISSOURI   | <b>PROJECT TITLE</b><br>MONTROSE GROUNDWATER 2020                   | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table> |                               |          |          |      |           |           |      |          |    |     | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table> |          |    |     |  |  |  |  |  |  |  |
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|  |   |   |                               |          |          |      |           |           |      |          |    |     |   |          |    |     |  |  |  |  |  |  |  |
|  |   |   |                               |          |          |      |           |           |      |          |    |     |   |          |    |     |  |  |  |  |  |  |  |
|  |   |   |                               |          |          |      |           |           |      |          |    |     |   |          |    |     |  |  |  |  |  |  |  |
|  |   |   |                               |          |          |      |           |           |      |          |    |     |   |          |    |     |  |  |  |  |  |  |  |
| <b>SCS ENGINEERS</b><br>ENVIRONMENTAL CONSULTANTS AND CONTRACTORS<br>8575 W. 110th St. Ste. 100<br>Overland Park, Kansas 66210<br>PH. (913) 881-0030 FAX. (913) 881-0012   | <b>CADD FILE:</b><br>27213166.20_FIG2_NOVEMBER 2020 V3.DWG          | <b>DATE:</b><br>1/14/2021   | <b>FIGURE NO.</b><br><b>3</b> |          |          |      |           |           |      |          |    |     |   |          |    |     |  |  |  |  |  |  |  |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>PROJ. NO.</td><td>27213166.20</td><td>DRAWN BY</td><td>ALR</td><td>CHECK BY</td><td>JRR</td><td>DATE</td><td>1/14/2021</td></tr> <tr><td>DATE</td><td>11/16/20</td><td>BY</td><td>JRR</td><td>DATE</td><td>11/16/20</td><td>BY</td><td>JRR</td></tr> </table> | PROJ. NO.   | 27213166.20   | DRAWN BY                      | ALR      | CHECK BY | JRR  | DATE      | 1/14/2021 | DATE | 11/16/20 | BY | JRR | DATE  | 11/16/20 | BY | JRR |  |  |  |  |  |  |  |
| PROJ. NO.  | 27213166.20   | DRAWN BY  | ALR                           | CHECK BY | JRR      | DATE | 1/14/2021 |           |      |          |    |     |   |          |    |     |  |  |  |  |  |  |  |
| DATE   | 11/16/20  | BY  | JRR                           | DATE     | 11/16/20 | BY   | JRR       |           |      |          |    |     |   |          |    |     |  |  |  |  |  |  |  |



## APPENDIX B

### TABLES

Table 1: Appendix III with Supplemental Appendix IV Detection Monitoring Results

Table 2: Detection Monitoring Field Measurements

**Table 1  
CCR Landfill  
Appendix III with Supplemental Appendix IV Detection Monitoring Results  
Evergy Montrose Generating Station**

| Well Number | Sample Date | Appendix III Constituents |                |                 |                 |           |                |                               | Appendix IV Constituents |                |               |                  |                |                 |               |                 |             |                |                |                   |                 |                 |                         |
|-------------|-------------|---------------------------|----------------|-----------------|-----------------|-----------|----------------|-------------------------------|--------------------------|----------------|---------------|------------------|----------------|-----------------|---------------|-----------------|-------------|----------------|----------------|-------------------|-----------------|-----------------|-------------------------|
|             |             | Boron (mg/L)              | Calcium (mg/L) | Chloride (mg/L) | Fluoride (mg/L) | pH (S.U.) | Sulfate (mg/L) | Total Dissolved Solids (mg/L) | Antimony (mg/L)          | Arsenic (mg/L) | Barium (mg/L) | Beryllium (mg/L) | Cadmium (mg/L) | Chromium (mg/L) | Cobalt (mg/L) | Fluoride (mg/L) | Lead (mg/L) | Lithium (mg/L) | Mercury (mg/L) | Molybdenum (mg/L) | Selenium (mg/L) | Thallium (mg/L) | Radium Combined (pCi/L) |
| MW-506      | 5/21/2020   | <0.200                    | 343            | 69.3            | <0.150          | 5.53      | 1780           | 2800                          | <0.00400                 | <0.00200       | 0.0101        | <0.00200         | <0.00100       | <0.0100         | <0.0100       | <0.150          | <0.00500    | 0.205          | <0.000200      | <0.00500          | 0.00670         | <0.00200        | 1.21                    |
| MW-506      | 11/10/2020  | <0.200                    | 367            | 84.5            | <0.150          | 5.44      | 1820           | 2620                          | ---                      | ---            | ---           | ---              | ---            | ---             | ---           | ---             | ---         | ---            | ---            | ---               | ---             | ---             | ---                     |
| MW-601      | 1/14/2020   | ---                       | ---            | ---             | ---             | *5.51     | ---            | ---                           | ---                      | ---            | ---           | ---              | ---            | ---             | ---           | ---             | ---         | ---            | ---            | ---               | ---             | ---             | ---                     |
| MW-601      | 5/21/2020   | <0.200                    | 478            | 53.8            | 0.462           | 5.42      | 3230           | 4680                          | <0.00400                 | <0.00200       | 0.00973       | <0.00200         | 0.00138        | <0.0100         | <0.0100       | 0.462           | <0.00500    | 0.286          | <0.000200      | <0.00500          | 0.00499         | <0.00200        | 0.618                   |
| MW-601      | 11/10/2020  | <0.200                    | 479            | 33.4            | 0.336           | 5.66      | 2860           | 4280                          | ---                      | ---            | ---           | ---              | ---            | ---             | ---           | ---             | ---         | ---            | ---            | ---               | ---             | ---             | ---                     |
| MW-602      | 5/21/2020   | 4.27                      | 313            | 3.99            | <0.150          | 5.79      | 1270           | 1800                          | <0.00400                 | 0.00524        | 0.0200        | <0.00200         | <0.00100       | <0.0100         | 0.110         | <0.150          | <0.00500    | 0.0859         | <0.000200      | <0.00500          | <0.00200        | <0.00200        | 1.98                    |
| MW-602      | 11/10/2020  | 4.18                      | 313            | 3.77            | <0.150          | 5.69      | 1080           | 1800                          | ---                      | ---            | ---           | ---              | ---            | ---             | ---           | ---             | ---         | ---            | ---            | ---               | ---             | ---             | ---                     |
| MW-603      | 5/21/2020   | 5.37                      | 397            | 5.93            | 0.642           | 4.50      | 2140           | 2840                          | <0.00400                 | <0.00200       | 0.00907       | <0.00200         | 0.00352        | <0.0100         | 0.0357        | 0.642           | <0.00500    | 0.131          | <0.000200      | <0.00500          | 0.0277          | <0.00200        | 0.77                    |
| MW-603      | 11/10/2020  | 5.69                      | 410            | 6.27            | 0.516           | 4.55      | 2090           | 2850                          | ---                      | ---            | ---           | ---              | ---            | ---             | ---           | ---             | ---         | ---            | ---            | ---               | ---             | ---             | ---                     |
| MW-604      | 5/21/2020   | 3.76                      | 440            | 13.3            | 0.489           | 5.54      | 1920           | 2780                          | <0.00400                 | <0.00200       | 0.0145        | <0.00200         | 0.00104        | <0.0100         | <0.0100       | 0.489           | <0.00500    | 0.106          | <0.000200      | <0.00500          | <0.00200        | <0.00200        | 0.255                   |
| MW-604      | 11/10/2020  | 4.82                      | 436            | 14.5            | 0.409           | 5.58      | 1740           | 2790                          | ---                      | ---            | ---           | ---              | ---            | ---             | ---           | ---             | ---         | ---            | ---            | ---               | ---             | ---             | ---                     |
| MW-605      | 1/14/2020   | ---                       | ---            | *60.5           | ---             | **5.66    | ---            | ---                           | ---                      | ---            | ---           | ---              | ---            | ---             | ---           | ---             | ---         | ---            | ---            | ---               | ---             | ---             | ---                     |
| MW-605      | 2/3/2020    | ---                       | ---            | *59.8           | ---             | **5.64    | ---            | ---                           | ---                      | ---            | ---           | ---              | ---            | ---             | ---           | ---             | ---         | ---            | ---            | ---               | ---             | ---             | ---                     |
| MW-605      | 5/21/2020   | 1.45                      | 411            | 60.2            | 0.219           | 5.42      | 1940           | 2740                          | <0.00400                 | <0.00200       | 0.00958       | <0.00200         | 0.00225        | <0.0100         | 0.119         | 0.219           | <0.00500    | 0.132          | <0.000200      | <0.00500          | <0.00200        | <0.00200        | 1.05                    |
| MW-605      | 7/14/2020   | ---                       | ---            | *62.1           | ---             | **5.66    | ---            | ---                           | ---                      | ---            | ---           | ---              | ---            | ---             | ---           | ---             | ---         | ---            | ---            | ---               | ---             | ---             | ---                     |
| MW-605      | 8/26/2020   | ---                       | ---            | *61.6           | ---             | **5.62    | ---            | ---                           | ---                      | ---            | ---           | ---              | ---            | ---             | ---           | ---             | ---         | ---            | ---            | ---               | ---             | ---             | ---                     |
| MW-605      | 11/10/2020  | 1.47                      | 395            | 59.7            | 0.182           | 5.58      | 1790           | 2730                          | ---                      | ---            | ---           | ---              | ---            | ---             | ---           | ---             | ---         | ---            | ---            | ---               | ---             | ---             | ---                     |

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

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

mg/L - milligrams per liter

pCi/L - picocuries per liter

S.U. - Standard Units

--- Not Sampled

**Table 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      | 5/21/2020   | 5.53      | 2840                       | 17.91            | 20.3            | 217      | 0.00      | 4.05                  | 757.52                          |
| MW-506      | 11/10/2020  | 5.44      | 3200                       | 16.22            | 0.0             | 198      | 0.78      | 13.80                 | 747.77                          |
| MW-601      | 1/14/2020   | *5.51     | 4960                       | 13.48            | 23.6            | 267      | 0.00      | 8.51                  | 756.60                          |
| MW-601      | 5/21/2020   | 5.42      | 4500                       | 17.24            | 16.5            | 182      | 0.00      | 7.82                  | 757.29                          |
| MW-601      | 11/10/2020  | 5.66      | 3940                       | 16.28            | 18.3            | 224      | 0.79      | 14.09                 | 751.02                          |
| MW-602      | 5/21/2020   | 5.79      | 2050                       | 16.28            | 27.1            | 116      | 0.00      | 7.88                  | 747.98                          |
| MW-602      | 11/10/2020  | 5.69      | 1810                       | 15.30            | 19.8            | 87       | 0.00      | 6.71                  | 749.15                          |
| MW-603      | 5/21/2020   | 4.50      | 3050                       | 17.74            | 0.0             | 285      | 0.00      | 16.10                 | 747.54                          |
| MW-603      | 11/10/2020  | 4.55      | 3030                       | 15.53            | 1.4             | 327      | 0.73      | 14.13                 | 749.51                          |
| MW-604      | 5/21/2020   | 5.54      | 2960                       | 17.17            | 0.0             | 208      | 0.00      | 16.45                 | 746.94                          |
| MW-604      | 11/10/2020  | 5.58      | 2640                       | 15.40            | 0.0             | 90       | 0.00      | 14.01                 | 749.38                          |
| MW-605      | 1/14/2020   | **5.66    | 3160                       | 15.22            | 0.0             | 258      | 0.00      | 12.49                 | 751.62                          |
| MW-605      | 2/3/2020    | **5.64    | 3110                       | 16.98            | 0.0             | 135      | 0.00      | 12.74                 | 751.37                          |
| MW-605      | 5/21/2020   | 5.42      | 3000                       | 18.54            | 0.0             | 217      | 0.00      | 16.28                 | 747.83                          |
| MW-605      | 7/14/2020   | **5.66    | 2850                       | 19.43            | 0.0             | 201      | 1.50      | 13.98                 | 750.13                          |
| MW-605      | 8/26/2020   | **5.62    | 2820                       | 22.07            | 0.0             | 202      | 0.60      | 13.57                 | 750.54                          |
| MW-605      | 11/10/2020  | 5.58      | 2850                       | 16.01            | 0.0             | 279      | 0.47      | 14.38                 | 749.73                          |

\* 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 2019 Groundwater Monitoring Event, CCR Landfill, Montrose Generating Station (June 2020)
- C.2 CCR Landfill Groundwater Monitoring Alternative Source Demonstration Report May 2020 Groundwater Monitoring Event, CCR Landfill, Montrose Generating Station (December 2020)

C.1 CCR Landfill Groundwater Monitoring Alternative Source  
Demonstration Report November 2019 Groundwater Monitoring  
Event, CCR Landfill, Montrose Generating Station (June 2020)



**CCR LANDFILL GROUNDWATER MONITORING  
ALTERNATIVE SOURCE DEMONSTRATION REPORT  
NOVEMBER 2019 GROUNDWATER MONITORING EVENT**

**CCR LANDFILL  
MONTROSE GENERATING STATION  
CLINTON, MISSOURI**

Presented To:

**Evergy Metro, Inc.**

Presented By:

**SCS ENGINEERS**

8575 West 110th Street, Suite 100

Overland Park, Kansas 66210

June 2020

File No. 27213168.20

## 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.

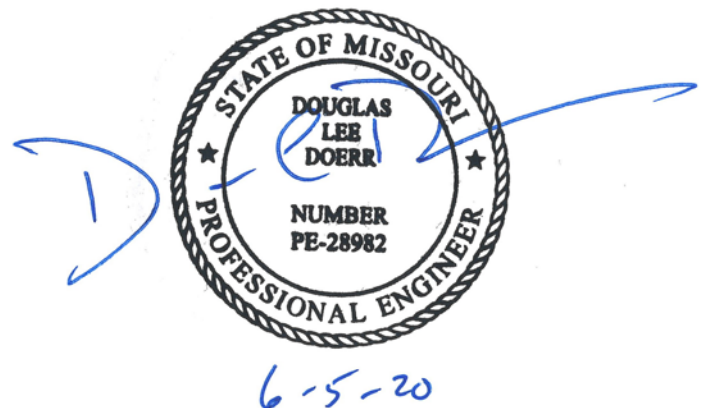


---

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.



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Douglas L. Doerr, P.E.

SCS Engineers

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## Appendices

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

## 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 5, 2019. Review and validation of the results from the November 2019 Detection Monitoring Event was completed on December 13, 2019, 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 14, 2020 and February 3, 2020.

The completed statistical evaluation identified one Appendix III constituent above the prediction limit established for monitoring well MW-605.

| Constituent/Monitoring Well | *UPL  | Observation<br>November 5, 2019 | 1st Verification<br>January 14, 2020 | 2nd Verification<br>February 3, 2020 |
|-----------------------------|-------|---------------------------------|--------------------------------------|--------------------------------------|
| Chloride                    |       |                                 |                                      |                                      |
| MW-605                      | 55.57 | 59.1                            | 60.5                                 | 59.8                                 |

\*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 a SSI above the background prediction limit for chloride in 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, 25<sup>th</sup> and 75<sup>th</sup> 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-605 for chloride. Therefore, box and whiskers plots for chloride in MW-605 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-605 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 error in sampling, analysis, statistical evaluation, or 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 (SO<sub>4</sub>), Carbonate (CO<sub>3</sub>), and Bicarbonate (HCO<sub>3</sub>).

A piper diagram generated for MW-605 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 totally 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 error in sampling, analysis, statistical evaluation, or 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-605 were plotted along with the chloride concentrations for upgradient wells MW-506 and MW-601. The plots indicate the chloride concentrations in MW-605 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 error in sampling, analysis, statistical evaluation, or 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 error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Based on the successful ASD, the owner or operator of the CCR Landfill 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,

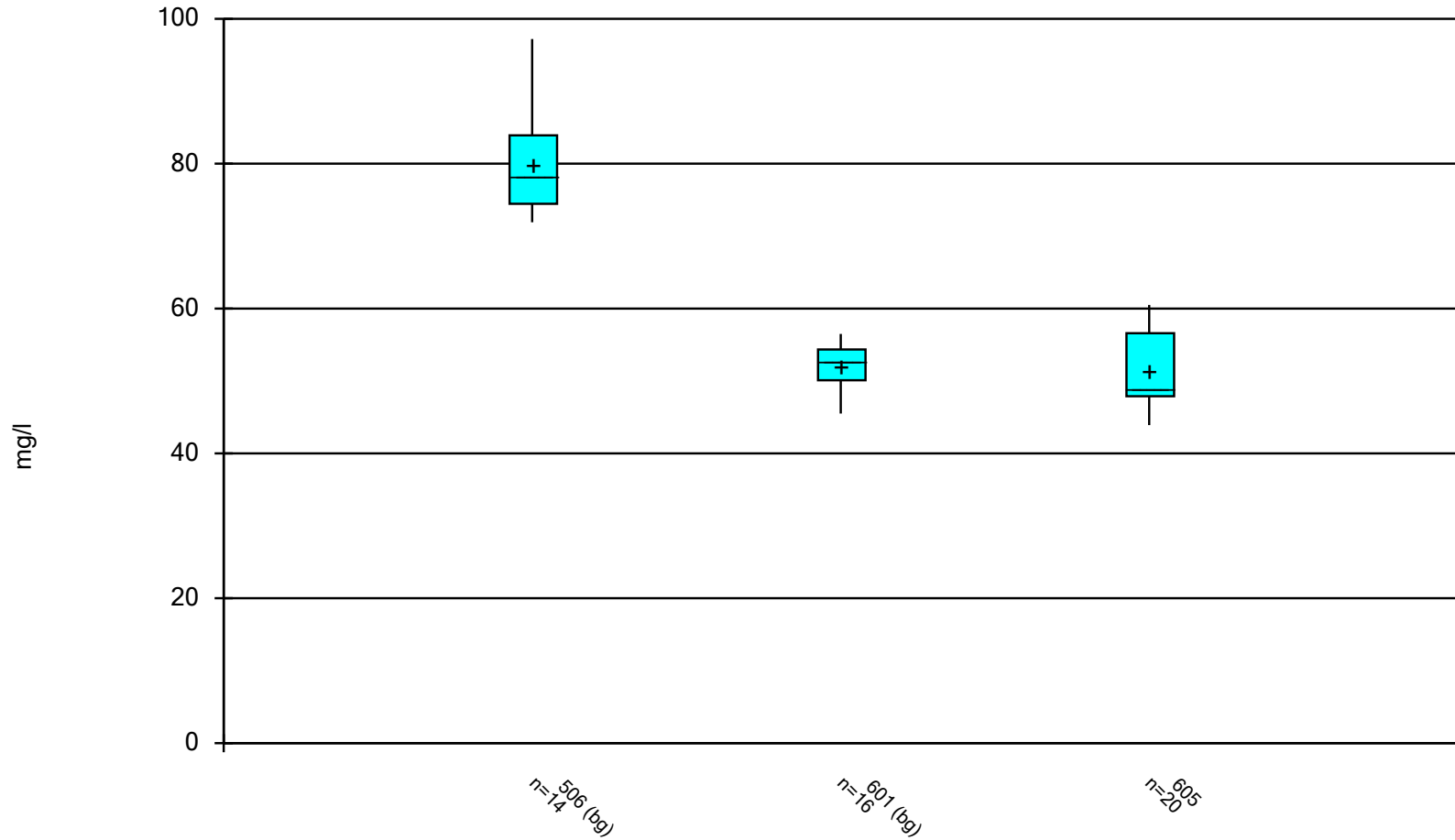
and actual conditions may vary from those encountered at the times and locations where data are obtained, despite the use of due care.

## **Appendix A**

### **Box and Whiskers Plots**



### Box & Whiskers Plot



Constituent: Chloride Analysis Run 3/17/2020 10:23 AM 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 3/17/2020, 10:25 AM

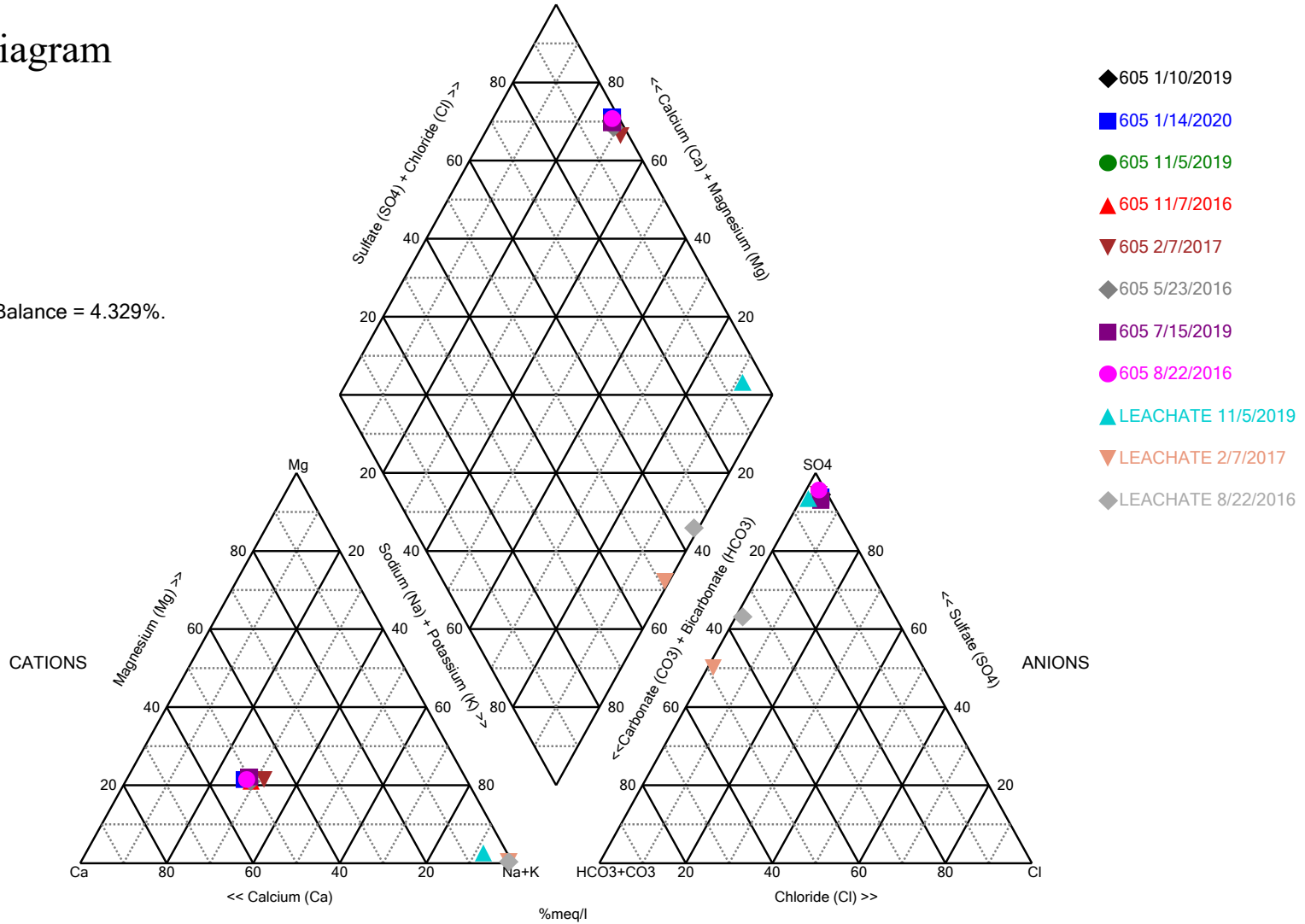
| <u>Constituent</u> | <u>Well</u> | <u>N</u> | <u>Mean</u> | <u>Std. Dev.</u> | <u>Std. Err.</u> | <u>Median</u> | <u>Min.</u> | <u>Max.</u> | <u>%NDs</u> |
|--------------------|-------------|----------|-------------|------------------|------------------|---------------|-------------|-------------|-------------|
| Chloride (mg/l)    | 506 (bg)    | 14       | 79.98       | 7.266            | 1.942            | 78.35         | 71.9        | 97.2        | 0           |
| Chloride (mg/l)    | 601 (bg)    | 16       | 52.03       | 3.002            | 0.7504           | 52.6          | 45.5        | 56.5        | 0           |
| Chloride (mg/l)    | 605         | 20       | 51.41       | 5.151            | 1.152            | 48.95         | 43.9        | 60.5        | 0           |

## **Appendix B**

### **Piper Diagram Plots and Analytical Results**

# Piper Diagram

Cation-Anion Balance = 4.329%.



Analysis Run 3/17/2020 10:39 AM View: LF CCR III

Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

# Piper Diagram

Analysis Run 3/17/2020 10:40 AM View: LF CCR III

Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

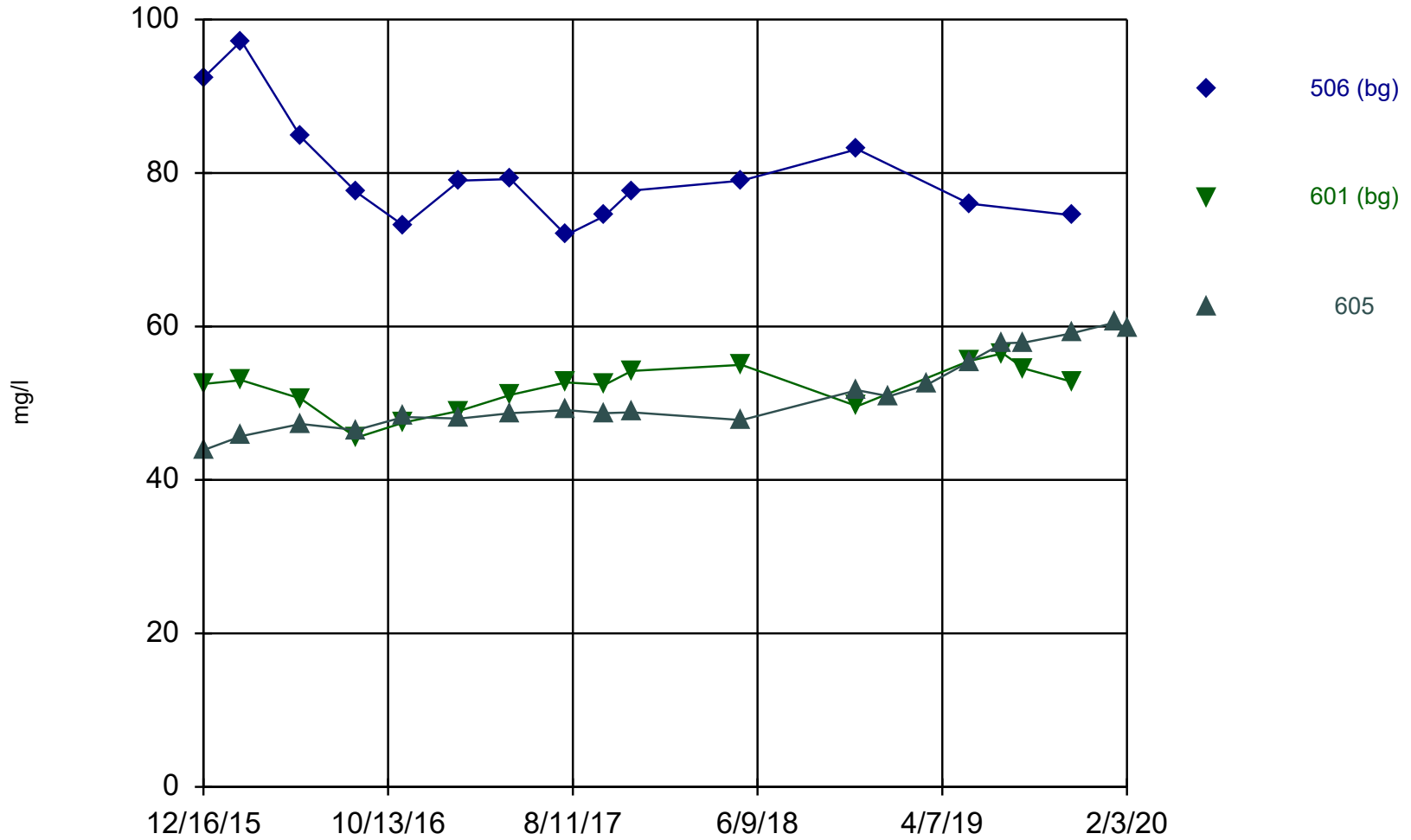
---

| Totals (ppm)       | Na   | K    | Ca   | Mg   | Cl   | SO4  | HCO3 | CO3  |
|--------------------|------|------|------|------|------|------|------|------|
| 605 5/23/2016      | 276  | 2.57 | 412  | 105  | 47.3 | 1880 | 47.9 | 10   |
| 605 8/22/2016      | 270  | 2.51 | 431  | 111  | 46.5 | 2230 | 40.9 | 10   |
| 605 11/7/2016      | 271  | 2.63 | 407  | 104  | 48.2 | 2280 | 44   | 10   |
| 605 2/7/2017       | 284  | 2.71 | 367  | 101  | 48   | 2050 | 48.1 | 10   |
| 605 1/10/2019      | 264  | 2.79 | 421  | 107  | 50.9 | 1870 | 42   | 10   |
| 605 7/15/2019      | 261  | 2.73 | 407  | 108  | 57.8 | 1640 | 41.6 | 10   |
| 605 11/5/2019      | 248  | 2.6  | 399  | 102  | 59.1 | 1730 | 42.8 | 10   |
| 605 1/14/2020      | 240  | 2.48 | 395  | 101  | 60.5 | 1860 | 38.1 | 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



Constituent: Chloride Analysis Run 3/17/2020 10:27 AM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

C.2 CCR Landfill Groundwater Monitoring Alternative Source  
Demonstration Report May 2020 Groundwater Monitoring  
Event, CCR Landfill, Montrose Generating Station  
(December 2020)



**CCR LANDFILL GROUNDWATER MONITORING  
ALTERNATIVE SOURCE DEMONSTRATION REPORT  
MAY 2020 GROUNDWATER MONITORING EVENT**

**CCR LANDFILL  
MONTROSE GENERATING STATION  
CLINTON, MISSOURI**

Presented To:

**Evergy Metro, Inc.**

Presented By:

**SCS ENGINEERS**

8575 West 110th Street, Suite 100

Overland Park, Kansas 66210

December 2020

File No. 27213168.20

## 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.

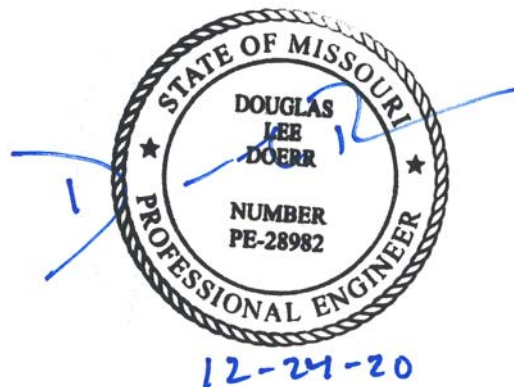


---

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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| <b>2 Statistical Results.....</b>              | <b>1</b>    |
| <b>3 Alternative Source Demonstration.....</b> | <b>2</b>    |
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| 3.3 Time Series Plots .....                    | 3           |
| <b>4 Conclusion .....</b>                      | <b>3</b>    |
| <b>5 General Comments .....</b>                | <b>3</b>    |

## Appendices

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

# 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 May 21, 2020. Review and validation of the results from the May 2020 Detection Monitoring Event was completed on June 29, 2020, 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 14, 2020 and August 26, 2020.

The completed statistical evaluation identified one Appendix III constituent above the prediction limit established for monitoring well MW-605.

| Constituent/Monitoring Well | *UPL  | Observation<br>May 21, 2020 | 1st Verification<br>July 14, 2020 | 2nd Verification<br>August 26, 2020 |
|-----------------------------|-------|-----------------------------|-----------------------------------|-------------------------------------|
| <b>Chloride</b>             |       |                             |                                   |                                     |
| MW-605                      | 55.57 | 60.2                        | 62.1                              | 61.6                                |

\*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 a SSI above the background prediction limit for chloride in 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, 25<sup>th</sup> and 75<sup>th</sup> 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-605 for chloride. Therefore, box and whiskers plots for chloride in MW-605 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-605 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 error in sampling, analysis, statistical evaluation, or 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 (SO<sub>4</sub>), Carbonate (CO<sub>3</sub>), and Bicarbonate (HCO<sub>3</sub>).

A piper diagram generated for MW-605 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 totally 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 error in sampling, analysis, statistical evaluation, or 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-605 were plotted along with the chloride concentrations for upgradient wells MW-506 and MW-601. The plots indicate the chloride concentrations in MW-605 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 error in sampling, analysis, statistical evaluation, or 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 error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Based on the successful ASD, the owner or operator of the CCR Landfill 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,

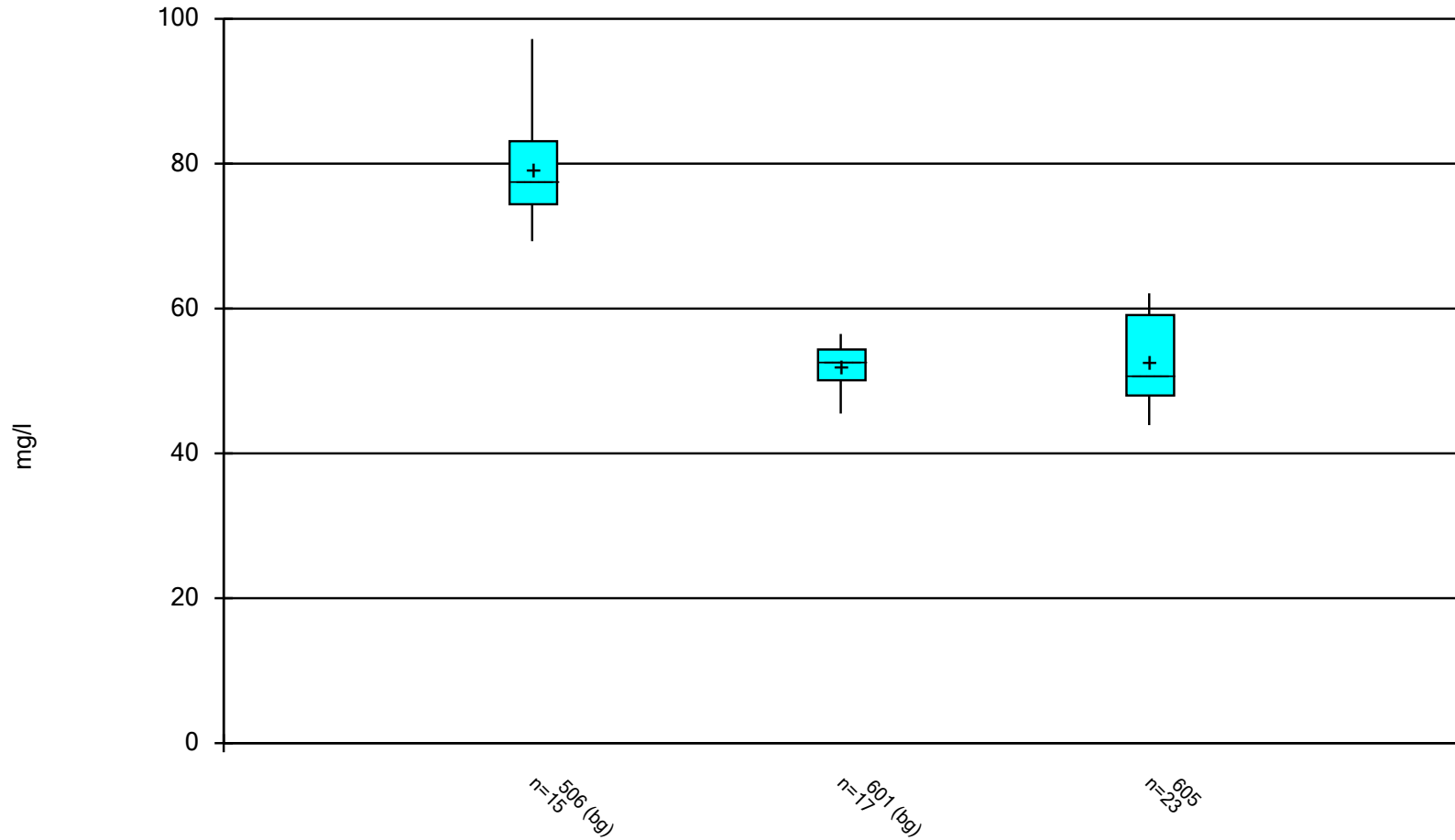
and actual conditions may vary from those encountered at the times and locations where data are obtained, despite the use of due care.

## **Appendix A**

### **Box and Whiskers Plots**



### Box & Whiskers Plot



Constituent: Chloride Analysis Run 10/6/2020 4:46 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 10/6/2020, 4:48 PM

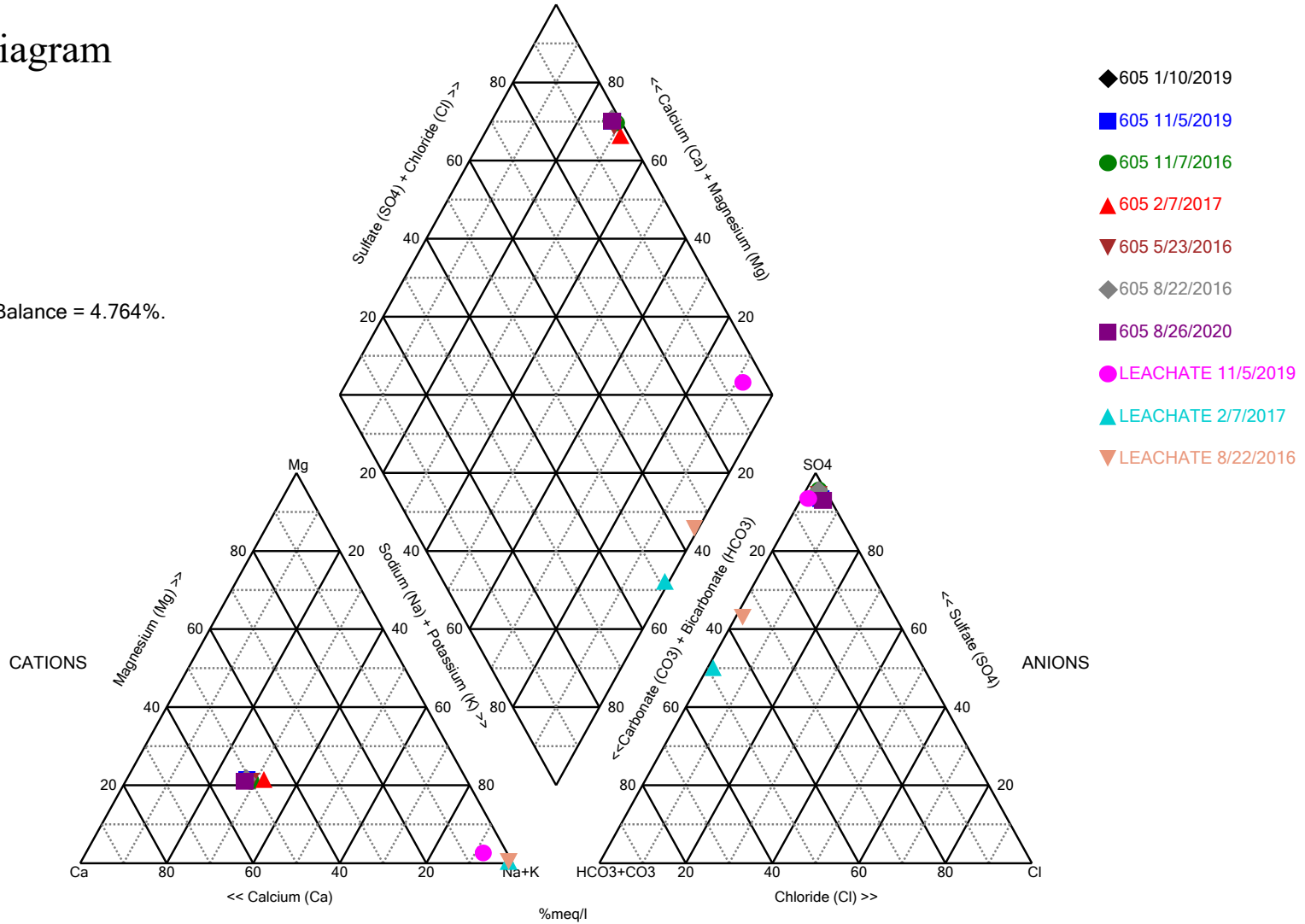
| <u>Constituent</u> | <u>Well</u> | <u>N</u> | <u>Mean</u> | <u>Std. Dev.</u> | <u>Std. Err.</u> | <u>Median</u> | <u>Min.</u> | <u>Max.</u> | <u>%NDs</u> |
|--------------------|-------------|----------|-------------|------------------|------------------|---------------|-------------|-------------|-------------|
| Chloride (mg/l)    | 506 (bg)    | 15       | 79.27       | 7.525            | 1.943            | 77.7          | 69.3        | 97.2        | 0           |
| Chloride (mg/l)    | 601 (bg)    | 17       | 52.13       | 2.938            | 0.7126           | 52.7          | 45.5        | 56.5        | 0           |
| Chloride (mg/l)    | 605         | 23       | 52.7        | 5.882            | 1.227            | 50.9          | 43.9        | 62.1        | 0           |

## **Appendix B**

### **Piper Diagram Plots and Analytical Results**

# Piper Diagram

Cation-Anion Balance = 4.764%.



Analysis Run 10/6/2020 4:53 PM View: LF CCR III

Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

# Piper Diagram

Analysis Run 10/6/2020 4:54 PM View: LF CCR III

Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

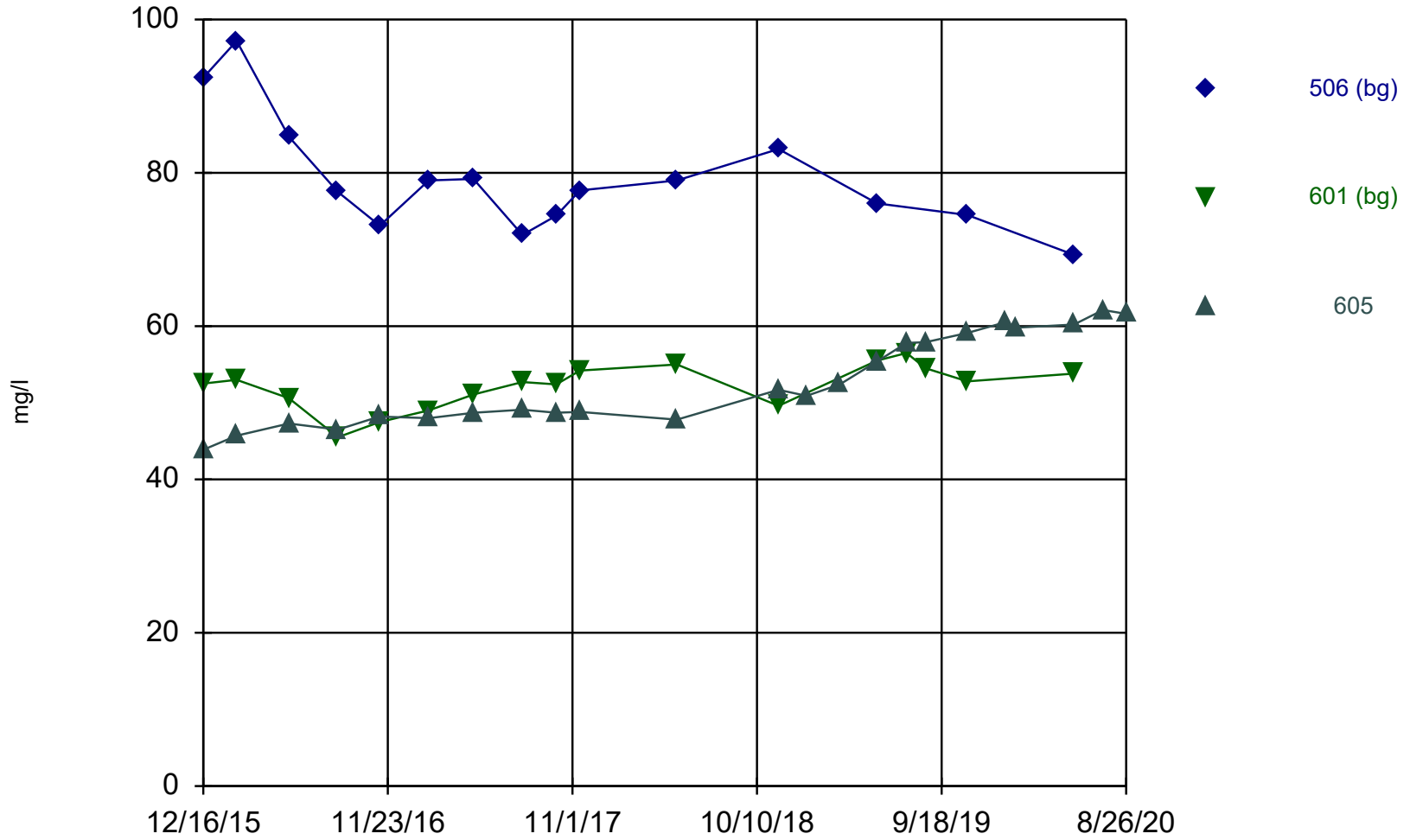
---

| Totals (ppm)       | Na   | K    | Ca   | Mg   | Cl   | SO4  | HCO3 | CO3  |
|--------------------|------|------|------|------|------|------|------|------|
| 605 5/23/2016      | 276  | 2.57 | 412  | 105  | 47.3 | 1880 | 47.9 | 10   |
| 605 8/22/2016      | 270  | 2.51 | 431  | 111  | 46.5 | 2230 | 40.9 | 10   |
| 605 11/7/2016      | 271  | 2.63 | 407  | 104  | 48.2 | 2280 | 44   | 10   |
| 605 2/7/2017       | 284  | 2.71 | 367  | 101  | 48   | 2050 | 48.1 | 10   |
| 605 1/10/2019      | 264  | 2.79 | 421  | 107  | 50.9 | 1870 | 42   | 10   |
| 605 11/5/2019      | 248  | 2.6  | 399  | 102  | 59.1 | 1730 | 42.8 | 10   |
| 605 8/26/2020      | 244  | 2.44 | 396  | 97.5 | 61.6 | 1690 | 36.8 | 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



## ADDENDUM 1

# 2020 Annual Groundwater Monitoring and Corrective Action Report Addendum 1



December 20, 2022  
File No. 27213168.20

To: Evergy Metro, Inc.  
Jared Morrison – Director, Water and Waste Programs

From: SCS Engineers  
Douglas L. Doerr, P.E.  
John R. Rockhold, P.G.

Subject: 2020 Annual Groundwater Monitoring and Corrective Action Report Addendum 1  
Evergy Metro, Inc.  
CCR Landfill  
Montrose Generating Station – Clinton, Missouri



The CCR Landfill at the Montrose Generating Station is subject to the groundwater monitoring and corrective action requirements of the “Coal Combustion Residuals (CCR) Final Rule” (Rule); as described in CFR 40 257.90 through CFR 40 257.98. An Annual Groundwater Monitoring and Corrective Action (GWMCA) Report documenting activities completed in 2020 for the CCR Landfill was completed and placed in the facility’s operating record on January 29, 2021, as required by the Rule. The report was subsequently revised and placed in the operating record April 7, 2021. The Annual GWMCA report was to fulfill the requirements specified in 40 CFR 257.90(e).

This Addendum has been prepared to supplement the operating record in recognition of comments received by Evergy from the U.S. Environmental Protection Agency (USEPA) on January 11, 2022. In addition to the information listed in 40 CFR 257.90(e), the USEPA indicated in their comments that the GWMCA Report contain the following:

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

This information is not specifically referred to in 40 CFR 257.90(e) for inclusion in the GWMCA Reports; however, it is routinely collected, determined and maintained in Evergy’s files and is being provided in the attachments to this addendum.

The attachments to this addendum are as follows:

- Attachment 1 – Laboratory Analytical Reports:  
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 2020 – First verification sampling for the Fall 2019 detection monitoring event.
  - February 2020 – Second verification sampling for the Fall 2019 detection monitoring event.
  - May 2020 – Spring 2020 semiannual detection monitoring sampling event and Appendix IV.
  - July 2020 – First verification sampling for the Spring 2020 detection monitoring sampling event.
  - August 2020 – Second verification sampling for the Spring 2020 detection monitoring sampling event.
  - November 2020 - Fall 2020 semiannual detection monitoring sampling event.
- Attachment 2 - Statistical Analyses:

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 2020 included the following:

    - Fall 2019 semiannual detection monitoring statistical analyses.
    - Spring 2020 semiannual detection monitoring statistical analyses.
- Attachment 3 - Groundwater Potentiometric Surface Maps:

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

    - May 2020 - Spring 2020 semiannual detection monitoring sampling event.
    - November 2020 - Fall 2020 semiannual detection monitoring sampling event.

Jared Morrison  
December 20, 2022

**ATTACHMENT 1**  
**Laboratory Analytical Reports**

Jared Morrison  
December 20, 2022

**ATTACHMENT 1-1**  
**January 2020 Sampling Event Laboratory Report**

## SCS Engineers - KS

Sample Delivery Group: L1180152  
Samples Received: 01/16/2020  
Project Number: 27213168.19  
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.



|   |           |                       |
|---|-----------|-----------------------|
| <b>Cp: Cover Page</b>                     | <b>1</b>  | <b><sup>1</sup>Cp</b> |
| <b>Tc: Table of Contents</b>              | <b>2</b>  | <b><sup>2</sup>Tc</b> |
| <b>Ss: Sample Summary</b>                 | <b>3</b>  | <b><sup>3</sup>Ss</b> |
| <b>Cn: Case Narrative</b>                 | <b>4</b>  | <b><sup>4</sup>Cn</b> |
| <b>Sr: Sample Results</b>                 | <b>5</b>  | <b><sup>5</sup>Sr</b> |
| <b>MW-605 L1180152-01</b>                 | <b>5</b>  |                       |
| <b>DUPLICATE 1 L1180152-02</b>            | <b>6</b>  |                       |
| <b>Qc: Quality Control Summary</b>        | <b>7</b>  | <b><sup>6</sup>Qc</b> |
| <b>Wet Chemistry by Method 9056A</b>      | <b>7</b>  |                       |
| <b>Gl: Glossary of Terms</b>              | <b>8</b>  | <b><sup>7</sup>Gl</b> |
| <b>Al: Accreditations &amp; Locations</b> | <b>9</b>  | <b><sup>8</sup>Al</b> |
| <b>Sc: Sample Chain of Custody</b>        | <b>10</b> | <b><sup>9</sup>Sc</b> |

# SAMPLE SUMMARY



## MW-605 L1180152-01 GW

Collected by Jason Franks  
 Collected date/time 01/14/20 12:40  
 Received date/time 01/16/20 10:45

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Wet Chemistry by Method 9056A | WG1412890 | 1        | 01/20/20 15:10        | 01/20/20 15:10     | ST      | Mt. Juliet, TN |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

## DUPLICATE 1 L1180152-02 GW

Collected by Jason Franks  
 Collected date/time 01/14/20 12:40  
 Received date/time 01/16/20 10:45

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Wet Chemistry by Method 9056A | WG1412890 | 1        | 01/20/20 15:45        | 01/20/20 15:45     | ST      | Mt. Juliet, TN |

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> 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

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





Wet Chemistry by Method 9056A

| Analyte  | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------|--------|-----------|------|----------|----------------------|---------------------------|
| Chloride | 60500  |           | 1000 | 1        | 01/20/2020 15:10     | <a href="#">WG1412890</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Wet Chemistry by Method 9056A

| Analyte  | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------|--------|-----------|------|----------|----------------------|---------------------------|
| Chloride | 60100  |           | 1000 | 1        | 01/20/2020 15:45     | <a href="#">WG1412890</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3492459-1 01/20/20 13:36

| Analyte  | MB Result | MB Qualifier | MB MDL | MB RDL |
|----------|-----------|--------------|--------|--------|
| Chloride | U         |              | 51.9   | 1000   |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1180161-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1180161-02 01/20/20 18:28 • (DUP) R3492459-10 01/20/20 19:03

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
| Chloride | 46000           | 45600      | 1        | 0.977   |               | 15             |

Laboratory Control Sample (LCS)

(LCS) R3492459-2 01/20/20 13:48

| Analyte  | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|----------|--------------|------------|----------|-------------|---------------|
| Chloride | 40000        | 40200      | 100      | 80.0-120    |               |

L1180152-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1180152-01 01/20/20 15:10 • (MS) R3492459-4 01/20/20 15:22 • (MSD) R3492459-5 01/20/20 15:34

| Analyte  | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|----------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
| Chloride | 50000        | 60500           | 108000    | 108000     | 95.4    | 94.9     | 1        | 80.0-120    | E            | E             | 0.234 | 15         |

L1180158-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1180158-02 01/20/20 16:43 • (MS) R3492459-6 01/20/20 16:55 • (MSD) R3492459-7 01/20/20 17:06

| Analyte  | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD    | RPD Limits |
|----------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|--------|------------|
| Chloride | 50000        | 45900           | 94100     | 94100      | 96.4    | 96.4     | 1        | 80.0-120    |              |               | 0.0346 | 15         |

L1180158-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1180158-04 01/20/20 17:30 • (MS) R3492459-8 01/20/20 17:41 • (MSD) R3492459-9 01/20/20 17:53

| Analyte  | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|----------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
| Chloride | 50000        | 25400           | 74800     | 74900      | 98.8    | 99.0     | 1        | 80.0-120    |              |               | 0.159 | 15         |



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.  |

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

Qualifier Description

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



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* 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 National.

## State Accreditations

|                         |             |                             |                  |
|-------------------------|-------------|-----------------------------|------------------|
| Alabama                 | 40660       | Nebraska                    | NE-OS-15-05      |
| Alaska                  | 17-026      | Nevada                      | TN-03-2002-34    |
| Arizona                 | AZ0612      | New Hampshire               | 2975             |
| Arkansas                | 88-0469     | New Jersey-NELAP            | TN002            |
| California              | 2932        | New Mexico <sup>1</sup>     | n/a              |
| Colorado                | TN00003     | New York                    | 11742            |
| Connecticut             | PH-0197     | North Carolina              | Env375           |
| Florida                 | E87487      | North Carolina <sup>1</sup> | DW21704          |
| Georgia                 | NELAP       | North Carolina <sup>3</sup> | 41               |
| Georgia <sup>1</sup>    | 923         | North Dakota                | R-140            |
| Idaho                   | TN00003     | Ohio-VAP                    | CL0069           |
| Illinois                | 200008      | Oklahoma                    | 9915             |
| Indiana                 | C-TN-01     | Oregon                      | TN200002         |
| Iowa                    | 364         | Pennsylvania                | 68-02979         |
| Kansas                  | E-10277     | Rhode Island                | LA000356         |
| Kentucky <sup>1,6</sup> | 90010       | South Carolina              | 84004            |
| Kentucky <sup>2</sup>   | 16          | South Dakota                | n/a              |
| Louisiana               | AI30792     | Tennessee <sup>1,4</sup>    | 2006             |
| Louisiana <sup>1</sup>  | LA180010    | Texas                       | T104704245-18-15 |
| Maine                   | TN0002      | Texas <sup>5</sup>          | LAB0152          |
| Maryland                | 324         | Utah                        | TN00003          |
| Massachusetts           | M-TN003     | Vermont                     | VT2006           |
| Michigan                | 9958        | Virginia                    | 460132           |
| Minnesota               | 047-999-395 | Washington                  | C847             |
| Mississippi             | TN00003     | West Virginia               | 233              |
| Missouri                | 340         | Wisconsin                   | 9980939910       |
| Montana                 | CERT0086    | Wyoming                     | A2LA             |

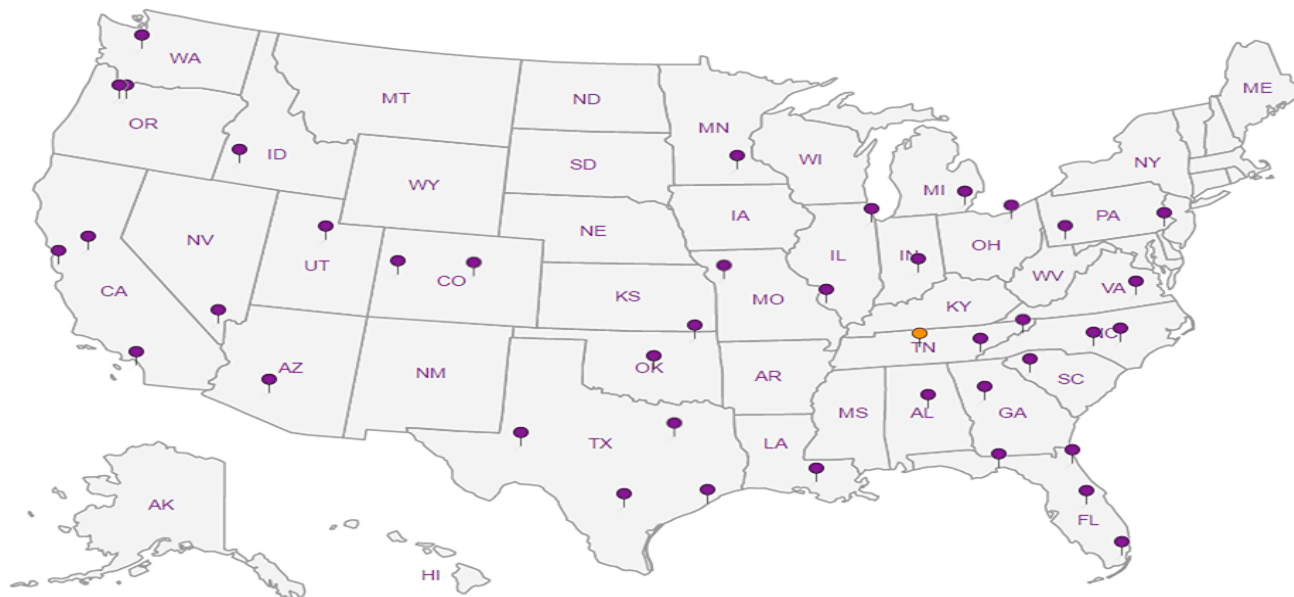
## Third Party Federal Accreditations

|                               |         |                    |               |
|-------------------------------|---------|--------------------|---------------|
| A2LA – ISO 17025              | 1461.01 | AIHA-LAP,LLC EMLAP | 100789        |
| A2LA – ISO 17025 <sup>5</sup> | 1461.02 | DOD                | 1461.01       |
| Canada                        | 1461.01 | USDA               | P330-15-00234 |
| EPA-Crypto                    | TN00003 |                    |               |

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

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





## SCS Engineers - KS

Sample Delivery Group: L1180156  
Samples Received: 01/16/2020  
Project Number: 27213168.19  
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.



|  |           |                       |
|--|-----------|-----------------------|
| <b>Cp: Cover Page</b>                      | <b>1</b>  | <b><sup>1</sup>Cp</b> |
| <b>Tc: Table of Contents</b>               | <b>2</b>  | <b><sup>2</sup>Tc</b> |
| <b>Ss: Sample Summary</b>                  | <b>3</b>  | <b><sup>3</sup>Ss</b> |
| <b>Cn: Case Narrative</b>                  | <b>4</b>  | <b><sup>4</sup>Cn</b> |
| <b>Sr: Sample Results</b>                  | <b>5</b>  | <b><sup>5</sup>Sr</b> |
| <b>MW-605 L1180156-01</b>                  | <b>5</b>  | <b><sup>6</sup>Qc</b> |
| <b>Qc: Quality Control Summary</b>         | <b>6</b>  | <b><sup>7</sup>Gl</b> |
| <b>Wet Chemistry by Method 2320 B-2011</b> | <b>6</b>  | <b><sup>8</sup>Al</b> |
| <b>Wet Chemistry by Method 9056A</b>       | <b>7</b>  | <b><sup>9</sup>Sc</b> |
| <b>Metals (ICP) by Method 6010B</b>        | <b>9</b>  |                       |
| <b>Gl: Glossary of Terms</b>               | <b>10</b> |                       |
| <b>Al: Accreditations &amp; Locations</b>  | <b>11</b> |                       |
| <b>Sc: Sample Chain of Custody</b>         | <b>12</b> |                       |

# SAMPLE SUMMARY



MW-605 L1180156-01 GW

Collected by Jason Franks  
 Collected date/time 01/14/20 12:40  
 Received date/time 01/16/20 10:45

| Method                              | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Wet Chemistry by Method 2320 B-2011 | WG1412856 | 1        | 01/17/20 14:15        | 01/17/20 14:15     | GB      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A       | WG1412890 | 50       | 01/20/20 15:57        | 01/20/20 15:57     | ST      | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B        | WG1412643 | 1        | 01/20/20 12:24        | 01/21/20 00:43     | CCE     | Mt. Juliet, TN |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> 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

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



Wet Chemistry by Method 2320 B-2011

| Analyte                | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------------|--------|-----------|-------|----------|----------------------|---------------------------|
| Alkalinity,Bicarbonate | 38100  |           | 20000 | 1        | 01/17/2020 14:15     | <a href="#">WG1412856</a> |
| Alkalinity,Carbonate   | ND     |           | 20000 | 1        | 01/17/2020 14:15     | <a href="#">WG1412856</a> |

Sample Narrative:

L1180156-01 WG1412856: Endpoint pH 4.5

Wet Chemistry by Method 9056A

| Analyte | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|---------|---------|-----------|--------|----------|----------------------|---------------------------|
| Sulfate | 1860000 |           | 250000 | 50       | 01/20/2020 15:57     | <a href="#">WG1412890</a> |

Metals (ICP) by Method 6010B

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Calcium   | 395000 |           | 1000 | 1        | 01/21/2020 00:43     | <a href="#">WG1412643</a> |
| Magnesium | 101000 |           | 1000 | 1        | 01/21/2020 00:43     | <a href="#">WG1412643</a> |
| Potassium | 2480   |           | 1000 | 1        | 01/21/2020 00:43     | <a href="#">WG1412643</a> |
| Sodium    | 240000 |           | 1000 | 1        | 01/21/2020 00:43     | <a href="#">WG1412643</a> |

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



Method Blank (MB)

(MB) R3491844-1 01/17/20 13:29

| Analyte                | MB Result<br>ug/l | MB Qualifier | MB MDL<br>ug/l | MB RDL<br>ug/l |
|------------------------|-------------------|--------------|----------------|----------------|
| Alkalinity,Bicarbonate | U                 |              | 2710           | 20000          |
| Alkalinity,Carbonate   | U                 |              | 2710           | 20000          |

Sample Narrative:

BLANK: Endpoint pH 4.5

L1180222-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1180222-01 01/17/20 15:05 • (DUP) R3491844-3 01/17/20 17:42

| Analyte                | Original Result<br>ug/l | DUP Result<br>ug/l | Dilution | DUP RPD<br>% | DUP Qualifier | DUP RPD<br>Limits<br>% |
|------------------------|-------------------------|--------------------|----------|--------------|---------------|------------------------|
| Alkalinity,Bicarbonate | 90400                   | 91200              | 1        | 0.887        |               | 20                     |
| Alkalinity,Carbonate   | U                       | 0.000              | 1        | 0.000        |               | 20                     |

Sample Narrative:

OS: Endpoint pH 4.5

DUP: Endpoint pH 4.5

L1180327-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1180327-05 01/17/20 19:47 • (DUP) R3491844-4 01/17/20 20:00

| Analyte                | Original Result<br>ug/l | DUP Result<br>ug/l | Dilution | DUP RPD<br>% | DUP Qualifier | DUP RPD<br>Limits<br>% |
|------------------------|-------------------------|--------------------|----------|--------------|---------------|------------------------|
| Alkalinity,Bicarbonate | U                       | 0.000              | 1        | 0.000        |               | 20                     |
| Alkalinity,Carbonate   | 102000                  | 97900              | 1        | 4.44         |               | 20                     |

Sample Narrative:

OS: Endpoint pH 4.5

DUP: Endpoint pH 4.5

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc





Method Blank (MB)

(MB) R3492459-1 01/20/20 13:36

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---------|-----------|--------------|--------|--------|
| Sulfate | U         |              | 77.4   | 5000   |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1179868-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1179868-01 01/20/20 14:47 • (DUP) R3492459-3 01/20/20 14:59

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| Sulfate | 12200           | 12100      | 1        | 0.0972  |               | 15             |

L1180161-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1180161-02 01/20/20 18:28 • (DUP) R3492459-10 01/20/20 19:03

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| Sulfate | 9530            | 9420       | 1        | 1.16    |               | 15             |

Laboratory Control Sample (LCS)

(LCS) R3492459-2 01/20/20 13:48

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---------|--------------|------------|----------|-------------|---------------|
| Sulfate | 40000        | 40800      | 102      | 80.0-120    |               |

L1180152-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1180152-01 01/20/20 15:10 • (MS) R3492459-4 01/20/20 15:22 • (MSD) R3492459-5 01/20/20 15:34

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
| Sulfate | 50000        | 1810000         | 1770000   | 1780000    | 0.000   | 0.000    | 1        | 80.0-120    | <u>EV</u>    | <u>EV</u>     | 0.286 | 15         |

L1180158-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1180158-02 01/20/20 16:43 • (MS) R3492459-6 01/20/20 16:55 • (MSD) R3492459-7 01/20/20 17:06

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
| Sulfate | 50000        | 9450            | 59500     | 59900      | 100     | 101      | 1        | 80.0-120    |              |               | 0.587 | 15         |



[L1180156-01](#)

L1180158-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1180158-04 01/20/20 17:30 • (MS) R3492459-8 01/20/20 17:41 • (MSD) R3492459-9 01/20/20 17:53

| Analyte | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|---------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Sulfate | 50000                | 1040000                 | 1080000           | 1080000            | 85.3         | 85.7          | 1        | 80.0-120         | E            | E             | 0.0167   | 15              |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3492482-1 01/20/20 23:36

| Analyte   | MB Result<br>ug/l | MB Qualifier | MB MDL<br>ug/l | MB RDL<br>ug/l |
|-----------|-------------------|--------------|----------------|----------------|
| Calcium   | U                 |              | 46.3           | 1000           |
| Magnesium | 18.0              | ↓            | 11.1           | 1000           |
| Potassium | 175               | ↓            | 102            | 1000           |
| Sodium    | 189               | ↓            | 98.5           | 1000           |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3492482-2 01/20/20 23:39 • (LCSD) R3492482-3 01/20/20 23:41

| Analyte   | Spike Amount<br>ug/l | LCS Result<br>ug/l | LCSD Result<br>ug/l | LCS Rec.<br>% | LCSD Rec.<br>% | Rec. Limits<br>% | LCS Qualifier | LCSD Qualifier | RPD<br>% | RPD Limits<br>% |
|-----------|----------------------|--------------------|---------------------|---------------|----------------|------------------|---------------|----------------|----------|-----------------|
| Calcium   | 10000                | 9650               | 9540                | 96.5          | 95.4           | 80.0-120         |               |                | 1.15     | 20              |
| Magnesium | 10000                | 9670               | 9610                | 96.7          | 96.1           | 80.0-120         |               |                | 0.689    | 20              |
| Potassium | 10000                | 9130               | 9100                | 91.3          | 91.0           | 80.0-120         |               |                | 0.345    | 20              |
| Sodium    | 10000                | 9700               | 9590                | 97.0          | 95.9           | 80.0-120         |               |                | 1.11     | 20              |

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

L1180058-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1180058-02 01/20/20 23:44 • (MS) R3492482-5 01/20/20 23:49 • (MSD) R3492482-6 01/20/20 23:52

| Analyte   | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|-----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Calcium   | 10000                | 150000                  | 157000            | 156000             | 71.7         | 56.6          | 1        | 75.0-125         | ↓            | ↓             | 0.965    | 20              |
| Magnesium | 10000                | 15600                   | 24700             | 24700              | 90.6         | 91.1          | 1        | 75.0-125         |              |               | 0.219    | 20              |
| Potassium | 10000                | 6060                    | 14900             | 14900              | 88.6         | 88.5          | 1        | 75.0-125         |              |               | 0.0168   | 20              |
| Sodium    | 10000                | 63100                   | 70900             | 70500              | 77.3         | 73.5          | 1        | 75.0-125         |              | ↓             | 0.538    | 20              |

<sup>9</sup> Sc



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.  |

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

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.   |
| V | The sample concentration is too high to evaluate accurate spike recoveries.   |



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* 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 National.

## State Accreditations

|                         |             |                             |                  |
|-------------------------|-------------|-----------------------------|------------------|
| Alabama                 | 40660       | Nebraska                    | NE-OS-15-05      |
| Alaska                  | 17-026      | Nevada                      | TN-03-2002-34    |
| Arizona                 | AZ0612      | New Hampshire               | 2975             |
| Arkansas                | 88-0469     | New Jersey-NELAP            | TN002            |
| California              | 2932        | New Mexico <sup>1</sup>     | n/a              |
| Colorado                | TN00003     | New York                    | 11742            |
| Connecticut             | PH-0197     | North Carolina              | Env375           |
| Florida                 | E87487      | North Carolina <sup>1</sup> | DW21704          |
| Georgia                 | NELAP       | North Carolina <sup>3</sup> | 41               |
| Georgia <sup>1</sup>    | 923         | North Dakota                | R-140            |
| Idaho                   | TN00003     | Ohio-VAP                    | CL0069           |
| Illinois                | 200008      | Oklahoma                    | 9915             |
| Indiana                 | C-TN-01     | Oregon                      | TN200002         |
| Iowa                    | 364         | Pennsylvania                | 68-02979         |
| Kansas                  | E-10277     | Rhode Island                | LA000356         |
| Kentucky <sup>1,6</sup> | 90010       | South Carolina              | 84004            |
| Kentucky <sup>2</sup>   | 16          | South Dakota                | n/a              |
| Louisiana               | AI30792     | Tennessee <sup>1,4</sup>    | 2006             |
| Louisiana <sup>1</sup>  | LA180010    | Texas                       | T104704245-18-15 |
| Maine                   | TN0002      | Texas <sup>5</sup>          | LAB0152          |
| Maryland                | 324         | Utah                        | TN00003          |
| Massachusetts           | M-TN003     | Vermont                     | VT2006           |
| Michigan                | 9958        | Virginia                    | 460132           |
| Minnesota               | 047-999-395 | Washington                  | C847             |
| Mississippi             | TN00003     | West Virginia               | 233              |
| Missouri                | 340         | Wisconsin                   | 9980939910       |
| Montana                 | CERT0086    | Wyoming                     | A2LA             |

## Third Party Federal Accreditations

|                               |         |                    |               |
|-------------------------------|---------|--------------------|---------------|
| A2LA – ISO 17025              | 1461.01 | AIHA-LAP,LLC EMLAP | 100789        |
| A2LA – ISO 17025 <sup>5</sup> | 1461.02 | DOD                | 1461.01       |
| Canada                        | 1461.01 | USDA               | P330-15-00234 |
| EPA-Crypto                    | TN00003 |                    |               |

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

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Jared Morrison  
December 20, 2022

**ATTACHMENT 1-2**  
**February 2020 Sampling Event Laboratory Report**

## SCS Engineers - KS

Sample Delivery Group: L1186193  
Samples Received: 02/05/2020  
Project Number: 27213168.19  
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.



|   |           |                       |
|---|-----------|-----------------------|
| <b>Cp: Cover Page</b>                     | <b>1</b>  | <b><sup>1</sup>Cp</b> |
| <b>Tc: Table of Contents</b>              | <b>2</b>  |                       |
| <b>Ss: Sample Summary</b>                 | <b>3</b>  | <b><sup>2</sup>Tc</b> |
| <b>Cn: Case Narrative</b>                 | <b>4</b>  |                       |
| <b>Sr: Sample Results</b>                 | <b>5</b>  | <b><sup>3</sup>Ss</b> |
| <b>MW-605 L1186193-01</b>                 | <b>5</b>  |                       |
| <b>DUPLICATE 1 L1186193-02</b>            | <b>6</b>  | <b><sup>4</sup>Cn</b> |
| <b>Qc: Quality Control Summary</b>        | <b>7</b>  | <b><sup>5</sup>Sr</b> |
| <b>Wet Chemistry by Method 9056A</b>      | <b>7</b>  |                       |
| <b>Gl: Glossary of Terms</b>              | <b>9</b>  | <b><sup>6</sup>Qc</b> |
| <b>Al: Accreditations &amp; Locations</b> | <b>10</b> | <b><sup>7</sup>Gl</b> |
| <b>Sc: Sample Chain of Custody</b>        | <b>11</b> | <b><sup>8</sup>Al</b> |
|   |           | <b><sup>9</sup>Sc</b> |

# SAMPLE SUMMARY



## MW-605 L1186193-01 GW

Collected by Jason R. Franks  
 Collected date/time 02/03/20 12:10  
 Received date/time 02/05/20 10:35

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Wet Chemistry by Method 9056A | WG1423103 | 1        | 02/06/20 02:26        | 02/06/20 02:26     | ELN     | Mt. Juliet, TN |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

## DUPLICATE 1 L1186193-02 GW

Collected by Jason R. Franks  
 Collected date/time 02/03/20 12:10  
 Received date/time 02/05/20 10:35

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Wet Chemistry by Method 9056A | WG1423103 | 1        | 02/06/20 03:10        | 02/06/20 03:10     | ELN     | Mt. Juliet, TN |

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> 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

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



Wet Chemistry by Method 9056A

| Analyte  | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------|--------|-----------|------|----------|----------------------|---------------------------|
| Chloride | 59800  |           | 1000 | 1        | 02/06/2020 02:26     | <a href="#">WG1423103</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Wet Chemistry by Method 9056A

| Analyte  | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------|--------|-----------|------|----------|----------------------|---------------------------|
| Chloride | 60100  |           | 1000 | 1        | 02/06/2020 03:10     | <a href="#">WG1423103</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc





Method Blank (MB)

(MB) R3497541-1 02/05/20 22:50

| Analyte  | MB Result | MB Qualifier | MB MDL | MB RDL |
|----------|-----------|--------------|--------|--------|
| Chloride | U         |              | 51.9   | 1000   |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1186180-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1186180-01 02/05/20 23:34 • (DUP) R3497541-3 02/05/20 23:48

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
| Chloride | 11400           | 11300      | 1        | 0.369   |               | 15             |

L1186330-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1186330-01 02/06/20 09:24 • (DUP) R3497541-18 02/06/20 09:39

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
| Chloride | 11400           | 11400      | 1        | 0.176   |               | 15             |

Laboratory Control Sample (LCS)

(LCS) R3497541-2 02/05/20 23:05

| Analyte  | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|----------|--------------|------------|----------|-------------|---------------|
| Chloride | 40000        | 39700      | 99.3     | 80.0-120    |               |

L1186188-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1186188-01 02/06/20 00:02 • (MS) R3497541-4 02/06/20 00:17 • (MSD) R3497541-5 02/06/20 00:31

| Analyte  | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|----------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
| Chloride | 50000        | 6360            | 51200     | 51300      | 89.6    | 89.9     | 1        | 80.0-120    |              |               | 0.334 | 15         |

L1186188-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1186188-03 02/06/20 01:00 • (MS) R3497541-6 02/06/20 01:14 • (MSD) R3497541-7 02/06/20 01:58

| Analyte  | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|----------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
| Chloride | 50000        | 20300           | 65700     | 66100      | 90.7    | 91.5     | 1        | 80.0-120    |              |               | 0.595 | 15         |



L1186193-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1186193-01 02/06/20 02:26 • (MS) R3497541-8 02/06/20 02:41 • (MSD) R3497541-9 02/06/20 02:55

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits |
|----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|------------|
| Chloride | 50000                | 59800                   | 103000            | 104000             | 86.4         | 88.5          | 1        | 80.0-120         | <u>E</u>     | <u>E</u>      | 1.02     | 15         |

1 Cp

2 Tc

3 Ss

L1186202-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1186202-01 02/06/20 03:24 • (MS) R3497541-10 02/06/20 03:38 • (MSD) R3497541-11 02/06/20 03:53

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits |
|----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|------------|
| Chloride | 50000                | 227000                  | 261000            | 261000             | 68.4         | 68.6          | 1        | 80.0-120         | <u>E V</u>   | <u>E V</u>    | 0.0293   | 15         |

4 Cn

5 Sr

L1186202-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1186202-03 02/06/20 04:51 • (MS) R3497541-12 02/06/20 05:05 • (MSD) R3497541-13 02/06/20 05:19

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits |
|----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|------------|
| Chloride | 50000                | 25300                   | 71900             | 72400              | 93.3         | 94.2          | 1        | 80.0-120         |              |               | 0.642    | 15         |

6 Qc

7 Gl

8 Al

L1186248-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1186248-01 02/06/20 05:48 • (MS) R3497541-14 02/06/20 06:03 • (MSD) R3497541-15 02/06/20 06:17

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits |
|----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|------------|
| Chloride | 50000                | 5610                    | 51800             | 52200              | 92.4         | 93.3          | 1        | 80.0-120         |              |               | 0.805    | 15         |

9 Sc

L1186248-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1186248-06 02/06/20 07:00 • (MS) R3497541-16 02/06/20 07:43 • (MSD) R3497541-17 02/06/20 07:58

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits |
|----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|------------|
| Chloride | 50000                | 27500                   | 72500             | 72700              | 89.9         | 90.5          | 1        | 80.0-120         |              |               | 0.373    | 15         |



Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

| Qualifier | Description   |
|-----------|---|
| E         | The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL). |
| V         | The sample concentration is too high to evaluate accurate spike recoveries.   |





Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* 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 National.

## State Accreditations

|                         |             |                             |                  |
|-------------------------|-------------|-----------------------------|------------------|
| Alabama                 | 40660       | Nebraska                    | NE-OS-15-05      |
| Alaska                  | 17-026      | Nevada                      | TN-03-2002-34    |
| Arizona                 | AZ0612      | New Hampshire               | 2975             |
| Arkansas                | 88-0469     | New Jersey-NELAP            | TN002            |
| California              | 2932        | New Mexico <sup>1</sup>     | n/a              |
| Colorado                | TN00003     | New York                    | 11742            |
| Connecticut             | PH-0197     | North Carolina              | Env375           |
| Florida                 | E87487      | North Carolina <sup>1</sup> | DW21704          |
| Georgia                 | NELAP       | North Carolina <sup>3</sup> | 41               |
| Georgia <sup>1</sup>    | 923         | North Dakota                | R-140            |
| Idaho                   | TN00003     | Ohio-VAP                    | CL0069           |
| Illinois                | 200008      | Oklahoma                    | 9915             |
| Indiana                 | C-TN-01     | Oregon                      | TN200002         |
| Iowa                    | 364         | Pennsylvania                | 68-02979         |
| Kansas                  | E-10277     | Rhode Island                | LA000356         |
| Kentucky <sup>1,6</sup> | 90010       | South Carolina              | 84004            |
| Kentucky <sup>2</sup>   | 16          | South Dakota                | n/a              |
| Louisiana               | AI30792     | Tennessee <sup>1,4</sup>    | 2006             |
| Louisiana <sup>1</sup>  | LA180010    | Texas                       | T104704245-18-15 |
| Maine                   | TN0002      | Texas <sup>5</sup>          | LAB0152          |
| Maryland                | 324         | Utah                        | TN00003          |
| Massachusetts           | M-TN003     | Vermont                     | VT2006           |
| Michigan                | 9958        | Virginia                    | 460132           |
| Minnesota               | 047-999-395 | Washington                  | C847             |
| Mississippi             | TN00003     | West Virginia               | 233              |
| Missouri                | 340         | Wisconsin                   | 9980939910       |
| Montana                 | CERT0086    | Wyoming                     | A2LA             |

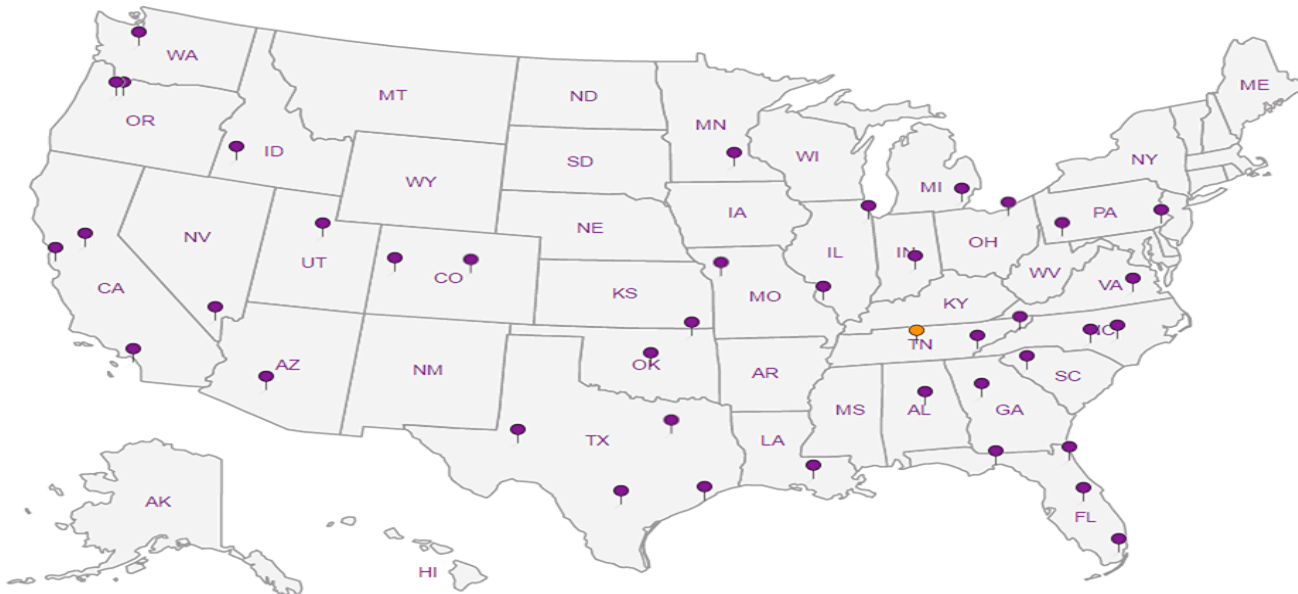
## Third Party Federal Accreditations

|                               |         |                    |               |
|-------------------------------|---------|--------------------|---------------|
| A2LA – ISO 17025              | 1461.01 | AIHA-LAP,LLC EMLAP | 100789        |
| A2LA – ISO 17025 <sup>5</sup> | 1461.02 | DOD                | 1461.01       |
| Canada                        | 1461.01 | USDA               | P330-15-00234 |
| EPA-Crypto                    | TN00003 |                    |               |

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

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



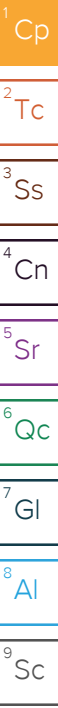


Jared Morrison  
December 20, 2022

**ATTACHMENT 1-3**  
**May 2020 Sampling Event Laboratory Report**



June 01, 2020



## SCS Engineers - KS

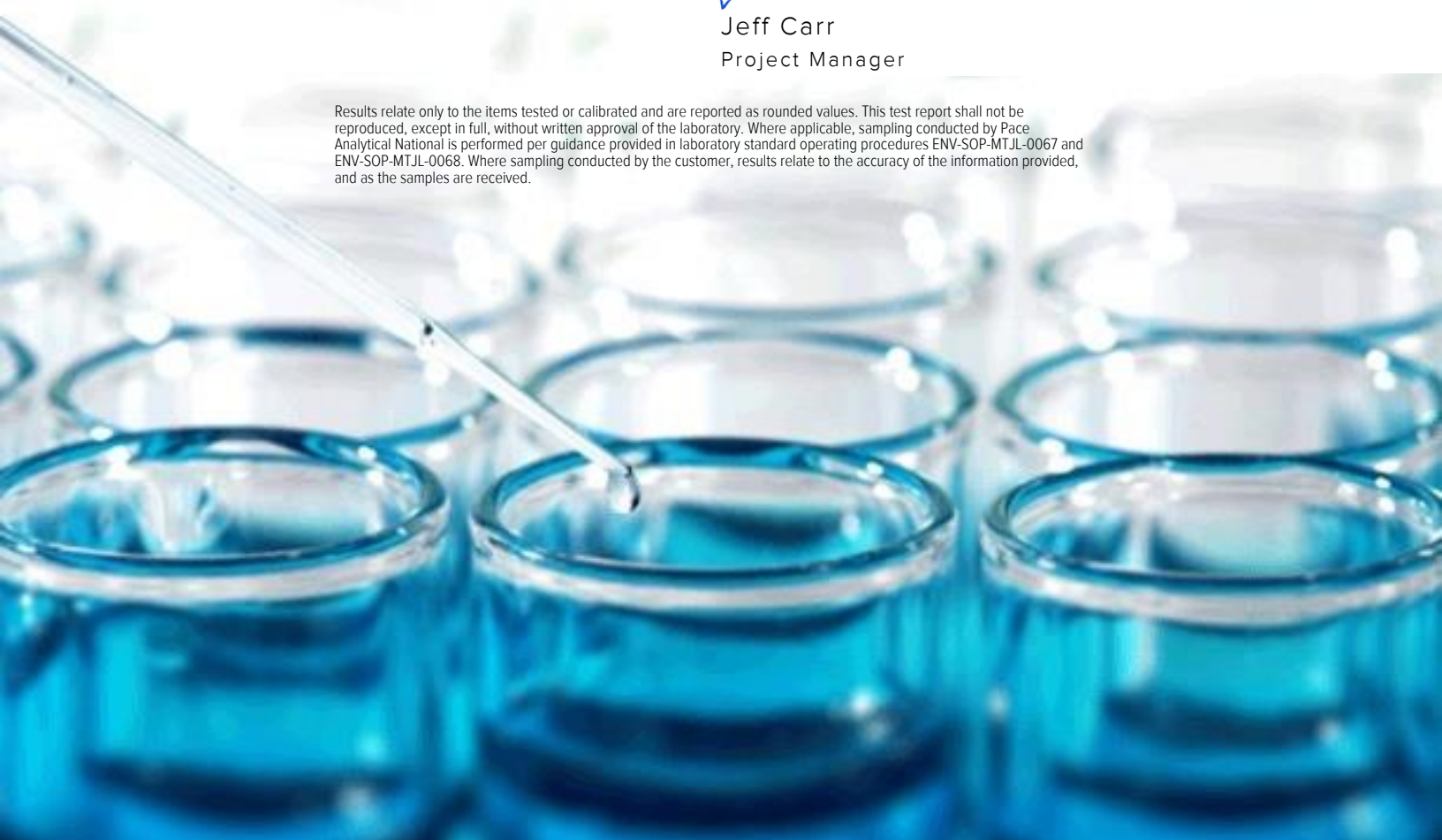
Sample Delivery Group: L1221865  
Samples Received: 05/23/2020  
Project Number: 27213168.18  
Description: Evergy - Montrose Generating Station

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.







|  |           |                       |
|--|-----------|-----------------------|
| <b>Cp: Cover Page</b>                      | <b>1</b>  | <b><sup>1</sup>Cp</b> |
| <b>Tc: Table of Contents</b>               | <b>2</b>  |                       |
| <b>Ss: Sample Summary</b>                  | <b>3</b>  | <b><sup>2</sup>Tc</b> |
| <b>Cn: Case Narrative</b>                  | <b>5</b>  |                       |
| <b>Sr: Sample Results</b>                  | <b>6</b>  | <b><sup>3</sup>Ss</b> |
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| MW-603 L1221865-03                         | 8         | <b><sup>5</sup>Sr</b> |
| MW-604 L1221865-04                         | 9         |                       |
| MW-605 L1221865-05                         | 10        | <b><sup>6</sup>Qc</b> |
| MW-701 L1221865-06                         | 11        |                       |
| MW-702 L1221865-07                         | 12        | <b><sup>7</sup>Gl</b> |
| MW-703 L1221865-08                         | 13        | <b><sup>8</sup>Al</b> |
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| Gravimetric Analysis by Method 2540 C-2011 | 17        |                       |
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# SAMPLE SUMMARY



## MW-601 L1221865-01 GW

Collected by  
Whit Martin  
Collected date/time  
05/21/20 12:25  
Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1483378 | 1        | 05/28/20 18:11        | 05/28/20 22:59     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 1        | 05/29/20 14:47        | 05/29/20 14:47     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 100      | 05/29/20 23:47        | 05/29/20 23:47     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481522 | 1        | 05/29/20 10:00        | 05/29/20 14:43     | TRB     | Mt. Juliet, TN |

1  
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Ss

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Qc

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Sc

## MW-602 L1221865-02 GW

Collected by  
Whit Martin  
Collected date/time  
05/21/20 10:20  
Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1483378 | 1        | 05/28/20 18:11        | 05/28/20 22:59     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 1        | 05/29/20 15:05        | 05/29/20 15:05     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 100      | 05/30/20 00:05        | 05/30/20 00:05     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481522 | 1        | 05/29/20 10:00        | 05/29/20 14:46     | TRB     | Mt. Juliet, TN |

## MW-603 L1221865-03 GW

Collected by  
Whit Martin  
Collected date/time  
05/21/20 12:05  
Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1483378 | 1        | 05/28/20 18:11        | 05/28/20 22:59     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 1        | 05/29/20 15:22        | 05/29/20 15:22     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 100      | 05/30/20 00:22        | 05/30/20 00:22     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481522 | 1        | 05/29/20 10:00        | 05/29/20 14:49     | TRB     | Mt. Juliet, TN |

## MW-604 L1221865-04 GW

Collected by  
Whit Martin  
Collected date/time  
05/21/20 13:25  
Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1483378 | 1        | 05/28/20 18:11        | 05/28/20 22:59     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 1        | 05/29/20 15:58        | 05/29/20 15:58     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 100      | 05/30/20 01:34        | 05/30/20 01:34     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 09:56     | EL      | Mt. Juliet, TN |

## MW-605 L1221865-05 GW

Collected by  
Whit Martin  
Collected date/time  
05/21/20 14:10  
Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1483378 | 1        | 05/28/20 18:11        | 05/28/20 22:59     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 1        | 05/29/20 16:52        | 05/29/20 16:52     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 100      | 05/30/20 01:52        | 05/30/20 01:52     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:05     | EL      | Mt. Juliet, TN |

## MW-701 L1221865-06 GW

Collected by  
Whit Martin  
Collected date/time  
05/21/20 17:10  
Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1483378 | 1        | 05/28/20 18:11        | 05/28/20 22:59     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 1        | 05/29/20 17:46        | 05/29/20 17:46     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 100      | 05/30/20 02:10        | 05/30/20 02:10     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:08     | EL      | Mt. Juliet, TN |

# SAMPLE SUMMARY



## MW-702 L1221865-07 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 16:25

Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1483378 | 1        | 05/28/20 18:11        | 05/28/20 22:59     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 1        | 05/29/20 18:04        | 05/29/20 18:04     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 20       | 05/30/20 02:28        | 05/30/20 02:28     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:10     | EL      | Mt. Juliet, TN |

1  
Cp

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Tc

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Ss

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Sr

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Qc

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Gl

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Al

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Sc

## MW-703 L1221865-08 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 15:05

Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1483378 | 1        | 05/28/20 18:11        | 05/28/20 22:59     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 1        | 05/29/20 18:22        | 05/29/20 18:22     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 10       | 05/30/20 02:46        | 05/30/20 02:46     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:13     | EL      | Mt. Juliet, TN |

## MW-704 L1221865-09 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 15:25

Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1483378 | 1        | 05/28/20 18:11        | 05/28/20 22:59     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 1        | 05/29/20 18:39        | 05/29/20 18:39     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 10       | 05/30/20 03:04        | 05/30/20 03:04     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:16     | EL      | Mt. Juliet, TN |

## MW-705 L1221865-10 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 13:00

Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1483378 | 1        | 05/28/20 18:11        | 05/28/20 22:59     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 1        | 05/29/20 18:57        | 05/29/20 18:57     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 10       | 05/30/20 03:22        | 05/30/20 03:22     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:19     | EL      | Mt. Juliet, TN |

## MW-706 L1221865-11 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 10:25

Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1483373 | 1        | 05/28/20 19:13        | 05/28/20 22:31     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 1        | 05/29/20 19:15        | 05/29/20 19:15     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1483801 | 20       | 05/30/20 03:39        | 05/30/20 03:39     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:21     | EL      | Mt. Juliet, TN |



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

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



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 4680000 |           | 50000 | 1        | 05/28/2020 22:59     | <a href="#">WG1483378</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 53800   |           | 1000   | 1        | 05/29/2020 14:47     | <a href="#">WG1483801</a> |
| Fluoride | 462     |           | 150    | 1        | 05/29/2020 14:47     | <a href="#">WG1483801</a> |
| Sulfate  | 3230000 |           | 500000 | 100      | 05/29/2020 23:47     | <a href="#">WG1483801</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | ND     |           | 200  | 1        | 05/29/2020 14:43     | <a href="#">WG1481522</a> |
| Calcium | 478000 |           | 1000 | 1        | 05/29/2020 14:43     | <a href="#">WG1481522</a> |

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 1800000 |           | 25000 | 1        | 05/28/2020 22:59     | <a href="#">WG1483378</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 3990    |           | 1000   | 1        | 05/29/2020 15:05     | <a href="#">WG1483801</a> |
| Fluoride | ND      |           | 150    | 1        | 05/29/2020 15:05     | <a href="#">WG1483801</a> |
| Sulfate  | 1270000 |           | 500000 | 100      | 05/30/2020 00:05     | <a href="#">WG1483801</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | 4270   |           | 200  | 1        | 05/29/2020 14:46     | <a href="#">WG1481522</a> |
| Calcium | 313000 |           | 1000 | 1        | 05/29/2020 14:46     | <a href="#">WG1481522</a> |

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2840000 |           | 50000 | 1        | 05/28/2020 22:59     | <a href="#">WG1483378</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 5930    |           | 1000   | 1        | 05/29/2020 15:22     | <a href="#">WG1483801</a> |
| Fluoride | 642     |           | 150    | 1        | 05/29/2020 15:22     | <a href="#">WG1483801</a> |
| Sulfate  | 2140000 |           | 500000 | 100      | 05/30/2020 00:22     | <a href="#">WG1483801</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | 5370   |           | 200  | 1        | 05/29/2020 14:49     | <a href="#">WG1481522</a> |
| Calcium | 397000 |           | 1000 | 1        | 05/29/2020 14:49     | <a href="#">WG1481522</a> |

6 Qc

7 Gl

8 Al

9 Sc





Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2780000 |           | 50000 | 1        | 05/28/2020 22:59     | <a href="#">WG1483378</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 13300   |           | 1000   | 1        | 05/29/2020 15:58     | <a href="#">WG1483801</a> |
| Fluoride | 489     |           | 150    | 1        | 05/29/2020 15:58     | <a href="#">WG1483801</a> |
| Sulfate  | 1920000 |           | 500000 | 100      | 05/30/2020 01:34     | <a href="#">WG1483801</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | 3760   |           | 200  | 1        | 05/30/2020 09:56     | <a href="#">WG1481523</a> |
| Calcium | 440000 |           | 1000 | 1        | 05/30/2020 09:56     | <a href="#">WG1481523</a> |

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2740000 |           | 50000 | 1        | 05/28/2020 22:59     | <a href="#">WG1483378</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 60200   |           | 1000   | 1        | 05/29/2020 16:52     | <a href="#">WG1483801</a> |
| Fluoride | 219     |           | 150    | 1        | 05/29/2020 16:52     | <a href="#">WG1483801</a> |
| Sulfate  | 1940000 |           | 500000 | 100      | 05/30/2020 01:52     | <a href="#">WG1483801</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | 1450   |           | 200  | 1        | 05/30/2020 10:05     | <a href="#">WG1481523</a> |
| Calcium | 411000 |           | 1000 | 1        | 05/30/2020 10:05     | <a href="#">WG1481523</a> |

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 3540000 |           | 50000 | 1        | 05/28/2020 22:59     | <a href="#">WG1483378</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 496000  |           | 100000 | 100      | 05/30/2020 02:10     | <a href="#">WG1483801</a> |
| Fluoride | 1090    |           | 150    | 1        | 05/29/2020 17:46     | <a href="#">WG1483801</a> |
| Sulfate  | 1910000 |           | 500000 | 100      | 05/30/2020 02:10     | <a href="#">WG1483801</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | ND     |           | 200  | 1        | 05/30/2020 10:08     | <a href="#">WG1481523</a> |
| Calcium | 432000 |           | 1000 | 1        | 05/30/2020 10:08     | <a href="#">WG1481523</a> |

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2780000 |           | 50000 | 1        | 05/28/2020 22:59     | <a href="#">WG1483378</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 238000  |           | 20000  | 20       | 05/30/2020 02:28     | <a href="#">WG1483801</a> |
| Fluoride | 260     |           | 150    | 1        | 05/29/2020 18:04     | <a href="#">WG1483801</a> |
| Sulfate  | 1430000 |           | 100000 | 20       | 05/30/2020 02:28     | <a href="#">WG1483801</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | ND     |           | 200  | 1        | 05/30/2020 10:10     | <a href="#">WG1481523</a> |
| Calcium | 423000 |           | 1000 | 1        | 05/30/2020 10:10     | <a href="#">WG1481523</a> |

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 1170000 |           | 20000 | 1        | 05/28/2020 22:59     | <a href="#">WG1483378</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|----------|--------|-----------|-------|----------|----------------------|---------------------------|
| Chloride | 8160   |           | 1000  | 1        | 05/29/2020 18:22     | <a href="#">WG1483801</a> |
| Fluoride | 197    |           | 150   | 1        | 05/29/2020 18:22     | <a href="#">WG1483801</a> |
| Sulfate  | 735000 |           | 50000 | 10       | 05/30/2020 02:46     | <a href="#">WG1483801</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | ND     |           | 200  | 1        | 05/30/2020 10:13     | <a href="#">WG1481523</a> |
| Calcium | 192000 |           | 1000 | 1        | 05/30/2020 10:13     | <a href="#">WG1481523</a> |

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 1120000 |           | 20000 | 1        | 05/28/2020 22:59     | <a href="#">WG1483378</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|----------|--------|-----------|-------|----------|----------------------|---------------------------|
| Chloride | 3030   |           | 1000  | 1        | 05/29/2020 18:39     | <a href="#">WG1483801</a> |
| Fluoride | ND     |           | 150   | 1        | 05/29/2020 18:39     | <a href="#">WG1483801</a> |
| Sulfate  | 722000 |           | 50000 | 10       | 05/30/2020 03:04     | <a href="#">WG1483801</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | ND     |           | 200  | 1        | 05/30/2020 10:16     | <a href="#">WG1481523</a> |
| Calcium | 156000 |           | 1000 | 1        | 05/30/2020 10:16     | <a href="#">WG1481523</a> |

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 1290000 |           | 20000 | 1        | 05/28/2020 22:59     | <a href="#">WG1483378</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|----------|--------|-----------|-------|----------|----------------------|---------------------------|
| Chloride | 10400  |           | 1000  | 1        | 05/29/2020 18:57     | <a href="#">WG1483801</a> |
| Fluoride | 205    |           | 150   | 1        | 05/29/2020 18:57     | <a href="#">WG1483801</a> |
| Sulfate  | 796000 |           | 50000 | 10       | 05/30/2020 03:22     | <a href="#">WG1483801</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | ND     |           | 200  | 1        | 05/30/2020 10:19     | <a href="#">WG1481523</a> |
| Calcium | 185000 |           | 1000 | 1        | 05/30/2020 10:19     | <a href="#">WG1481523</a> |

6 Qc

7 Gl

8 Al

9 Sc





Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 1800000 |           | 25000 | 1        | 05/28/2020 22:31     | <a href="#">WG1483373</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 29500   |           | 1000   | 1        | 05/29/2020 19:15     | <a href="#">WG1483801</a> |
| Fluoride | 165     |           | 150    | 1        | 05/29/2020 19:15     | <a href="#">WG1483801</a> |
| Sulfate  | 1110000 |           | 100000 | 20       | 05/30/2020 03:39     | <a href="#">WG1483801</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | 269    |           | 200  | 1        | 05/30/2020 10:21     | <a href="#">WG1481523</a> |
| Calcium | 270000 |           | 1000 | 1        | 05/30/2020 10:21     | <a href="#">WG1481523</a> |

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3533287-1 05/28/20 22:31

| Analyte          | MB Result<br>ug/l | MB Qualifier | MB MDL<br>ug/l | MB RDL<br>ug/l |
|------------------|-------------------|--------------|----------------|----------------|
| Dissolved Solids | U                 |              | 2820           | 10000          |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L1221865-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1221865-11 05/28/20 22:31 • (DUP) R3533287-3 05/28/20 22:31

| Analyte          | Original Result<br>ug/l | DUP Result<br>ug/l | Dilution | DUP RPD<br>% | DUP Qualifier | DUP RPD<br>Limits<br>% |
|------------------|-------------------------|--------------------|----------|--------------|---------------|------------------------|
| Dissolved Solids | 1800000                 | 1790000            | 1        | 0.279        |               | 5                      |

Laboratory Control Sample (LCS)

(LCS) R3533287-2 05/28/20 22:31

| Analyte          | Spike Amount<br>ug/l | LCS Result<br>ug/l | LCS Rec.<br>% | Rec. Limits<br>% | LCS Qualifier |
|------------------|----------------------|--------------------|---------------|------------------|---------------|
| Dissolved Solids | 8800000              | 7940000            | 90.2          | 85.0-115         |               |

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3533488-1 05/28/20 22:59

| Analyte          | MB Result | MB Qualifier | MB MDL | MB RDL |
|------------------|-----------|--------------|--------|--------|
| Dissolved Solids | U         |              | 2820   | 10000  |

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

L1221865-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1221865-10 05/28/20 22:59 • (DUP) R3533488-3 05/28/20 22:59

| Analyte          | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|------------------|-----------------|------------|----------|---------|---------------|----------------|
| Dissolved Solids | 1290000         | 1340000    | 1        | 3.64    |               | 5              |

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R3533488-2 05/28/20 22:59

| Analyte          | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|------------------|--------------|------------|----------|-------------|---------------|
| Dissolved Solids | 8800000      | 8560000    | 97.3     | 85.0-115    |               |



Method Blank (MB)

(MB) R3533694-1 05/29/20 13:29

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

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1221865-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1221865-03 05/29/20 15:22 • (DUP) R3533694-3 05/29/20 15:40

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
| Chloride | 5930            | 5970       | 1        | 0.664   |               | 15             |
| Fluoride | 642             | 647        | 1        | 0.667   |               | 15             |

L1221949-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221949-01 05/29/20 21:41 • (DUP) R3533694-7 05/29/20 21:59

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
| Chloride | 1900            | 1780       | 1        | 6.55    |               | 15             |
| Fluoride | ND              | ND         | 1        | 0.000   |               | 15             |
| Sulfate  | ND              | ND         | 1        | 0.000   |               | 15             |

L1221865-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1221865-03 05/30/20 00:22 • (DUP) R3533694-8 05/30/20 01:16

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| Sulfate | 2140000         | 2060000    | 100      | 3.82    |               | 15             |

Laboratory Control Sample (LCS)

(LCS) R3533694-2 05/29/20 13:47

| Analyte  | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|----------|--------------|------------|----------|-------------|---------------|
| Chloride | 40000        | 39200      | 98.0     | 80.0-120    |               |
| Fluoride | 8000         | 7820       | 97.8     | 80.0-120    |               |
| Sulfate  | 40000        | 39900      | 99.7     | 80.0-120    |               |



L1221865-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221865-04 05/29/20 15:58 • (MS) R3533694-4 05/29/20 16:16 • (MSD) R3533694-5 05/29/20 16:34

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Chloride | 50000                | 13300                   | 62200             | 62400              | 97.8         | 98.2          | 1        | 80.0-120         |              |               | 0.342    | 15              |
| Fluoride | 5000                 | 489                     | 5250              | 5290               | 95.3         | 96.1          | 1        | 80.0-120         |              |               | 0.759    | 15              |
| Sulfate  | 50000                | 1710000                 | 1700000           | 1700000            | 0.000        | 0.000         | 1        | 80.0-120         | <u>EV</u>    | <u>EV</u>     | 0.0205   | 15              |

L1221865-11 Original Sample (OS) • Matrix Spike (MS)

(OS) L1221865-11 05/29/20 19:15 • (MS) R3533694-6 05/29/20 19:36

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MS Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier |
|----------|----------------------|-------------------------|-------------------|--------------|----------|------------------|--------------|
| Chloride | 50000                | 29500                   | 77300             | 95.6         | 1        | 80.0-120         |              |
| Fluoride | 5000                 | 165                     | 4900              | 94.6         | 1        | 80.0-120         |              |
| Sulfate  | 50000                | 1050000                 | 1070000           | 23.7         | 1        | 80.0-120         | <u>EV</u>    |

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



Method Blank (MB)

(MB) R3533275-1 05/29/20 13:26

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---------|-----------|--------------|--------|--------|
|         | ug/l      |              | ug/l   | ug/l   |
| Boron   | U         |              | 25.4   | 200    |
| Calcium | U         |              | 389    | 1000   |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

Laboratory Control Sample (LCS)

(LCS) R3533275-2 05/29/20 13:29

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---------|--------------|------------|----------|-------------|---------------|
|         | ug/l         | ug/l       | %        | %           |               |
| Boron   | 1000         | 1040       | 104      | 80.0-120    |               |
| Calcium | 10000        | 10500      | 105      | 80.0-120    |               |

<sup>5</sup> Sr

<sup>6</sup> Qc

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3533275-4 05/29/20 13:37 • (MSD) R3533275-5 05/29/20 13:39

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
|         | ug/l         |                 | ug/l      | ug/l       | %       | %        |          | %           |              |               | %     | %          |
| Boron   | 1000         |                 | 1090      | 1070       | 99.9    | 98.1     | 1        | 75.0-125    |              |               | 1.68  | 20         |
| Calcium | 10000        |                 | 347000    | 345000     | 49.5    | 27.5     | 1        | 75.0-125    | V            | V             | 0.637 | 20         |

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3533275-6 05/29/20 13:45 • (MSD) R3533275-7 05/29/20 13:47

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
|         | ug/l         |                 | ug/l      | ug/l       | %       | %        |          | %           |              |               | %     | %          |
| Boron   | 1000         |                 | 1060      | 1050       | 99.3    | 99.0     | 1        | 75.0-125    |              |               | 0.321 | 20         |
| Calcium | 10000        |                 | 88500     | 88800      | 88.6    | 90.8     | 1        | 75.0-125    |              |               | 0.241 | 20         |



Method Blank (MB)

(MB) R3533429-1 05/30/20 09:32

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---------|-----------|--------------|--------|--------|
|         | ug/l      |              | ug/l   | ug/l   |
| Boron   | U         |              | 25.4   | 200    |
| Calcium | U         |              | 389    | 1000   |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3533429-2 05/30/20 09:34

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---------|--------------|------------|----------|-------------|---------------|
|         | ug/l         | ug/l       | %        | %           |               |
| Boron   | 1000         | 947        | 94.7     | 80.0-120    |               |
| Calcium | 10000        | 9760       | 97.6     | 80.0-120    |               |

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3533429-4 05/30/20 09:43 • (MSD) R3533429-5 05/30/20 09:45

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
|         | ug/l         |                 | ug/l      | ug/l       | %       | %        |          | %           |              |               | %     | %          |
| Boron   | 1000         |                 | 1050      | 1050       | 97.4    | 96.6     | 1        | 75.0-125    |              |               | 0.766 | 20         |
| Calcium | 10000        |                 | 356000    | 354000     | 127     | 109      | 1        | 75.0-125    | V            |               | 0.496 | 20         |

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3533429-6 05/30/20 09:51 • (MSD) R3533429-7 05/30/20 09:54

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
|         | ug/l         |                 | ug/l      | ug/l       | %       | %        |          | %           |              |               | %     | %          |
| Boron   | 1000         |                 | 1060      | 1050       | 97.9    | 96.6     | 1        | 75.0-125    |              |               | 1.23  | 20         |
| Calcium | 10000        |                 | 354000    | 353000     | 47.5    | 39.1     | 1        | 75.0-125    | V            | V             | 0.239 | 20         |



Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier Description

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





Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* 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 National.

## State Accreditations

|                         |             |                             |                  |
|-------------------------|-------------|-----------------------------|------------------|
| Alabama                 | 40660       | Nebraska                    | NE-OS-15-05      |
| Alaska                  | 17-026      | Nevada                      | TN-03-2002-34    |
| Arizona                 | AZ0612      | New Hampshire               | 2975             |
| Arkansas                | 88-0469     | New Jersey-NELAP            | TN002            |
| California              | 2932        | New Mexico <sup>1</sup>     | n/a              |
| Colorado                | TN00003     | New York                    | 11742            |
| Connecticut             | PH-0197     | North Carolina              | Env375           |
| Florida                 | E87487      | North Carolina <sup>1</sup> | DW21704          |
| Georgia                 | NELAP       | North Carolina <sup>3</sup> | 41               |
| Georgia <sup>1</sup>    | 923         | North Dakota                | R-140            |
| Idaho                   | TN00003     | Ohio-VAP                    | CL0069           |
| Illinois                | 200008      | Oklahoma                    | 9915             |
| Indiana                 | C-TN-01     | Oregon                      | TN200002         |
| Iowa                    | 364         | Pennsylvania                | 68-02979         |
| Kansas                  | E-10277     | Rhode Island                | LA000356         |
| Kentucky <sup>1,6</sup> | 90010       | South Carolina              | 84004            |
| Kentucky <sup>2</sup>   | 16          | South Dakota                | n/a              |
| Louisiana               | AI30792     | Tennessee <sup>1,4</sup>    | 2006             |
| Louisiana <sup>1</sup>  | LA180010    | Texas                       | T104704245-18-15 |
| Maine                   | TN0002      | Texas <sup>5</sup>          | LAB0152          |
| Maryland                | 324         | Utah                        | TN00003          |
| Massachusetts           | M-TN003     | Vermont                     | VT2006           |
| Michigan                | 9958        | Virginia                    | 460132           |
| Minnesota               | 047-999-395 | Washington                  | C847             |
| Mississippi             | TN00003     | West Virginia               | 233              |
| Missouri                | 340         | Wisconsin                   | 9980939910       |
| Montana                 | CERT0086    | Wyoming                     | A2LA             |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

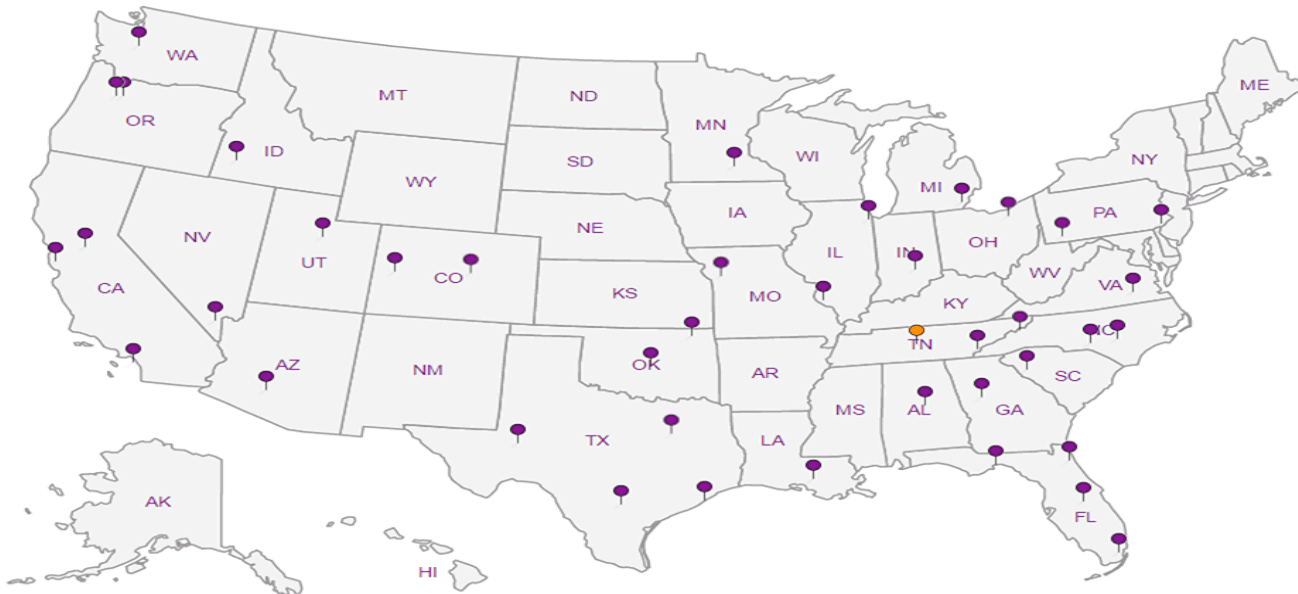
## Third Party Federal Accreditations

|                               |         |                    |               |
|-------------------------------|---------|--------------------|---------------|
| A2LA – ISO 17025              | 1461.01 | AIHA-LAP,LLC EMLAP | 100789        |
| A2LA – ISO 17025 <sup>5</sup> | 1461.02 | DOD                | 1461.01       |
| Canada                        | 1461.01 | USDA               | P330-15-00234 |
| EPA-Crypto                    | TN00003 |                    |               |

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

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



**SCS Engineers - KS**

8575 W. 110th Street  
Overland Park, KS 66210

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

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to:  
**Jason Franks**

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

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

City/State  
Collected:

Please Circle:  
PT MT CT ET

Phone: **913-681-0030**

Client Project #  
**27213168.18**

Lab Project #  
**AQUAOPKS-MONTROSE**

Collected by (print):  
*Whit Martin*

Site/Facility ID #

P.O. #

Collected by (signature):  
*Whit Martin*

**Rush?** (Lab MUST Be Notified)

Quote #

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

Date Results Needed  
*Std*

No.  
of  
Cnts

Immediately  
Packed on Ice N \_\_\_ Y X

| Sample ID | Comp/Grab | Matrix* | Depth | Date    | Time | No. of Cnts | Anions (Cl, F, SO4) | 125mlHDPE-NoPres | B, Ca - 6010 250mlHDPE-HNO3 | TDS 250mlHDPE-NoPres |  |  |  |  |  |  |  |  |     |
|-----------|-----------|---------|-------|---------|------|-------------|---------------------|------------------|-----------------------------|----------------------|--|--|--|--|--|--|--|--|-----|
| MW-601    | G         | GW      |       | 5/21/20 | 1225 | 3           | X                   | X                | X                           |                      |  |  |  |  |  |  |  |  | -01 |
| MW-602    |           | GW      |       |         | 1020 | 3           | X                   | X                | X                           |                      |  |  |  |  |  |  |  |  | -02 |
| MW-603    |           | GW      |       |         | 1205 | 3           | X                   | X                | X                           |                      |  |  |  |  |  |  |  |  | -03 |
| MW-604    |           | GW      |       |         | 1325 | 3           | X                   | X                | X                           |                      |  |  |  |  |  |  |  |  | -04 |
| MW-605    |           | GW      |       |         | 1410 | 3           | X                   | X                | X                           |                      |  |  |  |  |  |  |  |  | -05 |
| MW-701    |           | GW      |       |         | 1710 | 3           | X                   | X                | X                           |                      |  |  |  |  |  |  |  |  | -06 |
| MW-702    |           | GW      |       |         | 1625 | 3           | X                   | X                | X                           |                      |  |  |  |  |  |  |  |  | -07 |
| MW-703    |           | GW      |       |         | 1505 | 3           | X                   | X                | X                           |                      |  |  |  |  |  |  |  |  | -08 |
| MW-704    |           | GW      |       |         | 1525 | 3           | X                   | X                | X                           |                      |  |  |  |  |  |  |  |  | -09 |
| MW-705    |           | GW      |       |         | 1300 | 3           | X                   | X                | X                           |                      |  |  |  |  |  |  |  |  | -10 |

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

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

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

Samples returned via:  
\_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking #

Relinquished by: (Signature)  
*h r*

Date:

Time:

Received by: (Signature)  
*Alan Nelson*

*5-22-20 1300*

Trip Blank Received: Yes/No  
HCL / MeOH  
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: *43* °C  
*2.4 ± 0.24* Bottles Received: *33*

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)  
*Harley M*

Date: *5/23/20* Time: *845*

Hold:

Condition:  
NCF /

**SCS Engineers - KS**

8575 W. 110th Street  
Overland Park, KS 66210

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

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to:  
**Jason Franks**

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

Project Description:  
Evergy - Montrose Generating Station

City/State  
Collected:

Please Circle:  
PT MT CT ET

Phone: **913-681-0030**

Client Project #  
**27213168.18**

Lab Project #  
**AQUAOPKS-MONTROSE**

Collected by (print):  
*Whit Martin*

Site/Facility ID #

P.O. #

Collected by (signature):  
*Whit Martin*

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

Quote #

Immediately Packed on ice N \_\_\_ Y X

Date Results Needed

| Sample ID            | Comp/Grab | Matrix * | Depth | Date    | Time | No. of Cntrs | Anions (Cl <sup>-</sup> , F <sup>-</sup> , SO <sub>4</sub> <sup>2-</sup> ) | 125mIHDPE-NoPres | B. Ca - 6010 250mIHDPE-HNO3 | TDS 250mIHDPE-NoPres |
|----------------------|-----------|----------|-------|---------|------|--------------|--|------------------|-----------------------------|----------------------|
| MW-706               | G         | GW       |       | 5/21/20 | 1025 | 3            | X  | X                | X                           |                      |
| <del>MS/MSD</del>    |           | GW       |       |         |      | 3            | X  | X                | X                           |                      |
| <del>DUPLICATE</del> |           | GW       |       |         |      | 3            | X  | X                | X                           |                      |

SDG # **42285**  
Table #  
Acctnum: **AQUAOPKS**  
Template: **T135966**  
Prelogin: **P769449**  
PM: 206 - Jeff Carr  
PB:  
Shipped Via:  
Remarks | Sample # (if only)

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

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

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

Relinquished by: (Signature)  
*JE*

Date:  
5/22/20

Time:  
1300

Received by: (Signature)  
*Alan Helaro*

5-22-20  
1300  
Trip Blank Received: Yes (No) 0  
HCL / MeOH  
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: 14.4 °C  
24+0=2.4  
Bottles Received: 33

If preservation required by login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)  
*Harley M*

Date: 5/23/20  
Time: 845

Hold:  
Condition:  
NCF / OK



## SCS Engineers - KS

Sample Delivery Group: L1221866  
Samples Received: 05/23/2020  
Project Number: 27213168.20  
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.



|   |           |                       |
|---|-----------|-----------------------|
| <b>Cp: Cover Page</b>                             | <b>1</b>  | <b><sup>1</sup>Cp</b> |
| <b>Tc: Table of Contents</b>                      | <b>2</b>  |                       |
| <b>Ss: Sample Summary</b>                         | <b>3</b>  | <b><sup>2</sup>Tc</b> |
| <b>Cn: Case Narrative</b>                         | <b>4</b>  |                       |
| <b>Sr: Sample Results</b>                         | <b>5</b>  | <b><sup>3</sup>Ss</b> |
| <b>MW-506 L1221866-01</b>                         | <b>5</b>  |                       |
| <b>DUPLICATE L1221866-02</b>                      | <b>6</b>  | <b><sup>4</sup>Cn</b> |
| <b>Qc: Quality Control Summary</b>                | <b>7</b>  | <b><sup>5</sup>Sr</b> |
| <b>Gravimetric Analysis by Method 2540 C-2011</b> | <b>7</b>  |                       |
| <b>Wet Chemistry by Method 9056A</b>              | <b>8</b>  | <b><sup>6</sup>Qc</b> |
| <b>Metals (ICP) by Method 6010B</b>               | <b>10</b> |                       |
| <b>Gl: Glossary of Terms</b>                      | <b>11</b> | <b><sup>7</sup>Gl</b> |
| <b>Al: Accreditations &amp; Locations</b>         | <b>12</b> | <b><sup>8</sup>Al</b> |
| <b>Sc: Sample Chain of Custody</b>                | <b>13</b> | <b><sup>9</sup>Sc</b> |

# SAMPLE SUMMARY



## MW-506 L1221866-01 GW

|                             |                                       |                                      |
|-----------------------------|---------------------------------------|--------------------------------------|
| Collected by<br>Whit Martin | Collected date/time<br>05/21/20 14:35 | Received date/time<br>05/23/20 08:45 |
|-----------------------------|---------------------------------------|--------------------------------------|

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1483379 | 1        | 05/28/20 17:57        | 05/28/20 23:20     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 1        | 05/28/20 21:44        | 05/28/20 21:44     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 100      | 05/28/20 21:57        | 05/28/20 21:57     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 09:37     | EL      | Mt. Juliet, TN |

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## DUPLICATE L1221866-02 GW

|                             |                                       |                                      |
|-----------------------------|---------------------------------------|--------------------------------------|
| Collected by<br>Whit Martin | Collected date/time<br>05/21/20 14:35 | Received date/time<br>05/23/20 08:45 |
|-----------------------------|---------------------------------------|--------------------------------------|

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1483379 | 1        | 05/28/20 17:57        | 05/28/20 23:20     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 1        | 05/28/20 23:01        | 05/28/20 23:01     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 100      | 05/28/20 23:14        | 05/28/20 23:14     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:24     | EL      | Mt. Juliet, TN |



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

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



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2800000 |           | 50000 | 1        | 05/28/2020 23:20     | <a href="#">WG1483379</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 69300   |           | 1000   | 1        | 05/28/2020 21:44     | <a href="#">WG1482625</a> |
| Fluoride | ND      |           | 150    | 1        | 05/28/2020 21:44     | <a href="#">WG1482625</a> |
| Sulfate  | 1780000 |           | 500000 | 100      | 05/28/2020 21:57     | <a href="#">WG1482625</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | ND     |           | 200  | 1        | 05/30/2020 09:37     | <a href="#">WG1481523</a> |
| Calcium | 343000 | <u>V</u>  | 1000 | 1        | 05/30/2020 09:37     | <a href="#">WG1481523</a> |

6 Qc

7 Gl

8 Al

9 Sc





Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2800000 |           | 50000 | 1        | 05/28/2020 23:20     | <a href="#">WG1483379</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 69200   |           | 1000   | 1        | 05/28/2020 23:01     | <a href="#">WG1482625</a> |
| Fluoride | ND      |           | 150    | 1        | 05/28/2020 23:01     | <a href="#">WG1482625</a> |
| Sulfate  | 1710000 |           | 500000 | 100      | 05/28/2020 23:14     | <a href="#">WG1482625</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | ND     |           | 200  | 1        | 05/30/2020 10:24     | <a href="#">WG1481523</a> |
| Calcium | 350000 |           | 1000 | 1        | 05/30/2020 10:24     | <a href="#">WG1481523</a> |

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3533316-1 05/28/20 23:20

| Analyte          | MB Result<br>ug/l | MB Qualifier | MB MDL<br>ug/l | MB RDL<br>ug/l |
|------------------|-------------------|--------------|----------------|----------------|
| Dissolved Solids | 4000              | ↓            | 2820           | 10000          |

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R3533316-2 05/28/20 23:20

| Analyte          | Spike Amount<br>ug/l | LCS Result<br>ug/l | LCS Rec.<br>% | Rec. Limits<br>% | LCS Qualifier |
|------------------|----------------------|--------------------|---------------|------------------|---------------|
| Dissolved Solids | 8800000              | 8250000            | 93.8          | 85.0-115         |               |

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3533046-1 05/28/20 14:51

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

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Original Sample (OS) • Duplicate (DUP)

(OS) • (DUP) R3533046-3 05/28/20 16:10

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
|          | ug/l            | ug/l       |          | %       |               | %              |
| Chloride | 8890            |            | 1        | 0.538   |               | 15             |
| Fluoride | ND              |            | 1        | 0.000   |               | 15             |
| Sulfate  | 8290            |            | 1        | 2.12    |               | 15             |

L1221878-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221878-01 05/28/20 23:26 • (DUP) R3533046-8 05/28/20 23:39

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
|          | ug/l            | ug/l       |          | %       |               | %              |
| Chloride | 60400           | 60300      | 1        | 0.0502  |               | 15             |
| Fluoride | 956             | 953        | 1        | 0.367   |               | 15             |
| Sulfate  | 222000          | 222000     | 1        | 0.0730  | E             | 15             |

Laboratory Control Sample (LCS)

(LCS) R3533046-2 05/28/20 15:04

| Analyte  | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|----------|--------------|------------|----------|-------------|---------------|
|          | ug/l         | ug/l       | %        | %           |               |
| Chloride | 40000        | 40100      | 100      | 80.0-120    |               |
| Fluoride | 8000         | 8140       | 102      | 80.0-120    |               |
| Sulfate  | 40000        | 40600      | 102      | 80.0-120    |               |



Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3533046-4 05/28/20 16:36 • (MSD) R3533046-5 05/28/20 16:49

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Chloride | 50000                |                         | 57300             | 57300              | 101          | 101           | 1        | 80.0-120         |              |               | 0.0750   | 15              |
| Fluoride | 5000                 |                         | 5230              | 5230               | 103          | 102           | 1        | 80.0-120         |              |               | 0.164    | 15              |
| Sulfate  | 50000                |                         | 53100             | 52800              | 101          | 100           | 1        | 80.0-120         |              |               | 0.587    | 15              |

L1221866-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221866-01 05/28/20 21:44 • (MS) R3533046-6 05/28/20 22:10 • (MSD) R3533046-7 05/28/20 22:22

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Chloride | 50000                | 69300                   | 116000            | 116000             | 94.0         | 94.1          | 1        | 80.0-120         | <u>E</u>     | <u>E</u>      | 0.0372   | 15              |
| Fluoride | 5000                 | ND                      | 4660              | 4690               | 91.5         | 92.1          | 1        | 80.0-120         |              |               | 0.687    | 15              |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3533429-1 05/30/20 09:32

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---------|-----------|--------------|--------|--------|
| Boron   | U         |              | 25.4   | 200    |
| Calcium | U         |              | 389    | 1000   |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3533429-2 05/30/20 09:34

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---------|--------------|------------|----------|-------------|---------------|
| Boron   | 1000         | 947        | 94.7     | 80.0-120    |               |
| Calcium | 10000        | 9760       | 97.6     | 80.0-120    |               |

L1221866-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221866-01 05/30/20 09:37 • (MS) R3533429-4 05/30/20 09:43 • (MSD) R3533429-5 05/30/20 09:45

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
| Boron   | 1000         | ND              | 1050      | 1050       | 97.4    | 96.6     | 1        | 75.0-125    |              |               | 0.766 | 20         |
| Calcium | 10000        | 343000          | 356000    | 354000     | 127     | 109      | 1        | 75.0-125    | <u>V</u>     |               | 0.496 | 20         |

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3533429-6 05/30/20 09:51 • (MSD) R3533429-7 05/30/20 09:54

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
| Boron   | 1000         |                 | 1060      | 1050       | 97.9    | 96.6     | 1        | 75.0-125    |              |               | 1.23  | 20         |
| Calcium | 10000        |                 | 354000    | 353000     | 47.5    | 39.1     | 1        | 75.0-125    | <u>V</u>     | <u>V</u>      | 0.239 | 20         |



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.  |

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

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.   |
| V | The sample concentration is too high to evaluate accurate spike recoveries.   |



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* 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 National.

## State Accreditations

|                         |             |                             |                  |
|-------------------------|-------------|-----------------------------|------------------|
| Alabama                 | 40660       | Nebraska                    | NE-OS-15-05      |
| Alaska                  | 17-026      | Nevada                      | TN-03-2002-34    |
| Arizona                 | AZ0612      | New Hampshire               | 2975             |
| Arkansas                | 88-0469     | New Jersey-NELAP            | TN002            |
| California              | 2932        | New Mexico <sup>1</sup>     | n/a              |
| Colorado                | TN00003     | New York                    | 11742            |
| Connecticut             | PH-0197     | North Carolina              | Env375           |
| Florida                 | E87487      | North Carolina <sup>1</sup> | DW21704          |
| Georgia                 | NELAP       | North Carolina <sup>3</sup> | 41               |
| Georgia <sup>1</sup>    | 923         | North Dakota                | R-140            |
| Idaho                   | TN00003     | Ohio-VAP                    | CL0069           |
| Illinois                | 200008      | Oklahoma                    | 9915             |
| Indiana                 | C-TN-01     | Oregon                      | TN200002         |
| Iowa                    | 364         | Pennsylvania                | 68-02979         |
| Kansas                  | E-10277     | Rhode Island                | LA000356         |
| Kentucky <sup>1,6</sup> | 90010       | South Carolina              | 84004            |
| Kentucky <sup>2</sup>   | 16          | South Dakota                | n/a              |
| Louisiana               | AI30792     | Tennessee <sup>1,4</sup>    | 2006             |
| Louisiana <sup>1</sup>  | LA180010    | Texas                       | T104704245-18-15 |
| Maine                   | TN0002      | Texas <sup>5</sup>          | LAB0152          |
| Maryland                | 324         | Utah                        | TN00003          |
| Massachusetts           | M-TN003     | Vermont                     | VT2006           |
| Michigan                | 9958        | Virginia                    | 460132           |
| Minnesota               | 047-999-395 | Washington                  | C847             |
| Mississippi             | TN00003     | West Virginia               | 233              |
| Missouri                | 340         | Wisconsin                   | 9980939910       |
| Montana                 | CERT0086    | Wyoming                     | A2LA             |

## Third Party Federal Accreditations

|                               |         |                    |               |
|-------------------------------|---------|--------------------|---------------|
| A2LA – ISO 17025              | 1461.01 | AIHA-LAP,LLC EMLAP | 100789        |
| A2LA – ISO 17025 <sup>5</sup> | 1461.02 | DOD                | 1461.01       |
| Canada                        | 1461.01 | USDA               | P330-15-00234 |
| EPA-Crypto                    | TN00003 |                    |               |

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

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

**SCS Engineers - KS**  
 8575 W. 110th Street  
 Overland Park, KS 66210

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

Pres  
 Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



Report to:  
**Jason Franks**

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

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

City/State Collected:

Please Circle:  
 PT MT **CT** ET

Phone: **913-681-0030**

Client Project #  
**27213168.20**

Lab Project #  
**AQUAOPKS-MONTROSE**

Collected by (print):  
*Whit Martin*

Site/Facility ID #

P.O. #

Collected by (signature):  
*Whit Martin*

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

Quote #

Immediately Packed on ice N \_\_\_ Y **X**

Date Results Needed  
**Std**

No. of Cntrs

| Sample ID     | Comp/Grab | Matrix * | Depth | Date    | Time | No. of Cntrs | Antions (Cl <sub>d</sub> , F, SO <sub>4</sub> ) | 125mIHDP | NO <sub>3</sub> | B, Ca - 6010 | 250mIHDP | NO <sub>3</sub> | TDS 250mIHDP | NO <sub>3</sub> |
|---------------|-----------|----------|-------|---------|------|--------------|---|----------|-----------------|--------------|----------|-----------------|--------------|-----------------|
| MW-506        | G         | GW       |       | 5-21-20 | 1435 | 3            | X   | X        | X               |              |          |                 |              |                 |
| MW-506 MS/MSD | G         | GW       |       | 5-21-20 | 1445 | 3            | X   | X        | X               |              |          |                 |              |                 |
| DUPLICATE     | G         | GW       |       | 5-21-20 | 1435 | 3            | X   | X        | X               |              |          |                 |              |                 |

12065 Lebanon Rd  
 Mount Juliet, TN 37122  
 Phone: 615-758-5858  
 Phone: 800-767-5859  
 Fax: 615-758-5859



SDG # **U221866**  
 Tab **G034**  
 Acctnum: **AQUAOPKS**  
 Template: **T166717**  
 Prelogin: **P769451**  
 PM: 206 - Jeff Carr  
 Shipped Via:  
 Remarks Sample # (lab only)

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

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

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

Relinquished by: (Signature)  
*BR*

Date: **5/22/20**

Time: **1300**

Received by: (Signature) **Alan Nelson**  
**5-22-20 1300**

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

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: **13.3 °C**  
**2.4 to 2.4**  
 Bottles Received: **9**

If preservation required by LogIn: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)  
*Handwritten signature*

Date: **5/23/20**  
 Time: **845**

Hold: Condition: **NCF / OK**



## SCS Engineers - KS

Sample Delivery Group: L1221868  
Samples Received: 05/23/2020  
Project Number: 27213168.20  
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.



|   |           |                       |
|---|-----------|-----------------------|
| <b>Cp: Cover Page</b>                     | <b>1</b>  | <b><sup>1</sup>Cp</b> |
| <b>Tc: Table of Contents</b>              | <b>2</b>  |                       |
| <b>Ss: Sample Summary</b>                 | <b>3</b>  | <b><sup>2</sup>Tc</b> |
| <b>Cn: Case Narrative</b>                 | <b>5</b>  |                       |
| <b>Sr: Sample Results</b>                 | <b>6</b>  | <b><sup>3</sup>Ss</b> |
| 506 L1221868-01                           | 6         |                       |
| DUPLICATE L1221868-02                     | 7         | <b><sup>4</sup>Cn</b> |
| 601 L1221868-03                           | 8         | <b><sup>5</sup>Sr</b> |
| 602 L1221868-04                           | 9         |                       |
| 603 L1221868-05                           | 10        | <b><sup>6</sup>Qc</b> |
| 604 L1221868-06                           | 11        |                       |
| 605 L1221868-07                           | 12        | <b><sup>7</sup>Gl</b> |
| 701 L1221868-08                           | 13        |                       |
| 702 L1221868-09                           | 14        | <b><sup>8</sup>Al</b> |
| 703 L1221868-10                           | 15        |                       |
| 704 L1221868-11                           | 16        | <b><sup>9</sup>Sc</b> |
| 705 L1221868-12                           | 17        |                       |
| 706 L1221868-13                           | 18        |                       |
| <b>Qc: Quality Control Summary</b>        | <b>19</b> |                       |
| Mercury by Method 7470A                   | 19        |                       |
| Metals (ICP) by Method 6010B              | 20        |                       |
| Metals (ICPMS) by Method 6020             | 23        |                       |
| <b>Gl: Glossary of Terms</b>              | <b>24</b> |                       |
| <b>Al: Accreditations &amp; Locations</b> | <b>25</b> |                       |
| <b>Sc: Sample Chain of Custody</b>        | <b>26</b> |                       |

# SAMPLE SUMMARY



## 506 L1221868-01 GW

| Method                       | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Metals (ICP) by Method 6010B | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 09:48     | EL      | Mt. Juliet, TN |

Collected by Whit Martin  
 Collected date/time 05/21/20 14:35  
 Received date/time 05/23/20 08:45

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## DUPLICATE L1221868-02 GW

| Method                       | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Metals (ICP) by Method 6010B | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:27     | EL      | Mt. Juliet, TN |

Collected by Whit Martin  
 Collected date/time 05/21/20 14:35  
 Received date/time 05/23/20 08:45

## 601 L1221868-03 GW

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Mercury by Method 7470A       | WG1481594 | 1        | 05/26/20 18:15        | 05/27/20 08:37     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B  | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:30     | EL      | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020 | WG1480615 | 1        | 05/26/20 18:21        | 05/26/20 23:09     | LD      | Mt. Juliet, TN |

Collected by Whit Martin  
 Collected date/time 05/21/20 12:25  
 Received date/time 05/23/20 08:45

## 602 L1221868-04 GW

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Mercury by Method 7470A       | WG1481594 | 1        | 05/26/20 18:15        | 05/27/20 08:39     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B  | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:38     | EL      | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020 | WG1480615 | 1        | 05/26/20 18:21        | 05/26/20 23:13     | LD      | Mt. Juliet, TN |

Collected by Whit Martin  
 Collected date/time 05/21/20 10:20  
 Received date/time 05/23/20 08:45

## 603 L1221868-05 GW

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Mercury by Method 7470A       | WG1481594 | 1        | 05/26/20 18:15        | 05/27/20 08:41     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B  | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:41     | EL      | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020 | WG1480615 | 1        | 05/26/20 18:21        | 05/26/20 22:06     | LD      | Mt. Juliet, TN |

Collected by Whit Martin  
 Collected date/time 05/21/20 12:05  
 Received date/time 05/23/20 08:45

## 604 L1221868-06 GW

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Mercury by Method 7470A       | WG1481594 | 1        | 05/26/20 18:15        | 05/27/20 08:43     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B  | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:44     | EL      | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020 | WG1480615 | 1        | 05/26/20 18:21        | 05/26/20 23:16     | LD      | Mt. Juliet, TN |

Collected by Whit Martin  
 Collected date/time 05/21/20 13:25  
 Received date/time 05/23/20 08:45

## 605 L1221868-07 GW

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Mercury by Method 7470A       | WG1481594 | 1        | 05/26/20 18:15        | 05/27/20 08:51     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B  | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:47     | EL      | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020 | WG1480615 | 1        | 05/26/20 18:21        | 05/26/20 23:20     | LD      | Mt. Juliet, TN |

Collected by Whit Martin  
 Collected date/time 05/21/20 14:10  
 Received date/time 05/23/20 08:45

# SAMPLE SUMMARY



## 701 L1221868-08 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 17:10

Received date/time  
05/23/20 08:45

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Mercury by Method 7470A       | WG1481594 | 1        | 05/26/20 18:15        | 05/27/20 08:53     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B  | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:50     | EL      | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020 | WG1480615 | 1        | 05/26/20 18:21        | 05/26/20 23:23     | LD      | Mt. Juliet, TN |

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## 702 L1221868-09 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 16:25

Received date/time  
05/23/20 08:45

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Mercury by Method 7470A       | WG1481594 | 1        | 05/26/20 18:15        | 05/27/20 08:54     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B  | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:53     | EL      | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020 | WG1480615 | 1        | 05/26/20 18:21        | 05/26/20 23:41     | LD      | Mt. Juliet, TN |

## 703 L1221868-10 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 15:05

Received date/time  
05/23/20 08:45

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Mercury by Method 7470A       | WG1481594 | 1        | 05/26/20 18:15        | 05/27/20 08:56     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B  | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:56     | EL      | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020 | WG1480615 | 1        | 05/26/20 18:21        | 05/26/20 23:44     | LD      | Mt. Juliet, TN |

## 704 L1221868-11 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 15:25

Received date/time  
05/23/20 08:45

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Mercury by Method 7470A       | WG1481594 | 1        | 05/26/20 18:15        | 05/27/20 08:58     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B  | WG1480612 | 1        | 05/27/20 18:40        | 05/28/20 11:32     | EL      | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020 | WG1480615 | 1        | 05/26/20 18:21        | 05/26/20 23:48     | LD      | Mt. Juliet, TN |

## 705 L1221868-12 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 13:00

Received date/time  
05/23/20 08:45

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Mercury by Method 7470A       | WG1481594 | 1        | 05/26/20 18:15        | 05/27/20 09:00     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B  | WG1482049 | 1        | 05/26/20 22:12        | 05/28/20 15:31     | EL      | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020 | WG1480615 | 1        | 05/26/20 18:21        | 05/26/20 23:51     | LD      | Mt. Juliet, TN |

## 706 L1221868-13 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 10:25

Received date/time  
05/23/20 08:45

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Mercury by Method 7470A       | WG1481594 | 1        | 05/26/20 18:15        | 05/27/20 09:02     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B  | WG1482049 | 1        | 05/26/20 22:12        | 05/28/20 15:33     | EL      | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020 | WG1480615 | 1        | 05/26/20 18:21        | 05/26/20 23:54     | LD      | Mt. Juliet, TN |



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

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



Metals (ICP) by Method 6010B

| Analyte    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|------------|--------|-----------|------|----------|----------------------|---------------------------|
| Lithium    | 205    |           | 15.0 | 1        | 05/30/2020 09:48     | <a href="#">WG1481523</a> |
| Molybdenum | ND     |           | 5.00 | 1        | 05/30/2020 09:48     | <a href="#">WG1481523</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Collected date/time: 05/21/20 14:35

L1221868

Metals (ICP) by Method 6010B

| Analyte    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|------------|--------|-----------|------|----------|----------------------|---------------------------|
| Lithium    | 204    |           | 15.0 | 1        | 05/30/2020 10:27     | <a href="#">WG1481523</a> |
| Molybdenum | ND     |           | 5.00 | 1        | 05/30/2020 10:27     | <a href="#">WG1481523</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 08:37     | <a href="#">WG1481594</a> |

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

| Analyte    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|------------|--------|-----------|------|----------|----------------------|---------------------------|
| Barium     | 9.73   |           | 5.00 | 1        | 05/30/2020 10:30     | <a href="#">WG1481523</a> |
| Chromium   | ND     |           | 10.0 | 1        | 05/30/2020 10:30     | <a href="#">WG1481523</a> |
| Cobalt     | ND     |           | 10.0 | 1        | 05/30/2020 10:30     | <a href="#">WG1481523</a> |
| Lithium    | 286    |           | 15.0 | 1        | 05/30/2020 10:30     | <a href="#">WG1481523</a> |
| Molybdenum | ND     |           | 5.00 | 1        | 05/30/2020 10:30     | <a href="#">WG1481523</a> |

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Antimony  | ND     |           | 4.00 | 1        | 05/26/2020 23:09     | <a href="#">WG1480615</a> |
| Arsenic   | ND     |           | 2.00 | 1        | 05/26/2020 23:09     | <a href="#">WG1480615</a> |
| Beryllium | ND     |           | 2.00 | 1        | 05/26/2020 23:09     | <a href="#">WG1480615</a> |
| Cadmium   | 1.38   |           | 1.00 | 1        | 05/26/2020 23:09     | <a href="#">WG1480615</a> |
| Lead      | ND     |           | 5.00 | 1        | 05/26/2020 23:09     | <a href="#">WG1480615</a> |
| Selenium  | 4.99   |           | 2.00 | 1        | 05/26/2020 23:09     | <a href="#">WG1480615</a> |
| Thallium  | ND     |           | 2.00 | 1        | 05/26/2020 23:09     | <a href="#">WG1480615</a> |

7 Gl

8 Al

9 Sc





## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 08:39     | <a href="#">WG1481594</a> |

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

| Analyte    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|------------|--------|-----------|------|----------|----------------------|---------------------------|
| Barium     | 20.0   |           | 5.00 | 1        | 05/30/2020 10:38     | <a href="#">WG1481523</a> |
| Chromium   | ND     |           | 10.0 | 1        | 05/30/2020 10:38     | <a href="#">WG1481523</a> |
| Cobalt     | 110    |           | 10.0 | 1        | 05/30/2020 10:38     | <a href="#">WG1481523</a> |
| Lithium    | 85.9   |           | 15.0 | 1        | 05/30/2020 10:38     | <a href="#">WG1481523</a> |
| Molybdenum | ND     |           | 5.00 | 1        | 05/30/2020 10:38     | <a href="#">WG1481523</a> |

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Antimony  | ND     |           | 4.00 | 1        | 05/26/2020 23:13     | <a href="#">WG1480615</a> |
| Arsenic   | 5.24   |           | 2.00 | 1        | 05/26/2020 23:13     | <a href="#">WG1480615</a> |
| Beryllium | ND     |           | 2.00 | 1        | 05/26/2020 23:13     | <a href="#">WG1480615</a> |
| Cadmium   | ND     |           | 1.00 | 1        | 05/26/2020 23:13     | <a href="#">WG1480615</a> |
| Lead      | ND     |           | 5.00 | 1        | 05/26/2020 23:13     | <a href="#">WG1480615</a> |
| Selenium  | ND     |           | 2.00 | 1        | 05/26/2020 23:13     | <a href="#">WG1480615</a> |
| Thallium  | ND     |           | 2.00 | 1        | 05/26/2020 23:13     | <a href="#">WG1480615</a> |

7 Gl

8 Al

9 Sc



## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 08:41     | <a href="#">WG1481594</a> |

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

| Analyte    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|------------|--------|-----------|------|----------|----------------------|---------------------------|
| Barium     | 9.07   |           | 5.00 | 1        | 05/30/2020 10:41     | <a href="#">WG1481523</a> |
| Chromium   | ND     |           | 10.0 | 1        | 05/30/2020 10:41     | <a href="#">WG1481523</a> |
| Cobalt     | 35.7   |           | 10.0 | 1        | 05/30/2020 10:41     | <a href="#">WG1481523</a> |
| Lithium    | 131    |           | 15.0 | 1        | 05/30/2020 10:41     | <a href="#">WG1481523</a> |
| Molybdenum | ND     |           | 5.00 | 1        | 05/30/2020 10:41     | <a href="#">WG1481523</a> |

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Antimony  | ND     |           | 4.00 | 1        | 05/26/2020 22:06     | <a href="#">WG1480615</a> |
| Arsenic   | ND     |           | 2.00 | 1        | 05/26/2020 22:06     | <a href="#">WG1480615</a> |
| Beryllium | ND     |           | 2.00 | 1        | 05/26/2020 22:06     | <a href="#">WG1480615</a> |
| Cadmium   | 3.52   |           | 1.00 | 1        | 05/26/2020 22:06     | <a href="#">WG1480615</a> |
| Lead      | ND     |           | 5.00 | 1        | 05/26/2020 22:06     | <a href="#">WG1480615</a> |
| Selenium  | 27.7   |           | 2.00 | 1        | 05/26/2020 22:06     | <a href="#">WG1480615</a> |
| Thallium  | ND     |           | 2.00 | 1        | 05/26/2020 22:06     | <a href="#">WG1480615</a> |

7 Gl

8 Al

9 Sc



## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 08:43     | <a href="#">WG1481594</a> |

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

| Analyte    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|------------|--------|-----------|------|----------|----------------------|---------------------------|
| Barium     | 14.5   |           | 5.00 | 1        | 05/30/2020 10:44     | <a href="#">WG1481523</a> |
| Chromium   | ND     |           | 10.0 | 1        | 05/30/2020 10:44     | <a href="#">WG1481523</a> |
| Cobalt     | ND     |           | 10.0 | 1        | 05/30/2020 10:44     | <a href="#">WG1481523</a> |
| Lithium    | 106    |           | 15.0 | 1        | 05/30/2020 10:44     | <a href="#">WG1481523</a> |
| Molybdenum | ND     |           | 5.00 | 1        | 05/30/2020 10:44     | <a href="#">WG1481523</a> |

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Antimony  | ND     |           | 4.00 | 1        | 05/26/2020 23:16     | <a href="#">WG1480615</a> |
| Arsenic   | ND     |           | 2.00 | 1        | 05/26/2020 23:16     | <a href="#">WG1480615</a> |
| Beryllium | ND     |           | 2.00 | 1        | 05/26/2020 23:16     | <a href="#">WG1480615</a> |
| Cadmium   | 1.04   |           | 1.00 | 1        | 05/26/2020 23:16     | <a href="#">WG1480615</a> |
| Lead      | ND     |           | 5.00 | 1        | 05/26/2020 23:16     | <a href="#">WG1480615</a> |
| Selenium  | ND     |           | 2.00 | 1        | 05/26/2020 23:16     | <a href="#">WG1480615</a> |
| Thallium  | ND     |           | 2.00 | 1        | 05/26/2020 23:16     | <a href="#">WG1480615</a> |

7 Gl

8 Al

9 Sc



## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 08:51     | <a href="#">WG1481594</a> |

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

| Analyte    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|------------|--------|-----------|------|----------|----------------------|---------------------------|
| Barium     | 9.58   |           | 5.00 | 1        | 05/30/2020 10:47     | <a href="#">WG1481523</a> |
| Chromium   | ND     |           | 10.0 | 1        | 05/30/2020 10:47     | <a href="#">WG1481523</a> |
| Cobalt     | 119    |           | 10.0 | 1        | 05/30/2020 10:47     | <a href="#">WG1481523</a> |
| Lithium    | 132    |           | 15.0 | 1        | 05/30/2020 10:47     | <a href="#">WG1481523</a> |
| Molybdenum | ND     |           | 5.00 | 1        | 05/30/2020 10:47     | <a href="#">WG1481523</a> |

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Antimony  | ND     |           | 4.00 | 1        | 05/26/2020 23:20     | <a href="#">WG1480615</a> |
| Arsenic   | ND     |           | 2.00 | 1        | 05/26/2020 23:20     | <a href="#">WG1480615</a> |
| Beryllium | ND     |           | 2.00 | 1        | 05/26/2020 23:20     | <a href="#">WG1480615</a> |
| Cadmium   | 2.25   |           | 1.00 | 1        | 05/26/2020 23:20     | <a href="#">WG1480615</a> |
| Lead      | ND     |           | 5.00 | 1        | 05/26/2020 23:20     | <a href="#">WG1480615</a> |
| Selenium  | ND     |           | 2.00 | 1        | 05/26/2020 23:20     | <a href="#">WG1480615</a> |
| Thallium  | ND     |           | 2.00 | 1        | 05/26/2020 23:20     | <a href="#">WG1480615</a> |

7 Gl

8 Al

9 Sc



## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | 0.476  |           | 0.200 | 1        | 05/27/2020 08:53     | <a href="#">WG1481594</a> |

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

| Analyte    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|------------|--------|-----------|------|----------|----------------------|---------------------------|
| Barium     | 8.50   |           | 5.00 | 1        | 05/30/2020 10:50     | <a href="#">WG1481523</a> |
| Chromium   | ND     |           | 10.0 | 1        | 05/30/2020 10:50     | <a href="#">WG1481523</a> |
| Cobalt     | 30.9   |           | 10.0 | 1        | 05/30/2020 10:50     | <a href="#">WG1481523</a> |
| Lithium    | 197    |           | 15.0 | 1        | 05/30/2020 10:50     | <a href="#">WG1481523</a> |
| Molybdenum | ND     |           | 5.00 | 1        | 05/30/2020 10:50     | <a href="#">WG1481523</a> |

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Antimony  | ND     |           | 4.00 | 1        | 05/26/2020 23:23     | <a href="#">WG1480615</a> |
| Arsenic   | ND     |           | 2.00 | 1        | 05/26/2020 23:23     | <a href="#">WG1480615</a> |
| Beryllium | 2.11   |           | 2.00 | 1        | 05/26/2020 23:23     | <a href="#">WG1480615</a> |
| Cadmium   | 5.07   |           | 1.00 | 1        | 05/26/2020 23:23     | <a href="#">WG1480615</a> |
| Lead      | ND     |           | 5.00 | 1        | 05/26/2020 23:23     | <a href="#">WG1480615</a> |
| Selenium  | 7.89   |           | 2.00 | 1        | 05/26/2020 23:23     | <a href="#">WG1480615</a> |
| Thallium  | ND     |           | 2.00 | 1        | 05/26/2020 23:23     | <a href="#">WG1480615</a> |

7 Gl

8 Al

9 Sc



## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 08:54     | <a href="#">WG1481594</a> |

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

| Analyte    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|------------|--------|-----------|------|----------|----------------------|---------------------------|
| Barium     | 11.9   |           | 5.00 | 1        | 05/30/2020 10:53     | <a href="#">WG1481523</a> |
| Chromium   | ND     |           | 10.0 | 1        | 05/30/2020 10:53     | <a href="#">WG1481523</a> |
| Cobalt     | ND     |           | 10.0 | 1        | 05/30/2020 10:53     | <a href="#">WG1481523</a> |
| Lithium    | 51.9   |           | 15.0 | 1        | 05/30/2020 10:53     | <a href="#">WG1481523</a> |
| Molybdenum | ND     |           | 5.00 | 1        | 05/30/2020 10:53     | <a href="#">WG1481523</a> |

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Antimony  | ND     |           | 4.00 | 1        | 05/26/2020 23:41     | <a href="#">WG1480615</a> |
| Arsenic   | 3.09   |           | 2.00 | 1        | 05/26/2020 23:41     | <a href="#">WG1480615</a> |
| Beryllium | ND     |           | 2.00 | 1        | 05/26/2020 23:41     | <a href="#">WG1480615</a> |
| Cadmium   | ND     |           | 1.00 | 1        | 05/26/2020 23:41     | <a href="#">WG1480615</a> |
| Lead      | ND     |           | 5.00 | 1        | 05/26/2020 23:41     | <a href="#">WG1480615</a> |
| Selenium  | ND     |           | 2.00 | 1        | 05/26/2020 23:41     | <a href="#">WG1480615</a> |
| Thallium  | ND     |           | 2.00 | 1        | 05/26/2020 23:41     | <a href="#">WG1480615</a> |

7 Gl

8 Al

9 Sc



## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 08:56     | <a href="#">WG1481594</a> |

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

| Analyte    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|------------|--------|-----------|------|----------|----------------------|---------------------------|
| Barium     | 35.2   |           | 5.00 | 1        | 05/30/2020 10:56     | <a href="#">WG1481523</a> |
| Chromium   | ND     |           | 10.0 | 1        | 05/30/2020 10:56     | <a href="#">WG1481523</a> |
| Cobalt     | ND     |           | 10.0 | 1        | 05/30/2020 10:56     | <a href="#">WG1481523</a> |
| Lithium    | 58.4   |           | 15.0 | 1        | 05/30/2020 10:56     | <a href="#">WG1481523</a> |
| Molybdenum | ND     |           | 5.00 | 1        | 05/30/2020 10:56     | <a href="#">WG1481523</a> |

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Antimony  | ND     |           | 4.00 | 1        | 05/26/2020 23:44     | <a href="#">WG1480615</a> |
| Arsenic   | ND     |           | 2.00 | 1        | 05/26/2020 23:44     | <a href="#">WG1480615</a> |
| Beryllium | ND     |           | 2.00 | 1        | 05/26/2020 23:44     | <a href="#">WG1480615</a> |
| Cadmium   | ND     |           | 1.00 | 1        | 05/26/2020 23:44     | <a href="#">WG1480615</a> |
| Lead      | ND     |           | 5.00 | 1        | 05/26/2020 23:44     | <a href="#">WG1480615</a> |
| Selenium  | ND     |           | 2.00 | 1        | 05/26/2020 23:44     | <a href="#">WG1480615</a> |
| Thallium  | ND     |           | 2.00 | 1        | 05/26/2020 23:44     | <a href="#">WG1480615</a> |

7 Gl

8 Al

9 Sc



Collected date/time: 05/21/20 15:25

L1221868

## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 08:58     | <a href="#">WG1481594</a> |

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

| Analyte    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|------------|--------|-----------|------|----------|----------------------|---------------------------|
| Barium     | 52.6   |           | 5.00 | 1        | 05/28/2020 11:32     | <a href="#">WG1480612</a> |
| Chromium   | ND     |           | 10.0 | 1        | 05/28/2020 11:32     | <a href="#">WG1480612</a> |
| Cobalt     | ND     |           | 10.0 | 1        | 05/28/2020 11:32     | <a href="#">WG1480612</a> |
| Lithium    | 54.5   |           | 15.0 | 1        | 05/28/2020 11:32     | <a href="#">WG1480612</a> |
| Molybdenum | ND     |           | 5.00 | 1        | 05/28/2020 11:32     | <a href="#">WG1480612</a> |

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Antimony  | ND     |           | 4.00 | 1        | 05/26/2020 23:48     | <a href="#">WG1480615</a> |
| Arsenic   | 13.7   |           | 2.00 | 1        | 05/26/2020 23:48     | <a href="#">WG1480615</a> |
| Beryllium | ND     |           | 2.00 | 1        | 05/26/2020 23:48     | <a href="#">WG1480615</a> |
| Cadmium   | ND     |           | 1.00 | 1        | 05/26/2020 23:48     | <a href="#">WG1480615</a> |
| Lead      | ND     |           | 5.00 | 1        | 05/26/2020 23:48     | <a href="#">WG1480615</a> |
| Selenium  | ND     |           | 2.00 | 1        | 05/26/2020 23:48     | <a href="#">WG1480615</a> |
| Thallium  | ND     |           | 2.00 | 1        | 05/26/2020 23:48     | <a href="#">WG1480615</a> |

7 Gl

8 Al

9 Sc





## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 09:00     | <a href="#">WG1481594</a> |

## Metals (ICP) by Method 6010B

| Analyte    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|------------|--------|-----------|------|----------|----------------------|---------------------------|
| Barium     | 54.7   |           | 5.00 | 1        | 05/28/2020 15:31     | <a href="#">WG1482049</a> |
| Chromium   | ND     |           | 10.0 | 1        | 05/28/2020 15:31     | <a href="#">WG1482049</a> |
| Cobalt     | ND     |           | 10.0 | 1        | 05/28/2020 15:31     | <a href="#">WG1482049</a> |
| Lithium    | 69.5   |           | 15.0 | 1        | 05/28/2020 15:31     | <a href="#">WG1482049</a> |
| Molybdenum | ND     |           | 5.00 | 1        | 05/28/2020 15:31     | <a href="#">WG1482049</a> |

## Metals (ICPMS) by Method 6020

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Antimony  | ND     |           | 4.00 | 1        | 05/26/2020 23:51     | <a href="#">WG1480615</a> |
| Arsenic   | 6.47   |           | 2.00 | 1        | 05/26/2020 23:51     | <a href="#">WG1480615</a> |
| Beryllium | ND     |           | 2.00 | 1        | 05/26/2020 23:51     | <a href="#">WG1480615</a> |
| Cadmium   | ND     |           | 1.00 | 1        | 05/26/2020 23:51     | <a href="#">WG1480615</a> |
| Lead      | ND     |           | 5.00 | 1        | 05/26/2020 23:51     | <a href="#">WG1480615</a> |
| Selenium  | ND     |           | 2.00 | 1        | 05/26/2020 23:51     | <a href="#">WG1480615</a> |
| Thallium  | ND     |           | 2.00 | 1        | 05/26/2020 23:51     | <a href="#">WG1480615</a> |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 09:02     | <a href="#">WG1481594</a> |

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

| Analyte    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|------------|--------|-----------|------|----------|----------------------|---------------------------|
| Barium     | 30.4   |           | 5.00 | 1        | 05/28/2020 15:33     | <a href="#">WG1482049</a> |
| Chromium   | ND     |           | 10.0 | 1        | 05/28/2020 15:33     | <a href="#">WG1482049</a> |
| Cobalt     | 10.3   |           | 10.0 | 1        | 05/28/2020 15:33     | <a href="#">WG1482049</a> |
| Lithium    | 47.2   |           | 15.0 | 1        | 05/28/2020 15:33     | <a href="#">WG1482049</a> |
| Molybdenum | ND     |           | 5.00 | 1        | 05/28/2020 15:33     | <a href="#">WG1482049</a> |

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Antimony  | ND     |           | 4.00 | 1        | 05/26/2020 23:54     | <a href="#">WG1480615</a> |
| Arsenic   | 12.4   |           | 2.00 | 1        | 05/26/2020 23:54     | <a href="#">WG1480615</a> |
| Beryllium | ND     |           | 2.00 | 1        | 05/26/2020 23:54     | <a href="#">WG1480615</a> |
| Cadmium   | ND     |           | 1.00 | 1        | 05/26/2020 23:54     | <a href="#">WG1480615</a> |
| Lead      | ND     |           | 5.00 | 1        | 05/26/2020 23:54     | <a href="#">WG1480615</a> |
| Selenium  | ND     |           | 2.00 | 1        | 05/26/2020 23:54     | <a href="#">WG1480615</a> |
| Thallium  | ND     |           | 2.00 | 1        | 05/26/2020 23:54     | <a href="#">WG1480615</a> |

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3532052-1 05/27/20 08:07

| Analyte | MB Result<br>ug/l | MB Qualifier | MB MDL<br>ug/l | MB RDL<br>ug/l |
|---------|-------------------|--------------|----------------|----------------|
| Mercury | U                 |              | 0.100          | 0.200          |

Laboratory Control Sample (LCS)

(LCS) R3532052-4 05/27/20 10:11

| Analyte | Spike Amount<br>ug/l | LCS Result<br>ug/l | LCS Rec.<br>% | Rec. Limits<br>% | LCS Qualifier |
|---------|----------------------|--------------------|---------------|------------------|---------------|
| Mercury | 3.00                 | 2.70               | 90.1          | 80.0-120         |               |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3532782-1 05/28/20 10:11

| Analyte    | MB Result | MB Qualifier | MB MDL | MB RDL |
|------------|-----------|--------------|--------|--------|
|            | ug/l      |              | ug/l   | ug/l   |
| Barium     | U         |              | 0.895  | 5.00   |
| Chromium   | U         |              | 5.00   | 10.0   |
| Cobalt     | U         |              | 0.807  | 10.0   |
| Lithium    | U         |              | 5.74   | 15.0   |
| Molybdenum | U         |              | 1.04   | 5.00   |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

Laboratory Control Sample (LCS)

(LCS) R3532782-2 05/28/20 10:13

| Analyte    | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|------------|--------------|------------|----------|-------------|---------------|
|            | ug/l         | ug/l       | %        | %           |               |
| Barium     | 1000         | 1000       | 100      | 80.0-120    |               |
| Chromium   | 1000         | 983        | 98.3     | 80.0-120    |               |
| Cobalt     | 1000         | 990        | 99.0     | 80.0-120    |               |
| Lithium    | 1000         | 967        | 96.7     | 80.0-120    |               |
| Molybdenum | 1000         | 998        | 99.8     | 80.0-120    |               |

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3533429-1 05/30/20 09:32

| Analyte    | MB Result | MB Qualifier | MB MDL | MB RDL |
|------------|-----------|--------------|--------|--------|
|            | ug/l      |              | ug/l   | ug/l   |
| Barium     | U         |              | 0.895  | 5.00   |
| Chromium   | U         |              | 5.00   | 10.0   |
| Cobalt     | 0.817     | ↓            | 0.807  | 10.0   |
| Lithium    | U         |              | 5.74   | 15.0   |
| Molybdenum | U         |              | 1.04   | 5.00   |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

Laboratory Control Sample (LCS)

(LCS) R3533429-2 05/30/20 09:34

| Analyte    | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|------------|--------------|------------|----------|-------------|---------------|
|            | ug/l         | ug/l       | %        | %           |               |
| Barium     | 1000         | 985        | 98.5     | 80.0-120    |               |
| Chromium   | 1000         | 961        | 96.1     | 80.0-120    |               |
| Cobalt     | 1000         | 990        | 99.0     | 80.0-120    |               |
| Lithium    | 1000         | 954        | 95.4     | 80.0-120    |               |
| Molybdenum | 1000         | 973        | 97.3     | 80.0-120    |               |

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1221866-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221866-01 05/30/20 09:37 • (MS) R3533429-4 05/30/20 09:43 • (MSD) R3533429-5 05/30/20 09:45

| Analyte    | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD    | RPD Limits |
|------------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|--------|------------|
|            | ug/l         | ug/l            | ug/l      | ug/l       | %       | %        |          | %           |              |               | %      | %          |
| Barium     | 1000         | 9.72            | 986       | 986        | 97.6    | 97.6     | 1        | 75.0-125    |              |               | 0.0470 | 20         |
| Chromium   | 1000         | ND              | 949       | 942        | 94.9    | 94.2     | 1        | 75.0-125    |              |               | 0.767  | 20         |
| Cobalt     | 1000         | ND              | 1050      | 1040       | 104     | 104      | 1        | 75.0-125    |              |               | 0.296  | 20         |
| Lithium    | 1000         | 202             | 1160      | 1150       | 95.4    | 94.5     | 1        | 75.0-125    |              |               | 0.753  | 20         |
| Molybdenum | 1000         | ND              | 988       | 983        | 98.6    | 98.1     | 1        | 75.0-125    |              |               | 0.500  | 20         |

L1221868-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221868-01 05/30/20 09:48 • (MS) R3533429-6 05/30/20 09:51 • (MSD) R3533429-7 05/30/20 09:54

| Analyte    | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|------------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
|            | ug/l         | ug/l            | ug/l      | ug/l       | %       | %        |          | %           |              |               | %     | %          |
| Barium     | 1000         | 10.7            | 981       | 973        | 97.1    | 96.3     | 1        | 75.0-125    |              |               | 0.813 | 20         |
| Chromium   | 1000         | ND              | 939       | 942        | 93.9    | 94.2     | 1        | 75.0-125    |              |               | 0.368 | 20         |
| Cobalt     | 1000         | ND              | 1040      | 1030       | 104     | 103      | 1        | 75.0-125    |              |               | 0.908 | 20         |
| Lithium    | 1000         | 205             | 1150      | 1140       | 94.0    | 93.6     | 1        | 75.0-125    |              |               | 0.376 | 20         |
| Molybdenum | 1000         | ND              | 980       | 981        | 98.0    | 98.1     | 1        | 75.0-125    |              |               | 0.151 | 20         |



Method Blank (MB)

(MB) R3532811-1 05/28/20 15:08

| Analyte    | MB Result<br>ug/l | MB Qualifier | MB MDL<br>ug/l | MB RDL<br>ug/l |
|------------|-------------------|--------------|----------------|----------------|
| Barium     | U                 |              | 0.895          | 5.00           |
| Chromium   | U                 |              | 5.00           | 10.0           |
| Cobalt     | U                 |              | 0.807          | 10.0           |
| Lithium    | U                 |              | 5.74           | 15.0           |
| Molybdenum | U                 |              | 1.04           | 5.00           |



Laboratory Control Sample (LCS)

(LCS) R3532811-2 05/28/20 15:11

| Analyte    | Spike Amount<br>ug/l | LCS Result<br>ug/l | LCS Rec.<br>% | Rec. Limits<br>% | LCS Qualifier |
|------------|----------------------|--------------------|---------------|------------------|---------------|
| Barium     | 1000                 | 973                | 97.3          | 80.0-120         |               |
| Chromium   | 1000                 | 958                | 95.8          | 80.0-120         |               |
| Cobalt     | 1000                 | 972                | 97.2          | 80.0-120         |               |
| Lithium    | 1000                 | 949                | 94.9          | 80.0-120         |               |
| Molybdenum | 1000                 | 950                | 95.0          | 80.0-120         |               |





Method Blank (MB)

(MB) R3531912-1 05/26/20 21:59

| Analyte   | MB Result | MB Qualifier | MB MDL | MB RDL |
|-----------|-----------|--------------|--------|--------|
|           | ug/l      |              | ug/l   | ug/l   |
| Antimony  | U         |              | 1.32   | 4.00   |
| Arsenic   | U         |              | 0.735  | 2.00   |
| Beryllium | U         |              | 0.454  | 2.00   |
| Cadmium   | U         |              | 0.478  | 1.00   |
| Lead      | U         |              | 2.49   | 5.00   |
| Selenium  | U         |              | 0.657  | 2.00   |
| Thallium  | U         |              | 0.460  | 2.00   |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3531912-2 05/26/20 22:02

| Analyte   | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|-----------|--------------|------------|----------|-------------|---------------|
|           | ug/l         | ug/l       | %        | %           |               |
| Antimony  | 50.0         | 53.6       | 107      | 80.0-120    |               |
| Arsenic   | 50.0         | 46.4       | 92.7     | 80.0-120    |               |
| Beryllium | 50.0         | 53.3       | 107      | 80.0-120    |               |
| Cadmium   | 50.0         | 49.9       | 99.8     | 80.0-120    |               |
| Lead      | 50.0         | 46.7       | 93.4     | 80.0-120    |               |
| Selenium  | 50.0         | 47.5       | 95.0     | 80.0-120    |               |
| Thallium  | 50.0         | 48.6       | 97.2     | 80.0-120    |               |

L1221868-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221868-05 05/26/20 22:06 • (MS) R3531912-4 05/26/20 22:13 • (MSD) R3531912-5 05/26/20 22:16

| Analyte   | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD    | RPD Limits |
|-----------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|--------|------------|
|           | ug/l         | ug/l            | ug/l      | ug/l       | %       | %        |          | %           |              |               | %      | %          |
| Antimony  | 50.0         | ND              | 54.5      | 52.8       | 109     | 106      | 1        | 75.0-125    |              |               | 3.01   | 20         |
| Arsenic   | 50.0         | ND              | 46.2      | 45.0       | 90.6    | 88.2     | 1        | 75.0-125    |              |               | 2.62   | 20         |
| Beryllium | 50.0         | ND              | 50.1      | 51.6       | 97.3    | 100      | 1        | 75.0-125    |              |               | 2.94   | 20         |
| Cadmium   | 50.0         | 3.52            | 54.8      | 54.8       | 103     | 103      | 1        | 75.0-125    |              |               | 0.0481 | 20         |
| Lead      | 50.0         | ND              | 46.8      | 46.6       | 93.5    | 93.2     | 1        | 75.0-125    |              |               | 0.383  | 20         |
| Selenium  | 50.0         | 27.7            | 75.6      | 76.3       | 95.9    | 97.3     | 1        | 75.0-125    |              |               | 0.900  | 20         |
| Thallium  | 50.0         | ND              | 46.1      | 46.8       | 92.2    | 93.7     | 1        | 75.0-125    |              |               | 1.61   | 20         |



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.  |

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

Qualifier Description

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





Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* 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 National.

## State Accreditations

|                         |             |                             |                  |
|-------------------------|-------------|-----------------------------|------------------|
| Alabama                 | 40660       | Nebraska                    | NE-OS-15-05      |
| Alaska                  | 17-026      | Nevada                      | TN-03-2002-34    |
| Arizona                 | AZ0612      | New Hampshire               | 2975             |
| Arkansas                | 88-0469     | New Jersey-NELAP            | TN002            |
| California              | 2932        | New Mexico <sup>1</sup>     | n/a              |
| Colorado                | TN00003     | New York                    | 11742            |
| Connecticut             | PH-0197     | North Carolina              | Env375           |
| Florida                 | E87487      | North Carolina <sup>1</sup> | DW21704          |
| Georgia                 | NELAP       | North Carolina <sup>3</sup> | 41               |
| Georgia <sup>1</sup>    | 923         | North Dakota                | R-140            |
| Idaho                   | TN00003     | Ohio-VAP                    | CL0069           |
| Illinois                | 200008      | Oklahoma                    | 9915             |
| Indiana                 | C-TN-01     | Oregon                      | TN200002         |
| Iowa                    | 364         | Pennsylvania                | 68-02979         |
| Kansas                  | E-10277     | Rhode Island                | LA000356         |
| Kentucky <sup>1,6</sup> | 90010       | South Carolina              | 84004            |
| Kentucky <sup>2</sup>   | 16          | South Dakota                | n/a              |
| Louisiana               | AI30792     | Tennessee <sup>1,4</sup>    | 2006             |
| Louisiana <sup>1</sup>  | LA180010    | Texas                       | T104704245-18-15 |
| Maine                   | TN0002      | Texas <sup>5</sup>          | LAB0152          |
| Maryland                | 324         | Utah                        | TN00003          |
| Massachusetts           | M-TN003     | Vermont                     | VT2006           |
| Michigan                | 9958        | Virginia                    | 460132           |
| Minnesota               | 047-999-395 | Washington                  | C847             |
| Mississippi             | TN00003     | West Virginia               | 233              |
| Missouri                | 340         | Wisconsin                   | 9980939910       |
| Montana                 | CERT0086    | Wyoming                     | A2LA             |

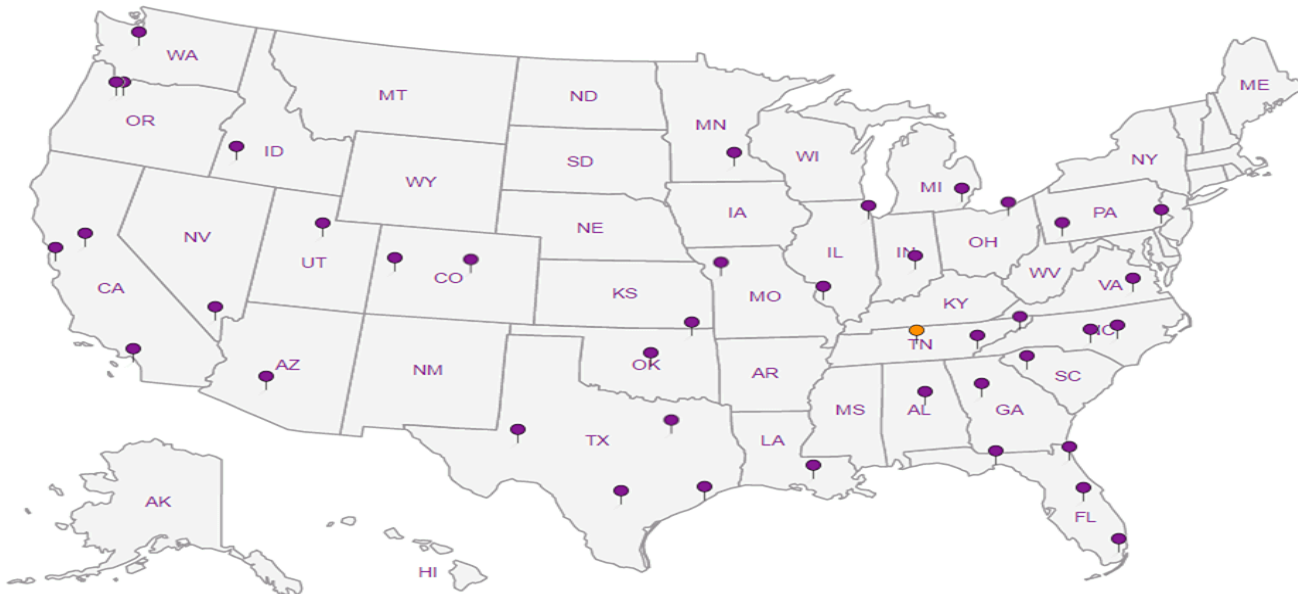
## Third Party Federal Accreditations

|                               |         |                    |               |
|-------------------------------|---------|--------------------|---------------|
| A2LA – ISO 17025              | 1461.01 | AIHA-LAP,LLC EMLAP | 100789        |
| A2LA – ISO 17025 <sup>5</sup> | 1461.02 | DOD                | 1461.01       |
| Canada                        | 1461.01 | USDA               | P330-15-00234 |
| EPA-Crypto                    | TN00003 |                    |               |

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

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc







## SCS Engineers - KS

Sample Delivery Group: L1221882  
Samples Received: 05/23/2020  
Project Number: 27213167.16  
Description: Evergy - Montrose Gen Station GW

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




Entire Report Reviewed By:



Jason Romer  
Project Manager

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



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# SAMPLE SUMMARY



## 506 L1221882-01 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 14:35  
Received date/time  
05/23/20 08:45

| Method                                | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|---------------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Radiochemistry by Method 904          | WG1489466 | 1        | 06/12/20 09:13        | 06/19/20 14:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method Calculation  | WG1493951 | 1        | 06/17/20 14:23        | 06/19/20 14:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method SM7500Ra B M | WG1493951 | 1        | 06/17/20 14:23        | 06/19/20 07:25     | RGT     | Mt. Juliet, TN |

1  
Cp

2  
Tc

3  
Ss

## 601 L1221882-02 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 12:25  
Received date/time  
05/23/20 08:45

| Method                                | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|---------------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Radiochemistry by Method 904          | WG1489466 | 1        | 06/12/20 09:13        | 06/19/20 14:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method Calculation  | WG1493951 | 1        | 06/17/20 14:23        | 06/19/20 14:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method SM7500Ra B M | WG1493951 | 1        | 06/17/20 14:23        | 06/19/20 07:25     | RGT     | Mt. Juliet, TN |

4  
Cn

5  
Sr

6  
Qc

## 602 L1221882-03 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 10:20  
Received date/time  
05/23/20 08:45

| Method                                | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|---------------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Radiochemistry by Method 904          | WG1489466 | 1        | 06/12/20 09:13        | 06/19/20 14:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method Calculation  | WG1493951 | 1        | 06/17/20 14:23        | 06/19/20 14:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method SM7500Ra B M | WG1493951 | 1        | 06/17/20 14:23        | 06/19/20 07:25     | RGT     | Mt. Juliet, TN |

7  
Gl

8  
Al

9  
Sc

## 603 L1221882-04 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 12:05  
Received date/time  
05/23/20 08:45

| Method                                | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|---------------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Radiochemistry by Method 904          | WG1489466 | 1        | 06/12/20 09:13        | 06/19/20 14:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method Calculation  | WG1493951 | 1        | 06/17/20 14:23        | 06/19/20 14:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method SM7500Ra B M | WG1493951 | 1        | 06/17/20 14:23        | 06/19/20 07:25     | RGT     | Mt. Juliet, TN |

## 604 L1221882-05 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 13:25  
Received date/time  
05/23/20 08:45

| Method                                | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|---------------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Radiochemistry by Method 904          | WG1489466 | 1        | 06/12/20 09:13        | 06/19/20 14:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method Calculation  | WG1493976 | 1        | 06/18/20 13:59        | 06/19/20 16:25     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method SM7500Ra B M | WG1493976 | 1        | 06/18/20 13:59        | 06/19/20 16:25     | RGT     | Mt. Juliet, TN |

## 605 L1221882-06 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 14:10  
Received date/time  
05/23/20 08:45

| Method                                | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|---------------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Radiochemistry by Method 904          | WG1489466 | 1        | 06/12/20 09:13        | 06/19/20 14:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method Calculation  | WG1493976 | 1        | 06/18/20 13:59        | 06/19/20 16:25     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method SM7500Ra B M | WG1493976 | 1        | 06/18/20 13:59        | 06/19/20 16:25     | RGT     | Mt. Juliet, TN |

# SAMPLE SUMMARY



## 701 L1221882-07 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 17:10  
Received date/time  
05/23/20 08:45

| Method                                | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|---------------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Radiochemistry by Method 904          | WG1489466 | 1        | 06/12/20 09:13        | 06/19/20 14:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method Calculation  | WG1493976 | 1        | 06/18/20 13:59        | 06/19/20 16:25     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method SM7500Ra B M | WG1493976 | 1        | 06/18/20 13:59        | 06/19/20 16:25     | RGT     | Mt. Juliet, TN |

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## 702 L1221882-08 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 17:25  
Received date/time  
05/23/20 08:45

| Method                                | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|---------------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Radiochemistry by Method 904          | WG1489466 | 1        | 06/12/20 09:13        | 06/22/20 09:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method Calculation  | WG1493976 | 1        | 06/18/20 13:59        | 06/22/20 09:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method SM7500Ra B M | WG1493976 | 1        | 06/18/20 13:59        | 06/19/20 20:50     | RGT     | Mt. Juliet, TN |

## 703 L1221882-09 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 15:15  
Received date/time  
05/23/20 08:45

| Method                                | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|---------------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Radiochemistry by Method 904          | WG1489466 | 1        | 06/12/20 09:13        | 06/22/20 09:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method Calculation  | WG1493976 | 1        | 06/18/20 13:59        | 06/22/20 09:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method SM7500Ra B M | WG1493976 | 1        | 06/18/20 13:59        | 06/19/20 20:50     | RGT     | Mt. Juliet, TN |

## 704 L1221882-10 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 15:25  
Received date/time  
05/23/20 08:45

| Method                                | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|---------------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Radiochemistry by Method 904          | WG1489466 | 1        | 06/12/20 09:13        | 06/22/20 09:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method Calculation  | WG1493976 | 1        | 06/18/20 13:59        | 06/22/20 09:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method SM7500Ra B M | WG1493976 | 1        | 06/18/20 13:59        | 06/19/20 20:50     | RGT     | Mt. Juliet, TN |

## 705 L1221882-11 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 13:00  
Received date/time  
05/23/20 08:45

| Method                                | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|---------------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Radiochemistry by Method 904          | WG1489466 | 1        | 06/12/20 09:13        | 06/22/20 09:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method Calculation  | WG1493976 | 1        | 06/18/20 13:59        | 06/22/20 09:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method SM7500Ra B M | WG1493976 | 1        | 06/18/20 13:59        | 06/19/20 20:50     | RGT     | Mt. Juliet, TN |

## 706 L1221882-12 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 10:25  
Received date/time  
05/23/20 08:45

| Method                                | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|---------------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Radiochemistry by Method 904          | WG1489466 | 1        | 06/12/20 09:13        | 06/22/20 09:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method Calculation  | WG1493976 | 1        | 06/18/20 13:59        | 06/22/20 09:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method SM7500Ra B M | WG1493976 | 1        | 06/18/20 13:59        | 06/19/20 20:50     | RGT     | Mt. Juliet, TN |



## DUPLICATE L1221882-13 Non-Potable Water

Collected by: Whit Martin  
 Collected date/time: 05/21/20 00:00  
 Received date/time: 05/23/20 08:45

| Method                                | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|---------------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Radiochemistry by Method 904          | WG1489466 | 1        | 06/12/20 09:13        | 06/22/20 09:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method Calculation  | WG1493976 | 1        | 06/18/20 13:59        | 06/22/20 09:30     | JMR     | Mt. Juliet, TN |
| Radiochemistry by Method SM7500Ra B M | WG1493976 | 1        | 06/18/20 13:59        | 06/19/20 20:50     | RGT     | Mt. Juliet, TN |

- <sup>1</sup>Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Gl
- <sup>8</sup>Al
- <sup>9</sup>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 radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer  
Project Manager

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Radiochemistry by Method 904

| Analyte     | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|-------------|--------|-----------|-------------|----------|------------------|---------------------------|
|             | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-228  | 0.902  |           | 0.568       | 0.857    | 06/19/2020 14:30 | <a href="#">WG1489466</a> |
| (T) Barium  | 107    |           |             | 62.0-143 | 06/19/2020 14:30 | <a href="#">WG1489466</a> |
| (T) Yttrium | 97.7   |           |             | 79.0-136 | 06/19/2020 14:30 | <a href="#">WG1489466</a> |

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

| Analyte         | Result | Qualifier | Uncertainty | MDA   | Analysis Date    | Batch                     |
|-----------------|--------|-----------|-------------|-------|------------------|---------------------------|
|                 | pCi/l  |           | + / -       | pCi/l | date / time      |                           |
| Combined Radium | 1.21   |           | 0.797       | 1.09  | 06/19/2020 14:30 | <a href="#">WG1493951</a> |

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

| Analyte        | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|----------------|--------|-----------|-------------|----------|------------------|---------------------------|
|                | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-226     | 0.306  |           | 0.229       | 0.232    | 06/19/2020 07:25 | <a href="#">WG1493951</a> |
| (T) Barium-133 | 102    |           |             | 30.0-143 | 06/19/2020 07:25 | <a href="#">WG1493951</a> |

6 Qc

7 Gl

8 Al

9 Sc



## Radiochemistry by Method 904

| Analyte     | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|-------------|--------|-----------|-------------|----------|------------------|---------------------------|
|             | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-228  | -0.114 |           | 0.578       | 0.947    | 06/19/2020 14:30 | <a href="#">WG1489466</a> |
| (T) Barium  | 110    |           |             | 62.0-143 | 06/19/2020 14:30 | <a href="#">WG1489466</a> |
| (T) Yttrium | 111    |           |             | 79.0-136 | 06/19/2020 14:30 | <a href="#">WG1489466</a> |

1 Cp

2 Tc

3 Ss

## Radiochemistry by Method Calculation

| Analyte         | Result | Qualifier | Uncertainty | MDA   | Analysis Date    | Batch                     |
|-----------------|--------|-----------|-------------|-------|------------------|---------------------------|
|                 | pCi/l  |           | + / -       | pCi/l | date / time      |                           |
| Combined Radium | 0.618  |           | 0.865       | 1.12  | 06/19/2020 14:30 | <a href="#">WG1493951</a> |

4 Cn

5 Sr

## Radiochemistry by Method SM7500Ra B M

| Analyte        | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|----------------|--------|-----------|-------------|----------|------------------|---------------------------|
|                | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-226     | 0.618  |           | 0.287       | 0.175    | 06/19/2020 07:25 | <a href="#">WG1493951</a> |
| (T) Barium-133 | 110    |           |             | 30.0-143 | 06/19/2020 07:25 | <a href="#">WG1493951</a> |

6 Qc

7 Gl

8 Al

9 Sc



## Radiochemistry by Method 904

| Analyte     | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|-------------|--------|-----------|-------------|----------|------------------|---------------------------|
|             | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-228  | 1.91   |           | 0.627       | 0.992    | 06/19/2020 14:30 | <a href="#">WG1489466</a> |
| (T) Barium  | 113    |           |             | 62.0-143 | 06/19/2020 14:30 | <a href="#">WG1489466</a> |
| (T) Yttrium | 104    |           |             | 79.0-136 | 06/19/2020 14:30 | <a href="#">WG1489466</a> |

1 Cp

2 Tc

3 Ss

## Radiochemistry by Method Calculation

| Analyte         | Result | Qualifier | Uncertainty | MDA   | Analysis Date    | Batch                     |
|-----------------|--------|-----------|-------------|-------|------------------|---------------------------|
|                 | pCi/l  |           | + / -       | pCi/l | date / time      |                           |
| Combined Radium | 1.98   |           | 0.820       | 1.31  | 06/19/2020 14:30 | <a href="#">WG1493951</a> |

4 Cn

5 Sr

## Radiochemistry by Method SM7500Ra B M

| Analyte        | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|----------------|--------|-----------|-------------|----------|------------------|---------------------------|
|                | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-226     | 0.0693 |           | 0.193       | 0.316    | 06/19/2020 07:25 | <a href="#">WG1493951</a> |
| (T) Barium-133 | 110    |           |             | 30.0-143 | 06/19/2020 07:25 | <a href="#">WG1493951</a> |

6 Qc

7 Gl

8 Al

9 Sc



## Radiochemistry by Method 904

| Analyte     | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|-------------|--------|-----------|-------------|----------|------------------|---------------------------|
|             | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-228  | 0.726  |           | 0.528       | 0.9      | 06/19/2020 14:30 | <a href="#">WG1489466</a> |
| (T) Barium  | 103    |           |             | 62.0-143 | 06/19/2020 14:30 | <a href="#">WG1489466</a> |
| (T) Yttrium | 110    |           |             | 79.0-136 | 06/19/2020 14:30 | <a href="#">WG1489466</a> |

1 Cp

2 Tc

3 Ss

## Radiochemistry by Method Calculation

| Analyte         | Result | Qualifier | Uncertainty | MDA   | Analysis Date    | Batch                     |
|-----------------|--------|-----------|-------------|-------|------------------|---------------------------|
|                 | pCi/l  |           | + / -       | pCi/l | date / time      |                           |
| Combined Radium | 0.770  |           | 0.716       | 1.23  | 06/19/2020 14:30 | <a href="#">WG1493951</a> |

4 Cn

5 Sr

## Radiochemistry by Method SM7500Ra B M

| Analyte        | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|----------------|--------|-----------|-------------|----------|------------------|---------------------------|
|                | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-226     | 0.0441 |           | 0.188       | 0.332    | 06/19/2020 07:25 | <a href="#">WG1493951</a> |
| (T) Barium-133 | 102    |           |             | 30.0-143 | 06/19/2020 07:25 | <a href="#">WG1493951</a> |

6 Qc

7 Gl

8 Al

9 Sc



## Radiochemistry by Method 904

| Analyte     | Result  | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|-------------|---------|-----------|-------------|----------|------------------|---------------------------|
|             | pCi/l   |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-228  | -0.0617 |           | 0.596       | 1.06     | 06/19/2020 14:30 | <a href="#">WG1489466</a> |
| (T) Barium  | 86.1    |           |             | 62.0-143 | 06/19/2020 14:30 | <a href="#">WG1489466</a> |
| (T) Yttrium | 102     |           |             | 79.0-136 | 06/19/2020 14:30 | <a href="#">WG1489466</a> |

1 Cp

2 Tc

3 Ss

## Radiochemistry by Method Calculation

| Analyte         | Result | Qualifier | Uncertainty | MDA   | Analysis Date    | Batch                     |
|-----------------|--------|-----------|-------------|-------|------------------|---------------------------|
|                 | pCi/l  |           | + / -       | pCi/l | date / time      |                           |
| Combined Radium | 0.255  |           | 0.883       | 1.44  | 06/19/2020 16:25 | <a href="#">WG1493976</a> |

4 Cn

5 Sr

## Radiochemistry by Method SM7500Ra B M

| Analyte        | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|----------------|--------|-----------|-------------|----------|------------------|---------------------------|
|                | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-226     | 0.255  |           | 0.287       | 0.378    | 06/19/2020 16:25 | <a href="#">WG1493976</a> |
| (T) Barium-133 | 57.9   |           |             | 30.0-143 | 06/19/2020 16:25 | <a href="#">WG1493976</a> |

6 Qc

7 Gl

8 Al

9 Sc



## Radiochemistry by Method 904

| Analyte     | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|-------------|--------|-----------|-------------|----------|------------------|---------------------------|
|             | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-228  | 0.931  |           | 0.563       | 0.826    | 06/19/2020 14:30 | <a href="#">WG1489466</a> |
| (T) Barium  | 107    |           |             | 62.0-143 | 06/19/2020 14:30 | <a href="#">WG1489466</a> |
| (T) Yttrium | 114    |           |             | 79.0-136 | 06/19/2020 14:30 | <a href="#">WG1489466</a> |

1 Cp

2 Tc

3 Ss

## Radiochemistry by Method Calculation

| Analyte         | Result | Qualifier | Uncertainty | MDA   | Analysis Date    | Batch                     |
|-----------------|--------|-----------|-------------|-------|------------------|---------------------------|
|                 | pCi/l  |           | + / -       | pCi/l | date / time      |                           |
| Combined Radium | 1.05   |           | 0.747       | 1.11  | 06/19/2020 16:25 | <a href="#">WG1493976</a> |

4 Cn

5 Sr

## Radiochemistry by Method SM7500Ra B M

| Analyte        | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|----------------|--------|-----------|-------------|----------|------------------|---------------------------|
|                | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-226     | 0.119  |           | 0.184       | 0.286    | 06/19/2020 16:25 | <a href="#">WG1493976</a> |
| (T) Barium-133 | 83.8   |           |             | 30.0-143 | 06/19/2020 16:25 | <a href="#">WG1493976</a> |

6 Qc

7 Gl

8 Al

9 Sc



## Radiochemistry by Method 904

| Analyte     | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|-------------|--------|-----------|-------------|----------|------------------|---------------------------|
|             | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-228  | 0.176  |           | 0.532       | 0.803    | 06/19/2020 14:30 | <a href="#">WG1489466</a> |
| (T) Barium  | 108    |           |             | 62.0-143 | 06/19/2020 14:30 | <a href="#">WG1489466</a> |
| (T) Yttrium | 105    |           |             | 79.0-136 | 06/19/2020 14:30 | <a href="#">WG1489466</a> |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Radiochemistry by Method Calculation

| Analyte         | Result | Qualifier | Uncertainty | MDA   | Analysis Date    | Batch                     |
|-----------------|--------|-----------|-------------|-------|------------------|---------------------------|
|                 | pCi/l  |           | + / -       | pCi/l | date / time      |                           |
| Combined Radium | 0.575  |           | 0.852       | 1.16  | 06/19/2020 16:25 | <a href="#">WG1493976</a> |

## Radiochemistry by Method SM7500Ra B M

| Analyte        | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|----------------|--------|-----------|-------------|----------|------------------|---------------------------|
|                | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-226     | 0.399  |           | 0.320       | 0.356    | 06/19/2020 16:25 | <a href="#">WG1493976</a> |
| (T) Barium-133 | 80.8   |           |             | 30.0-143 | 06/19/2020 16:25 | <a href="#">WG1493976</a> |





## Radiochemistry by Method 904

| Analyte     | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|-------------|--------|-----------|-------------|----------|------------------|---------------------------|
|             | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-228  | 0.563  |           | 0.662       | 0.998    | 06/22/2020 09:30 | <a href="#">WG1489466</a> |
| (T) Barium  | 100    |           |             | 62.0-143 | 06/22/2020 09:30 | <a href="#">WG1489466</a> |
| (T) Yttrium | 88.6   |           |             | 79.0-136 | 06/22/2020 09:30 | <a href="#">WG1489466</a> |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

## Radiochemistry by Method Calculation

| Analyte         | Result | Qualifier | Uncertainty | MDA   | Analysis Date    | Batch                     |
|-----------------|--------|-----------|-------------|-------|------------------|---------------------------|
|                 | pCi/l  |           | + / -       | pCi/l | date / time      |                           |
| Combined Radium | 0.863  |           | 0.895       | 1.23  | 06/22/2020 09:30 | <a href="#">WG1493976</a> |

6 Qc

7 Gl

## Radiochemistry by Method SM7500Ra B M

| Analyte        | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|----------------|--------|-----------|-------------|----------|------------------|---------------------------|
|                | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-226     | 0.300  |           | 0.233       | 0.235    | 06/19/2020 20:50 | <a href="#">WG1493976</a> |
| (T) Barium-133 | 82.4   |           |             | 30.0-143 | 06/19/2020 20:50 | <a href="#">WG1493976</a> |

8 Al

9 Sc



## Radiochemistry by Method 904

| Analyte     | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|-------------|--------|-----------|-------------|----------|------------------|---------------------------|
|             | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-228  | 0.282  |           | 0.582       | 0.844    | 06/22/2020 09:30 | <a href="#">WG1489466</a> |
| (T) Barium  | 97.7   |           |             | 62.0-143 | 06/22/2020 09:30 | <a href="#">WG1489466</a> |
| (T) Yttrium | 93.9   |           |             | 79.0-136 | 06/22/2020 09:30 | <a href="#">WG1489466</a> |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Radiochemistry by Method Calculation

| Analyte         | Result | Qualifier | Uncertainty | MDA   | Analysis Date    | Batch                     |
|-----------------|--------|-----------|-------------|-------|------------------|---------------------------|
|                 | pCi/l  |           | + / -       | pCi/l | date / time      |                           |
| Combined Radium | 0.739  |           | 0.876       | 1.1   | 06/22/2020 09:30 | <a href="#">WG1493976</a> |

## Radiochemistry by Method SM7500Ra B M

| Analyte        | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|----------------|--------|-----------|-------------|----------|------------------|---------------------------|
|                | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-226     | 0.457  |           | 0.294       | 0.255    | 06/19/2020 20:50 | <a href="#">WG1493976</a> |
| (T) Barium-133 | 77.1   |           |             | 30.0-143 | 06/19/2020 20:50 | <a href="#">WG1493976</a> |



## Radiochemistry by Method 904

| Analyte     | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|-------------|--------|-----------|-------------|----------|------------------|---------------------------|
|             | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-228  | 0.392  |           | 0.564       | 0.797    | 06/22/2020 09:30 | <a href="#">WG1489466</a> |
| (T) Barium  | 102    |           |             | 62.0-143 | 06/22/2020 09:30 | <a href="#">WG1489466</a> |
| (T) Yttrium | 92.4   |           |             | 79.0-136 | 06/22/2020 09:30 | <a href="#">WG1489466</a> |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

## Radiochemistry by Method Calculation

| Analyte         | Result | Qualifier | Uncertainty | MDA   | Analysis Date    | Batch                     |
|-----------------|--------|-----------|-------------|-------|------------------|---------------------------|
|                 | pCi/l  |           | + / -       | pCi/l | date / time      |                           |
| Combined Radium | 1.77   |           | 1.07        | 1.08  | 06/22/2020 09:30 | <a href="#">WG1493976</a> |

6 Qc

7 Gl

## Radiochemistry by Method SM7500Ra B M

| Analyte        | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|----------------|--------|-----------|-------------|----------|------------------|---------------------------|
|                | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-226     | 1.38   |           | 0.506       | 0.285    | 06/19/2020 20:50 | <a href="#">WG1493976</a> |
| (T) Barium-133 | 81.6   |           |             | 30.0-143 | 06/19/2020 20:50 | <a href="#">WG1493976</a> |

8 Al

9 Sc



## Radiochemistry by Method 904

| Analyte     | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|-------------|--------|-----------|-------------|----------|------------------|---------------------------|
|             | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-228  | -0.490 |           | 0.696       | 1.16     | 06/22/2020 09:30 | <a href="#">WG1489466</a> |
| (T) Barium  | 105    |           |             | 62.0-143 | 06/22/2020 09:30 | <a href="#">WG1489466</a> |
| (T) Yttrium | 89.9   |           |             | 79.0-136 | 06/22/2020 09:30 | <a href="#">WG1489466</a> |

1 Cp

2 Tc

3 Ss

## Radiochemistry by Method Calculation

| Analyte         | Result | Qualifier | Uncertainty | MDA   | Analysis Date    | Batch                     |
|-----------------|--------|-----------|-------------|-------|------------------|---------------------------|
|                 | pCi/l  |           | + / -       | pCi/l | date / time      |                           |
| Combined Radium | 0.945  |           | 1.08        | 1.36  | 06/22/2020 09:30 | <a href="#">WG1493976</a> |

4 Cn

5 Sr

## Radiochemistry by Method SM7500Ra B M

| Analyte        | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|----------------|--------|-----------|-------------|----------|------------------|---------------------------|
|                | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-226     | 0.945  |           | 0.380       | 0.203    | 06/19/2020 20:50 | <a href="#">WG1493976</a> |
| (T) Barium-133 | 86.5   |           |             | 30.0-143 | 06/19/2020 20:50 | <a href="#">WG1493976</a> |

6 Qc

7 Gl

8 Al

9 Sc



## Radiochemistry by Method 904

| Analyte     | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|-------------|--------|-----------|-------------|----------|------------------|---------------------------|
|             | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-228  | 1.21   |           | 0.640       | 1        | 06/22/2020 09:30 | <a href="#">WG1489466</a> |
| (T) Barium  | 107    |           |             | 62.0-143 | 06/22/2020 09:30 | <a href="#">WG1489466</a> |
| (T) Yttrium | 92.2   |           |             | 79.0-136 | 06/22/2020 09:30 | <a href="#">WG1489466</a> |

1 Cp

2 Tc

3 Ss

## Radiochemistry by Method Calculation

| Analyte         | Result | Qualifier | Uncertainty | MDA   | Analysis Date    | Batch                     |
|-----------------|--------|-----------|-------------|-------|------------------|---------------------------|
|                 | pCi/l  |           | + / -       | pCi/l | date / time      |                           |
| Combined Radium | 1.58   |           | 0.941       | 1.37  | 06/22/2020 09:30 | <a href="#">WG1493976</a> |

4 Cn

5 Sr

## Radiochemistry by Method SM7500Ra B M

| Analyte        | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|----------------|--------|-----------|-------------|----------|------------------|---------------------------|
|                | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-226     | 0.372  |           | 0.301       | 0.365    | 06/19/2020 20:50 | <a href="#">WG1493976</a> |
| (T) Barium-133 | 86.5   |           |             | 30.0-143 | 06/19/2020 20:50 | <a href="#">WG1493976</a> |

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 05/21/20 00:00

L1221882

Radiochemistry by Method 904

| Analyte     | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|-------------|--------|-----------|-------------|----------|------------------|---------------------------|
|             | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-228  | -0.248 |           | 0.676       | 1.19     | 06/22/2020 09:30 | <a href="#">WG1489466</a> |
| (T) Barium  | 107    |           |             | 62.0-143 | 06/22/2020 09:30 | <a href="#">WG1489466</a> |
| (T) Yttrium | 94.1   |           |             | 79.0-136 | 06/22/2020 09:30 | <a href="#">WG1489466</a> |

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

| Analyte         | Result | Qualifier | Uncertainty | MDA   | Analysis Date    | Batch                     |
|-----------------|--------|-----------|-------------|-------|------------------|---------------------------|
|                 | pCi/l  |           | + / -       | pCi/l | date / time      |                           |
| Combined Radium | 0.0950 |           | 0.912       | 1.58  | 06/22/2020 09:30 | <a href="#">WG1493976</a> |

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

| Analyte        | Result | Qualifier | Uncertainty | MDA      | Analysis Date    | Batch                     |
|----------------|--------|-----------|-------------|----------|------------------|---------------------------|
|                | pCi/l  |           | + / -       | pCi/l    | date / time      |                           |
| RADIUM-226     | 0.0950 |           | 0.236       | 0.39     | 06/19/2020 20:50 | <a href="#">WG1493976</a> |
| (T) Barium-133 | 85.0   |           |             | 30.0-143 | 06/19/2020 20:50 | <a href="#">WG1493976</a> |

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3541874-1 06/19/20 14:30

| Analyte     | MB Result<br>pCi/l | MB Qualifier | MB MDA<br>pCi/l |
|-------------|--------------------|--------------|-----------------|
| Radium-228  | 0.0628             |              | 0.440           |
| (T) Barium  | 104                |              |                 |
| (T) Yttrium | 100                |              |                 |

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1221882-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221882-01 06/19/20 14:30 • (DUP) R3541874-5 06/19/20 14:30

| Analyte     | Original Result<br>pCi/l | DUP Result<br>pCi/l | Dilution | DUP RPD<br>% | DUP RER | DUP Qualifier | DUP RPD<br>Limits<br>% | DUP RER Limit |
|-------------|--------------------------|---------------------|----------|--------------|---------|---------------|------------------------|---------------|
| Radium-228  | 0.902                    | -0.126              | 1        | 200          | 1.20    |               | 20                     | 3             |
| (T) Barium  | 107                      | 104                 |          |              |         |               |                        |               |
| (T) Yttrium | 97.7                     | 99.1                |          |              |         |               |                        |               |

Laboratory Control Sample (LCS)

(LCS) R3541874-2 06/19/20 14:30

| Analyte     | Spike Amount<br>pCi/l | LCS Result<br>pCi/l | LCS Rec.<br>% | Rec. Limits<br>% | LCS Qualifier |
|-------------|-----------------------|---------------------|---------------|------------------|---------------|
| Radium-228  | 5.00                  | 4.43                | 88.5          | 80.0-120         |               |
| (T) Barium  |                       |                     | 109           |                  |               |
| (T) Yttrium |                       |                     | 112           |                  |               |

L1221882-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221882-01 06/19/20 14:30 • (MS) R3541874-3 06/19/20 14:30 • (MSD) R3541874-4 06/19/20 14:30

| Analyte     | Spike Amount<br>pCi/l | Original Result<br>pCi/l | MS Result<br>pCi/l | MSD Result<br>pCi/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | MS RER | RPD Limits<br>% |
|-------------|-----------------------|--------------------------|--------------------|---------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|--------|-----------------|
| Radium-228  | 10.0                  | 0.902                    | 11.3               | 9.33                | 104          | 84.2          | 1        | 70.0-130         |              |               | 18.8     |        | 20              |
| (T) Barium  |                       | 107                      |                    |                     | 110          | 103           |          |                  |              |               |          |        |                 |
| (T) Yttrium |                       | 97.7                     |                    |                     | 101          | 109           |          |                  |              |               |          |        |                 |



Method Blank (MB)

(MB) R3541403-1 06/18/20 17:45

| Analyte        | MB Result<br>pCi/l | MB Qualifier | MB MDA<br>pCi/l |
|----------------|--------------------|--------------|-----------------|
| Radium-226     | -0.00599           |              | 0.0578          |
| (T) Barium-133 | 83.6               |              |                 |

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R3541403-2 06/18/20 17:45

| Analyte        | Spike Amount<br>pCi/l | LCS Result<br>pCi/l | LCS Rec.<br>% | Rec. Limits<br>% | LCS Qualifier |
|----------------|-----------------------|---------------------|---------------|------------------|---------------|
| Radium-226     | 5.02                  | 5.79                | 115           | 80.0-120         |               |
| (T) Barium-133 |                       |                     | 94.6          |                  |               |

4 Cn

5 Sr

6 Qc

L1221882-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221882-01 06/19/20 07:25 • (MS) R3541403-5 06/18/20 17:45 • (MSD) R3541403-6 06/18/20 17:45

| Analyte        | Spike Amount<br>pCi/l | Original Result<br>pCi/l | MS Result<br>pCi/l | MSD Result<br>pCi/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | MS RER | RPD Limits<br>% |
|----------------|-----------------------|--------------------------|--------------------|---------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|--------|-----------------|
| Radium-226     | 20.1                  | 0.306                    | 17.3               | 17.4                | 84.7         | 85.2          | 1        | 75.0-125         |              |               | 0.575    |        | 20              |
| (T) Barium-133 |                       | 102                      |                    |                     | 92.1         | 94.4          |          |                  |              |               |          |        |                 |

7 Gl

8 Al

9 Sc





Method Blank (MB)

(MB) R3541479-1 06/19/20 16:25

| Analyte        | MB Result<br>pCi/l | MB Qualifier | MB MDA<br>pCi/l |
|----------------|--------------------|--------------|-----------------|
| Radium-226     | 0.0140             |              | 0.0579          |
| (T) Barium-133 | 84.8               |              |                 |

1 Cp

2 Tc

3 Ss

4 Cn

L1221882-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1221882-06 06/19/20 16:25 • (DUP) R3541479-5 06/19/20 16:25

| Analyte        | Original Result<br>pCi/l | DUP Result<br>pCi/l | Dilution | DUP RPD<br>% | DUP RER | DUP Qualifier | DUP RPD<br>Limits | DUP RER Limit |
|----------------|--------------------------|---------------------|----------|--------------|---------|---------------|-------------------|---------------|
| Radium-226     | 0.119                    | 0.172               | 1        | 36.9         | 0.148   |               | 20                | 3             |
| (T) Barium-133 | 83.8                     | 68.2                |          |              |         |               |                   |               |

5 Sr

6 Qc

Laboratory Control Sample (LCS)

(LCS) R3541479-2 06/19/20 16:25

| Analyte        | Spike Amount<br>pCi/l | LCS Result<br>pCi/l | LCS Rec.<br>% | Rec. Limits<br>% | LCS Qualifier |
|----------------|-----------------------|---------------------|---------------|------------------|---------------|
| Radium-226     | 5.02                  | 5.85                | 117           | 80.0-120         |               |
| (T) Barium-133 |                       |                     | 78.7          |                  |               |

7 Gl

8 Al

9 Sc

L1221526-24 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221526-24 06/19/20 16:25 • (MS) R3541479-3 06/19/20 16:25 • (MSD) R3541479-4 06/19/20 16:25

| Analyte        | Spike Amount<br>pCi/l | Original Result<br>pCi/l | MS Result<br>pCi/l | MSD Result<br>pCi/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | MS RER | RPD Limits<br>% |
|----------------|-----------------------|--------------------------|--------------------|---------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|--------|-----------------|
| Radium-226     | 20.1                  | 0.459                    | 17.5               | 18.3                | 84.9         | 88.8          | 1        | 75.0-125         |              |               | 4.36     |        | 20              |
| (T) Barium-133 |                       | 85.0                     |                    |                     | 89.7         | 86.3          |          |                  |              |               |          |        |                 |



Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

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

Qualifier Description

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



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* 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 National.

## State Accreditations

|                         |             |                             |                  |
|-------------------------|-------------|-----------------------------|------------------|
| Alabama                 | 40660       | Nebraska                    | NE-OS-15-05      |
| Alaska                  | 17-026      | Nevada                      | TN-03-2002-34    |
| Arizona                 | AZ0612      | New Hampshire               | 2975             |
| Arkansas                | 88-0469     | New Jersey-NELAP            | TN002            |
| California              | 2932        | New Mexico <sup>1</sup>     | n/a              |
| Colorado                | TN00003     | New York                    | 11742            |
| Connecticut             | PH-0197     | North Carolina              | Env375           |
| Florida                 | E87487      | North Carolina <sup>1</sup> | DW21704          |
| Georgia                 | NELAP       | North Carolina <sup>3</sup> | 41               |
| Georgia <sup>1</sup>    | 923         | North Dakota                | R-140            |
| Idaho                   | TN00003     | Ohio-VAP                    | CL0069           |
| Illinois                | 200008      | Oklahoma                    | 9915             |
| Indiana                 | C-TN-01     | Oregon                      | TN200002         |
| Iowa                    | 364         | Pennsylvania                | 68-02979         |
| Kansas                  | E-10277     | Rhode Island                | LA000356         |
| Kentucky <sup>1,6</sup> | 90010       | South Carolina              | 84004            |
| Kentucky <sup>2</sup>   | 16          | South Dakota                | n/a              |
| Louisiana               | AI30792     | Tennessee <sup>1,4</sup>    | 2006             |
| Louisiana <sup>1</sup>  | LA180010    | Texas                       | T104704245-18-15 |
| Maine                   | TN0002      | Texas <sup>5</sup>          | LAB0152          |
| Maryland                | 324         | Utah                        | TN00003          |
| Massachusetts           | M-TN003     | Vermont                     | VT2006           |
| Michigan                | 9958        | Virginia                    | 460132           |
| Minnesota               | 047-999-395 | Washington                  | C847             |
| Mississippi             | TN00003     | West Virginia               | 233              |
| Missouri                | 340         | Wisconsin                   | 9980939910       |
| Montana                 | CERT0086    | Wyoming                     | A2LA             |

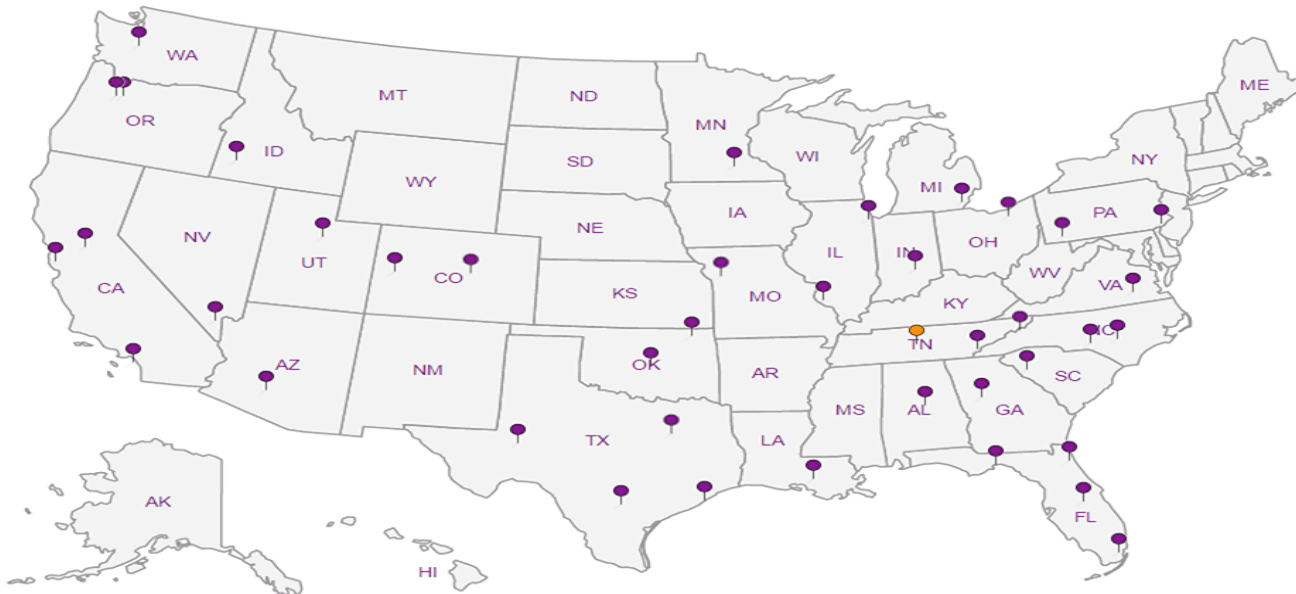
## Third Party Federal Accreditations

|                               |         |                    |               |
|-------------------------------|---------|--------------------|---------------|
| A2LA – ISO 17025              | 1461.01 | AIHA-LAP,LLC EMLAP | 100789        |
| A2LA – ISO 17025 <sup>5</sup> | 1461.02 | DOD                | 1461.01       |
| Canada                        | 1461.01 | USDA               | P330-15-00234 |
| EPA-Crypto                    | TN00003 |                    |               |

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

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

**SCS Engineers - KS**

8575 W. 110th Street  
Overland Park, KS 66210

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

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to:  
**Jason Franks**

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

Project Description:  
**Energy - Montrose Gen Station GW**

City/State  
Collected:

Please Circle:  
PT MT CT ET

Phone: **913-681-0030**

Client Project #  
**27213167.16**

Lab Project #  
**AQUAOPKS-MONTROSE**

Collected by (print):  
*Whit Martin*

Site/Facility ID #

P.O. #

Collected by (signature):  
*Whit Martin*

**Rush?** (Lab MUST Be Notified)

Quote #

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

Date Results Needed

*Std*

Nc.  
of  
Cnts

Immediately  
Packed on Ice N \_\_\_ Y **X**

| Sample ID | Comp/Grab | Matrix * | Depth | Date    | Time | Nc. of Cnts |
|-----------|-----------|----------|-------|---------|------|-------------|
| 506       | G         | NPW      |       | 5-21-20 | 1435 | 4           |
| 601       |           | NPW      |       |         | 1225 | 2           |
| 602       |           | NPW      |       |         | 1620 | 2           |
| 603       |           | NPW      |       |         | 1205 | 2           |
| 604       |           | NPW      |       |         | 1325 | 2           |
| 605       |           | NPW      |       |         | 1410 | 2           |
| 701       |           | NPW      |       |         | 1710 | 2           |
| 702       |           | NPW      |       |         | 1625 | 2           |
| 703       |           | NPW      |       |         | 1505 | 2           |
| 704       |           | NPW      |       |         | 1525 | 2           |

RA226, RA228 1L-HDPE-Add HNO3

SDG # *1221882*

**G036**

Template: **T115191**

Prelogin: **P769514**

PM: 206 - Jeff Carr

PB:

Shipped Via:

Remarks | Sample # (lab only)

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

Remarks: **RA 226/228 - Report separately and combined.**

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

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

Samples returned via:  
\_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking #

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

*5-22-20 1300*

Trip Blank Received: Yes / No

HCL / MeOH

TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: *2.4 ± 0.2* °C

Bottles Received: *28*

If preservation required by login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date:

Time:

Hold:

Condition:

NCF /  OK

*Handwritten signature*

*5/23/20 845*





**Kelsey Stephenson**



|                          |                         |                    |                               |
|--------------------------|-------------------------|--------------------|-------------------------------|
| <b>Login #:</b> L1221882 | <b>Client:</b> AQUAOPKS | <b>Date:</b> 05/23 | <b>Evaluated by:</b> Kelsey S |
|--------------------------|-------------------------|--------------------|-------------------------------|

**Non-Conformance (check applicable items)**

| <b>Sample Integrity</b>        | <b>Chain of Custody Clarification</b>            | <b>If Broken Container:</b>                          |
|--------------------------------|--|--|
| Parameter(s) past holding time | x Login Clarification Needed                     | Insufficient packing material around container       |
| Temperature not in range       | Chain of custody is incomplete                   | Insufficient packing material inside cooler          |
| Improper container type        | Please specify Metals requested.                 | Improper handling by carrier (FedEx / UPS / Courier) |
| pH not in range.               | Please specify TCLP requested.                   | Sample was frozen                                    |
| Insufficient sample volume.    | Received additional samples not listed on coc.   | Container lid not intact                             |
| Sample is biphasic.            | Sample ids on containers do not match ids on coc | <b>If no Chain of Custody:</b>                       |
| Vials received with headspace. | Trip Blank not received.                         | Received by:   |
| Broken container               | Client did not "X" analysis.                     | Date/Time:   |
| Broken container:              | Chain of Custody is missing                      | Temp./Cont. Rec./pH:                                 |
| Sufficient sample remains      |  | Carrier:   |
|                                |  | Tracking#  |

**Login Comments: Received DUPLICATE which is crossed out on COC. Logged sample same as other analysis.**

|                            |                              |       |            |               |             |
|----------------------------|------------------------------|-------|------------|---------------|-------------|
| <b>Client informed by:</b> | Call                         | Email | Voice Mail | Date: 5/27/20 | Time: 11:30 |
| <b>TSR Initials:</b> DE    | Client Contact: Jason Franks |       |            |               |             |

**Login Instructions:**

Customer confirmed DUP is to be analyzed.



## SCS Engineers - KS

Sample Delivery Group: L1221866  
Samples Received: 05/23/2020  
Project Number: 27213168.20  
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.



|   |           |                       |
|---|-----------|-----------------------|
| <b>Cp: Cover Page</b>                             | <b>1</b>  | <b><sup>1</sup>Cp</b> |
| <b>Tc: Table of Contents</b>                      | <b>2</b>  |                       |
| <b>Ss: Sample Summary</b>                         | <b>3</b>  | <b><sup>2</sup>Tc</b> |
| <b>Cn: Case Narrative</b>                         | <b>4</b>  |                       |
| <b>Sr: Sample Results</b>                         | <b>5</b>  | <b><sup>3</sup>Ss</b> |
| <b>MW-506 L1221866-01</b>                         | <b>5</b>  |                       |
| <b>DUPLICATE L1221866-02</b>                      | <b>6</b>  | <b><sup>4</sup>Cn</b> |
| <b>Qc: Quality Control Summary</b>                | <b>7</b>  | <b><sup>5</sup>Sr</b> |
| <b>Gravimetric Analysis by Method 2540 C-2011</b> | <b>7</b>  |                       |
| <b>Wet Chemistry by Method 9056A</b>              | <b>8</b>  | <b><sup>6</sup>Qc</b> |
| <b>Metals (ICP) by Method 6010B</b>               | <b>10</b> |                       |
| <b>Gl: Glossary of Terms</b>                      | <b>11</b> | <b><sup>7</sup>Gl</b> |
| <b>Al: Accreditations &amp; Locations</b>         | <b>12</b> | <b><sup>8</sup>Al</b> |
| <b>Sc: Sample Chain of Custody</b>                | <b>13</b> | <b><sup>9</sup>Sc</b> |



# SAMPLE SUMMARY



## MW-506 L1221866-01 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 14:35

Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1483379 | 1        | 05/28/20 17:57        | 05/28/20 23:20     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 1        | 05/28/20 21:44        | 05/28/20 21:44     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 100      | 05/28/20 21:57        | 05/28/20 21:57     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 09:37     | EL      | Mt. Juliet, TN |

1  
Cp

2  
Tc

3  
Ss

4  
Cn

## DUPLICATE L1221866-02 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 14:35

Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1483379 | 1        | 05/28/20 17:57        | 05/28/20 23:20     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 1        | 05/28/20 23:01        | 05/28/20 23:01     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 100      | 05/28/20 23:14        | 05/28/20 23:14     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481523 | 1        | 05/29/20 17:57        | 05/30/20 10:24     | EL      | Mt. Juliet, TN |

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

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



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2800000 |           | 50000 | 1        | 05/28/2020 23:20     | <a href="#">WG1483379</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 69300   |           | 1000   | 1        | 05/28/2020 21:44     | <a href="#">WG1482625</a> |
| Fluoride | ND      |           | 150    | 1        | 05/28/2020 21:44     | <a href="#">WG1482625</a> |
| Sulfate  | 1780000 |           | 500000 | 100      | 05/28/2020 21:57     | <a href="#">WG1482625</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | ND     |           | 200  | 1        | 05/30/2020 09:37     | <a href="#">WG1481523</a> |
| Calcium | 343000 | <u>V</u>  | 1000 | 1        | 05/30/2020 09:37     | <a href="#">WG1481523</a> |

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2800000 |           | 50000 | 1        | 05/28/2020 23:20     | <a href="#">WG1483379</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 69200   |           | 1000   | 1        | 05/28/2020 23:01     | <a href="#">WG1482625</a> |
| Fluoride | ND      |           | 150    | 1        | 05/28/2020 23:01     | <a href="#">WG1482625</a> |
| Sulfate  | 1710000 |           | 500000 | 100      | 05/28/2020 23:14     | <a href="#">WG1482625</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | ND     |           | 200  | 1        | 05/30/2020 10:24     | <a href="#">WG1481523</a> |
| Calcium | 350000 |           | 1000 | 1        | 05/30/2020 10:24     | <a href="#">WG1481523</a> |

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3533316-1 05/28/20 23:20

| Analyte          | MB Result<br>ug/l | <u>MB Qualifier</u> | MB MDL<br>ug/l | MB RDL<br>ug/l |
|------------------|-------------------|---------------------|----------------|----------------|
| Dissolved Solids | 4000              | ↓                   | 2820           | 10000          |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Laboratory Control Sample (LCS)

(LCS) R3533316-2 05/28/20 23:20

| Analyte          | Spike Amount<br>ug/l | LCS Result<br>ug/l | LCS Rec.<br>% | Rec. Limits<br>% | <u>LCS Qualifier</u> |
|------------------|----------------------|--------------------|---------------|------------------|----------------------|
| Dissolved Solids | 8800000              | 8250000            | 93.8          | 85.0-115         |                      |

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3533046-1 05/28/20 14:51

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

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Original Sample (OS) • Duplicate (DUP)

(OS) • (DUP) R3533046-3 05/28/20 16:10

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
|          | ug/l            | ug/l       |          | %       |               | %              |
| Chloride | 8890            |            | 1        | 0.538   |               | 15             |
| Fluoride | ND              |            | 1        | 0.000   |               | 15             |
| Sulfate  | 8290            |            | 1        | 2.12    |               | 15             |

L1221878-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221878-01 05/28/20 23:26 • (DUP) R3533046-8 05/28/20 23:39

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
|          | ug/l            | ug/l       |          | %       |               | %              |
| Chloride | 60400           | 60300      | 1        | 0.0502  |               | 15             |
| Fluoride | 956             | 953        | 1        | 0.367   |               | 15             |
| Sulfate  | 222000          | 222000     | 1        | 0.0730  | E             | 15             |

Laboratory Control Sample (LCS)

(LCS) R3533046-2 05/28/20 15:04

| Analyte  | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|----------|--------------|------------|----------|-------------|---------------|
|          | ug/l         | ug/l       | %        | %           |               |
| Chloride | 40000        | 40100      | 100      | 80.0-120    |               |
| Fluoride | 8000         | 8140       | 102      | 80.0-120    |               |
| Sulfate  | 40000        | 40600      | 102      | 80.0-120    |               |



Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3533046-4 05/28/20 16:36 • (MSD) R3533046-5 05/28/20 16:49

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Chloride | 50000                |                         | 57300             | 57300              | 101          | 101           | 1        | 80.0-120         |              |               | 0.0750   | 15              |
| Fluoride | 5000                 |                         | 5230              | 5230               | 103          | 102           | 1        | 80.0-120         |              |               | 0.164    | 15              |
| Sulfate  | 50000                |                         | 53100             | 52800              | 101          | 100           | 1        | 80.0-120         |              |               | 0.587    | 15              |

L1221866-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221866-01 05/28/20 21:44 • (MS) R3533046-6 05/28/20 22:10 • (MSD) R3533046-7 05/28/20 22:22

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Chloride | 50000                | 69300                   | 116000            | 116000             | 94.0         | 94.1          | 1        | 80.0-120         | <u>E</u>     | <u>E</u>      | 0.0372   | 15              |
| Fluoride | 5000                 | ND                      | 4660              | 4690               | 91.5         | 92.1          | 1        | 80.0-120         |              |               | 0.687    | 15              |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3533429-1 05/30/20 09:32

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---------|-----------|--------------|--------|--------|
|         | ug/l      |              | ug/l   | ug/l   |
| Boron   | U         |              | 25.4   | 200    |
| Calcium | U         |              | 389    | 1000   |

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R3533429-2 05/30/20 09:34

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---------|--------------|------------|----------|-------------|---------------|
|         | ug/l         | ug/l       | %        | %           |               |
| Boron   | 1000         | 947        | 94.7     | 80.0-120    |               |
| Calcium | 10000        | 9760       | 97.6     | 80.0-120    |               |

L1221866-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221866-01 05/30/20 09:37 • (MS) R3533429-4 05/30/20 09:43 • (MSD) R3533429-5 05/30/20 09:45

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
|         | ug/l         | ug/l            | ug/l      | ug/l       | %       | %        |          | %           |              |               | %     | %          |
| Boron   | 1000         | ND              | 1050      | 1050       | 97.4    | 96.6     | 1        | 75.0-125    |              |               | 0.766 | 20         |
| Calcium | 10000        | 343000          | 356000    | 354000     | 127     | 109      | 1        | 75.0-125    | <u>V</u>     |               | 0.496 | 20         |

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3533429-6 05/30/20 09:51 • (MSD) R3533429-7 05/30/20 09:54

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
|         | ug/l         |                 | ug/l      | ug/l       | %       | %        |          | %           |              |               | %     | %          |
| Boron   | 1000         |                 | 1060      | 1050       | 97.9    | 96.6     | 1        | 75.0-125    |              |               | 1.23  | 20         |
| Calcium | 10000        |                 | 354000    | 353000     | 47.5    | 39.1     | 1        | 75.0-125    | <u>V</u>     | <u>V</u>      | 0.239 | 20         |





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.  |

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

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.   |
| V | The sample concentration is too high to evaluate accurate spike recoveries.   |



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* 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 National.

## State Accreditations

|                         |             |                             |                  |
|-------------------------|-------------|-----------------------------|------------------|
| Alabama                 | 40660       | Nebraska                    | NE-OS-15-05      |
| Alaska                  | 17-026      | Nevada                      | TN-03-2002-34    |
| Arizona                 | AZ0612      | New Hampshire               | 2975             |
| Arkansas                | 88-0469     | New Jersey-NELAP            | TN002            |
| California              | 2932        | New Mexico <sup>1</sup>     | n/a              |
| Colorado                | TN00003     | New York                    | 11742            |
| Connecticut             | PH-0197     | North Carolina              | Env375           |
| Florida                 | E87487      | North Carolina <sup>1</sup> | DW21704          |
| Georgia                 | NELAP       | North Carolina <sup>3</sup> | 41               |
| Georgia <sup>1</sup>    | 923         | North Dakota                | R-140            |
| Idaho                   | TN00003     | Ohio-VAP                    | CL0069           |
| Illinois                | 200008      | Oklahoma                    | 9915             |
| Indiana                 | C-TN-01     | Oregon                      | TN200002         |
| Iowa                    | 364         | Pennsylvania                | 68-02979         |
| Kansas                  | E-10277     | Rhode Island                | LA000356         |
| Kentucky <sup>1,6</sup> | 90010       | South Carolina              | 84004            |
| Kentucky <sup>2</sup>   | 16          | South Dakota                | n/a              |
| Louisiana               | AI30792     | Tennessee <sup>1,4</sup>    | 2006             |
| Louisiana <sup>1</sup>  | LA180010    | Texas                       | T104704245-18-15 |
| Maine                   | TN0002      | Texas <sup>5</sup>          | LAB0152          |
| Maryland                | 324         | Utah                        | TN00003          |
| Massachusetts           | M-TN003     | Vermont                     | VT2006           |
| Michigan                | 9958        | Virginia                    | 460132           |
| Minnesota               | 047-999-395 | Washington                  | C847             |
| Mississippi             | TN00003     | West Virginia               | 233              |
| Missouri                | 340         | Wisconsin                   | 9980939910       |
| Montana                 | CERT0086    | Wyoming                     | A2LA             |

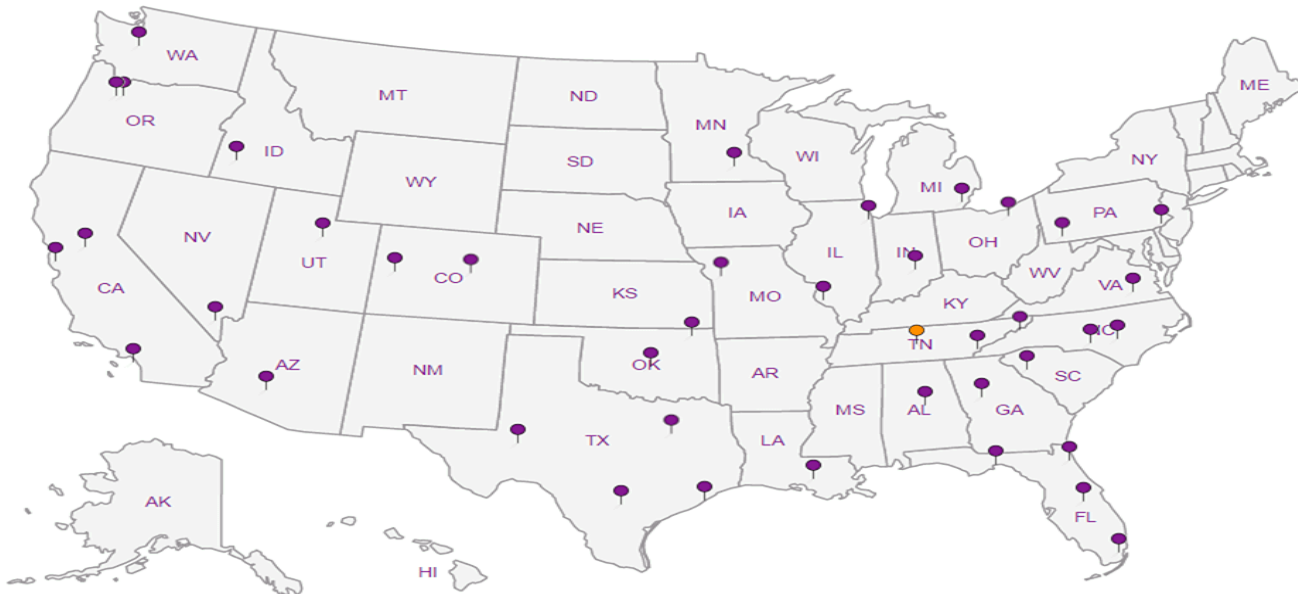
## Third Party Federal Accreditations

|                               |         |                    |               |
|-------------------------------|---------|--------------------|---------------|
| A2LA – ISO 17025              | 1461.01 | AIHA-LAP,LLC EMLAP | 100789        |
| A2LA – ISO 17025 <sup>5</sup> | 1461.02 | DOD                | 1461.01       |
| Canada                        | 1461.01 | USDA               | P330-15-00234 |
| EPA-Crypto                    | TN00003 |                    |               |

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

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



July 22, 2020

Revised Report

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## SCS Engineers - KS

Sample Delivery Group: L1221863  
Samples Received: 05/23/2020  
Project Number: 27213168.20  
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.



|  |           |             |
|--|-----------|-------------|
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| <b>Tc: Table of Contents</b>               | <b>2</b>  |             |
| <b>Ss: Sample Summary</b>                  | <b>3</b>  | <b>2</b> Tc |
| <b>Cn: Case Narrative</b>                  | <b>6</b>  |             |
| <b>Sr: Sample Results</b>                  | <b>7</b>  | <b>3</b> Ss |
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| 502 L1221863-02                            | 9         | <b>4</b> Cn |
| 503 L1221863-03                            | 11        | <b>5</b> Sr |
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| 505 L1221863-05                            | 15        | <b>6</b> Qc |
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| <b>Al: Accreditations &amp; Locations</b>  | <b>42</b> |             |
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# SAMPLE SUMMARY



## 501 L1221863-01 GW

Collected by  
Whit Martin  
Collected date/time  
05/21/20 11:30  
Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results                         | WG1481522 | 1        | 05/29/20 14:11        | 05/29/20 14:11     | TRB     | Mt. Juliet, TN |
| Gravimetric Analysis by Method 2540 C-2011 | WG1483373 | 1        | 05/28/20 19:13        | 05/28/20 22:31     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 410.4              | WG1483770 | 1        | 05/29/20 11:23        | 05/29/20 15:05     | SL      | Mt. Juliet, TN |
| Wet Chemistry by Method 9020B              | WG1484340 | 1        | 05/30/20 13:55        | 05/30/20 13:55     | VRP     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 1        | 05/28/20 17:14        | 05/28/20 17:14     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 20       | 05/28/20 17:53        | 05/28/20 17:53     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9060A              | WG1482709 | 1        | 05/29/20 12:25        | 05/29/20 12:25     | VRP     | Mt. Juliet, TN |
| Mercury by Method 7470A                    | WG1481597 | 1        | 05/26/20 18:16        | 05/27/20 10:53     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481522 | 1        | 05/29/20 10:00        | 05/29/20 14:11     | TRB     | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020              | WG1481532 | 1        | 05/28/20 18:16        | 05/29/20 22:18     | JPD     | Mt. Juliet, TN |

1  
Cp

2  
Tc

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Ss

4  
Cn

5  
Sr

6  
Qc

## 502 L1221863-02 GW

Collected by  
Whit Martin  
Collected date/time  
05/21/20 16:05  
Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results                         | WG1481522 | 1        | 05/29/20 14:14        | 05/29/20 14:14     | TRB     | Mt. Juliet, TN |
| Gravimetric Analysis by Method 2540 C-2011 | WG1483373 | 1        | 05/28/20 19:13        | 05/28/20 22:31     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 410.4              | WG1483770 | 1        | 05/29/20 11:23        | 05/29/20 15:06     | SL      | Mt. Juliet, TN |
| Wet Chemistry by Method 9020B              | WG1484340 | 1        | 05/30/20 14:15        | 05/30/20 14:15     | VRP     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 1        | 05/28/20 18:19        | 05/28/20 18:19     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 50       | 05/28/20 18:32        | 05/28/20 18:32     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9060A              | WG1482709 | 1        | 05/29/20 12:46        | 05/29/20 12:46     | VRP     | Mt. Juliet, TN |
| Mercury by Method 7470A                    | WG1481597 | 1        | 05/26/20 18:16        | 05/27/20 10:55     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481522 | 1        | 05/29/20 10:00        | 05/29/20 14:14     | TRB     | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020              | WG1481532 | 1        | 05/28/20 18:16        | 05/29/20 22:22     | JPD     | Mt. Juliet, TN |

7  
Gl

8  
Al

9  
Sc

## 503 L1221863-03 GW

Collected by  
Whit Martin  
Collected date/time  
05/21/20 13:40  
Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results                         | WG1481522 | 1        | 05/29/20 14:17        | 05/29/20 14:17     | TRB     | Mt. Juliet, TN |
| Gravimetric Analysis by Method 2540 C-2011 | WG1483373 | 1        | 05/28/20 19:13        | 05/28/20 22:31     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 410.4              | WG1483770 | 1        | 05/29/20 11:23        | 05/29/20 15:06     | SL      | Mt. Juliet, TN |
| Wet Chemistry by Method 9020B              | WG1484340 | 1        | 05/30/20 16:16        | 05/30/20 16:16     | VRP     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 1        | 05/28/20 18:44        | 05/28/20 18:44     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 100      | 05/28/20 18:57        | 05/28/20 18:57     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9060A              | WG1482709 | 1        | 05/29/20 14:35        | 05/29/20 14:35     | VRP     | Mt. Juliet, TN |
| Mercury by Method 7470A                    | WG1481597 | 1        | 05/26/20 18:16        | 05/27/20 10:57     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481522 | 1        | 05/29/20 10:00        | 05/29/20 14:17     | TRB     | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020              | WG1481532 | 1        | 05/28/20 18:16        | 05/29/20 22:25     | JPD     | Mt. Juliet, TN |

## 504 L1221863-04 GW

Collected by  
Whit Martin  
Collected date/time  
05/21/20 12:50  
Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results                         | WG1481522 | 1        | 05/29/20 14:20        | 05/29/20 14:20     | TRB     | Mt. Juliet, TN |
| Gravimetric Analysis by Method 2540 C-2011 | WG1483373 | 1        | 05/28/20 19:13        | 05/28/20 22:31     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 410.4              | WG1483771 | 1        | 05/29/20 11:22        | 05/29/20 15:22     | SL      | Mt. Juliet, TN |
| Wet Chemistry by Method 9020B              | WG1484340 | 1        | 05/30/20 16:36        | 05/30/20 16:36     | VRP     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 1        | 05/28/20 19:10        | 05/28/20 19:10     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 100      | 05/28/20 19:23        | 05/28/20 19:23     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9060A              | WG1482709 | 1        | 05/29/20 15:45        | 05/29/20 15:45     | VRP     | Mt. Juliet, TN |
| Mercury by Method 7470A                    | WG1481597 | 1        | 05/26/20 18:16        | 05/27/20 10:59     | ABL     | Mt. Juliet, TN |

# SAMPLE SUMMARY



## 504 L1221863-04 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 12:50

Received date/time  
05/23/20 08:45

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Metals (ICP) by Method 6010B  | WG1481522 | 1        | 05/29/20 10:00        | 05/29/20 14:20     | TRB     | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020 | WG1481532 | 1        | 05/28/20 18:16        | 05/29/20 22:29     | JPD     | Mt. Juliet, TN |

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## 505 L1221863-05 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 14:05

Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results                         | WG1481522 | 1        | 05/29/20 14:23        | 05/29/20 14:23     | TRB     | Mt. Juliet, TN |
| Gravimetric Analysis by Method 2540 C-2011 | WG1483373 | 1        | 05/28/20 19:13        | 05/28/20 22:31     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 410.4              | WG1483771 | 1        | 05/29/20 11:22        | 05/29/20 15:22     | SL      | Mt. Juliet, TN |
| Wet Chemistry by Method 9020B              | WG1484340 | 1        | 05/30/20 16:57        | 05/30/20 16:57     | VRP     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 1        | 05/28/20 19:36        | 05/28/20 19:36     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 100      | 05/28/20 19:49        | 05/28/20 19:49     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9060A              | WG1482709 | 1        | 05/29/20 16:10        | 05/29/20 16:10     | VRP     | Mt. Juliet, TN |
| Mercury by Method 7470A                    | WG1481597 | 1        | 05/26/20 18:16        | 05/27/20 11:01     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481522 | 1        | 05/29/20 10:00        | 05/29/20 14:23     | TRB     | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020              | WG1481532 | 1        | 05/28/20 18:16        | 05/29/20 20:23     | JPD     | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020              | WG1481532 | 10       | 05/28/20 18:16        | 05/29/20 21:58     | JPD     | Mt. Juliet, TN |

## 507 L1221863-06 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 11:40

Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results                         | WG1481522 | 1        | 05/29/20 14:31        | 05/29/20 14:31     | TRB     | Mt. Juliet, TN |
| Gravimetric Analysis by Method 2540 C-2011 | WG1483373 | 1        | 05/28/20 19:13        | 05/28/20 22:31     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 410.4              | WG1483771 | 1        | 05/29/20 11:22        | 05/29/20 15:22     | SL      | Mt. Juliet, TN |
| Wet Chemistry by Method 9020B              | WG1484340 | 1        | 05/30/20 17:19        | 05/30/20 17:19     | VRP     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 1        | 05/28/20 20:27        | 05/28/20 20:27     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 100      | 05/28/20 20:40        | 05/28/20 20:40     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9060A              | WG1482709 | 1        | 05/29/20 16:26        | 05/29/20 16:26     | VRP     | Mt. Juliet, TN |
| Mercury by Method 7470A                    | WG1481597 | 1        | 05/26/20 18:16        | 05/27/20 11:03     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481522 | 1        | 05/29/20 10:00        | 05/29/20 14:31     | TRB     | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020              | WG1481532 | 1        | 05/28/20 18:16        | 05/29/20 20:26     | JPD     | Mt. Juliet, TN |

## 508 L1221863-07 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 10:25

Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results                         | WG1481522 | 1        | 05/29/20 14:34        | 05/29/20 14:34     | TRB     | Mt. Juliet, TN |
| Gravimetric Analysis by Method 2540 C-2011 | WG1483373 | 1        | 05/28/20 19:13        | 05/28/20 22:31     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 410.4              | WG1483771 | 1        | 05/29/20 11:22        | 05/29/20 15:22     | SL      | Mt. Juliet, TN |
| Wet Chemistry by Method 9020B              | WG1484340 | 1        | 05/30/20 17:40        | 05/30/20 17:40     | VRP     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 1        | 05/28/20 20:53        | 05/28/20 20:53     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 100      | 05/28/20 21:06        | 05/28/20 21:06     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9060A              | WG1482709 | 1        | 05/29/20 16:39        | 05/29/20 16:39     | VRP     | Mt. Juliet, TN |
| Mercury by Method 7470A                    | WG1481597 | 1        | 05/26/20 18:16        | 05/27/20 11:04     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481522 | 1        | 05/29/20 10:00        | 05/29/20 14:34     | TRB     | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020              | WG1481532 | 1        | 05/28/20 18:16        | 05/29/20 20:30     | JPD     | Mt. Juliet, TN |

# SAMPLE SUMMARY



## 509 L1221863-08 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 17:55

Received date/time  
05/23/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results                         | WG1481522 | 1        | 05/29/20 14:37        | 05/29/20 14:37     | EL      | Mt. Juliet, TN |
| Gravimetric Analysis by Method 2540 C-2011 | WG1483373 | 1        | 05/28/20 19:13        | 05/28/20 22:31     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 410.4              | WG1483771 | 1        | 05/29/20 11:22        | 05/29/20 15:23     | SL      | Mt. Juliet, TN |
| Wet Chemistry by Method 9020B              | WG1484340 | 1        | 06/02/20 14:06        | 06/02/20 14:06     | VRP     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 1        | 05/28/20 21:18        | 05/28/20 21:18     | MCG     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1482625 | 100      | 05/28/20 21:31        | 05/28/20 21:31     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9060A              | WG1482709 | 1        | 05/29/20 17:00        | 05/29/20 17:00     | VRP     | Mt. Juliet, TN |
| Mercury by Method 7470A                    | WG1481597 | 1        | 05/26/20 18:16        | 05/27/20 11:06     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481522 | 1        | 05/29/20 10:00        | 05/29/20 14:37     | TRB     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1481522 | 5        | 05/29/20 10:00        | 05/30/20 11:28     | EL      | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020              | WG1481532 | 1        | 05/28/20 18:16        | 05/29/20 20:33     | JPD     | Mt. Juliet, TN |

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

## 506 L1221863-09 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 14:35

Received date/time  
05/23/20 08:45

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results            | WG1481522 | 1        | 05/29/20 13:42        | 05/29/20 13:42     | JDG     | Mt. Juliet, TN |
| Wet Chemistry by Method 410.4 | WG1483771 | 1        | 05/29/20 11:22        | 05/29/20 15:23     | SL      | Mt. Juliet, TN |
| Wet Chemistry by Method 9020B | WG1484340 | 1        | 06/02/20 14:28        | 06/02/20 14:28     | VRP     | Mt. Juliet, TN |
| Wet Chemistry by Method 9060A | WG1482709 | 1        | 05/29/20 18:46        | 05/29/20 18:46     | VRP     | Mt. Juliet, TN |
| Mercury by Method 7470A       | WG1481597 | 1        | 05/26/20 18:16        | 05/27/20 10:35     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B  | WG1481522 | 1        | 05/29/20 10:00        | 05/29/20 13:42     | JDG     | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020 | WG1481532 | 1        | 05/28/20 18:16        | 05/29/20 21:19     | JPD     | Mt. Juliet, TN |

## DUPLICATE L1221863-10 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 14:35

Received date/time  
05/23/20 08:45

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results            | WG1481522 | 1        | 05/29/20 14:40        | 05/29/20 14:40     | JDG     | Mt. Juliet, TN |
| Wet Chemistry by Method 410.4 | WG1483771 | 1        | 05/29/20 11:22        | 05/29/20 15:24     | SL      | Mt. Juliet, TN |
| Wet Chemistry by Method 9020B | WG1484340 | 1        | 06/02/20 14:48        | 06/02/20 14:48     | VRP     | Mt. Juliet, TN |
| Wet Chemistry by Method 9060A | WG1482709 | 1        | 05/29/20 20:10        | 05/29/20 20:10     | VRP     | Mt. Juliet, TN |
| Mercury by Method 7470A       | WG1481597 | 1        | 05/26/20 18:16        | 05/27/20 11:08     | ABL     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B  | WG1481522 | 1        | 05/29/20 10:00        | 05/29/20 14:40     | JDG     | Mt. Juliet, TN |
| Metals (ICPMS) by Method 6020 | WG1480615 | 1        | 05/26/20 18:21        | 05/26/20 23:06     | LD      | Mt. Juliet, TN |





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

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

### Report Revision History

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Level II Report - Version 1: 06/03/20 15:35

### Project Narrative

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This report has been revised. The Fluoride results are being reported from the undiluted run for sample L1221863-08 as opposed to the 100X run which was diluted for Sulfate.



## Calculated Results

| Analyte                        | Result  | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|--------------------------------|---------|-----------|------|----------|----------------------|---------------------------|
| Hardness (calculated) as CaCO3 | 1430000 |           | 2500 | 1        | 05/29/2020 14:11     | <a href="#">WG1481522</a> |

1 Cp

2 Tc

## Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2430000 |           | 50000 | 1        | 05/28/2020 22:31     | <a href="#">WG1483373</a> |

3 Ss

4 Cn

## Wet Chemistry by Method 410.4

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| COD     | ND     |           | 20000 | 1        | 05/29/2020 15:05     | <a href="#">WG1483770</a> |

5 Sr

6 Qc

## Wet Chemistry by Method 9020B

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-----|----------|----------------------|---------------------------|
| TOX     | ND     |           | 100 | 1        | 05/30/2020 13:55     | <a href="#">WG1484340</a> |

7 Gl

8 Al

## Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 7890    |           | 1000   | 1        | 05/28/2020 17:14     | <a href="#">WG1482625</a> |
| Fluoride | 188     |           | 150    | 1        | 05/28/2020 17:14     | <a href="#">WG1482625</a> |
| Sulfate  | 1580000 |           | 100000 | 20       | 05/28/2020 17:53     | <a href="#">WG1482625</a> |

9 Sc

## Wet Chemistry by Method 9060A

| Analyte                    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------------------------|--------|-----------|------|----------|----------------------|---------------------------|
| TOC (Total Organic Carbon) | 1310   | B         | 1000 | 1        | 05/29/2020 12:25     | <a href="#">WG1482709</a> |

## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 10:53     | <a href="#">WG1481597</a> |

## Metals (ICP) by Method 6010B

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Aluminum  | ND     |           | 200  | 1        | 05/29/2020 14:11     | <a href="#">WG1481522</a> |
| Barium    | 16.2   |           | 5.00 | 1        | 05/29/2020 14:11     | <a href="#">WG1481522</a> |
| Boron     | 5320   |           | 200  | 1        | 05/29/2020 14:11     | <a href="#">WG1481522</a> |
| Calcium   | 405000 |           | 1000 | 1        | 05/29/2020 14:11     | <a href="#">WG1481522</a> |
| Chromium  | ND     |           | 10.0 | 1        | 05/29/2020 14:11     | <a href="#">WG1481522</a> |
| Cobalt    | ND     |           | 10.0 | 1        | 05/29/2020 14:11     | <a href="#">WG1481522</a> |
| Iron      | 147    |           | 100  | 1        | 05/29/2020 14:11     | <a href="#">WG1481522</a> |
| Magnesium | 103000 |           | 1000 | 1        | 05/29/2020 14:11     | <a href="#">WG1481522</a> |
| Manganese | 188    |           | 10.0 | 1        | 05/29/2020 14:11     | <a href="#">WG1481522</a> |
| Nickel    | 49.6   |           | 10.0 | 1        | 05/29/2020 14:11     | <a href="#">WG1481522</a> |
| Silver    | ND     |           | 5.00 | 1        | 05/29/2020 14:11     | <a href="#">WG1481522</a> |
| Sodium    | 130000 |           | 3000 | 1        | 05/29/2020 14:11     | <a href="#">WG1481522</a> |



Collected date/time: 05/21/20 11:30

L1221863

Metals (ICPMS) by Method 6020

| Analyte   | Result<br>ug/l | Qualifier | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                     |
|-----------|----------------|-----------|-------------|----------|-------------------------|---------------------------|
| Antimony  | ND             |           | 4.00        | 1        | 05/29/2020 22:18        | <a href="#">WG1481532</a> |
| Arsenic   | ND             |           | 2.00        | 1        | 05/29/2020 22:18        | <a href="#">WG1481532</a> |
| Beryllium | ND             |           | 2.00        | 1        | 05/29/2020 22:18        | <a href="#">WG1481532</a> |
| Cadmium   | ND             |           | 1.00        | 1        | 05/29/2020 22:18        | <a href="#">WG1481532</a> |
| Copper    | 7.51           |           | 5.00        | 1        | 05/29/2020 22:18        | <a href="#">WG1481532</a> |
| Lead      | ND             |           | 5.00        | 1        | 05/29/2020 22:18        | <a href="#">WG1481532</a> |
| Selenium  | ND             |           | 2.00        | 1        | 05/29/2020 22:18        | <a href="#">WG1481532</a> |
| Thallium  | ND             |           | 2.00        | 1        | 05/29/2020 22:18        | <a href="#">WG1481532</a> |
| Zinc      | ND             |           | 25.0        | 1        | 05/29/2020 22:18        | <a href="#">WG1481532</a> |

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



## Calculated Results

| Analyte                        | Result  | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|--------------------------------|---------|-----------|------|----------|----------------------|---------------------------|
| Hardness (calculated) as CaCO3 | 1300000 |           | 2500 | 1        | 05/29/2020 14:14     | <a href="#">WG1481522</a> |

1 Cp

2 Tc

## Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2230000 |           | 50000 | 1        | 05/28/2020 22:31     | <a href="#">WG1483373</a> |

3 Ss

4 Cn

## Wet Chemistry by Method 410.4

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| COD     | ND     |           | 20000 | 1        | 05/29/2020 15:06     | <a href="#">WG1483770</a> |

5 Sr

6 Qc

## Wet Chemistry by Method 9020B

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-----|----------|----------------------|---------------------------|
| TOX     | ND     |           | 100 | 1        | 05/30/2020 14:15     | <a href="#">WG1484340</a> |

7 Gl

8 Al

## Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 21900   |           | 1000   | 1        | 05/28/2020 18:19     | <a href="#">WG1482625</a> |
| Fluoride | 331     |           | 150    | 1        | 05/28/2020 18:19     | <a href="#">WG1482625</a> |
| Sulfate  | 1380000 |           | 250000 | 50       | 05/28/2020 18:32     | <a href="#">WG1482625</a> |

9 Sc

## Wet Chemistry by Method 9060A

| Analyte                    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------------------------|--------|-----------|------|----------|----------------------|---------------------------|
| TOC (Total Organic Carbon) | 3370   |           | 1000 | 1        | 05/29/2020 12:46     | <a href="#">WG1482709</a> |

## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 10:55     | <a href="#">WG1481597</a> |

## Metals (ICP) by Method 6010B

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Aluminum  | ND     |           | 200  | 1        | 05/29/2020 14:14     | <a href="#">WG1481522</a> |
| Barium    | 30.5   |           | 5.00 | 1        | 05/29/2020 14:14     | <a href="#">WG1481522</a> |
| Boron     | 2430   |           | 200  | 1        | 05/29/2020 14:14     | <a href="#">WG1481522</a> |
| Calcium   | 382000 |           | 1000 | 1        | 05/29/2020 14:14     | <a href="#">WG1481522</a> |
| Chromium  | ND     |           | 10.0 | 1        | 05/29/2020 14:14     | <a href="#">WG1481522</a> |
| Cobalt    | ND     |           | 10.0 | 1        | 05/29/2020 14:14     | <a href="#">WG1481522</a> |
| Iron      | 17100  |           | 100  | 1        | 05/29/2020 14:14     | <a href="#">WG1481522</a> |
| Magnesium | 85000  |           | 1000 | 1        | 05/29/2020 14:14     | <a href="#">WG1481522</a> |
| Manganese | 2720   |           | 10.0 | 1        | 05/29/2020 14:14     | <a href="#">WG1481522</a> |
| Nickel    | ND     |           | 10.0 | 1        | 05/29/2020 14:14     | <a href="#">WG1481522</a> |
| Silver    | ND     |           | 5.00 | 1        | 05/29/2020 14:14     | <a href="#">WG1481522</a> |
| Sodium    | 151000 |           | 3000 | 1        | 05/29/2020 14:14     | <a href="#">WG1481522</a> |



Collected date/time: 05/21/20 16:05

L1221863

Metals (ICPMS) by Method 6020

| Analyte   | Result<br>ug/l | Qualifier | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                     |
|-----------|----------------|-----------|-------------|----------|-------------------------|---------------------------|
| Antimony  | ND             |           | 4.00        | 1        | 05/29/2020 22:22        | <a href="#">WG1481532</a> |
| Arsenic   | 14.1           |           | 2.00        | 1        | 05/29/2020 22:22        | <a href="#">WG1481532</a> |
| Beryllium | ND             |           | 2.00        | 1        | 05/29/2020 22:22        | <a href="#">WG1481532</a> |
| Cadmium   | ND             |           | 1.00        | 1        | 05/29/2020 22:22        | <a href="#">WG1481532</a> |
| Copper    | ND             |           | 5.00        | 1        | 05/29/2020 22:22        | <a href="#">WG1481532</a> |
| Lead      | ND             |           | 5.00        | 1        | 05/29/2020 22:22        | <a href="#">WG1481532</a> |
| Selenium  | ND             |           | 2.00        | 1        | 05/29/2020 22:22        | <a href="#">WG1481532</a> |
| Thallium  | ND             |           | 2.00        | 1        | 05/29/2020 22:22        | <a href="#">WG1481532</a> |
| Zinc      | ND             |           | 25.0        | 1        | 05/29/2020 22:22        | <a href="#">WG1481532</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## Calculated Results

| Analyte                        | Result  | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|--------------------------------|---------|-----------|------|----------|----------------------|---------------------------|
| Hardness (calculated) as CaCO3 | 1650000 |           | 2500 | 1        | 05/29/2020 14:17     | <a href="#">WG1481522</a> |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 3180000 |           | 50000 | 1        | 05/28/2020 22:31     | <a href="#">WG1483373</a> |

## Wet Chemistry by Method 410.4

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| COD     | ND     |           | 20000 | 1        | 05/29/2020 15:06     | <a href="#">WG1483770</a> |

## Wet Chemistry by Method 9020B

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-----|----------|----------------------|---------------------------|
| TOX     | ND     |           | 100 | 1        | 05/30/2020 16:16     | <a href="#">WG1484340</a> |

## Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 38200   |           | 1000   | 1        | 05/28/2020 18:44     | <a href="#">WG1482625</a> |
| Fluoride | 265     |           | 150    | 1        | 05/28/2020 18:44     | <a href="#">WG1482625</a> |
| Sulfate  | 2170000 |           | 500000 | 100      | 05/28/2020 18:57     | <a href="#">WG1482625</a> |

## Wet Chemistry by Method 9060A

| Analyte                    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------------------------|--------|-----------|------|----------|----------------------|---------------------------|
| TOC (Total Organic Carbon) | 1340   | <b>B</b>  | 1000 | 1        | 05/29/2020 14:35     | <a href="#">WG1482709</a> |

## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 10:57     | <a href="#">WG1481597</a> |

## Metals (ICP) by Method 6010B

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Aluminum  | 5190   |           | 200  | 1        | 05/29/2020 14:17     | <a href="#">WG1481522</a> |
| Barium    | 28.7   |           | 5.00 | 1        | 05/29/2020 14:17     | <a href="#">WG1481522</a> |
| Boron     | ND     |           | 200  | 1        | 05/29/2020 14:17     | <a href="#">WG1481522</a> |
| Calcium   | 446000 |           | 1000 | 1        | 05/29/2020 14:17     | <a href="#">WG1481522</a> |
| Chromium  | ND     |           | 10.0 | 1        | 05/29/2020 14:17     | <a href="#">WG1481522</a> |
| Cobalt    | ND     |           | 10.0 | 1        | 05/29/2020 14:17     | <a href="#">WG1481522</a> |
| Iron      | 2670   |           | 100  | 1        | 05/29/2020 14:17     | <a href="#">WG1481522</a> |
| Magnesium | 131000 |           | 1000 | 1        | 05/29/2020 14:17     | <a href="#">WG1481522</a> |
| Manganese | 212    |           | 10.0 | 1        | 05/29/2020 14:17     | <a href="#">WG1481522</a> |
| Nickel    | ND     |           | 10.0 | 1        | 05/29/2020 14:17     | <a href="#">WG1481522</a> |
| Silver    | ND     |           | 5.00 | 1        | 05/29/2020 14:17     | <a href="#">WG1481522</a> |
| Sodium    | 286000 |           | 3000 | 1        | 05/29/2020 14:17     | <a href="#">WG1481522</a> |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 05/21/20 13:40

L1221863

Metals (ICPMS) by Method 6020

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Antimony  | ND     |           | 4.00 | 1        | 05/29/2020 22:25     | <a href="#">WG1481532</a> |
| Arsenic   | ND     |           | 2.00 | 1        | 05/29/2020 22:25     | <a href="#">WG1481532</a> |
| Beryllium | ND     |           | 2.00 | 1        | 05/29/2020 22:25     | <a href="#">WG1481532</a> |
| Cadmium   | ND     |           | 1.00 | 1        | 05/29/2020 22:25     | <a href="#">WG1481532</a> |
| Copper    | ND     |           | 5.00 | 1        | 05/29/2020 22:25     | <a href="#">WG1481532</a> |
| Lead      | ND     |           | 5.00 | 1        | 05/29/2020 22:25     | <a href="#">WG1481532</a> |
| Selenium  | 2.59   |           | 2.00 | 1        | 05/29/2020 22:25     | <a href="#">WG1481532</a> |
| Thallium  | ND     |           | 2.00 | 1        | 05/29/2020 22:25     | <a href="#">WG1481532</a> |
| Zinc      | ND     |           | 25.0 | 1        | 05/29/2020 22:25     | <a href="#">WG1481532</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## Calculated Results

| Analyte                        | Result  | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|--------------------------------|---------|-----------|------|----------|----------------------|---------------------------|
| Hardness (calculated) as CaCO3 | 1270000 |           | 2500 | 1        | 05/29/2020 14:20     | <a href="#">WG1481522</a> |

1 Cp

2 Tc

## Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2410000 |           | 50000 | 1        | 05/28/2020 22:31     | <a href="#">WG1483373</a> |

3 Ss

4 Cn

## Wet Chemistry by Method 410.4

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| COD     | ND     |           | 20000 | 1        | 05/29/2020 15:22     | <a href="#">WG1483771</a> |

5 Sr

6 Qc

## Wet Chemistry by Method 9020B

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-----|----------|----------------------|---------------------------|
| TOX     | ND     |           | 100 | 1        | 05/30/2020 16:36     | <a href="#">WG1484340</a> |

7 Gl

8 Al

## Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 9030    |           | 1000   | 1        | 05/28/2020 19:10     | <a href="#">WG1482625</a> |
| Fluoride | 361     |           | 150    | 1        | 05/28/2020 19:10     | <a href="#">WG1482625</a> |
| Sulfate  | 1620000 |           | 500000 | 100      | 05/28/2020 19:23     | <a href="#">WG1482625</a> |

9 Sc

## Wet Chemistry by Method 9060A

| Analyte                    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------------------------|--------|-----------|------|----------|----------------------|---------------------------|
| TOC (Total Organic Carbon) | 1320   | B         | 1000 | 1        | 05/29/2020 15:45     | <a href="#">WG1482709</a> |

## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 10:59     | <a href="#">WG1481597</a> |

## Metals (ICP) by Method 6010B

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Aluminum  | 296    |           | 200  | 1        | 05/29/2020 14:20     | <a href="#">WG1481522</a> |
| Barium    | 14.0   |           | 5.00 | 1        | 05/29/2020 14:20     | <a href="#">WG1481522</a> |
| Boron     | 4140   |           | 200  | 1        | 05/29/2020 14:20     | <a href="#">WG1481522</a> |
| Calcium   | 357000 |           | 1000 | 1        | 05/29/2020 14:20     | <a href="#">WG1481522</a> |
| Chromium  | ND     |           | 10.0 | 1        | 05/29/2020 14:20     | <a href="#">WG1481522</a> |
| Cobalt    | ND     |           | 10.0 | 1        | 05/29/2020 14:20     | <a href="#">WG1481522</a> |
| Iron      | 547    |           | 100  | 1        | 05/29/2020 14:20     | <a href="#">WG1481522</a> |
| Magnesium | 92000  |           | 1000 | 1        | 05/29/2020 14:20     | <a href="#">WG1481522</a> |
| Manganese | 1020   |           | 10.0 | 1        | 05/29/2020 14:20     | <a href="#">WG1481522</a> |
| Nickel    | 25.5   |           | 10.0 | 1        | 05/29/2020 14:20     | <a href="#">WG1481522</a> |
| Silver    | ND     |           | 5.00 | 1        | 05/29/2020 14:20     | <a href="#">WG1481522</a> |
| Sodium    | 199000 |           | 3000 | 1        | 05/29/2020 14:20     | <a href="#">WG1481522</a> |





Collected date/time: 05/21/20 12:50

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Metals (ICPMS) by Method 6020

| Analyte   | Result<br>ug/l | Qualifier | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                     |
|-----------|----------------|-----------|-------------|----------|-------------------------|---------------------------|
| Antimony  | ND             |           | 4.00        | 1        | 05/29/2020 22:29        | <a href="#">WG1481532</a> |
| Arsenic   | ND             |           | 2.00        | 1        | 05/29/2020 22:29        | <a href="#">WG1481532</a> |
| Beryllium | ND             |           | 2.00        | 1        | 05/29/2020 22:29        | <a href="#">WG1481532</a> |
| Cadmium   | 1.06           |           | 1.00        | 1        | 05/29/2020 22:29        | <a href="#">WG1481532</a> |
| Copper    | ND             |           | 5.00        | 1        | 05/29/2020 22:29        | <a href="#">WG1481532</a> |
| Lead      | ND             |           | 5.00        | 1        | 05/29/2020 22:29        | <a href="#">WG1481532</a> |
| Selenium  | ND             |           | 2.00        | 1        | 05/29/2020 22:29        | <a href="#">WG1481532</a> |
| Thallium  | ND             |           | 2.00        | 1        | 05/29/2020 22:29        | <a href="#">WG1481532</a> |
| Zinc      | ND             |           | 25.0        | 1        | 05/29/2020 22:29        | <a href="#">WG1481532</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## Calculated Results

| Analyte                        | Result  | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|--------------------------------|---------|-----------|------|----------|----------------------|---------------------------|
| Hardness (calculated) as CaCO3 | 1300000 |           | 2500 | 1        | 05/29/2020 14:23     | <a href="#">WG1481522</a> |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2030000 |           | 25000 | 1        | 05/28/2020 22:31     | <a href="#">WG1483373</a> |

## Wet Chemistry by Method 410.4

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| COD     | 45000  |           | 20000 | 1        | 05/29/2020 15:22     | <a href="#">WG1483771</a> |

## Wet Chemistry by Method 9020B

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-----|----------|----------------------|---------------------------|
| TOX     | ND     |           | 100 | 1        | 05/30/2020 16:57     | <a href="#">WG1484340</a> |

## Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 8850    |           | 1000   | 1        | 05/28/2020 19:36     | <a href="#">WG1482625</a> |
| Fluoride | 249     |           | 150    | 1        | 05/28/2020 19:36     | <a href="#">WG1482625</a> |
| Sulfate  | 1340000 |           | 500000 | 100      | 05/28/2020 19:49     | <a href="#">WG1482625</a> |

## Wet Chemistry by Method 9060A

| Analyte                    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------------------------|--------|-----------|------|----------|----------------------|---------------------------|
| TOC (Total Organic Carbon) | 5510   |           | 1000 | 1        | 05/29/2020 16:10     | <a href="#">WG1482709</a> |

## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 11:01     | <a href="#">WG1481597</a> |

## Metals (ICP) by Method 6010B

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Aluminum  | 1410   |           | 200  | 1        | 05/29/2020 14:23     | <a href="#">WG1481522</a> |
| Barium    | 61.7   |           | 5.00 | 1        | 05/29/2020 14:23     | <a href="#">WG1481522</a> |
| Boron     | 5860   |           | 200  | 1        | 05/29/2020 14:23     | <a href="#">WG1481522</a> |
| Calcium   | 474000 |           | 1000 | 1        | 05/29/2020 14:23     | <a href="#">WG1481522</a> |
| Chromium  | ND     |           | 10.0 | 1        | 05/29/2020 14:23     | <a href="#">WG1481522</a> |
| Cobalt    | ND     |           | 10.0 | 1        | 05/29/2020 14:23     | <a href="#">WG1481522</a> |
| Iron      | 344000 |           | 100  | 1        | 05/29/2020 14:23     | <a href="#">WG1481522</a> |
| Magnesium | 27300  |           | 1000 | 1        | 05/29/2020 14:23     | <a href="#">WG1481522</a> |
| Manganese | 257    |           | 10.0 | 1        | 05/29/2020 14:23     | <a href="#">WG1481522</a> |
| Nickel    | 31.1   |           | 10.0 | 1        | 05/29/2020 14:23     | <a href="#">WG1481522</a> |
| Silver    | ND     |           | 5.00 | 1        | 05/29/2020 14:23     | <a href="#">WG1481522</a> |
| Sodium    | 92200  |           | 3000 | 1        | 05/29/2020 14:23     | <a href="#">WG1481522</a> |

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



Collected date/time: 05/21/20 14:05

L1221863

Metals (ICPMS) by Method 6020

| Analyte   | Result<br>ug/l | Qualifier | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                     |
|-----------|----------------|-----------|-------------|----------|-------------------------|---------------------------|
| Antimony  | 5.73           |           | 4.00        | 1        | 05/29/2020 20:23        | <a href="#">WG1481532</a> |
| Arsenic   | ND             |           | 20.0        | 10       | 05/29/2020 21:58        | <a href="#">WG1481532</a> |
| Beryllium | ND             |           | 2.00        | 1        | 05/29/2020 20:23        | <a href="#">WG1481532</a> |
| Cadmium   | 16.4           |           | 1.00        | 1        | 05/29/2020 20:23        | <a href="#">WG1481532</a> |
| Copper    | ND             |           | 50.0        | 10       | 05/29/2020 21:58        | <a href="#">WG1481532</a> |
| Lead      | 6.24           |           | 5.00        | 1        | 05/29/2020 20:23        | <a href="#">WG1481532</a> |
| Selenium  | 17.3           |           | 2.00        | 1        | 05/29/2020 20:23        | <a href="#">WG1481532</a> |
| Thallium  | ND             |           | 2.00        | 1        | 05/29/2020 20:23        | <a href="#">WG1481532</a> |
| Zinc      | 563            |           | 250         | 10       | 05/29/2020 21:58        | <a href="#">WG1481532</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## Calculated Results

| Analyte                        | Result  | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|--------------------------------|---------|-----------|------|----------|----------------------|---------------------------|
| Hardness (calculated) as CaCO3 | 2080000 |           | 2500 | 1        | 05/29/2020 14:31     | <a href="#">WG1481522</a> |

1 Cp

2 Tc

## Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 3610000 |           | 50000 | 1        | 05/28/2020 22:31     | <a href="#">WG1483373</a> |

3 Ss

4 Cn

## Wet Chemistry by Method 410.4

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| COD     | ND     |           | 20000 | 1        | 05/29/2020 15:22     | <a href="#">WG1483771</a> |

5 Sr

6 Qc

## Wet Chemistry by Method 9020B

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-----|----------|----------------------|---------------------------|
| TOX     | ND     |           | 100 | 1        | 05/30/2020 17:19     | <a href="#">WG1484340</a> |

7 Gl

8 Al

## Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 3860    |           | 1000   | 1        | 05/28/2020 20:27     | <a href="#">WG1482625</a> |
| Fluoride | 484     |           | 150    | 1        | 05/28/2020 20:27     | <a href="#">WG1482625</a> |
| Sulfate  | 2340000 |           | 500000 | 100      | 05/28/2020 20:40     | <a href="#">WG1482625</a> |

9 Sc

## Wet Chemistry by Method 9060A

| Analyte                    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------------------------|--------|-----------|------|----------|----------------------|---------------------------|
| TOC (Total Organic Carbon) | 1310   | B         | 1000 | 1        | 05/29/2020 16:26     | <a href="#">WG1482709</a> |

## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 11:03     | <a href="#">WG1481597</a> |

## Metals (ICP) by Method 6010B

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Aluminum  | 1050   |           | 200  | 1        | 05/29/2020 14:31     | <a href="#">WG1481522</a> |
| Barium    | 14.9   |           | 5.00 | 1        | 05/29/2020 14:31     | <a href="#">WG1481522</a> |
| Boron     | 272    |           | 200  | 1        | 05/29/2020 14:31     | <a href="#">WG1481522</a> |
| Calcium   | 593000 |           | 1000 | 1        | 05/29/2020 14:31     | <a href="#">WG1481522</a> |
| Chromium  | ND     |           | 10.0 | 1        | 05/29/2020 14:31     | <a href="#">WG1481522</a> |
| Cobalt    | 15.1   |           | 10.0 | 1        | 05/29/2020 14:31     | <a href="#">WG1481522</a> |
| Iron      | 2900   |           | 100  | 1        | 05/29/2020 14:31     | <a href="#">WG1481522</a> |
| Magnesium | 146000 |           | 1000 | 1        | 05/29/2020 14:31     | <a href="#">WG1481522</a> |
| Manganese | 3010   |           | 10.0 | 1        | 05/29/2020 14:31     | <a href="#">WG1481522</a> |
| Nickel    | 14.5   |           | 10.0 | 1        | 05/29/2020 14:31     | <a href="#">WG1481522</a> |
| Silver    | ND     |           | 5.00 | 1        | 05/29/2020 14:31     | <a href="#">WG1481522</a> |
| Sodium    | 249000 |           | 3000 | 1        | 05/29/2020 14:31     | <a href="#">WG1481522</a> |



Collected date/time: 05/21/20 11:40

L1221863

Metals (ICPMS) by Method 6020

| Analyte   | Result<br>ug/l | Qualifier | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                     |
|-----------|----------------|-----------|-------------|----------|-------------------------|---------------------------|
| Antimony  | ND             |           | 4.00        | 1        | 05/29/2020 20:26        | <a href="#">WG1481532</a> |
| Arsenic   | ND             |           | 2.00        | 1        | 05/29/2020 20:26        | <a href="#">WG1481532</a> |
| Beryllium | ND             |           | 2.00        | 1        | 05/29/2020 20:26        | <a href="#">WG1481532</a> |
| Cadmium   | 3.02           |           | 1.00        | 1        | 05/29/2020 20:26        | <a href="#">WG1481532</a> |
| Copper    | 7.02           |           | 5.00        | 1        | 05/29/2020 20:26        | <a href="#">WG1481532</a> |
| Lead      | ND             |           | 5.00        | 1        | 05/29/2020 20:26        | <a href="#">WG1481532</a> |
| Selenium  | ND             |           | 2.00        | 1        | 05/29/2020 20:26        | <a href="#">WG1481532</a> |
| Thallium  | ND             |           | 2.00        | 1        | 05/29/2020 20:26        | <a href="#">WG1481532</a> |
| Zinc      | 49.3           |           | 25.0        | 1        | 05/29/2020 20:26        | <a href="#">WG1481532</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## Calculated Results

| Analyte                        | Result  | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|--------------------------------|---------|-----------|------|----------|----------------------|---------------------------|
| Hardness (calculated) as CaCO3 | 1200000 |           | 2500 | 1        | 05/29/2020 14:34     | <a href="#">WG1481522</a> |

1 Cp

2 Tc

## Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2240000 |           | 25000 | 1        | 05/28/2020 22:31     | <a href="#">WG1483373</a> |

3 Ss

4 Cn

## Wet Chemistry by Method 410.4

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| COD     | ND     |           | 20000 | 1        | 05/29/2020 15:22     | <a href="#">WG1483771</a> |

5 Sr

6 Qc

## Wet Chemistry by Method 9020B

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-----|----------|----------------------|---------------------------|
| TOX     | ND     |           | 100 | 1        | 05/30/2020 17:40     | <a href="#">WG1484340</a> |

7 Gl

8 Al

## Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 11700   |           | 1000   | 1        | 05/28/2020 20:53     | <a href="#">WG1482625</a> |
| Fluoride | ND      |           | 150    | 1        | 05/28/2020 20:53     | <a href="#">WG1482625</a> |
| Sulfate  | 1500000 |           | 500000 | 100      | 05/28/2020 21:06     | <a href="#">WG1482625</a> |

9 Sc

## Wet Chemistry by Method 9060A

| Analyte                    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------------------------|--------|-----------|------|----------|----------------------|---------------------------|
| TOC (Total Organic Carbon) | 1140   | B         | 1000 | 1        | 05/29/2020 16:39     | <a href="#">WG1482709</a> |

## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 11:04     | <a href="#">WG1481597</a> |

## Metals (ICP) by Method 6010B

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Aluminum  | 275    |           | 200  | 1        | 05/29/2020 14:34     | <a href="#">WG1481522</a> |
| Barium    | 21.6   |           | 5.00 | 1        | 05/29/2020 14:34     | <a href="#">WG1481522</a> |
| Boron     | 407    |           | 200  | 1        | 05/29/2020 14:34     | <a href="#">WG1481522</a> |
| Calcium   | 346000 |           | 1000 | 1        | 05/29/2020 14:34     | <a href="#">WG1481522</a> |
| Chromium  | ND     |           | 10.0 | 1        | 05/29/2020 14:34     | <a href="#">WG1481522</a> |
| Cobalt    | ND     |           | 10.0 | 1        | 05/29/2020 14:34     | <a href="#">WG1481522</a> |
| Iron      | 725    |           | 100  | 1        | 05/29/2020 14:34     | <a href="#">WG1481522</a> |
| Magnesium | 82000  |           | 1000 | 1        | 05/29/2020 14:34     | <a href="#">WG1481522</a> |
| Manganese | 335    |           | 10.0 | 1        | 05/29/2020 14:34     | <a href="#">WG1481522</a> |
| Nickel    | ND     |           | 10.0 | 1        | 05/29/2020 14:34     | <a href="#">WG1481522</a> |
| Silver    | ND     |           | 5.00 | 1        | 05/29/2020 14:34     | <a href="#">WG1481522</a> |
| Sodium    | 192000 |           | 3000 | 1        | 05/29/2020 14:34     | <a href="#">WG1481522</a> |



Collected date/time: 05/21/20 10:25

L1221863

Metals (ICPMS) by Method 6020

| Analyte   | Result<br>ug/l | Qualifier | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                     |
|-----------|----------------|-----------|-------------|----------|-------------------------|---------------------------|
| Antimony  | ND             |           | 4.00        | 1        | 05/29/2020 20:30        | <a href="#">WG1481532</a> |
| Arsenic   | ND             |           | 2.00        | 1        | 05/29/2020 20:30        | <a href="#">WG1481532</a> |
| Beryllium | ND             |           | 2.00        | 1        | 05/29/2020 20:30        | <a href="#">WG1481532</a> |
| Cadmium   | ND             |           | 1.00        | 1        | 05/29/2020 20:30        | <a href="#">WG1481532</a> |
| Copper    | 7.87           |           | 5.00        | 1        | 05/29/2020 20:30        | <a href="#">WG1481532</a> |
| Lead      | ND             |           | 5.00        | 1        | 05/29/2020 20:30        | <a href="#">WG1481532</a> |
| Selenium  | ND             |           | 2.00        | 1        | 05/29/2020 20:30        | <a href="#">WG1481532</a> |
| Thallium  | ND             |           | 2.00        | 1        | 05/29/2020 20:30        | <a href="#">WG1481532</a> |
| Zinc      | ND             |           | 25.0        | 1        | 05/29/2020 20:30        | <a href="#">WG1481532</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## Calculated Results

| Analyte                        | Result  | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|--------------------------------|---------|-----------|------|----------|----------------------|---------------------------|
| Hardness (calculated) as CaCO3 | 1580000 |           | 2500 | 1        | 05/29/2020 14:37     | <a href="#">WG1481522</a> |

1 Cp

2 Tc

## Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 4220000 |           | 50000 | 1        | 05/28/2020 22:31     | <a href="#">WG1483373</a> |

3 Ss

4 Cn

## Wet Chemistry by Method 410.4

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| COD     | 167000 |           | 20000 | 1        | 05/29/2020 15:23     | <a href="#">WG1483771</a> |

5 Sr

6 Qc

## Wet Chemistry by Method 9020B

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-----|----------|----------------------|---------------------------|
| TOX     | ND     | P1        | 100 | 1        | 06/02/2020 14:06     | <a href="#">WG1484340</a> |

7 Gl

8 Al

## Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 40100   |           | 1000   | 1        | 05/28/2020 21:18     | <a href="#">WG1482625</a> |
| Fluoride | 360     |           | 150    | 1        | 05/28/2020 21:18     | <a href="#">WG1482625</a> |
| Sulfate  | 2790000 |           | 500000 | 100      | 05/28/2020 21:31     | <a href="#">WG1482625</a> |

9 Sc

## Sample Narrative:

L1221863-08 WG1482625: Flouride at a dilution due to matrix interference

## Wet Chemistry by Method 9060A

| Analyte                    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------------------------|--------|-----------|------|----------|----------------------|---------------------------|
| TOC (Total Organic Carbon) | 8680   |           | 1000 | 1        | 05/29/2020 17:00     | <a href="#">WG1482709</a> |

## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 11:06     | <a href="#">WG1481597</a> |

## Metals (ICP) by Method 6010B

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Aluminum  | 8510   |           | 200  | 1        | 05/29/2020 14:37     | <a href="#">WG1481522</a> |
| Barium    | 137    |           | 5.00 | 1        | 05/29/2020 14:37     | <a href="#">WG1481522</a> |
| Boron     | 8310   |           | 200  | 1        | 05/29/2020 14:37     | <a href="#">WG1481522</a> |
| Calcium   | 499000 |           | 1000 | 1        | 05/29/2020 14:37     | <a href="#">WG1481522</a> |
| Chromium  | 23.0   |           | 10.0 | 1        | 05/29/2020 14:37     | <a href="#">WG1481522</a> |
| Cobalt    | 287    |           | 10.0 | 1        | 05/29/2020 14:37     | <a href="#">WG1481522</a> |
| Iron      | 413000 |           | 100  | 1        | 05/29/2020 14:37     | <a href="#">WG1481522</a> |
| Magnesium | 81400  |           | 1000 | 1        | 05/29/2020 14:37     | <a href="#">WG1481522</a> |
| Manganese | 62900  |           | 50.0 | 5        | 05/30/2020 11:28     | <a href="#">WG1481522</a> |
| Nickel    | 172    |           | 10.0 | 1        | 05/29/2020 14:37     | <a href="#">WG1481522</a> |
| Silver    | ND     |           | 5.00 | 1        | 05/29/2020 14:37     | <a href="#">WG1481522</a> |
| Sodium    | 210000 |           | 3000 | 1        | 05/29/2020 14:37     | <a href="#">WG1481522</a> |





Collected date/time: 05/21/20 17:55

L1221863

Metals (ICPMS) by Method 6020

| Analyte   | Result<br>ug/l | Qualifier | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                     |
|-----------|----------------|-----------|-------------|----------|-------------------------|---------------------------|
| Antimony  | ND             |           | 4.00        | 1        | 05/29/2020 20:33        | <a href="#">WG1481532</a> |
| Arsenic   | 17.3           |           | 2.00        | 1        | 05/29/2020 20:33        | <a href="#">WG1481532</a> |
| Beryllium | ND             |           | 2.00        | 1        | 05/29/2020 20:33        | <a href="#">WG1481532</a> |
| Cadmium   | 4.75           |           | 1.00        | 1        | 05/29/2020 20:33        | <a href="#">WG1481532</a> |
| Copper    | 13.1           |           | 5.00        | 1        | 05/29/2020 20:33        | <a href="#">WG1481532</a> |
| Lead      | 7.97           |           | 5.00        | 1        | 05/29/2020 20:33        | <a href="#">WG1481532</a> |
| Selenium  | 2.15           |           | 2.00        | 1        | 05/29/2020 20:33        | <a href="#">WG1481532</a> |
| Thallium  | ND             |           | 2.00        | 1        | 05/29/2020 20:33        | <a href="#">WG1481532</a> |
| Zinc      | 81.3           |           | 25.0        | 1        | 05/29/2020 20:33        | <a href="#">WG1481532</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## Calculated Results

| Analyte                        | Result  | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|--------------------------------|---------|-----------|------|----------|----------------------|---------------------------|
| Hardness (calculated) as CaCO3 | 1320000 |           | 2500 | 1        | 05/29/2020 13:42     | <a href="#">WG1481522</a> |

## Wet Chemistry by Method 410.4

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| COD     | ND     |           | 20000 | 1        | 05/29/2020 15:23     | <a href="#">WG1483771</a> |

## Wet Chemistry by Method 9020B

| Analyte | Result | Qualifier    | RDL | Dilution | Analysis date / time | Batch                     |
|---------|--------|--------------|-----|----------|----------------------|---------------------------|
| TOX     | ND     | <u>J5 P1</u> | 100 | 1        | 06/02/2020 14:28     | <a href="#">WG1484340</a> |

## Wet Chemistry by Method 9060A

| Analyte                    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------------------------|--------|-----------|------|----------|----------------------|---------------------------|
| TOC (Total Organic Carbon) | 1350   | <u>B</u>  | 1000 | 1        | 05/29/2020 18:46     | <a href="#">WG1482709</a> |

## Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 10:35     | <a href="#">WG1481597</a> |

## Metals (ICP) by Method 6010B

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Aluminum  | 325    |           | 200  | 1        | 05/29/2020 13:42     | <a href="#">WG1481522</a> |
| Barium    | 10.1   |           | 5.00 | 1        | 05/29/2020 13:42     | <a href="#">WG1481522</a> |
| Chromium  | ND     |           | 10.0 | 1        | 05/29/2020 13:42     | <a href="#">WG1481522</a> |
| Cobalt    | ND     |           | 10.0 | 1        | 05/29/2020 13:42     | <a href="#">WG1481522</a> |
| Iron      | 299    |           | 100  | 1        | 05/29/2020 13:42     | <a href="#">WG1481522</a> |
| Magnesium | 112000 |           | 1000 | 1        | 05/29/2020 13:42     | <a href="#">WG1481522</a> |
| Manganese | 152    |           | 10.0 | 1        | 05/29/2020 13:42     | <a href="#">WG1481522</a> |
| Nickel    | 95.6   |           | 10.0 | 1        | 05/29/2020 13:42     | <a href="#">WG1481522</a> |
| Silver    | ND     |           | 5.00 | 1        | 05/29/2020 13:42     | <a href="#">WG1481522</a> |
| Sodium    | 282000 | <u>V</u>  | 3000 | 1        | 05/29/2020 13:42     | <a href="#">WG1481522</a> |

## Metals (ICPMS) by Method 6020

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Antimony  | ND     |           | 4.00 | 1        | 05/29/2020 21:19     | <a href="#">WG1481532</a> |
| Arsenic   | ND     |           | 2.00 | 1        | 05/29/2020 21:19     | <a href="#">WG1481532</a> |
| Beryllium | ND     |           | 2.00 | 1        | 05/29/2020 21:19     | <a href="#">WG1481532</a> |
| Cadmium   | ND     |           | 1.00 | 1        | 05/29/2020 21:19     | <a href="#">WG1481532</a> |
| Copper    | ND     |           | 5.00 | 1        | 05/29/2020 21:19     | <a href="#">WG1481532</a> |
| Lead      | ND     |           | 5.00 | 1        | 05/29/2020 21:19     | <a href="#">WG1481532</a> |
| Selenium  | 6.70   |           | 2.00 | 1        | 05/29/2020 21:19     | <a href="#">WG1481532</a> |
| Thallium  | ND     |           | 2.00 | 1        | 05/29/2020 21:19     | <a href="#">WG1481532</a> |
| Zinc      | ND     |           | 25.0 | 1        | 05/29/2020 21:19     | <a href="#">WG1481532</a> |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Calculated Results

| Analyte                        | Result  | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|--------------------------------|---------|-----------|------|----------|----------------------|---------------------------|
| Hardness (calculated) as CaCO3 | 1330000 |           | 2500 | 1        | 05/29/2020 14:40     | <a href="#">WG1481522</a> |

1 Cp

2 Tc

Wet Chemistry by Method 410.4

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| COD     | ND     |           | 20000 | 1        | 05/29/2020 15:24     | <a href="#">WG1483771</a> |

3 Ss

4 Cn

Wet Chemistry by Method 9020B

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-----|----------|----------------------|---------------------------|
| TOX     | ND     |           | 100 | 1        | 06/02/2020 14:48     | <a href="#">WG1484340</a> |

5 Sr

6 Qc

Wet Chemistry by Method 9060A

| Analyte                    | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------------------------|--------|-----------|------|----------|----------------------|---------------------------|
| TOC (Total Organic Carbon) | 1480   | B         | 1000 | 1        | 05/29/2020 20:10     | <a href="#">WG1482709</a> |

7 Gl

8 Al

Mercury by Method 7470A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Mercury | ND     |           | 0.200 | 1        | 05/27/2020 11:08     | <a href="#">WG1481597</a> |

9 Sc

Metals (ICP) by Method 6010B

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Aluminum  | 524    |           | 200  | 1        | 05/29/2020 14:40     | <a href="#">WG1481522</a> |
| Barium    | 10.1   |           | 5.00 | 1        | 05/29/2020 14:40     | <a href="#">WG1481522</a> |
| Chromium  | ND     |           | 10.0 | 1        | 05/29/2020 14:40     | <a href="#">WG1481522</a> |
| Cobalt    | ND     |           | 10.0 | 1        | 05/29/2020 14:40     | <a href="#">WG1481522</a> |
| Iron      | 488    |           | 100  | 1        | 05/29/2020 14:40     | <a href="#">WG1481522</a> |
| Magnesium | 114000 |           | 1000 | 1        | 05/29/2020 14:40     | <a href="#">WG1481522</a> |
| Manganese | 155    |           | 10.0 | 1        | 05/29/2020 14:40     | <a href="#">WG1481522</a> |
| Nickel    | 92.9   |           | 10.0 | 1        | 05/29/2020 14:40     | <a href="#">WG1481522</a> |
| Silver    | ND     |           | 5.00 | 1        | 05/29/2020 14:40     | <a href="#">WG1481522</a> |
| Sodium    | 285000 |           | 3000 | 1        | 05/29/2020 14:40     | <a href="#">WG1481522</a> |

Metals (ICPMS) by Method 6020

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Antimony  | ND     |           | 4.00 | 1        | 05/26/2020 23:06     | <a href="#">WG1480615</a> |
| Arsenic   | ND     |           | 2.00 | 1        | 05/26/2020 23:06     | <a href="#">WG1480615</a> |
| Beryllium | ND     |           | 2.00 | 1        | 05/26/2020 23:06     | <a href="#">WG1480615</a> |
| Cadmium   | ND     |           | 1.00 | 1        | 05/26/2020 23:06     | <a href="#">WG1480615</a> |
| Copper    | ND     |           | 5.00 | 1        | 05/26/2020 23:06     | <a href="#">WG1480615</a> |
| Lead      | ND     |           | 5.00 | 1        | 05/26/2020 23:06     | <a href="#">WG1480615</a> |
| Selenium  | 5.80   |           | 2.00 | 1        | 05/26/2020 23:06     | <a href="#">WG1480615</a> |
| Thallium  | ND     |           | 2.00 | 1        | 05/26/2020 23:06     | <a href="#">WG1480615</a> |
| Zinc      | ND     |           | 25.0 | 1        | 05/26/2020 23:06     | <a href="#">WG1480615</a> |



Method Blank (MB)

(MB) R3533287-1 05/28/20 22:31

| Analyte          | MB Result<br>ug/l | MB Qualifier | MB MDL<br>ug/l | MB RDL<br>ug/l |
|------------------|-------------------|--------------|----------------|----------------|
| Dissolved Solids | U                 |              | 2820           | 10000          |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L1221865-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1221865-11 05/28/20 22:31 • (DUP) R3533287-3 05/28/20 22:31

| Analyte          | Original Result<br>ug/l | DUP Result<br>ug/l | Dilution | DUP RPD<br>% | DUP Qualifier | DUP RPD<br>Limits<br>% |
|------------------|-------------------------|--------------------|----------|--------------|---------------|------------------------|
| Dissolved Solids | 1800000                 | 1790000            | 1        | 0.279        |               | 5                      |

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3533287-2 05/28/20 22:31

| Analyte          | Spike Amount<br>ug/l | LCS Result<br>ug/l | LCS Rec.<br>% | Rec. Limits<br>% | LCS Qualifier |
|------------------|----------------------|--------------------|---------------|------------------|---------------|
| Dissolved Solids | 8800000              | 7940000            | 90.2          | 85.0-115         |               |



Method Blank (MB)

(MB) R3533126-1 05/29/20 15:01

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---------|-----------|--------------|--------|--------|
| COD     | U         |              | 11700  | 20000  |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1221769-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221769-01 05/29/20 15:04 • (DUP) R3533126-3 05/29/20 15:04

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| COD     | 859000          | 858000     | 1        | 0.107   |               | 20             |

L1221863-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-03 05/29/20 15:06 • (DUP) R3533126-6 05/29/20 15:06

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| COD     | ND              | ND         | 1        | 0.000   |               | 20             |

Laboratory Control Sample (LCS)

(LCS) R3533126-2 05/29/20 15:01

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---------|--------------|------------|----------|-------------|---------------|
| COD     | 222000       | 228000     | 103      | 90.0-110    |               |

L1221863-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-01 05/29/20 15:05 • (MS) R3533126-4 05/29/20 15:05 • (MSD) R3533126-5 05/29/20 15:05

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
| COD     | 400000       | ND              | 403000    | 406000     | 101     | 101      | 1        | 80.0-120    |              |               | 0.668 | 20         |



Method Blank (MB)

(MB) R3533140-1 05/29/20 15:22

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---------|-----------|--------------|--------|--------|
| COD     | U         |              | 11700  | 20000  |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1221947-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221947-01 05/29/20 15:24 • (DUP) R3533140-5 05/29/20 15:24

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| COD     | 25300           | 26100      | 1        | 2.86    |               | 20             |

L1222117-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1222117-01 05/29/20 15:27 • (DUP) R3533140-6 05/29/20 15:27

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| COD     | 27800           | 28600      | 1        | 3.02    |               | 20             |

Laboratory Control Sample (LCS)

(LCS) R3533140-2 05/29/20 15:22

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---------|--------------|------------|----------|-------------|---------------|
| COD     | 222000       | 233000     | 105      | 90.0-110    |               |

L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-09 05/29/20 15:23 • (MS) R3533140-3 05/29/20 15:23 • (MSD) R3533140-4 05/29/20 15:23

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
| COD     | 400000       | ND              | 415000    | 417000     | 104     | 104      | 1        | 80.0-120    |              |               | 0.500 | 20         |



Method Blank (MB)

(MB) R3533315-2 05/29/20 15:06

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---------|-----------|--------------|--------|--------|
| TOX     | U         |              | 27.7   | 100    |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

L1221843-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221843-01 05/29/20 21:22 • (DUP) R3533315-3 05/29/20 21:32

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | ND              | ND         | 1        | 200     | P1            | 20             |

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1221847-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1221847-03 05/29/20 21:43 • (DUP) R3533315-4 05/29/20 21:52

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | ND              | ND         | 1        | 0.000   |               | 20             |

L1221847-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1221847-06 05/30/20 12:53 • (DUP) R3533997-3 05/30/20 13:04

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | ND              | ND         | 1        | 0.000   |               | 20             |

L1221851-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1221851-02 05/30/20 13:14 • (DUP) R3533997-4 05/30/20 13:24

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | ND              | ND         | 1        | 0.000   |               | 20             |



L1221853-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1221853-02 05/30/20 13:34 • (DUP) R3533997-5 05/30/20 13:45

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | ug/l            | ug/l       | %        |         |               |                |
| TOX     | ND              | ND         | 1        | 0.000   |               | 20             |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

L1221863-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-01 05/30/20 13:55 • (DUP) R3533997-6 05/30/20 14:05

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | ug/l            | ug/l       | %        |         |               |                |
| TOX     | ND              | ND         | 1        | 0.000   |               | 20             |

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

L1221863-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-02 05/30/20 14:15 • (DUP) R3533997-7 05/30/20 14:26

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | ug/l            | ug/l       | %        |         |               |                |
| TOX     | ND              | ND         | 1        | 0.000   |               | 20             |

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1221863-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-03 05/30/20 16:16 • (DUP) R3533997-8 05/30/20 16:26

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | ug/l            | ug/l       | %        |         |               |                |
| TOX     | ND              | ND         | 1        | 0.000   |               | 20             |

L1221863-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-04 05/30/20 16:36 • (DUP) R3533997-9 05/30/20 16:46

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | ug/l            | ug/l       | %        |         |               |                |
| TOX     | ND              | ND         | 1        | 0.000   |               | 20             |





L1221863-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-05 05/30/20 16:57 • (DUP) R3533997-10 05/30/20 17:08

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | ug/l            | ug/l       | %        |         |               |                |
| TOX     | ND              | ND         | 1        | 10.1    |               | 20             |

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1221863-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-06 05/30/20 17:19 • (DUP) R3533997-11 05/30/20 17:30

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | ug/l            | ug/l       | %        |         |               |                |
| TOX     | ND              | ND         | 1        | 0.000   |               | 20             |

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

L1221863-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-07 05/30/20 17:40 • (DUP) R3533997-12 05/30/20 17:50

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | ug/l            | ug/l       | %        |         |               |                |
| TOX     | ND              | ND         | 1        | 0.000   |               | 20             |

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1221863-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-08 06/02/20 14:06 • (DUP) R3534293-3 06/02/20 14:17

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | ug/l            | ug/l       | %        |         |               |                |
| TOX     | ND              | ND         | 1        | 50.1    | P1            | 20             |

L1221863-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-09 06/02/20 14:28 • (DUP) R3534293-4 06/02/20 14:38

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | ug/l            | ug/l       | %        |         |               |                |
| TOX     | ND              | ND         | 1        | 200     | P1            | 20             |



L1221863-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-10 06/02/20 14:48 • (DUP) R3534293-5 06/02/20 14:58

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | ND              | ND         | 1        | 0.000   |               | 20             |

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1222370-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1222370-01 06/02/20 16:08 • (DUP) R3534293-8 06/02/20 17:10

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | 202             | 124        | 1        | 47.7    | P1            | 20             |

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

L1222374-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1222374-01 06/02/20 16:20 • (DUP) R3534293-9 06/02/20 17:21

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | ND              | ND         | 1        | 0.000   |               | 20             |

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1222374-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1222374-02 06/02/20 16:30 • (DUP) R3534293-10 06/02/20 17:31

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| TOX     | ND              | ND         | 1        | 0.000   |               | 20             |

Laboratory Control Sample (LCS)

(LCS) R3533315-1 05/29/20 14:36

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---------|--------------|------------|----------|-------------|---------------|
| TOX     | 200          | 184        | 91.8     | 85.0-115    |               |



L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-09 06/02/20 14:28 • (MS) R3534293-6 06/02/20 15:17 • (MSD) R3534293-7 06/02/20 15:29

| Analyte | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|---------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| TOX     | 200                  | ND                      | 245               | 234                | 123          | 117           | 1        | 80.0-120         | <u>J5</u>    |               | 4.71     | 20              |

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



Method Blank (MB)

(MB) R3533046-1 05/28/20 14:51

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

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1221627-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1221627-10 05/28/20 15:58 • (DUP) R3533046-3 05/28/20 16:10

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
|          | ug/l            | ug/l       |          | %       |               | %              |
| Chloride | 8940            | 8890       | 1        | 0.538   |               | 15             |
| Fluoride | ND              | ND         | 1        | 0.000   |               | 15             |
| Sulfate  | 8470            | 8290       | 1        | 2.12    |               | 15             |

L1221878-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221878-01 05/28/20 23:26 • (DUP) R3533046-8 05/28/20 23:39

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
|          | ug/l            | ug/l       |          | %       |               | %              |
| Chloride | 60400           | 60300      | 1        | 0.0502  |               | 15             |
| Fluoride | 956             | 953        | 1        | 0.367   |               | 15             |
| Sulfate  | 222000          | 222000     | 1        | 0.0730  | E             | 15             |

Laboratory Control Sample (LCS)

(LCS) R3533046-2 05/28/20 15:04

| Analyte  | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|----------|--------------|------------|----------|-------------|---------------|
|          | ug/l         | ug/l       | %        | %           |               |
| Chloride | 40000        | 40100      | 100      | 80.0-120    |               |
| Fluoride | 8000         | 8140       | 102      | 80.0-120    |               |
| Sulfate  | 40000        | 40600      | 102      | 80.0-120    |               |



L1221627-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221627-11 05/28/20 16:23 • (MS) R3533046-4 05/28/20 16:36 • (MSD) R3533046-5 05/28/20 16:49

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Chloride | 50000                | 6980                    | 57300             | 57300              | 101          | 101           | 1        | 80.0-120         |              |               | 0.0750   | 15              |
| Fluoride | 5000                 | ND                      | 5230              | 5230               | 103          | 102           | 1        | 80.0-120         |              |               | 0.164    | 15              |
| Sulfate  | 50000                | ND                      | 53100             | 52800              | 101          | 100           | 1        | 80.0-120         |              |               | 0.587    | 15              |

L1221866-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221866-01 05/28/20 21:44 • (MS) R3533046-6 05/28/20 22:10 • (MSD) R3533046-7 05/28/20 22:22

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Chloride | 50000                | 69300                   | 116000            | 116000             | 94.0         | 94.1          | 1        | 80.0-120         | <u>E</u>     | <u>E</u>      | 0.0372   | 15              |
| Fluoride | 5000                 | ND                      | 4660              | 4690               | 91.5         | 92.1          | 1        | 80.0-120         |              |               | 0.687    | 15              |

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



Method Blank (MB)

(MB) R3533362-1 05/29/20 09:43

| Analyte                    | MB Result | MB Qualifier | MB MDL | MB RDL |
|----------------------------|-----------|--------------|--------|--------|
| TOC (Total Organic Carbon) | 218       | ↓            | 102    | 1000   |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

L1221841-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221841-01 05/29/20 11:46 • (DUP) R3533362-3 05/29/20 12:09

| Analyte                    | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------------------------|-----------------|------------|----------|---------|---------------|----------------|
| TOC (Total Organic Carbon) | 3830            | 3860       | 1        | 0.833   |               | 20             |

6 Qc

L1221863-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-08 05/29/20 17:00 • (DUP) R3533362-6 05/29/20 17:18

| Analyte                    | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------------------------|-----------------|------------|----------|---------|---------------|----------------|
| TOC (Total Organic Carbon) | 8680            | 8640       | 1        | 0.439   |               | 20             |

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3533362-2 05/29/20 10:24

| Analyte                    | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|----------------------------|--------------|------------|----------|-------------|---------------|
| TOC (Total Organic Carbon) | 75000        | 75300      | 100      | 85.0-115    |               |

L1221863-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-03 05/29/20 14:35 • (MS) R3533362-4 05/29/20 15:00 • (MSD) R3533362-5 05/29/20 15:30

| Analyte                    | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD  | RPD Limits |
|----------------------------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|------|------------|
| TOC (Total Organic Carbon) | 50000        | 1340            | 53000     | 51900      | 103     | 101      | 1        | 80.0-120    |              |               | 1.98 | 20         |

L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-09 05/29/20 18:46 • (MS) R3533362-7 05/29/20 19:10 • (MSD) R3533362-8 05/29/20 19:49

| Analyte                    | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD  | RPD Limits |
|----------------------------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|------|------------|
| TOC (Total Organic Carbon) | 50000        | 1350            | 52000     | 53900      | 101     | 105      | 1        | 80.0-120    |              |               | 3.59 | 20         |



Method Blank (MB)

(MB) R3532112-1 05/27/20 10:31

| Analyte | MB Result<br>ug/l | MB Qualifier | MB MDL<br>ug/l | MB RDL<br>ug/l |
|---------|-------------------|--------------|----------------|----------------|
| Mercury | U                 |              | 0.100          | 0.200          |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

Laboratory Control Sample (LCS)

(LCS) R3532112-2 05/27/20 10:33

| Analyte | Spike Amount<br>ug/l | LCS Result<br>ug/l | LCS Rec.<br>% | Rec. Limits<br>% | LCS Qualifier |
|---------|----------------------|--------------------|---------------|------------------|---------------|
| Mercury | 3.00                 | 3.20               | 107           | 80.0-120         |               |

L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-09 05/27/20 10:35 • (MS) R3532112-3 05/27/20 10:37 • (MSD) R3532112-4 05/27/20 10:39

| Analyte | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|---------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Mercury | 3.00                 | ND                      | 2.84              | 2.90               | 94.6         | 96.8          | 1        | 75.0-125         |              |               | 2.26     | 20              |

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3533275-1 05/29/20 13:26

| Analyte   | MB Result | MB Qualifier | MB MDL | MB RDL |
|-----------|-----------|--------------|--------|--------|
|           | ug/l      |              | ug/l   | ug/l   |
| Aluminum  | U         |              | 70.4   | 200    |
| Barium    | U         |              | 0.895  | 5.00   |
| Boron     | U         |              | 25.4   | 200    |
| Calcium   | U         |              | 389    | 1000   |
| Chromium  | U         |              | 5.00   | 10.0   |
| Cobalt    | U         |              | 0.807  | 10.0   |
| Iron      | U         |              | 45.8   | 100    |
| Magnesium | U         |              | 111    | 1000   |
| Manganese | U         |              | 3.27   | 10.0   |
| Nickel    | U         |              | 2.98   | 10.0   |
| Silver    | U         |              | 1.91   | 5.00   |
| Sodium    | U         |              | 1400   | 3000   |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3533275-2 05/29/20 13:29

| Analyte   | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|-----------|--------------|------------|----------|-------------|---------------|
|           | ug/l         | ug/l       | %        | %           |               |
| Aluminum  | 10000        | 10900      | 109      | 80.0-120    |               |
| Barium    | 1000         | 1040       | 104      | 80.0-120    |               |
| Boron     | 1000         | 1040       | 104      | 80.0-120    |               |
| Calcium   | 10000        | 10500      | 105      | 80.0-120    |               |
| Chromium  | 1000         | 1020       | 102      | 80.0-120    |               |
| Cobalt    | 1000         | 1050       | 105      | 80.0-120    |               |
| Iron      | 10000        | 10400      | 104      | 80.0-120    |               |
| Magnesium | 10000        | 10900      | 109      | 80.0-120    |               |
| Manganese | 1000         | 1010       | 101      | 80.0-120    |               |
| Nickel    | 1000         | 1060       | 106      | 80.0-120    |               |
| Silver    | 200          | 187        | 93.5     | 80.0-120    |               |
| Sodium    | 10000        | 10700      | 107      | 80.0-120    |               |

L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-09 05/29/20 13:42 • (MS) R3533275-4 05/29/20 13:37 • (MSD) R3533275-5 05/29/20 13:39

| Analyte  | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|----------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
|          | ug/l         | ug/l            | ug/l      | ug/l       | %       | %        |          | %           |              |               | %     | %          |
| Aluminum | 10000        | 325             | 10600     | 10500      | 103     | 102      | 1        | 75.0-125    |              |               | 1.13  | 20         |
| Barium   | 1000         | 10.1            | 974       | 971        | 96.4    | 96.1     | 1        | 75.0-125    |              |               | 0.362 | 20         |
| Boron    | 1000         | ND              | 1090      | 1070       | 99.9    | 98.1     | 1        | 75.0-125    |              |               | 1.68  | 20         |





[L1221863-01,02,03,04,05,06,07,08,09,10](#)

L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-09 05/29/20 13:42 • (MS) R3533275-4 05/29/20 13:37 • (MSD) R3533275-5 05/29/20 13:39

| Analyte   | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|-----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Calcium   | 10000                | 343000                  | 347000            | 345000             | 49.5         | 27.5          | 1        | 75.0-125         | V            | V             | 0.637    | 20              |
| Chromium  | 1000                 | ND                      | 948               | 945                | 94.8         | 94.5          | 1        | 75.0-125         |              |               | 0.254    | 20              |
| Cobalt    | 1000                 | ND                      | 1020              | 1020               | 102          | 102           | 1        | 75.0-125         |              |               | 0.109    | 20              |
| Iron      | 10000                | 299                     | 10200             | 10100              | 98.8         | 97.6          | 1        | 75.0-125         |              |               | 1.11     | 20              |
| Magnesium | 10000                | 112000                  | 120000            | 120000             | 76.5         | 76.2          | 1        | 75.0-125         |              |               | 0.0291   | 20              |
| Manganese | 1000                 | 152                     | 1090              | 1090               | 93.5         | 93.4          | 1        | 75.0-125         |              |               | 0.0565   | 20              |
| Nickel    | 1000                 | 95.6                    | 1100              | 1090               | 100          | 99.8          | 1        | 75.0-125         |              |               | 0.282    | 20              |
| Silver    | 200                  | ND                      | 184               | 183                | 92.2         | 91.5          | 1        | 75.0-125         |              |               | 0.722    | 20              |
| Sodium    | 10000                | 282000                  | 288000            | 286000             | 55.8         | 36.0          | 1        | 75.0-125         | V            | V             | 0.690    | 20              |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L1221848-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221848-12 05/29/20 13:31 • (MS) R3533275-6 05/29/20 13:45 • (MSD) R3533275-7 05/29/20 13:47

| Analyte   | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|-----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Aluminum  | 10000                | 921                     | 11100             | 11200              | 102          | 102           | 1        | 75.0-125         |              |               | 0.219    | 20              |
| Barium    | 1000                 | 56.4                    | 1040              | 1020               | 97.9         | 96.3          | 1        | 75.0-125         |              |               | 1.52     | 20              |
| Boron     | 1000                 | ND                      | 1060              | 1050               | 99.3         | 99.0          | 1        | 75.0-125         |              |               | 0.321    | 20              |
| Calcium   | 10000                | 79700                   | 88500             | 88800              | 88.6         | 90.8          | 1        | 75.0-125         |              |               | 0.241    | 20              |
| Chromium  | 1000                 | ND                      | 963               | 950                | 96.3         | 95.0          | 1        | 75.0-125         |              |               | 1.35     | 20              |
| Cobalt    | 1000                 | ND                      | 1010              | 992                | 101          | 99.2          | 1        | 75.0-125         |              |               | 1.83     | 20              |
| Iron      | 10000                | 17900                   | 29100             | 28900              | 112          | 110           | 1        | 75.0-125         |              |               | 0.709    | 20              |
| Magnesium | 10000                | 23800                   | 33200             | 33200              | 93.6         | 93.4          | 1        | 75.0-125         |              |               | 0.0519   | 20              |
| Manganese | 1000                 | 182                     | 1130              | 1110               | 94.3         | 93.1          | 1        | 75.0-125         |              |               | 1.05     | 20              |
| Nickel    | 1000                 | ND                      | 995               | 977                | 99.5         | 97.7          | 1        | 75.0-125         |              |               | 1.83     | 20              |
| Silver    | 200                  | ND                      | 180               | 179                | 90.2         | 89.6          | 1        | 75.0-125         |              |               | 0.605    | 20              |
| Sodium    | 10000                | 49000                   | 56900             | 57400              | 78.9         | 84.0          | 1        | 75.0-125         |              |               | 0.884    | 20              |

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3531912-1 05/26/20 21:59

| Analyte   | MB Result | MB Qualifier | MB MDL | MB RDL |
|-----------|-----------|--------------|--------|--------|
|           | ug/l      |              | ug/l   | ug/l   |
| Antimony  | U         |              | 1.32   | 4.00   |
| Arsenic   | U         |              | 0.735  | 2.00   |
| Beryllium | U         |              | 0.454  | 2.00   |
| Cadmium   | U         |              | 0.478  | 1.00   |
| Copper    | U         |              | 2.50   | 5.00   |
| Lead      | U         |              | 2.49   | 5.00   |
| Selenium  | U         |              | 0.657  | 2.00   |
| Thallium  | U         |              | 0.460  | 2.00   |
| Zinc      | U         |              | 9.96   | 25.0   |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

Laboratory Control Sample (LCS)

(LCS) R3531912-2 05/26/20 22:02

| Analyte   | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|-----------|--------------|------------|----------|-------------|---------------|
|           | ug/l         | ug/l       | %        | %           |               |
| Antimony  | 50.0         | 53.6       | 107      | 80.0-120    |               |
| Arsenic   | 50.0         | 46.4       | 92.7     | 80.0-120    |               |
| Beryllium | 50.0         | 53.3       | 107      | 80.0-120    |               |
| Cadmium   | 50.0         | 49.9       | 99.8     | 80.0-120    |               |
| Copper    | 50.0         | 48.3       | 96.6     | 80.0-120    |               |
| Lead      | 50.0         | 46.7       | 93.4     | 80.0-120    |               |
| Selenium  | 50.0         | 47.5       | 95.0     | 80.0-120    |               |
| Thallium  | 50.0         | 48.6       | 97.2     | 80.0-120    |               |
| Zinc      | 500          | 467        | 93.5     | 80.0-120    |               |

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1221868-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221868-05 05/26/20 22:06 • (MS) R3531912-4 05/26/20 22:13 • (MSD) R3531912-5 05/26/20 22:16

| Analyte   | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD    | RPD Limits |
|-----------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|--------|------------|
|           | ug/l         | ug/l            | ug/l      | ug/l       | %       | %        |          | %           |              |               | %      | %          |
| Antimony  | 50.0         | ND              | 54.5      | 52.8       | 109     | 106      | 1        | 75.0-125    |              |               | 3.01   | 20         |
| Arsenic   | 50.0         | ND              | 46.2      | 45.0       | 90.6    | 88.2     | 1        | 75.0-125    |              |               | 2.62   | 20         |
| Beryllium | 50.0         | ND              | 50.1      | 51.6       | 97.3    | 100      | 1        | 75.0-125    |              |               | 2.94   | 20         |
| Cadmium   | 50.0         | 3.52            | 54.8      | 54.8       | 103     | 103      | 1        | 75.0-125    |              |               | 0.0481 | 20         |
| Copper    | 50.0         | ND              | 48.2      | 49.6       | 89.1    | 91.8     | 1        | 75.0-125    |              |               | 2.78   | 20         |
| Lead      | 50.0         | ND              | 46.8      | 46.6       | 93.5    | 93.2     | 1        | 75.0-125    |              |               | 0.383  | 20         |
| Selenium  | 50.0         | 27.7            | 75.6      | 76.3       | 95.9    | 97.3     | 1        | 75.0-125    |              |               | 0.900  | 20         |
| Thallium  | 50.0         | ND              | 46.1      | 46.8       | 92.2    | 93.7     | 1        | 75.0-125    |              |               | 1.61   | 20         |
| Zinc      | 500          | 127             | 569       | 566        | 88.5    | 87.9     | 1        | 75.0-125    |              |               | 0.492  | 20         |



Method Blank (MB)

(MB) R3533258-1 05/29/20 21:12

| Analyte   | MB Result | MB Qualifier | MB MDL | MB RDL |
|-----------|-----------|--------------|--------|--------|
|           | ug/l      |              | ug/l   | ug/l   |
| Antimony  | U         |              | 1.32   | 4.00   |
| Arsenic   | U         |              | 0.735  | 2.00   |
| Beryllium | U         |              | 0.454  | 2.00   |
| Cadmium   | U         |              | 0.478  | 1.00   |
| Copper    | U         |              | 2.50   | 5.00   |
| Lead      | U         |              | 2.49   | 5.00   |
| Selenium  | U         |              | 0.657  | 2.00   |
| Thallium  | U         |              | 0.460  | 2.00   |
| Zinc      | U         |              | 9.96   | 25.0   |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3533258-2 05/29/20 21:16

| Analyte   | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|-----------|--------------|------------|----------|-------------|---------------|
|           | ug/l         | ug/l       | %        | %           |               |
| Antimony  | 50.0         | 53.3       | 107      | 80.0-120    |               |
| Arsenic   | 50.0         | 48.8       | 97.6     | 80.0-120    |               |
| Beryllium | 50.0         | 50.3       | 101      | 80.0-120    |               |
| Cadmium   | 50.0         | 51.9       | 104      | 80.0-120    |               |
| Copper    | 50.0         | 53.1       | 106      | 80.0-120    |               |
| Lead      | 50.0         | 46.8       | 93.6     | 80.0-120    |               |
| Selenium  | 50.0         | 54.8       | 110      | 80.0-120    |               |
| Thallium  | 50.0         | 49.0       | 97.9     | 80.0-120    |               |
| Zinc      | 500          | 499        | 99.7     | 80.0-120    |               |

L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-09 05/29/20 21:19 • (MS) R3533258-4 05/29/20 21:26 • (MSD) R3533258-5 05/29/20 21:29

| Analyte   | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|-----------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
|           | ug/l         | ug/l            | ug/l      | ug/l       | %       | %        |          | %           |              |               | %     | %          |
| Antimony  | 50.0         | ND              | 48.5      | 53.6       | 97.1    | 107      | 1        | 75.0-125    |              |               | 9.89  | 20         |
| Arsenic   | 50.0         | ND              | 49.8      | 49.7       | 99.7    | 99.5     | 1        | 75.0-125    |              |               | 0.210 | 20         |
| Beryllium | 50.0         | ND              | 47.2      | 46.6       | 94.4    | 93.1     | 1        | 75.0-125    |              |               | 1.41  | 20         |
| Cadmium   | 50.0         | ND              | 53.7      | 54.7       | 107     | 109      | 1        | 75.0-125    |              |               | 1.97  | 20         |
| Copper    | 50.0         | ND              | 54.7      | 53.8       | 104     | 102      | 1        | 75.0-125    |              |               | 1.82  | 20         |
| Lead      | 50.0         | ND              | 48.1      | 50.2       | 96.2    | 100      | 1        | 75.0-125    |              |               | 4.32  | 20         |
| Selenium  | 50.0         | 6.70            | 61.7      | 62.6       | 110     | 112      | 1        | 75.0-125    |              |               | 1.44  | 20         |
| Thallium  | 50.0         | ND              | 49.0      | 49.2       | 98.0    | 98.4     | 1        | 75.0-125    |              |               | 0.395 | 20         |
| Zinc      | 500          | ND              | 497       | 496        | 99.4    | 99.3     | 1        | 75.0-125    |              |               | 0.114 | 20         |



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.  |

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

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.   |
| J5 | The sample matrix interfered with the ability to make any accurate determination; spike value is high.                                      |
| 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.   |



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* 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 National.

## State Accreditations

|                         |             |                             |                  |
|-------------------------|-------------|-----------------------------|------------------|
| Alabama                 | 40660       | Nebraska                    | NE-OS-15-05      |
| Alaska                  | 17-026      | Nevada                      | TN-03-2002-34    |
| Arizona                 | AZ0612      | New Hampshire               | 2975             |
| Arkansas                | 88-0469     | New Jersey-NELAP            | TN002            |
| California              | 2932        | New Mexico <sup>1</sup>     | n/a              |
| Colorado                | TN00003     | New York                    | 11742            |
| Connecticut             | PH-0197     | North Carolina              | Env375           |
| Florida                 | E87487      | North Carolina <sup>1</sup> | DW21704          |
| Georgia                 | NELAP       | North Carolina <sup>3</sup> | 41               |
| Georgia <sup>1</sup>    | 923         | North Dakota                | R-140            |
| Idaho                   | TN00003     | Ohio-VAP                    | CL0069           |
| Illinois                | 200008      | Oklahoma                    | 9915             |
| Indiana                 | C-TN-01     | Oregon                      | TN200002         |
| Iowa                    | 364         | Pennsylvania                | 68-02979         |
| Kansas                  | E-10277     | Rhode Island                | LA000356         |
| Kentucky <sup>1,6</sup> | 90010       | South Carolina              | 84004            |
| Kentucky <sup>2</sup>   | 16          | South Dakota                | n/a              |
| Louisiana               | AI30792     | Tennessee <sup>1,4</sup>    | 2006             |
| Louisiana <sup>1</sup>  | LA180010    | Texas                       | T104704245-18-15 |
| Maine                   | TN0002      | Texas <sup>5</sup>          | LAB0152          |
| Maryland                | 324         | Utah                        | TN00003          |
| Massachusetts           | M-TN003     | Vermont                     | VT2006           |
| Michigan                | 9958        | Virginia                    | 460132           |
| Minnesota               | 047-999-395 | Washington                  | C847             |
| Mississippi             | TN00003     | West Virginia               | 233              |
| Missouri                | 340         | Wisconsin                   | 9980939910       |
| Montana                 | CERT0086    | Wyoming                     | A2LA             |

## Third Party Federal Accreditations

|                               |         |                    |               |
|-------------------------------|---------|--------------------|---------------|
| A2LA – ISO 17025              | 1461.01 | AIHA-LAP,LLC EMLAP | 100789        |
| A2LA – ISO 17025 <sup>5</sup> | 1461.02 | DOD                | 1461.01       |
| Canada                        | 1461.01 | USDA               | P330-15-00234 |
| EPA-Crypto                    | TN00003 |                    |               |

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

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

# SCS Engineers - KS

8575 W. 110th Street  
Overland Park, KS 66210

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

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to:  
Jason Franks

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

Project Description:  
KCPL - Montrose Generating Station

City/State  
Collected:

Please Circle:  
PT MT CT ET

Phone: 913-681-0030

Client Project #  
27213168.20

Lab Project #  
AQUAOPKS-MONTROSE

Collected by (print):  
Whit Martin

Site/Facility ID #

P.O. #

Collected by (signature):  
*Whit Martin*

Rush? (Lab MUST Be Notified)

Quote #

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

Date Results Needed  
Std

Immediately  
Packed on Ice N    Y X

No.  
of  
Cnts

| Sample ID  | Comp/Grab | Matrix * | Depth | Date    | Time | No. of Cnts | Anions (Cl, F, SO4) | COD 250mlHDPE-H2SO4 | Hardness, Metals * 250mlHDPE-HNO3 | Hardness, Metals ** 250mlHDPE-HNO3 | TDS 250mlHDPE-NoPres | TOC 250mlAmb-HCl | TOX 1L-Amb-Add H2SO4 | Remarks | Sample # (lab only) |
|------------|-----------|----------|-------|---------|------|-------------|---------------------|---------------------|-----------------------------------|------------------------------------|----------------------|------------------|----------------------|---------|---------------------|
| 501        | G         | GW       |       | 5-21-20 | 1130 | 6           | X                   | X                   | X                                 |                                    | X                    | X                | X                    |         | -01                 |
| 502        |           | GW       |       |         | 1605 | 6           | X                   | X                   | X                                 |                                    | X                    | X                | X                    |         | -02                 |
| 503        |           | GW       |       |         | 1340 | 6           | X                   | X                   | X                                 |                                    | X                    | X                | X                    |         | -03                 |
| 504        |           | GW       |       |         | 1250 | 6           | X                   | X                   | X                                 |                                    | X                    | X                | X                    |         | -04                 |
| 505        |           | GW       |       |         | 1405 | 6           | X                   | X                   | X                                 |                                    | X                    | X                | X                    |         | -05                 |
| 507        |           | GW       |       |         | 1140 | 6           | X                   | X                   | X                                 |                                    | X                    | X                | X                    |         | -06                 |
| 508        |           | GW       |       |         | 1625 | 6           | X                   | X                   | X                                 |                                    | X                    | X                | X                    |         | -07                 |
| 509        |           | GW       |       |         | 1755 | 6           | X                   | X                   | X                                 |                                    | X                    | X                | X                    |         | -08                 |
| 506        |           | GW       |       |         | 1435 | 4           |                     | X                   |                                   | X                                  |                      | X                | X                    |         | -09                 |
| 506 MS/MSD |           | GW       |       |         | 1445 | 4           |                     | X                   |                                   | X                                  |                      | X                | X                    |         | -09                 |

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

Remarks: \* Hg, Ag, Al, Ba, B, Ca, Cr, Co, Fe, Mg, Mn, Na, Ni, Sb, As, Be, Cd, Cu, Pb, Se, Ti, Zn \*\*  
Hg, Ag, Al, Ba, Cr, Co, Fe, Mg, Mn, Na, Ni, Sb, As, Be, Cd, Cu, Pb, Se, Ti, Zn

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

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

Samples returned via:  
UPS    FedEx    Courier   

Tracking #

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

5-22-20  
1300

Trip Blank Received: Yes/No  
 Yes  No  
RCL/MoH  
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: 21.5°C  
Bottles Received: 60

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

5/23/20 845

Hold:

Condition:  
NCF 168



**SCS Engineers - KS**

8575 W. 110th Street  
Overland Park, KS 66210

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

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to:  
**Jason Franks**

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

Project Description:  
KCPL - Montrose Generating Station

City/State  
Collected:

Please Circle:  
PT MT **ET**

Phone: 913-681-0030

Client Project #  
27213168.20

Lab Project #  
AQUAOPKS-MONTROSE

Collected by (print):  
*Whit Martin*

Site/Facility ID #

P.O. #

Collected by (signature):  
*Whit Martin*

**Rush?** (Lab MUST Be Notified)

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

Quote #

Date Results Needed  
*5td*

Immediately Packed on Ice N \_\_\_ Y **X**

No.  
or  
Cnts

| Sample ID | Comp/Grab | Matrix * | Depth | Date    | Time | No. or Cnts | Anions (Cld, F, SO4) 125mlHDPE-NoPres | COD 250mlHDPE-H2SO4 | Hardness, Metals * 250mlHDPE-HNO3 | Hardness, Metals ** 250mlHDPE-HNO3 | TDS 250mlHDPE-NoPres | TOC 250mlAmb-HCl | TOX 1L-Amb-Add H2SO4 |
|-----------|-----------|----------|-------|---------|------|-------------|---------------------------------------|---------------------|-----------------------------------|------------------------------------|----------------------|------------------|----------------------|
| DUPLICATE | Grab      | GW       |       | 5/21/20 | 1435 | 4           | X                                     |                     | X                                 |                                    | X                    | X                |                      |

SDG # *4221863*

Table #

Acctnum: AQUAOPKS

Template: T68018

Prelogin: P769455

PM: 206 - Jeff Carr

SPB:

Shipped Via:

Remarks | Sample # (lab only)

-10

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

Remarks: \* Hg,Ag,Al,Ba,B,Ca,Cr,Co,Fe,Mg,Mn,Na,Ni,Sb,As,Be,Cd,Cu,Pb,Se,Tl,Zn \*\*  
Hg,Ag,Al,Ba,Cr,Co,Fe,Mg,Mn,Na,Ni,Sb,As,Be,Cd,Cu,Pb,Se,Tl,Zn

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist

COC Seal Present/Intact:  Y  N

COC signed/Accurate:  Y  N

Bottles arrive intact:  Y  N

Correct bottles used:  Y  N

Sufficient volume sent:  Y  N

If Applicable

VOA Zero Headspace:  Y  N

Preservation Correct/Checked:  Y  N

RAD Screen <0.5 mR/hr:  Y  N

Samples returned via:  
\_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking #

|  |                  |               |  |                                       |   |
|--|------------------|---------------|--|---------------------------------------|---|
| Relinquished by: (Signature)<br><i>Whit Martin</i> | Date:<br>5/22/20 | Time:<br>1300 | Received by: (Signature)<br><i>Alan Nelson</i>     | 5-22-20                               | Trip Blank Received: Yes/No<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>HCL/MeOH<br>TBR |
| Relinquished by: (Signature)                       | Date:            | Time:         | Received by: (Signature)                           | Temp: <i>44.3°C</i><br><i>2.4±0.2</i> | Bottles Received: <i>60</i>   |
| Relinquished by: (Signature)                       | Date:            | Time:         | Received for lab by: (Signature)<br><i>Marky M</i> | Date:<br>5/23/20                      | Time:<br>845  |

If preservation required by login: Date/Time

Hold:

Condition:  
NCF /  OK

Jared Morrison  
December 20, 2022

**ATTACHMENT 1-4**  
**July 2020 Sampling Event Laboratory Report**



July 23, 2020

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## SCS Engineers - KS

Sample Delivery Group: L1240490  
Samples Received: 07/16/2020  
Project Number: 27213168.20  
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.



|   |           |                       |
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# SAMPLE SUMMARY



## MW-605 L1240490-01 GW

Collected by  
G. Penaflor  
Collected date/time  
07/14/20 11:50  
Received date/time  
07/16/20 08:45

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Wet Chemistry by Method 9056A | WG1511233 | 1        | 07/18/20 17:40        | 07/18/20 17:40     | ELN     | Mt. Juliet, TN |

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## DUPLICATE 1 L1240490-02 GW

Collected by  
G. Penaflor  
Collected date/time  
07/14/20 11:55  
Received date/time  
07/16/20 08:45

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Wet Chemistry by Method 9056A | WG1511233 | 1        | 07/18/20 18:35        | 07/18/20 18:35     | ELN     | Mt. Juliet, TN |

## MW-705 L1240490-03 GW

Collected by  
G. Penaflor  
Collected date/time  
07/14/20 11:10  
Received date/time  
07/16/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1512349 | 1        | 07/21/20 18:45        | 07/21/20 20:34     | AEC     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1511233 | 10       | 07/18/20 19:12        | 07/18/20 19:12     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1511785 | 1        | 07/20/20 22:58        | 07/21/20 11:46     | CCE     | Mt. Juliet, TN |

## DUPLICATE 2 L1240490-04 GW

Collected by  
G. Penaflor  
Collected date/time  
07/14/20 11:15  
Received date/time  
07/16/20 08:45

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1512349 | 1        | 07/21/20 18:45        | 07/21/20 20:34     | AEC     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1511233 | 20       | 07/18/20 21:02        | 07/18/20 21:02     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1511785 | 1        | 07/20/20 22:58        | 07/21/20 12:02     | CCE     | Mt. Juliet, TN |

## MW-706 L1240490-05 GW

Collected by  
G. Penaflor  
Collected date/time  
07/14/20 10:35  
Received date/time  
07/16/20 08:45

| Method                       | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Metals (ICP) by Method 6010B | WG1511789 | 1        | 07/21/20 12:36        | 07/21/20 23:49     | EL      | Mt. Juliet, TN |

## DUPLICATE 3 L1240490-06 GW

Collected by  
G. Penaflor  
Collected date/time  
07/14/20 10:40  
Received date/time  
07/16/20 08:45

| Method                       | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Metals (ICP) by Method 6010B | WG1511785 | 1        | 07/20/20 22:58        | 07/21/20 12:04     | CCE     | Mt. Juliet, TN |



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

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



Wet Chemistry by Method 9056A

| Analyte  | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------|--------|-----------|------|----------|----------------------|---------------------------|
| Chloride | 62100  |           | 1000 | 1        | 07/18/2020 17:40     | <a href="#">WG1511233</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Wet Chemistry by Method 9056A

| Analyte  | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------|--------|-----------|------|----------|----------------------|---------------------------|
| Chloride | 62100  |           | 1000 | 1        | 07/18/2020 18:35     | <a href="#">WG1511233</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 1190000 |           | 20000 | 1        | 07/21/2020 20:34     | <a href="#">WG1512349</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-------|----------|----------------------|---------------------------|
| Sulfate | 705000 |           | 50000 | 10       | 07/18/2020 19:12     | <a href="#">WG1511233</a> |

<sup>3</sup> Ss

<sup>4</sup> Cn

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier  | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|------------|------|----------|----------------------|---------------------------|
| Calcium | 163000 | <u>O1V</u> | 1000 | 1        | 07/21/2020 11:46     | <a href="#">WG1511785</a> |

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 1200000 |           | 20000 | 1        | 07/21/2020 20:34     | <a href="#">WG1512349</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|--------|----------|----------------------|---------------------------|
| Sulfate | 695000 |           | 100000 | 20       | 07/18/2020 21:02     | <a href="#">WG1511233</a> |

3 Ss

4 Cn

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Calcium | 163000 |           | 1000 | 1        | 07/21/2020 12:02     | <a href="#">WG1511785</a> |

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-----|----------|----------------------|---------------------------|
| Boron   | 228    |           | 200 | 1        | 07/21/2020 23:49     | <a href="#">WG1511789</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|-----|----------|----------------------|---------------------------|
| Boron   | 225    |           | 200 | 1        | 07/21/2020 12:04     | <a href="#">WG1511785</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3552211-1 07/21/20 20:34

| Analyte          | MB Result | MB Qualifier | MB MDL | MB RDL |
|------------------|-----------|--------------|--------|--------|
| Dissolved Solids | U         |              | 2820   | 10000  |

1 Cp

2 Tc

3 Ss

4 Cn

L1239512-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1239512-01 07/21/20 20:34 • (DUP) R3552211-3 07/21/20 20:34

| Analyte          | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|------------------|-----------------|------------|----------|---------|---------------|----------------|
| Dissolved Solids | 128000          | 130000     | 1        | 1.55    |               | 5              |

5 Sr

6 Qc

L1240490-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1240490-04 07/21/20 20:34 • (DUP) R3552211-4 07/21/20 20:34

| Analyte          | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|------------------|-----------------|------------|----------|---------|---------------|----------------|
| Dissolved Solids | 1200000         | 1210000    | 1        | 1.49    |               | 5              |

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3552211-2 07/21/20 20:34

| Analyte          | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|------------------|--------------|------------|----------|-------------|---------------|
| Dissolved Solids | 8800000      | 8820000    | 100      | 85.0-115    |               |



Method Blank (MB)

(MB) R3550834-1 07/18/20 09:10

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

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1240979-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1240979-01 07/18/20 22:35 • (DUP) R3550834-7 07/18/20 22:53

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
| Chloride | 17700           | 17700      | 1        | 0.00453 |               | 15             |
| Sulfate  | 95100           | 95300      | 1        | 0.128   |               | 15             |

L1241024-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1241024-04 07/19/20 02:16 • (DUP) R3550834-8 07/19/20 02:34

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
| Chloride | 26400           | 26400      | 1        | 0.149   |               | 15             |
| Sulfate  | 78300           | 78400      | 1        | 0.124   |               | 15             |

Laboratory Control Sample (LCS)

(LCS) R3550834-2 07/18/20 09:29

| Analyte  | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|----------|--------------|------------|----------|-------------|---------------|
| Chloride | 40000        | 39900      | 99.7     | 80.0-120    |               |
| Sulfate  | 40000        | 40000      | 100      | 80.0-120    |               |

L1240490-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1240490-01 07/18/20 17:40 • (MS) R3550834-3 07/18/20 17:58 • (MSD) R3550834-4 07/18/20 18:17

| Analyte  | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|----------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
| Chloride | 50000        | 62100           | 111000    | 111000     | 98.1    | 98.3     | 1        | 80.0-120    | <u>E</u>     | <u>E</u>      | 0.119 | 15         |
| Sulfate  | 50000        | 1790000         | 1710000   | 1700000    | 0.000   | 0.000    | 1        | 80.0-120    | <u>E V</u>   | <u>E V</u>    | 0.664 | 15         |



L1240490-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1240490-03 07/18/20 18:53 • (MS) R3550834-5 07/18/20 19:30 • (MSD) R3550834-6 07/18/20 19:49

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Chloride | 50000                | 11600                   | 63200             | 63400              | 103          | 103           | 1        | 80.0-120         |              |               | 0.180    | 15              |
| Sulfate  | 50000                | 719000                  | 730000            | 729000             | 22.6         | 20.4          | 1        | 80.0-120         | <u>EV</u>    | <u>EV</u>     | 0.152    | 15              |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3551586-1 07/21/20 11:22

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---------|-----------|--------------|--------|--------|
| Boron   | U         |              | 25.4   | 200    |
| Calcium | U         |              | 389    | 1000   |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

Laboratory Control Sample (LCS)

(LCS) R3551586-2 07/21/20 11:43

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---------|--------------|------------|----------|-------------|---------------|
| Boron   | 1000         | 973        | 97.3     | 80.0-120    |               |
| Calcium | 10000        | 9810       | 98.1     | 80.0-120    |               |

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

L1240490-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1240490-03 07/21/20 11:46 • (MS) R3551586-4 07/21/20 11:56 • (MSD) R3551586-5 07/21/20 11:59

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
| Boron   | 1000         | 208             | 1190      | 1180       | 98.2    | 97.2     | 1        | 75.0-125    |              |               | 0.787 | 20         |
| Calcium | 10000        | 163000          | 167000    | 170000     | 38.9    | 63.5     | 1        | 75.0-125    | <u>V</u>     | <u>V</u>      | 1.46  | 20         |

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3551758-1 07/21/20 23:44

| Analyte | MB Result<br>ug/l | MB Qualifier | MB MDL<br>ug/l | MB RDL<br>ug/l |
|---------|-------------------|--------------|----------------|----------------|
| Boron   | U                 |              | 25.4           | 200            |

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3551758-2 07/21/20 23:47

| Analyte | Spike Amount<br>ug/l | LCS Result<br>ug/l | LCS Rec.<br>% | Rec. Limits<br>% | LCS Qualifier |
|---------|----------------------|--------------------|---------------|------------------|---------------|
| Boron   | 1000                 | 990                | 99.0          | 80.0-120         |               |

<sup>6</sup>Qc

L1240490-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1240490-05 07/21/20 23:49 • (MS) R3551758-4 07/21/20 23:55 • (MSD) R3551758-5 07/21/20 23:58

| Analyte | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|---------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Boron   | 1000                 | 228                     | 1220              | 1210               | 99.1         | 98.4          | 1        | 75.0-125         |              |               | 0.540    | 20              |

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



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).     |
| 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





Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* 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 National.

## State Accreditations

|                         |             |                             |                  |
|-------------------------|-------------|-----------------------------|------------------|
| Alabama                 | 40660       | Nebraska                    | NE-OS-15-05      |
| Alaska                  | 17-026      | Nevada                      | TN-03-2002-34    |
| Arizona                 | AZ0612      | New Hampshire               | 2975             |
| Arkansas                | 88-0469     | New Jersey-NELAP            | TN002            |
| California              | 2932        | New Mexico <sup>1</sup>     | n/a              |
| Colorado                | TN00003     | New York                    | 11742            |
| Connecticut             | PH-0197     | North Carolina              | Env375           |
| Florida                 | E87487      | North Carolina <sup>1</sup> | DW21704          |
| Georgia                 | NELAP       | North Carolina <sup>3</sup> | 41               |
| Georgia <sup>1</sup>    | 923         | North Dakota                | R-140            |
| Idaho                   | TN00003     | Ohio-VAP                    | CL0069           |
| Illinois                | 200008      | Oklahoma                    | 9915             |
| Indiana                 | C-TN-01     | Oregon                      | TN200002         |
| Iowa                    | 364         | Pennsylvania                | 68-02979         |
| Kansas                  | E-10277     | Rhode Island                | LA000356         |
| Kentucky <sup>1,6</sup> | 90010       | South Carolina              | 84004            |
| Kentucky <sup>2</sup>   | 16          | South Dakota                | n/a              |
| Louisiana               | AI30792     | Tennessee <sup>1,4</sup>    | 2006             |
| Louisiana <sup>1</sup>  | LA180010    | Texas                       | T104704245-18-15 |
| Maine                   | TN0002      | Texas <sup>5</sup>          | LAB0152          |
| Maryland                | 324         | Utah                        | TN00003          |
| Massachusetts           | M-TN003     | Vermont                     | VT2006           |
| Michigan                | 9958        | Virginia                    | 460132           |
| Minnesota               | 047-999-395 | Washington                  | C847             |
| Mississippi             | TN00003     | West Virginia               | 233              |
| Missouri                | 340         | Wisconsin                   | 9980939910       |
| Montana                 | CERT0086    | Wyoming                     | A2LA             |

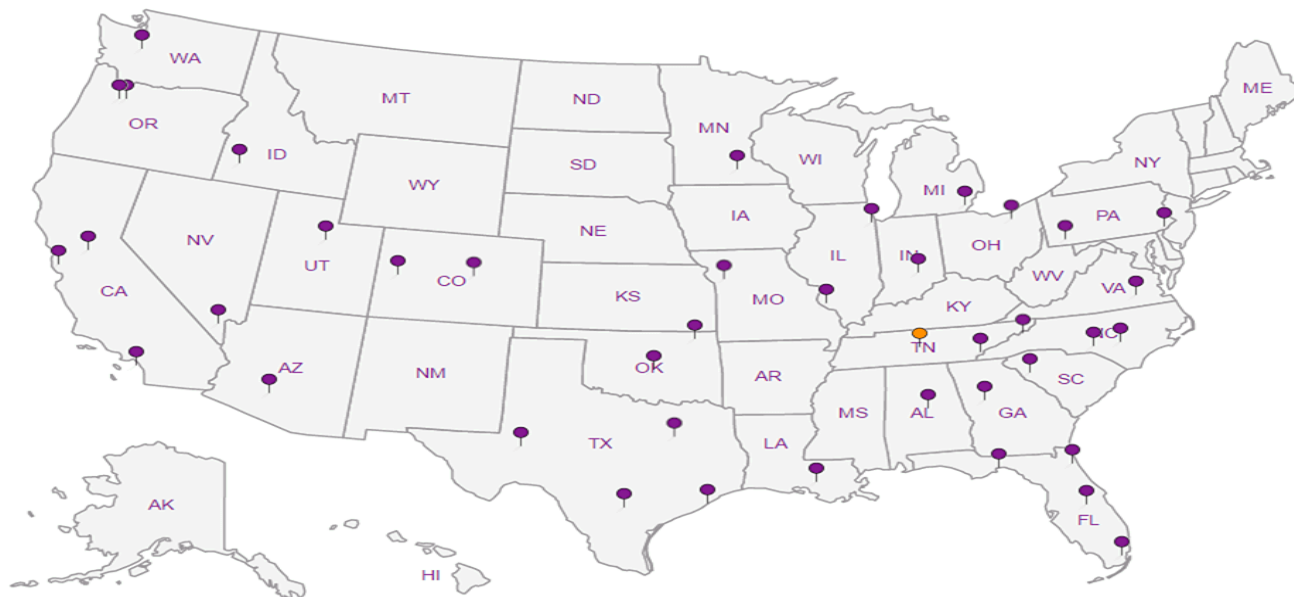
## Third Party Federal Accreditations

|                               |         |                    |               |
|-------------------------------|---------|--------------------|---------------|
| A2LA – ISO 17025              | 1461.01 | AIHA-LAP,LLC EMLAP | 100789        |
| A2LA – ISO 17025 <sup>5</sup> | 1461.02 | DOD                | 1461.01       |
| Canada                        | 1461.01 | USDA               | P330-15-00234 |
| EPA-Crypto                    | TN00003 |                    |               |

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

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc



Jared Morrison  
December 20, 2022

**ATTACHMENT 1-5**  
**August 2020 Sampling Event Laboratory Report**

## SCS Engineers - KS

Sample Delivery Group: L1255487  
Samples Received: 08/27/2020  
Project Number: 27213168.20  
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.



|   |           |                       |
|---|-----------|-----------------------|
| <b>Cp: Cover Page</b>                     | <b>1</b>  | <b><sup>1</sup>Cp</b> |
| <b>Tc: Table of Contents</b>              | <b>2</b>  | <b><sup>2</sup>Tc</b> |
| <b>Ss: Sample Summary</b>                 | <b>3</b>  | <b><sup>3</sup>Ss</b> |
| <b>Cn: Case Narrative</b>                 | <b>4</b>  | <b><sup>4</sup>Cn</b> |
| <b>Sr: Sample Results</b>                 | <b>5</b>  | <b><sup>5</sup>Sr</b> |
| <b>MW-605 L1255487-01</b>                 | <b>5</b>  |                       |
| <b>DUPLICATE 1 L1255487-02</b>            | <b>6</b>  |                       |
| <b>Qc: Quality Control Summary</b>        | <b>7</b>  | <b><sup>6</sup>Qc</b> |
| <b>Wet Chemistry by Method 9056A</b>      | <b>7</b>  |                       |
| <b>Gl: Glossary of Terms</b>              | <b>8</b>  | <b><sup>7</sup>Gl</b> |
| <b>Al: Accreditations &amp; Locations</b> | <b>9</b>  | <b><sup>8</sup>Al</b> |
| <b>Sc: Sample Chain of Custody</b>        | <b>10</b> | <b><sup>9</sup>Sc</b> |

# SAMPLE SUMMARY



## MW-605 L1255487-01 GW

Collected by: Whit Martin  
 Collected date/time: 08/26/20 10:30  
 Received date/time: 08/27/20 09:30

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Wet Chemistry by Method 9056A | WG1534670 | 1        | 08/30/20 21:16        | 08/30/20 21:16     | ST      | Mt. Juliet, TN |

1 Cp

2 Tc

3 Ss

## DUPLICATE 1 L1255487-02 GW

Collected by: Whit Martin  
 Collected date/time: 08/26/20 10:30  
 Received date/time: 08/27/20 09:30

| Method                        | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Wet Chemistry by Method 9056A | WG1534670 | 1        | 08/30/20 22:11        | 08/30/20 22:11     | ST      | Mt. Juliet, TN |

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

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



Wet Chemistry by Method 9056A

| Analyte  | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------|--------|-----------|------|----------|----------------------|---------------------------|
| Chloride | 61600  |           | 1000 | 1        | 08/30/2020 21:16     | <a href="#">WG1534670</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc





Wet Chemistry by Method 9056A

| Analyte  | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|----------|--------|-----------|------|----------|----------------------|---------------------------|
| Chloride | 61500  |           | 1000 | 1        | 08/30/2020 22:11     | <a href="#">WG1534670</a> |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3565863-1 08/30/20 10:36

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

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1255647-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1255647-01 08/30/20 22:48 • (DUP) R3565863-5 08/30/20 23:06

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
| Chloride | 3240            | 3250       | 1        | 0.440   |               | 15             |

Laboratory Control Sample (LCS)

(LCS) R3565863-2 08/30/20 10:55

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

L1255487-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1255487-01 08/30/20 21:16 • (MS) R3565863-3 08/30/20 21:34 • (MSD) R3565863-4 08/30/20 21:52

| Analyte  | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|----------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
| Chloride | 50000        | 61600           | 109000    | 109000     | 94.4    | 95.6     | 1        | 80.0-120    | <u>E</u>     | <u>E</u>      | 0.547 | 15         |

L1255772-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1255772-06 08/31/20 06:28 • (MS) R3565863-7 08/31/20 07:42

| Analyte  | Spike Amount | Original Result | MS Result | MS Rec. | Dilution | Rec. Limits | MS Qualifier |
|----------|--------------|-----------------|-----------|---------|----------|-------------|--------------|
| Chloride | 50000        | 1920            | 53200     | 103     | 1        | 80.0-120    |              |



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.  |

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

Qualifier Description

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



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|                         |             |                             |                  |
|-------------------------|-------------|-----------------------------|------------------|
| Alabama                 | 40660       | Nebraska                    | NE-OS-15-05      |
| Alaska                  | 17-026      | Nevada                      | TN-03-2002-34    |
| Arizona                 | AZ0612      | New Hampshire               | 2975             |
| Arkansas                | 88-0469     | New Jersey-NELAP            | TN002            |
| California              | 2932        | New Mexico <sup>1</sup>     | n/a              |
| Colorado                | TN00003     | New York                    | 11742            |
| Connecticut             | PH-0197     | North Carolina              | Env375           |
| Florida                 | E87487      | North Carolina <sup>1</sup> | DW21704          |
| Georgia                 | NELAP       | North Carolina <sup>3</sup> | 41               |
| Georgia <sup>1</sup>    | 923         | North Dakota                | R-140            |
| Idaho                   | TN00003     | Ohio-VAP                    | CL0069           |
| Illinois                | 200008      | Oklahoma                    | 9915             |
| Indiana                 | C-TN-01     | Oregon                      | TN200002         |
| Iowa                    | 364         | Pennsylvania                | 68-02979         |
| Kansas                  | E-10277     | Rhode Island                | LA000356         |
| Kentucky <sup>1,6</sup> | 90010       | South Carolina              | 84004            |
| Kentucky <sup>2</sup>   | 16          | South Dakota                | n/a              |
| Louisiana               | AI30792     | Tennessee <sup>1,4</sup>    | 2006             |
| Louisiana <sup>1</sup>  | LA180010    | Texas                       | T104704245-18-15 |
| Maine                   | TN0002      | Texas <sup>5</sup>          | LAB0152          |
| Maryland                | 324         | Utah                        | TN00003          |
| Massachusetts           | M-TN003     | Vermont                     | VT2006           |
| Michigan                | 9958        | Virginia                    | 460132           |
| Minnesota               | 047-999-395 | Washington                  | C847             |
| Mississippi             | TN00003     | West Virginia               | 233              |
| Missouri                | 340         | Wisconsin                   | 9980939910       |
| Montana                 | CERT0086    | Wyoming                     | A2LA             |

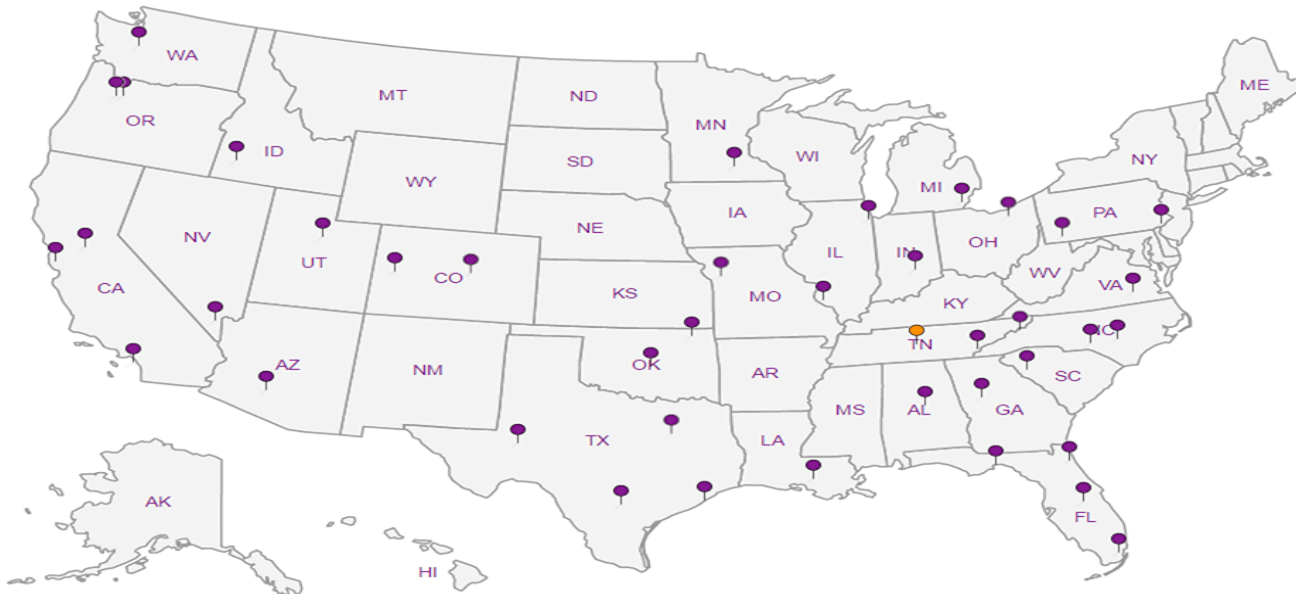
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|                               |         |                    |               |
|-------------------------------|---------|--------------------|---------------|
| A2LA – ISO 17025              | 1461.01 | AIHA-LAP,LLC EMLAP | 100789        |
| A2LA – ISO 17025 <sup>5</sup> | 1461.02 | DOD                | 1461.01       |
| Canada                        | 1461.01 | USDA               | P330-15-00234 |
| EPA-Crypto                    | TN00003 |                    |               |

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

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1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





## SCS Engineers - KS

Sample Delivery Group: L1255485  
Samples Received: 08/27/2020  
Project Number: 27213168.20  
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.



|  |           |                       |
|--|-----------|-----------------------|
| <b>Cp: Cover Page</b>                      | <b>1</b>  | <b><sup>1</sup>Cp</b> |
| <b>Tc: Table of Contents</b>               | <b>2</b>  |                       |
| <b>Ss: Sample Summary</b>                  | <b>3</b>  | <b><sup>2</sup>Tc</b> |
| <b>Cn: Case Narrative</b>                  | <b>4</b>  |                       |
| <b>Sr: Sample Results</b>                  | <b>5</b>  | <b><sup>3</sup>Ss</b> |
| <b>MW-605 L1255485-01</b>                  | <b>5</b>  |                       |
| <b>Qc: Quality Control Summary</b>         | <b>6</b>  | <b><sup>4</sup>Cn</b> |
| <b>Wet Chemistry by Method 2320 B-2011</b> | <b>6</b>  | <b><sup>5</sup>Sr</b> |
| <b>Wet Chemistry by Method 9056A</b>       | <b>7</b>  |                       |
| <b>Metals (ICP) by Method 6010B</b>        | <b>9</b>  | <b><sup>6</sup>Qc</b> |
| <b>Gl: Glossary of Terms</b>               | <b>10</b> | <b><sup>7</sup>Gl</b> |
| <b>Al: Accreditations &amp; Locations</b>  | <b>11</b> |                       |
| <b>Sc: Sample Chain of Custody</b>         | <b>12</b> | <b><sup>8</sup>Al</b> |
|  |           | <b><sup>9</sup>Sc</b> |

# SAMPLE SUMMARY



MW-605 L1255485-01 GW

Collected by: Whit Martin  
 Collected date/time: 08/26/20 10:30  
 Received date/time: 08/27/20 09:30

| Method                              | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|-------------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Wet Chemistry by Method 2320 B-2011 | WG1534051 | 1        | 09/02/20 23:59        | 09/02/20 23:59     | MCG     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A       | WG1533924 | 50       | 08/28/20 12:43        | 08/28/20 12:43     | LBR     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B        | WG1535077 | 1        | 09/01/20 11:45        | 09/01/20 15:29     | EL      | Mt. Juliet, TN |

- <sup>1</sup>Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Gl
- <sup>8</sup>Al
- <sup>9</sup>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

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



Wet Chemistry by Method 2320 B-2011

| Analyte                | Result | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------------|--------|-----------|-------|----------|----------------------|---------------------------|
| Alkalinity,Bicarbonate | 36800  |           | 20000 | 1        | 09/02/2020 23:59     | <a href="#">WG1534051</a> |
| Alkalinity,Carbonate   | ND     |           | 20000 | 1        | 09/02/2020 23:59     | <a href="#">WG1534051</a> |

Sample Narrative:

L1255485-01 WG1534051: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

| Analyte | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|---------|---------|-----------|--------|----------|----------------------|---------------------------|
| Sulfate | 1690000 |           | 250000 | 50       | 08/28/2020 12:43     | <a href="#">WG1533924</a> |

Metals (ICP) by Method 6010B

| Analyte   | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|-----------|--------|-----------|------|----------|----------------------|---------------------------|
| Calcium   | 396000 |           | 1000 | 1        | 09/01/2020 15:29     | <a href="#">WG1535077</a> |
| Magnesium | 97500  |           | 1000 | 1        | 09/01/2020 15:29     | <a href="#">WG1535077</a> |
| Potassium | 2440   |           | 2000 | 1        | 09/01/2020 15:29     | <a href="#">WG1535077</a> |
| Sodium    | 244000 |           | 3000 | 1        | 09/01/2020 15:29     | <a href="#">WG1535077</a> |

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



Method Blank (MB)

(MB) R3566888-1 09/02/20 22:33

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

Sample Narrative:

BLANK: Endpoint pH 4.5

L1255315-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1255315-01 09/02/20 22:52 • (DUP) R3566888-2 09/02/20 22:59

| Analyte                | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|------------------------|-----------------|------------|----------|---------|---------------|----------------|
|                        | ug/l            | ug/l       |          | %       |               | %              |
| Alkalinity,Bicarbonate | 381000          | 381000     | 1        | 0.0890  |               | 20             |
| Alkalinity,Carbonate   | ND              | ND         | 1        | 0.000   |               | 20             |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1254413-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1254413-04 09/03/20 01:03 • (DUP) R3566888-4 09/03/20 01:11

| Analyte                | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|------------------------|-----------------|------------|----------|---------|---------------|----------------|
|                        | ug/l            | ug/l       |          | %       |               | %              |
| Alkalinity,Bicarbonate | 448000          | 446000     | 1        | 0.531   |               | 20             |
| Alkalinity,Carbonate   | ND              | ND         | 1        | 0.000   |               | 20             |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3565005-1 08/28/20 05:09

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

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1255046-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1255046-01 08/28/20 06:23 • (DUP) R3565005-3 08/28/20 06:34

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| Sulfate | 16100           | 16900      | 1        | 4.57    |               | 15             |

L1255482-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1255482-06 08/28/20 12:00 • (DUP) R3565005-10 08/28/20 12:33

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| Sulfate | 27800           | 27600      | 1        | 0.647   |               | 15             |

Laboratory Control Sample (LCS)

(LCS) R3565005-2 08/28/20 05:19

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---------|--------------|------------|----------|-------------|---------------|
| Sulfate | 40000        | 39900      | 99.7     | 80.0-120    |               |

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3565005-4 08/28/20 07:18 • (MSD) R3565005-5 08/28/20 07:28

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
| Sulfate | 50000        |                 | 98500     | 97900      | 101     | 100      | 1        | 80.0-120    |              |               | 0.558 | 15         |

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3565005-6 08/28/20 08:34 • (MSD) R3565005-7 08/28/20 08:45

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD  | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|------|------------|
| Sulfate | 50000        |                 | 232000    | 225000     | 101     | 87.4     | 1        | 80.0-120    | E            | E             | 2.92 | 15         |



L1255482-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1255482-04 08/28/20 11:17 • (MS) R3565005-8 08/28/20 11:27 • (MSD) R3565005-9 08/28/20 11:38

| Analyte | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits |
|---------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|------------|
| Sulfate | 50000                | 80100                   | 130000            | 130000             | 99.0         | 99.0          | 1        | 80.0-120         | <u>E</u>     | <u>E</u>      | 0.0218   | 15         |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3566148-1 09/01/20 14:20

| Analyte   | MB Result<br>ug/l | MB Qualifier | MB MDL<br>ug/l | MB RDL<br>ug/l |
|-----------|-------------------|--------------|----------------|----------------|
| Calcium   | U                 |              | 389            | 1000           |
| Magnesium | U                 |              | 111            | 1000           |
| Potassium | U                 |              | 510            | 2000           |
| Sodium    | U                 |              | 1400           | 3000           |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3566148-2 09/01/20 14:23

| Analyte   | Spike Amount<br>ug/l | LCS Result<br>ug/l | LCS Rec.<br>% | Rec. Limits<br>% | LCS Qualifier |
|-----------|----------------------|--------------------|---------------|------------------|---------------|
| Calcium   | 10000                | 9910               | 99.1          | 80.0-120         |               |
| Magnesium | 10000                | 9380               | 93.8          | 80.0-120         |               |
| Potassium | 10000                | 9340               | 93.4          | 80.0-120         |               |
| Sodium    | 10000                | 9980               | 99.8          | 80.0-120         |               |

L1255433-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1255433-06 09/01/20 14:26 • (MS) R3566148-4 09/01/20 14:31 • (MSD) R3566148-5 09/01/20 14:34

| Analyte   | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|-----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Calcium   | 10000                | 37100                   | 46600             | 46500              | 95.3         | 93.5          | 1        | 75.0-125         |              |               | 0.370    | 20              |
| Magnesium | 10000                | 6610                    | 15900             | 15800              | 92.6         | 91.8          | 1        | 75.0-125         |              |               | 0.510    | 20              |
| Potassium | 10000                | 5940                    | 15400             | 15300              | 94.5         | 93.1          | 1        | 75.0-125         |              |               | 0.900    | 20              |
| Sodium    | 10000                | 171000                  | 178000            | 180000             | 76.1         | 88.0          | 1        | 75.0-125         |              |               | 0.664    | 20              |



Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier Description

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

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* 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 National.

## State Accreditations

|                         |             |                             |                  |
|-------------------------|-------------|-----------------------------|------------------|
| Alabama                 | 40660       | Nebraska                    | NE-OS-15-05      |
| Alaska                  | 17-026      | Nevada                      | TN-03-2002-34    |
| Arizona                 | AZ0612      | New Hampshire               | 2975             |
| Arkansas                | 88-0469     | New Jersey-NELAP            | TN002            |
| California              | 2932        | New Mexico <sup>1</sup>     | n/a              |
| Colorado                | TN00003     | New York                    | 11742            |
| Connecticut             | PH-0197     | North Carolina              | Env375           |
| Florida                 | E87487      | North Carolina <sup>1</sup> | DW21704          |
| Georgia                 | NELAP       | North Carolina <sup>3</sup> | 41               |
| Georgia <sup>1</sup>    | 923         | North Dakota                | R-140            |
| Idaho                   | TN00003     | Ohio-VAP                    | CL0069           |
| Illinois                | 200008      | Oklahoma                    | 9915             |
| Indiana                 | C-TN-01     | Oregon                      | TN200002         |
| Iowa                    | 364         | Pennsylvania                | 68-02979         |
| Kansas                  | E-10277     | Rhode Island                | LA000356         |
| Kentucky <sup>1,6</sup> | 90010       | South Carolina              | 84004            |
| Kentucky <sup>2</sup>   | 16          | South Dakota                | n/a              |
| Louisiana               | AI30792     | Tennessee <sup>1,4</sup>    | 2006             |
| Louisiana <sup>1</sup>  | LA180010    | Texas                       | T104704245-18-15 |
| Maine                   | TN0002      | Texas <sup>5</sup>          | LAB0152          |
| Maryland                | 324         | Utah                        | TN00003          |
| Massachusetts           | M-TN003     | Vermont                     | VT2006           |
| Michigan                | 9958        | Virginia                    | 460132           |
| Minnesota               | 047-999-395 | Washington                  | C847             |
| Mississippi             | TN00003     | West Virginia               | 233              |
| Missouri                | 340         | Wisconsin                   | 9980939910       |
| Montana                 | CERT0086    | Wyoming                     | A2LA             |

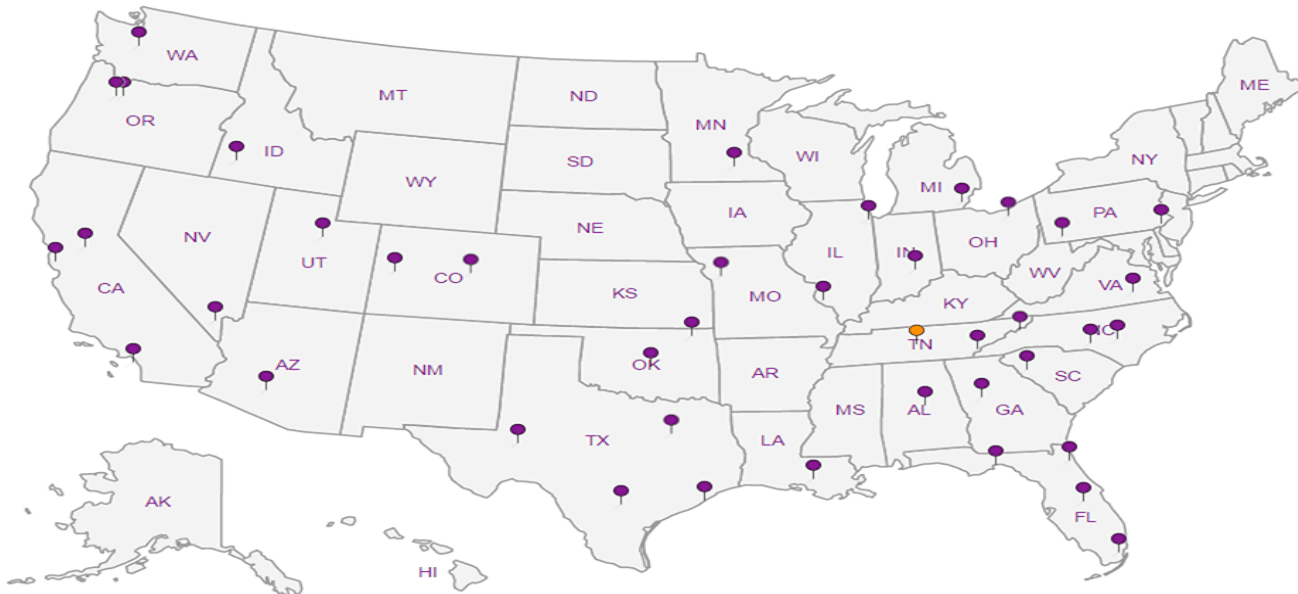
## Third Party Federal Accreditations

|                               |         |                    |               |
|-------------------------------|---------|--------------------|---------------|
| A2LA – ISO 17025              | 1461.01 | AIHA-LAP,LLC EMLAP | 100789        |
| A2LA – ISO 17025 <sup>5</sup> | 1461.02 | DOD                | 1461.01       |
| Canada                        | 1461.01 | USDA               | P330-15-00234 |
| EPA-Crypto                    | TN00003 |                    |               |

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

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Jared Morrison  
December 20, 2022

**ATTACHMENT 1-6**  
**November 2020 Sampling Event Laboratory Report**

## SCS Engineers - KS

Sample Delivery Group: L1284913  
Samples Received: 11/12/2020  
Project Number: 27213168.20  
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.



|  |           |   |
|--|-----------|---|
| <b>Cp: Cover Page</b>                      | <b>1</b>  |  |
| <b>Tc: Table of Contents</b>               | <b>2</b>  |   |
| <b>Ss: Sample Summary</b>                  | <b>3</b>  |  |
| <b>Cn: Case Narrative</b>                  | <b>4</b>  |   |
| <b>Sr: Sample Results</b>                  | <b>5</b>  |  |
| MW-601 L1284913-01                         | <b>5</b>  |   |
| MW-602 L1284913-02                         | <b>6</b>  |  |
| MW-603 L1284913-03                         | <b>7</b>  |  |
| MW-604 L1284913-04                         | <b>8</b>  |   |
| MW-605 L1284913-05                         | <b>9</b>  |  |
| DUPLICATE #2 L1284913-06                   | <b>10</b> |   |
| <b>Qc: Quality Control Summary</b>         | <b>11</b> |  |
| Gravimetric Analysis by Method 2540 C-2011 | <b>11</b> |  |
| Wet Chemistry by Method 9056A              | <b>13</b> |   |
| Metals (ICP) by Method 6010B               | <b>15</b> |  |
| <b>Gl: Glossary of Terms</b>               | <b>16</b> |   |
| <b>Al: Accreditations &amp; Locations</b>  | <b>17</b> |   |
| <b>Sc: Sample Chain of Custody</b>         | <b>18</b> |   |

# SAMPLE SUMMARY



## MW-601 L1284913-01 GW

Collected by Jason R. Franks  
Collected date/time 11/10/20 11:05  
Received date/time 11/12/20 09:00

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1577446 | 1        | 11/17/20 01:34        | 11/17/20 17:00     | CAT     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1579489 | 1        | 11/23/20 18:17        | 11/23/20 18:17     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1579489 | 50       | 11/23/20 18:34        | 11/23/20 18:34     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1577479 | 1        | 11/18/20 10:12        | 11/18/20 21:52     | CCE     | Mt. Juliet, TN |

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## MW-602 L1284913-02 GW

Collected by Jason R. Franks  
Collected date/time 11/10/20 13:20  
Received date/time 11/12/20 09:00

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1576598 | 1        | 11/15/20 15:18        | 11/15/20 15:59     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1579489 | 1        | 11/23/20 18:51        | 11/23/20 18:51     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1579489 | 50       | 11/23/20 19:42        | 11/23/20 19:42     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1577479 | 1        | 11/18/20 10:12        | 11/18/20 21:40     | CCE     | Mt. Juliet, TN |

## MW-603 L1284913-03 GW

Collected by Jason R. Franks  
Collected date/time 11/10/20 13:55  
Received date/time 11/12/20 09:00

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1576598 | 1        | 11/15/20 15:18        | 11/15/20 15:59     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1579489 | 1        | 11/23/20 19:59        | 11/23/20 19:59     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1579489 | 50       | 11/23/20 20:16        | 11/23/20 20:16     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1577479 | 1        | 11/18/20 10:12        | 11/18/20 21:55     | CCE     | Mt. Juliet, TN |

## MW-604 L1284913-04 GW

Collected by Jason R. Franks  
Collected date/time 11/10/20 14:00  
Received date/time 11/12/20 09:00

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1576598 | 1        | 11/15/20 15:18        | 11/15/20 15:59     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1579489 | 1        | 11/23/20 20:32        | 11/23/20 20:32     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1579489 | 50       | 11/23/20 21:23        | 11/23/20 21:23     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1577479 | 1        | 11/18/20 10:12        | 11/18/20 21:58     | CCE     | Mt. Juliet, TN |

## MW-605 L1284913-05 GW

Collected by Jason R. Franks  
Collected date/time 11/10/20 14:45  
Received date/time 11/12/20 09:00

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1576598 | 1        | 11/15/20 15:18        | 11/15/20 15:59     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1579489 | 1        | 11/23/20 21:40        | 11/23/20 21:40     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1579489 | 50       | 11/23/20 21:57        | 11/23/20 21:57     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1577479 | 1        | 11/18/20 10:12        | 11/18/20 22:01     | CCE     | Mt. Juliet, TN |

## DUPLICATE #2 L1284913-06 GW

Collected by Jason R. Franks  
Collected date/time 11/10/20 13:20  
Received date/time 11/12/20 09:00

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1577446 | 1        | 11/17/20 01:34        | 11/17/20 17:00     | CAT     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1579489 | 1        | 11/23/20 22:14        | 11/23/20 22:14     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1579489 | 50       | 11/23/20 22:31        | 11/23/20 22:31     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1577479 | 1        | 11/18/20 10:12        | 11/18/20 22:09     | CCE     | Mt. Juliet, TN |



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

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



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 4280000 |           | 20000 | 1        | 11/17/2020 17:00     | <a href="#">WG1577446</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 33400   |           | 1000   | 1        | 11/23/2020 18:17     | <a href="#">WG1579489</a> |
| Fluoride | 336     |           | 150    | 1        | 11/23/2020 18:17     | <a href="#">WG1579489</a> |
| Sulfate  | 2860000 |           | 250000 | 50       | 11/23/2020 18:34     | <a href="#">WG1579489</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | ND     |           | 200  | 1        | 11/18/2020 21:52     | <a href="#">WG1577479</a> |
| Calcium | 479000 |           | 1000 | 1        | 11/18/2020 21:52     | <a href="#">WG1577479</a> |

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 1800000 |           | 10000 | 1        | 11/15/2020 15:59     | <a href="#">WG1576598</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 3770    | B         | 1000   | 1        | 11/23/2020 18:51     | <a href="#">WG1579489</a> |
| Fluoride | ND      |           | 150    | 1        | 11/23/2020 18:51     | <a href="#">WG1579489</a> |
| Sulfate  | 1080000 |           | 250000 | 50       | 11/23/2020 19:42     | <a href="#">WG1579489</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | 4180   |           | 200  | 1        | 11/18/2020 21:40     | <a href="#">WG1577479</a> |
| Calcium | 313000 | V         | 1000 | 1        | 11/18/2020 21:40     | <a href="#">WG1577479</a> |

6 Qc

7 Gl

8 Al

9 Sc





Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2850000 |           | 20000 | 1        | 11/15/2020 15:59     | <a href="#">WG1576598</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 6270    |           | 1000   | 1        | 11/23/2020 19:59     | <a href="#">WG1579489</a> |
| Fluoride | 516     |           | 150    | 1        | 11/23/2020 19:59     | <a href="#">WG1579489</a> |
| Sulfate  | 2090000 |           | 250000 | 50       | 11/23/2020 20:16     | <a href="#">WG1579489</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | 5690   |           | 200  | 1        | 11/18/2020 21:55     | <a href="#">WG1577479</a> |
| Calcium | 410000 |           | 1000 | 1        | 11/18/2020 21:55     | <a href="#">WG1577479</a> |

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2790000 |           | 20000 | 1        | 11/15/2020 15:59     | <a href="#">WG1576598</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 14500   |           | 1000   | 1        | 11/23/2020 20:32     | <a href="#">WG1579489</a> |
| Fluoride | 409     |           | 150    | 1        | 11/23/2020 20:32     | <a href="#">WG1579489</a> |
| Sulfate  | 1740000 |           | 250000 | 50       | 11/23/2020 21:23     | <a href="#">WG1579489</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | 4820   |           | 200  | 1        | 11/18/2020 21:58     | <a href="#">WG1577479</a> |
| Calcium | 436000 |           | 1000 | 1        | 11/18/2020 21:58     | <a href="#">WG1577479</a> |

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2730000 | J3        | 20000 | 1        | 11/15/2020 15:59     | <a href="#">WG1576598</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 59700   |           | 1000   | 1        | 11/23/2020 21:40     | <a href="#">WG1579489</a> |
| Fluoride | 182     |           | 150    | 1        | 11/23/2020 21:40     | <a href="#">WG1579489</a> |
| Sulfate  | 1790000 |           | 250000 | 50       | 11/23/2020 21:57     | <a href="#">WG1579489</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | 1470   |           | 200  | 1        | 11/18/2020 22:01     | <a href="#">WG1577479</a> |
| Calcium | 395000 |           | 1000 | 1        | 11/18/2020 22:01     | <a href="#">WG1577479</a> |

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 1790000 |           | 13300 | 1        | 11/17/2020 17:00     | <a href="#">WG1577446</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 3760    | B         | 1000   | 1        | 11/23/2020 22:14     | <a href="#">WG1579489</a> |
| Fluoride | ND      |           | 150    | 1        | 11/23/2020 22:14     | <a href="#">WG1579489</a> |
| Sulfate  | 1090000 |           | 250000 | 50       | 11/23/2020 22:31     | <a href="#">WG1579489</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | 4230   |           | 200  | 1        | 11/18/2020 22:09     | <a href="#">WG1577479</a> |
| Calcium | 315000 |           | 1000 | 1        | 11/18/2020 22:09     | <a href="#">WG1577479</a> |

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3593773-1 11/15/20 15:59

| Analyte          | MB Result | MB Qualifier | MB MDL | MB RDL |
|------------------|-----------|--------------|--------|--------|
| Dissolved Solids | U         |              | 2820   | 10000  |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1284900-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1284900-01 11/15/20 15:59 • (DUP) R3593773-3 11/15/20 15:59

| Analyte          | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|------------------|-----------------|------------|----------|---------|---------------|----------------|
| Dissolved Solids | 2300000         | 2270000    | 1        | 1.31    |               | 5              |

L1284913-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1284913-05 11/15/20 15:59 • (DUP) R3593773-4 11/15/20 15:59

| Analyte          | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|------------------|-----------------|------------|----------|---------|---------------|----------------|
| Dissolved Solids | 2730000         | 2540000    | 1        | 7.22    | <u>J3</u>     | 5              |

Laboratory Control Sample (LCS)

(LCS) R3593773-2 11/15/20 15:59

| Analyte          | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|------------------|--------------|------------|----------|-------------|---------------|
| Dissolved Solids | 8800000      | 8030000    | 91.3     | 77.4-123    |               |



Method Blank (MB)

(MB) R3594767-1 11/17/20 17:00

| Analyte          | MB Result<br>ug/l | MB Qualifier | MB MDL<br>ug/l | MB RDL<br>ug/l |
|------------------|-------------------|--------------|----------------|----------------|
| Dissolved Solids | U                 |              | 2820           | 10000          |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1284913-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1284913-01 11/17/20 17:00 • (DUP) R3594767-3 11/17/20 17:00

| Analyte          | Original Result<br>ug/l | DUP Result<br>ug/l | Dilution | DUP RPD<br>% | DUP Qualifier | DUP RPD<br>Limits<br>% |
|------------------|-------------------------|--------------------|----------|--------------|---------------|------------------------|
| Dissolved Solids | 4280000                 | 4290000            | 1        | 0.187        |               | 5                      |

L1285117-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1285117-02 11/17/20 17:00 • (DUP) R3594767-4 11/17/20 17:00

| Analyte          | Original Result<br>ug/l | DUP Result<br>ug/l | Dilution | DUP RPD<br>% | DUP Qualifier | DUP RPD<br>Limits<br>% |
|------------------|-------------------------|--------------------|----------|--------------|---------------|------------------------|
| Dissolved Solids | 558000                  | 568000             | 1        | 1.78         |               | 5                      |

Laboratory Control Sample (LCS)

(LCS) R3594767-2 11/17/20 17:00

| Analyte          | Spike Amount<br>ug/l | LCS Result<br>ug/l | LCS Rec.<br>% | Rec. Limits<br>% | LCS Qualifier |
|------------------|----------------------|--------------------|---------------|------------------|---------------|
| Dissolved Solids | 8800000              | 8530000            | 96.9          | 77.4-123         |               |



Method Blank (MB)

(MB) R3596742-1 11/23/20 10:35

| Analyte  | MB Result | MB Qualifier | MB MDL | MB RDL |
|----------|-----------|--------------|--------|--------|
|          | ug/l      |              | ug/l   | ug/l   |
| Chloride | 400       | ↓            | 379    | 1000   |
| Fluoride | U         |              | 64.0   | 150    |
| Sulfate  | U         |              | 594    | 5000   |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1284866-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1284866-01 11/23/20 11:48 • (DUP) R3596742-3 11/23/20 12:05

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
|          | ug/l            | ug/l       |          | %       |               | %              |
| Chloride | 5550            | 5570       | 1        | 0.437   |               | 15             |
| Fluoride | 160             | 161        | 1        | 0.374   |               | 15             |
| Sulfate  | 18900           | 18900      | 1        | 0.0270  |               | 15             |

L1284959-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1284959-01 11/23/20 22:48 • (DUP) R3596742-7 11/23/20 23:05

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
|          | ug/l            | ug/l       |          | %       |               | %              |
| Chloride | 1910            | 1910       | 1        | 0.0104  |               | 15             |
| Fluoride | ND              | ND         | 1        | 0.000   |               | 15             |
| Sulfate  | ND              | ND         | 1        | 0.000   |               | 15             |

Laboratory Control Sample (LCS)

(LCS) R3596742-2 11/23/20 10:52

| Analyte  | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|----------|--------------|------------|----------|-------------|---------------|
|          | ug/l         | ug/l       | %        | %           |               |
| Chloride | 40000        | 39700      | 99.2     | 80.0-120    |               |
| Fluoride | 8000         | 8140       | 102      | 80.0-120    |               |
| Sulfate  | 40000        | 39900      | 99.8     | 80.0-120    |               |



L1284900-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1284900-05 11/23/20 15:11 • (MS) R3596742-4 11/23/20 15:28

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MS Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier |
|----------|----------------------|-------------------------|-------------------|--------------|----------|------------------|--------------|
| Chloride | 50000                | 14200                   | 65300             | 102          | 1        | 80.0-120         |              |
| Fluoride | 5000                 | 249                     | 5340              | 102          | 1        | 80.0-120         |              |
| Sulfate  | 50000                | 593000                  | 605000            | 24.9         | 1        | 80.0-120         | <u>EV</u>    |

L1284913-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1284913-02 11/23/20 18:51 • (MS) R3596742-5 11/23/20 19:08 • (MSD) R3596742-6 11/23/20 19:25

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Chloride | 50000                | 3770                    | 56700             | 56900              | 106          | 106           | 1        | 80.0-120         |              |               | 0.357    | 15              |
| Fluoride | 5000                 | ND                      | 4990              | 5020               | 97.3         | 97.8          | 1        | 80.0-120         |              |               | 0.492    | 15              |
| Sulfate  | 50000                | 1230000                 | 1230000           | 1230000            | 0.000        | 0.867         | 1        | 80.0-120         | <u>EV</u>    | <u>EV</u>     | 0.145    | 15              |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc





Method Blank (MB)

(MB) R3594785-1 11/18/20 21:35

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

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

Laboratory Control Sample (LCS)

(LCS) R3594785-2 11/18/20 21:37

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---------|--------------|------------|----------|-------------|---------------|
|         | ug/l         | ug/l       | %        | %           |               |
| Boron   | 1000         | 986        | 98.6     | 80.0-120    |               |
| Calcium | 10000        | 10000      | 100      | 80.0-120    |               |

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

L1284913-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1284913-02 11/18/20 21:40 • (MS) R3594785-4 11/18/20 21:46 • (MSD) R3594785-5 11/18/20 21:49

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
|         | ug/l         | ug/l            | ug/l      | ug/l       | %       | %        |          | %           |              |               | %     | %          |
| Boron   | 1000         | 4180            | 5070      | 5110       | 88.9    | 92.5     | 1        | 75.0-125    |              |               | 0.721 | 20         |
| Calcium | 10000        | 313000          | 317000    | 317000     | 46.1    | 41.2     | 1        | 75.0-125    | <u>V</u>     | <u>V</u>      | 0.154 | 20         |

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## Guide to Reading and Understanding Your Laboratory Report

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

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

### Abbreviations and Definitions

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

### Qualifier Description

|    |   |
|----|---|
| B  | The same analyte is found in the associated blank.  |
| E  | The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL). |
| J  | The identification of the analyte is acceptable; the reported value is an estimate.   |
| J3 | The associated batch QC was outside the established quality control range for precision.  |
| 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



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* 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 National.

## State Accreditations

|                         |             |                             |                  |
|-------------------------|-------------|-----------------------------|------------------|
| Alabama                 | 40660       | Nebraska                    | NE-OS-15-05      |
| Alaska                  | 17-026      | Nevada                      | TN-03-2002-34    |
| Arizona                 | AZ0612      | New Hampshire               | 2975             |
| Arkansas                | 88-0469     | New Jersey-NELAP            | TN002            |
| California              | 2932        | New Mexico <sup>1</sup>     | n/a              |
| Colorado                | TN00003     | New York                    | 11742            |
| Connecticut             | PH-0197     | North Carolina              | Env375           |
| Florida                 | E87487      | North Carolina <sup>1</sup> | DW21704          |
| Georgia                 | NELAP       | North Carolina <sup>3</sup> | 41               |
| Georgia <sup>1</sup>    | 923         | North Dakota                | R-140            |
| Idaho                   | TN00003     | Ohio-VAP                    | CL0069           |
| Illinois                | 200008      | Oklahoma                    | 9915             |
| Indiana                 | C-TN-01     | Oregon                      | TN200002         |
| Iowa                    | 364         | Pennsylvania                | 68-02979         |
| Kansas                  | E-10277     | Rhode Island                | LA000356         |
| Kentucky <sup>1,6</sup> | 90010       | South Carolina              | 84004            |
| Kentucky <sup>2</sup>   | 16          | South Dakota                | n/a              |
| Louisiana               | AI30792     | Tennessee <sup>1,4</sup>    | 2006             |
| Louisiana <sup>1</sup>  | LA180010    | Texas                       | T104704245-18-15 |
| Maine                   | TN0002      | Texas <sup>5</sup>          | LAB0152          |
| Maryland                | 324         | Utah                        | TN00003          |
| Massachusetts           | M-TN003     | Vermont                     | VT2006           |
| Michigan                | 9958        | Virginia                    | 460132           |
| Minnesota               | 047-999-395 | Washington                  | C847             |
| Mississippi             | TN00003     | West Virginia               | 233              |
| Missouri                | 340         | Wisconsin                   | 9980939910       |
| Montana                 | CERT0086    | Wyoming                     | A2LA             |

## Third Party Federal Accreditations

|                               |         |                    |               |
|-------------------------------|---------|--------------------|---------------|
| A2LA – ISO 17025              | 1461.01 | AIHA-LAP,LLC EMLAP | 100789        |
| A2LA – ISO 17025 <sup>5</sup> | 1461.02 | DOD                | 1461.01       |
| Canada                        | 1461.01 | USDA               | P330-15-00234 |
| EPA-Crypto                    | TN00003 |                    |               |

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

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

**SCS Engineers - KS**  
 8575 W. 110th Street  
 Overland Park, KS 66210

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

Pres  
 Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1



Report to:  
**Jason Franks**

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

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

City/State Collected: **CLINTON MO** Please Circle: PT MT **C** ET

Phone: **913-681-0030**

Client Project #  
**27213168.20**

Lab Project #  
**AQUAOPKS-MONTROSE**

Collected by (print):  
**JASON R. FRANKS**

Site/Facility ID #

P.O. #

Collected by (signature):  
*J.R. Franks*

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

Quote #  
 Date Results Needed  
**STD**

Immediately Packed on Ice N \_\_\_ Y \_\_\_

| Sample ID    | Comp/Grab | Matrix * | Depth | Date     | Time | No. of Cntrs | Anions (Cl, F, SO4) | 125mHDPE-NoPres | B, Ca - 6010 250mHDPE-HNO3 | TDS 250mHDPE-NoPres |
|--------------|-----------|----------|-------|----------|------|--------------|---------------------|-----------------|----------------------------|---------------------|
| MW-601       | GRAB      | GW       | -     | 11/10/20 | 1105 | 3            | X                   | X               | X                          |                     |
| MW-602       |           | GW       | -     |          | 1320 | 3            | X                   | X               | X                          |                     |
| MW-603       |           | GW       | -     |          | 1355 | 3            | X                   | X               | X                          |                     |
| MW-604       |           | GW       | -     |          | 1400 | 3            | X                   | X               | X                          |                     |
| MW-605       |           | GW       | -     |          | 1445 | 3            | X                   | X               | X                          |                     |
| 602 MS / MSD |           | GW       | -     |          | 1330 | 3            | X                   | X               | X                          |                     |
| DUPLICATE #2 |           | GW       | -     |          | 1320 | 3            | X                   | X               | X                          |                     |

SDG # **1284913**  
**C022**

Acctnum: **AQUAOPKS**  
 Template: **T135966**  
 Prelogin: **P806049**  
 PM: 206 - Jeff Carr  
 PB:  
 Shipped Via:

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

Remarks:  
 pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 \_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking # **9186 2506 5449**

Sample Receipt Checklist

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

Relinquished by: (Signature)  
*J.R. Franks*

Date: **11/11/20**  
 Time: **1356**

Received by: (Signature)  
*[Signature]*

Trip Blank Received: Yes /  No  
 HCL / MeOH  
 TBR

If preservation required by Login: Date/Time

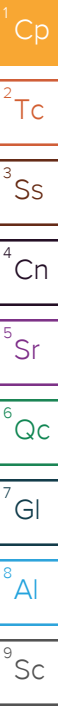
Relinquished by: (Signature)

Date: **11/11/20**  
 Time: **1400**

Received by: (Signature)  
**FedEx**

Temp: **21.0 ± 0.2**  
 Bottles Received: **24**

Date: **11/12/20** Time: **9:00** Hold: Condition: **NCF / OK**



## SCS Engineers - KS

Sample Delivery Group: L1284919  
Samples Received: 11/12/2020  
Project Number: 27213168.20  
Description: Evergy - Montrose Generating Station

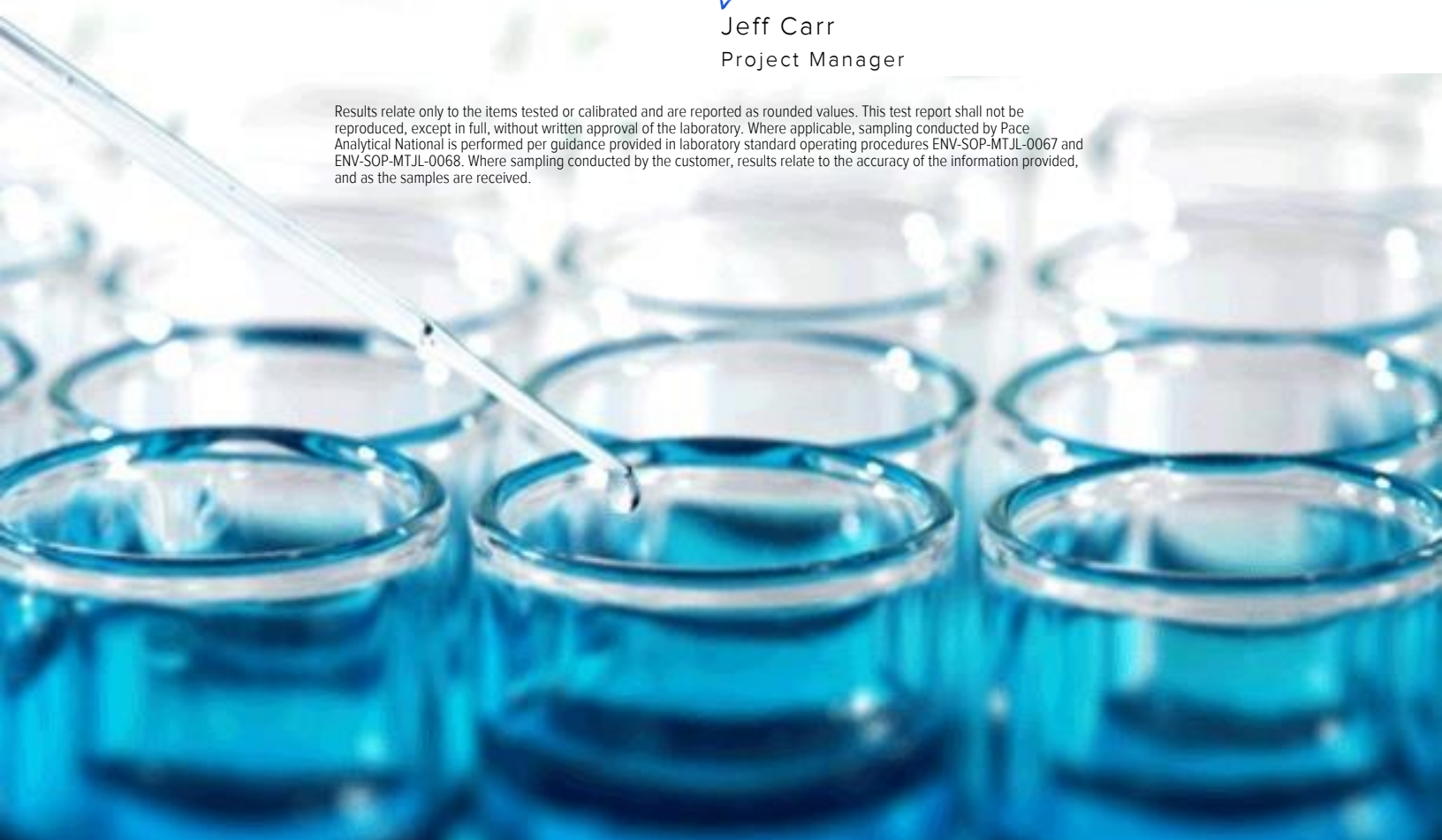
Report To: Jason Franks  
8575 W. 110th Street  
Overland Park, KS 66210

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.







|   |           |                       |
|---|-----------|-----------------------|
| <b>Cp: Cover Page</b>                             | <b>1</b>  | <b><sup>1</sup>Cp</b> |
| <b>Tc: Table of Contents</b>                      | <b>2</b>  |                       |
| <b>Ss: Sample Summary</b>                         | <b>3</b>  | <b><sup>2</sup>Tc</b> |
| <b>Cn: Case Narrative</b>                         | <b>4</b>  |                       |
| <b>Sr: Sample Results</b>                         | <b>5</b>  | <b><sup>3</sup>Ss</b> |
| <b>MW-506 L1284919-01</b>                         | <b>5</b>  |                       |
| <b>DUPLICATE L1284919-02</b>                      | <b>6</b>  | <b><sup>4</sup>Cn</b> |
| <b>Qc: Quality Control Summary</b>                | <b>7</b>  | <b><sup>5</sup>Sr</b> |
| <b>Gravimetric Analysis by Method 2540 C-2011</b> | <b>7</b>  |                       |
| <b>Wet Chemistry by Method 9056A</b>              | <b>8</b>  | <b><sup>6</sup>Qc</b> |
| <b>Metals (ICP) by Method 6010B</b>               | <b>10</b> |                       |
| <b>Gl: Glossary of Terms</b>                      | <b>11</b> | <b><sup>7</sup>Gl</b> |
| <b>Al: Accreditations &amp; Locations</b>         | <b>12</b> | <b><sup>8</sup>Al</b> |
| <b>Sc: Sample Chain of Custody</b>                | <b>13</b> | <b><sup>9</sup>Sc</b> |

# SAMPLE SUMMARY



## MW-506 L1284919-01 GW

Collected by Jason R. Franks  
 Collected date/time 11/10/20 13:25  
 Received date/time 11/12/20 09:00

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1576601 | 1        | 11/16/20 05:55        | 11/16/20 13:45     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1579485 | 1        | 11/22/20 20:56        | 11/22/20 20:56     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1579485 | 100      | 11/22/20 21:52        | 11/22/20 21:52     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1577480 | 1        | 11/18/20 04:51        | 11/18/20 20:10     | CCE     | Mt. Juliet, TN |

1 Cp

2 Tc

3 Ss

4 Cn

## DUPLICATE L1284919-02 GW

Collected by Jason R. Franks  
 Collected date/time 11/10/20 13:25  
 Received date/time 11/12/20 09:00

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--|-----------|----------|-----------------------|--------------------|---------|----------------|
| Gravimetric Analysis by Method 2540 C-2011 | WG1576601 | 1        | 11/16/20 05:55        | 11/16/20 13:45     | TH      | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1579485 | 1        | 11/22/20 22:10        | 11/22/20 22:10     | ELN     | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A              | WG1579485 | 100      | 11/22/20 22:28        | 11/22/20 22:28     | ELN     | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B               | WG1577480 | 1        | 11/18/20 04:51        | 11/18/20 20:22     | CCE     | Mt. Juliet, TN |

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

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





Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2620000 | J3        | 20000 | 1        | 11/16/2020 13:45     | <a href="#">WG1576601</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 84500   |           | 1000   | 1        | 11/22/2020 20:56     | <a href="#">WG1579485</a> |
| Fluoride | ND      |           | 150    | 1        | 11/22/2020 20:56     | <a href="#">WG1579485</a> |
| Sulfate  | 1820000 |           | 500000 | 100      | 11/22/2020 21:52     | <a href="#">WG1579485</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | ND     |           | 200  | 1        | 11/18/2020 20:10     | <a href="#">WG1577480</a> |
| Calcium | 367000 | V         | 1000 | 1        | 11/18/2020 20:10     | <a href="#">WG1577480</a> |

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/10/20 13:25

L1284919

Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result  | Qualifier | RDL   | Dilution | Analysis date / time | Batch                     |
|------------------|---------|-----------|-------|----------|----------------------|---------------------------|
| Dissolved Solids | 2590000 |           | 20000 | 1        | 11/16/2020 13:45     | <a href="#">WG1576601</a> |

1 Cp

2 Tc

Wet Chemistry by Method 9056A

| Analyte  | Result  | Qualifier | RDL    | Dilution | Analysis date / time | Batch                     |
|----------|---------|-----------|--------|----------|----------------------|---------------------------|
| Chloride | 84700   |           | 1000   | 1        | 11/22/2020 22:10     | <a href="#">WG1579485</a> |
| Fluoride | ND      |           | 150    | 1        | 11/22/2020 22:10     | <a href="#">WG1579485</a> |
| Sulfate  | 1760000 |           | 500000 | 100      | 11/22/2020 22:28     | <a href="#">WG1579485</a> |

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL  | Dilution | Analysis date / time | Batch                     |
|---------|--------|-----------|------|----------|----------------------|---------------------------|
| Boron   | ND     |           | 200  | 1        | 11/18/2020 20:22     | <a href="#">WG1577480</a> |
| Calcium | 366000 |           | 1000 | 1        | 11/18/2020 20:22     | <a href="#">WG1577480</a> |

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3593772-1 11/16/20 13:45

| Analyte          | MB Result | MB Qualifier | MB MDL | MB RDL |
|------------------|-----------|--------------|--------|--------|
| Dissolved Solids | U         |              | 2820   | 10000  |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

L1284919-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1284919-01 11/16/20 13:45 • (DUP) R3593772-3 11/16/20 13:45

| Analyte          | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|------------------|-----------------|------------|----------|---------|---------------|----------------|
| Dissolved Solids | 2620000         | 2800000    | 1        | 6.79    | <u>J3</u>     | 5              |

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3593772-2 11/16/20 13:45

| Analyte          | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|------------------|--------------|------------|----------|-------------|---------------|
| Dissolved Solids | 8800000      | 8080000    | 91.8     | 77.4-123    |               |



Method Blank (MB)

(MB) R3596406-1 11/22/20 12:52

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

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1284738-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1284738-06 11/22/20 15:06 • (DUP) R3596406-3 11/22/20 15:25

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
|          | ug/l            | ug/l       |          | %       |               | %              |
| Chloride | 24800           | 24500      | 10       | 1.11    |               | 15             |
| Fluoride | ND              | ND         | 10       | 0.000   |               | 15             |
| Sulfate  | 147000          | 146000     | 10       | 0.476   |               | 15             |

L1284753-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1284753-09 11/22/20 19:43 • (DUP) R3596406-5 11/22/20 20:01

| Analyte  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|----------|-----------------|------------|----------|---------|---------------|----------------|
|          | ug/l            | ug/l       |          | %       |               | %              |
| Chloride | 8850            | 8850       | 1        | 0.0554  |               | 15             |
| Fluoride | 203             | 203        | 1        | 0.0987  |               | 15             |
| Sulfate  | 25700           | 25700      | 1        | 0.117   |               | 15             |

Laboratory Control Sample (LCS)

(LCS) R3596406-2 11/22/20 13:10

| Analyte  | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|----------|--------------|------------|----------|-------------|---------------|
|          | ug/l         | ug/l       | %        | %           |               |
| Chloride | 40000        | 40000      | 99.9     | 80.0-120    |               |
| Fluoride | 8000         | 8410       | 105      | 80.0-120    |               |
| Sulfate  | 40000        | 40600      | 102      | 80.0-120    |               |



L1284744-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1284744-01 11/22/20 16:20 • (MS) R3596406-4 11/22/20 17:15

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MS Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier |
|----------|----------------------|-------------------------|-------------------|--------------|----------|------------------|--------------|
| Chloride | 50000                | 41000                   | 91800             | 102          | 1        | 80.0-120         |              |
| Fluoride | 5000                 | 177                     | 5310              | 103          | 1        | 80.0-120         |              |
| Sulfate  | 50000                | ND                      | 56200             | 104          | 1        | 80.0-120         |              |

L1284919-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1284919-01 11/22/20 20:56 • (MS) R3596406-6 11/22/20 21:15 • (MSD) R3596406-7 11/22/20 21:33

| Analyte  | Spike Amount<br>ug/l | Original Result<br>ug/l | MS Result<br>ug/l | MSD Result<br>ug/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Chloride | 50000                | 84500                   | 134000            | 133000             | 98.2         | 97.8          | 1        | 80.0-120         | <u>E</u>     | <u>E</u>      | 0.144    | 15              |
| Fluoride | 5000                 | ND                      | 4960              | 4950               | 97.2         | 97.0          | 1        | 80.0-120         |              |               | 0.180    | 15              |
| Sulfate  | 50000                | 1880000                 | 1870000           | 1870000            | 0.000        | 0.000         | 1        | 80.0-120         | <u>E V</u>   | <u>E V</u>    | 0.0812   | 15              |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3594811-1 11/18/20 20:04

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

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3594811-2 11/18/20 20:07

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---------|--------------|------------|----------|-------------|---------------|
|         | ug/l         | ug/l       | %        | %           |               |
| Boron   | 1000         | 989        | 98.9     | 80.0-120    |               |
| Calcium | 10000        | 10100      | 101      | 80.0-120    |               |

L1284919-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1284919-01 11/18/20 20:10 • (MS) R3594811-4 11/18/20 20:16 • (MSD) R3594811-5 11/18/20 20:19

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
|         | ug/l         | ug/l            | ug/l      | ug/l       | %       | %        |          | %           |              |               | %     | %          |
| Boron   | 1000         | ND              | 1070      | 1080       | 98.5    | 99.7     | 1        | 75.0-125    |              |               | 1.14  | 20         |
| Calcium | 10000        | 367000          | 366000    | 369000     | 0.000   | 18.6     | 1        | 75.0-125    | <u>V</u>     | <u>V</u>      | 0.832 | 20         |



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.  |

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

Qualifier Description

|    |   |
|----|---|
| E  | The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL). |
| J3 | The associated batch QC was outside the established quality control range for precision.  |
| V  | The sample concentration is too high to evaluate accurate spike recoveries.   |



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* 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 National.

## State Accreditations

|                         |             |                             |                  |
|-------------------------|-------------|-----------------------------|------------------|
| Alabama                 | 40660       | Nebraska                    | NE-OS-15-05      |
| Alaska                  | 17-026      | Nevada                      | TN-03-2002-34    |
| Arizona                 | AZ0612      | New Hampshire               | 2975             |
| Arkansas                | 88-0469     | New Jersey-NELAP            | TN002            |
| California              | 2932        | New Mexico <sup>1</sup>     | n/a              |
| Colorado                | TN00003     | New York                    | 11742            |
| Connecticut             | PH-0197     | North Carolina              | Env375           |
| Florida                 | E87487      | North Carolina <sup>1</sup> | DW21704          |
| Georgia                 | NELAP       | North Carolina <sup>3</sup> | 41               |
| Georgia <sup>1</sup>    | 923         | North Dakota                | R-140            |
| Idaho                   | TN00003     | Ohio-VAP                    | CL0069           |
| Illinois                | 200008      | Oklahoma                    | 9915             |
| Indiana                 | C-TN-01     | Oregon                      | TN200002         |
| Iowa                    | 364         | Pennsylvania                | 68-02979         |
| Kansas                  | E-10277     | Rhode Island                | LA000356         |
| Kentucky <sup>1,6</sup> | 90010       | South Carolina              | 84004            |
| Kentucky <sup>2</sup>   | 16          | South Dakota                | n/a              |
| Louisiana               | AI30792     | Tennessee <sup>1,4</sup>    | 2006             |
| Louisiana <sup>1</sup>  | LA180010    | Texas                       | T104704245-18-15 |
| Maine                   | TN0002      | Texas <sup>5</sup>          | LAB0152          |
| Maryland                | 324         | Utah                        | TN00003          |
| Massachusetts           | M-TN003     | Vermont                     | VT2006           |
| Michigan                | 9958        | Virginia                    | 460132           |
| Minnesota               | 047-999-395 | Washington                  | C847             |
| Mississippi             | TN00003     | West Virginia               | 233              |
| Missouri                | 340         | Wisconsin                   | 9980939910       |
| Montana                 | CERT0086    | Wyoming                     | A2LA             |

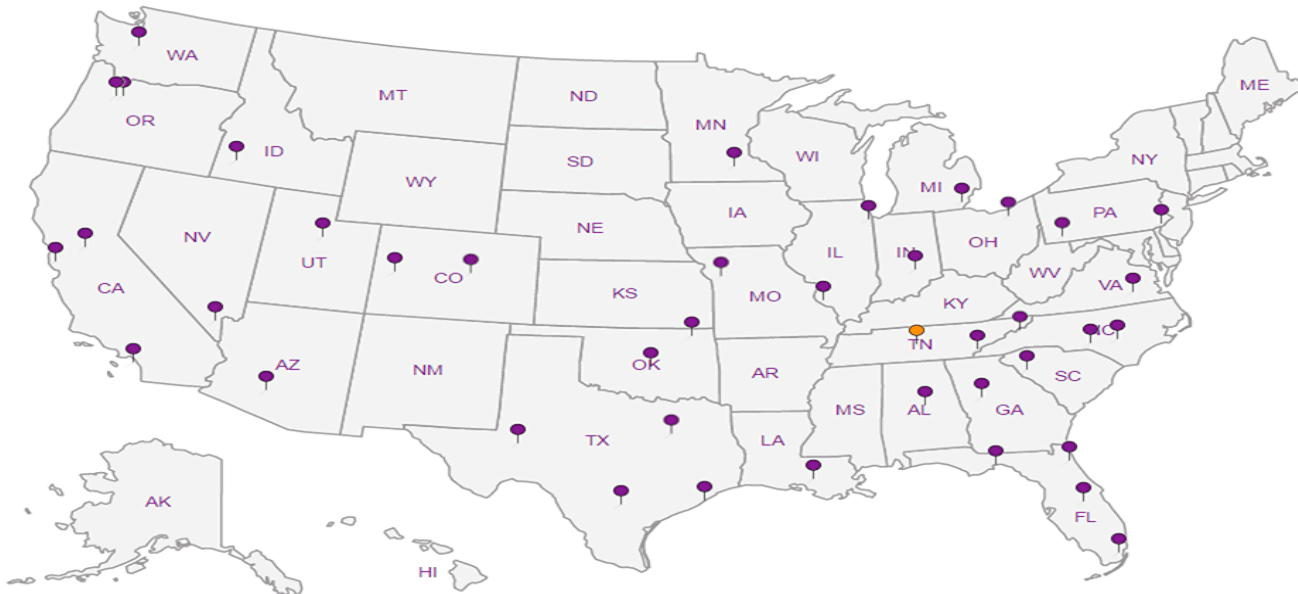
## Third Party Federal Accreditations

|                               |         |                    |               |
|-------------------------------|---------|--------------------|---------------|
| A2LA – ISO 17025              | 1461.01 | AIHA-LAP,LLC EMLAP | 100789        |
| A2LA – ISO 17025 <sup>5</sup> | 1461.02 | DOD                | 1461.01       |
| Canada                        | 1461.01 | USDA               | P330-15-00234 |
| EPA-Crypto                    | TN00003 |                    |               |

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

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.





# SCS Engineers - KS

8575 W. 110th Street  
Overland Park, KS 66210

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

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



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 #  
27213168.20

Lab Project #  
AQUAOPKS-MONTROSE

Collected by (print):  
Jason R. Franks

Site/Facility ID #

P.O. #

Collected by (signature):  
*Jason R. Franks*

Rush? (Lab MUST Be Notified)

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

Quote #

Date Results Needed  
**SOD**

Immediately Packed on Ice N \_\_\_ Y

No.  
of  
Cnts

| Sample ID     | Comp/Grab | Matrix * | Depth | Date     | Time | No. of Cnts | Anions (Cl <sub>2</sub> , F, SO <sub>4</sub> ) | 125mIHDPPE-NoPres | B, Ca - 6010 250mIHDPPE-HNO3 | TDS 250mIHDPPE-NoPres | Remarks | Sample # (lab only) |
|---------------|-----------|----------|-------|----------|------|-------------|--|-------------------|------------------------------|-----------------------|---------|---------------------|
| MW-506        | GRAB      | GW       | -     | 11/10/20 | 1325 | 3           | X  | X                 | X                            |                       |         | - 01                |
| MW-506 MS/MSD | GRAB      | GW       | -     | 11/10/20 | 1325 | 3           | X  | X                 | X                            |                       |         | - 01                |
| DUPLICATE     | GRAB      | GW       | -     | 11/10/20 | 1325 | 3           | X  | X                 | X                            |                       |         | - 02                |

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

Remarks:

Samples returned via:  
 UPS  FedEx  Courier

Tracking #

pH \_\_\_ Temp \_\_\_  
Flow \_\_\_ Other \_\_\_

Sample Receipt Checklist

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

Relinquished by: (Signature)  
*Jason R. Franks*

Date: 11/11/20  
Time: 1356

Received by: (Signature)  
*[Signature]*

Trip Blank Received: Yes/No  
HCL / MeOH  
TBR

Temp: **17** °C  
Bottles Received: **9**

If preservation required by login: Date/Time

Relinquished by: (Signature)  
*[Signature]*

Date: 11/11/20  
Time: 1500

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

Date: 11/12/20  
Time: 9:00

Condition:  
NCF / *[Signature]*

Jared Morrison  
December 20, 2022

**ATTACHMENT 2**  
**Statistical Analyses**

Jared Morrison  
December 20, 2022

**ATTACHMENT 2-1**  
**Fall 2019 Semiannual Detection Monitoring Statistical Analyses**

**MEMORANDUM**

**March 10, 2020**

**To: Montrose Generating Station  
400 SW Highway P  
Clinton, MO 64735  
Evergny Metro, Inc.**



**From: SCS Engineers**

**RE: Determination of Statistically Significant Increases - CCR Landfill  
Fall 2019 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 5, 2019. Review and validation of the results from the November 2019 Detection Monitoring Event was completed on December 13, 2019, 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 14, 2020 and February 3, 2020.

The completed statistical evaluation identified one Appendix III constituent above the prediction limit established for monitoring well MW-605.

| Constituent/Monitoring Well | *UPL  | Observation<br>November 5, 2019 | 1st Verification<br>January 14, 2020 | 2nd Verification<br>February 3, 2020 |
|-----------------------------|-------|---------------------------------|--------------------------------------|--------------------------------------|
| Chloride                    |       |                                 |                                      |                                      |
| MW-605                      | 55.57 | 59.1                            | 60.5                                 | 59.8                                 |

\*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 a SSI above the background prediction limit for chloride in 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 result, 1<sup>st</sup> verification re-sample result (when applicable), 2<sup>nd</sup> verification re-sample result (when applicable), extra sample results for pH because pH is collected as part of the sampling



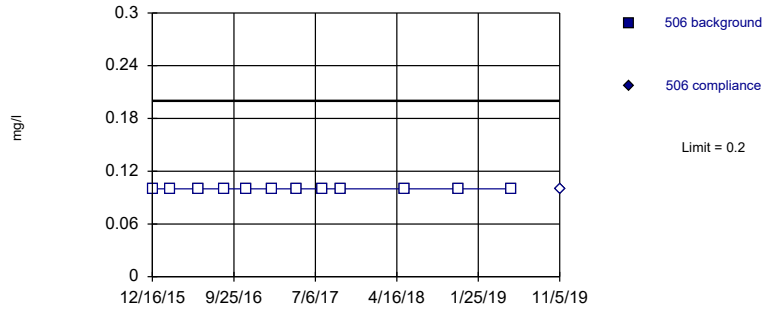
Montrose Generating Station  
Determination of Statistically Significant Increases  
CCR Landfill  
March 10, 2020

## **ATTACHMENT 1**

**Sanitas™ Output**

Within Limit

Prediction Limit  
Intrawell Non-parametric

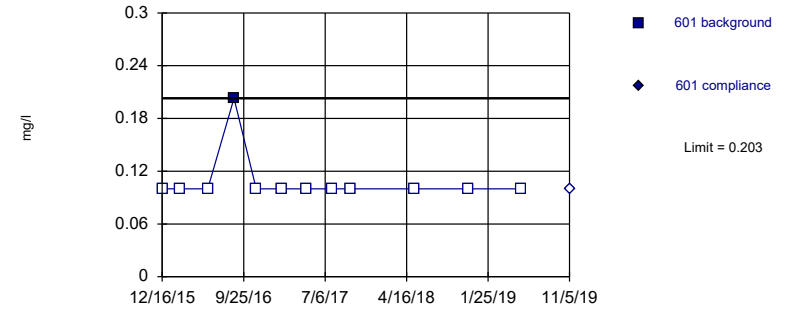


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Non-parametric

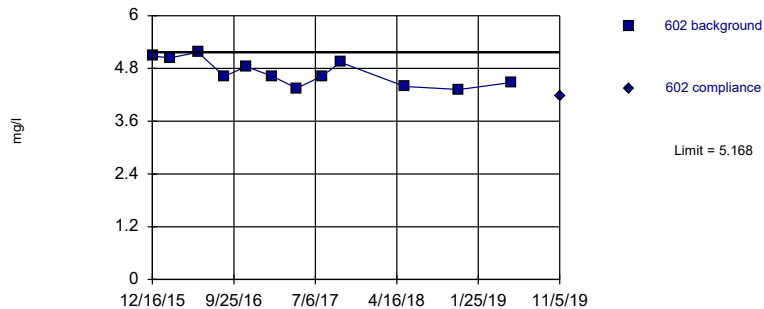


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

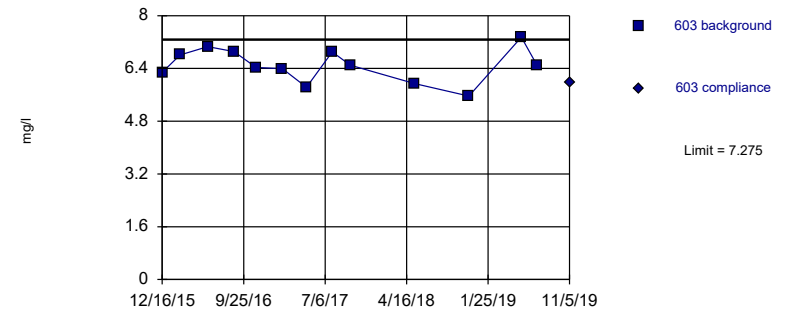


Background Data Summary: Mean=4.707, Std. Dev.=0.2995, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9228, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



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 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

# Prediction Limit

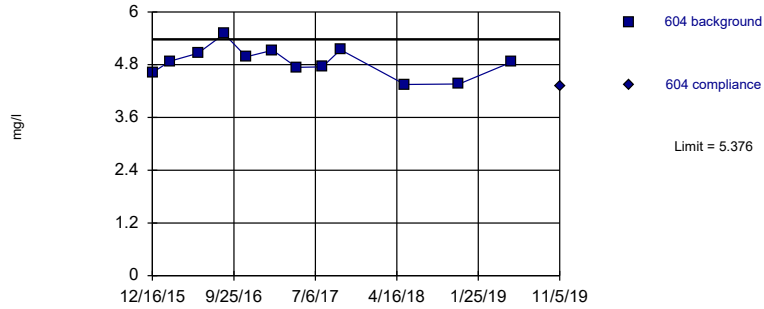
Constituent: Boron Analysis Run 2/21/2020 3:41 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

|            | 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 |



Within Limit

Prediction Limit  
Intrawell Parametric

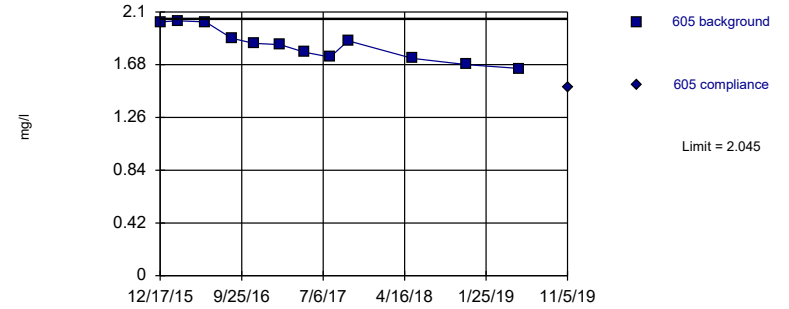


Background Data Summary: Mean=4.864, Std. Dev.=0.3316, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9664, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

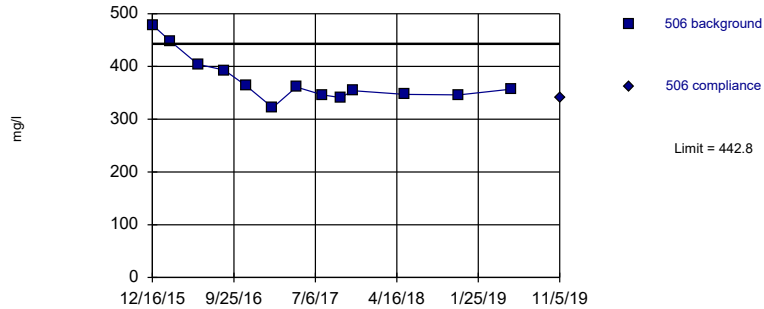


Background Data Summary: Mean=1.842, Std. Dev.=0.132, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9267, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

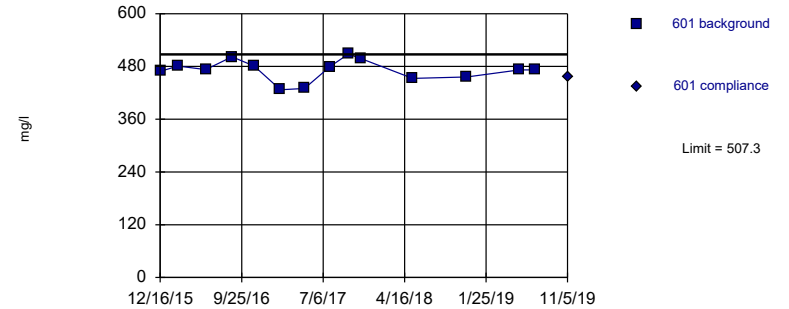


Background Data Summary: Mean=373.9, Std. Dev.=45.49, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8335, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



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 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

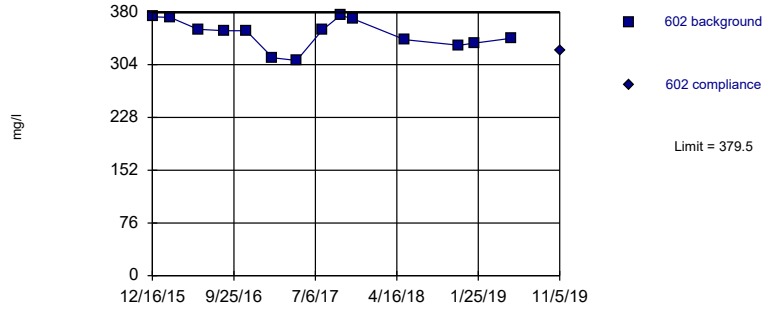
# Prediction Limit

Constituent: Boron, Calcium Analysis Run 2/21/2020 3:41 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 |     |
| 11/5/2019  |      | 4.3 |      | 1.5 |     | 341 |     | 457 |

Within Limit

### Prediction Limit Intrawell Parametric

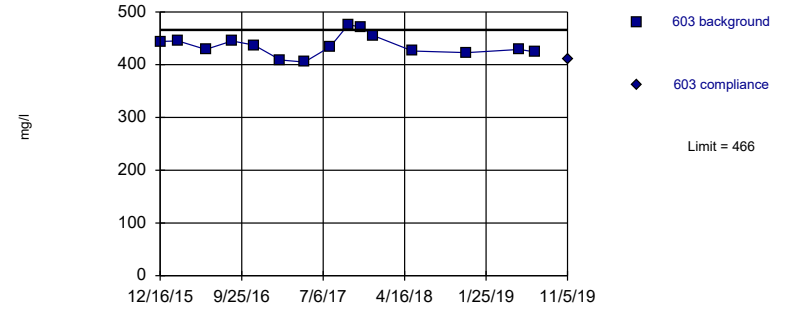


Background Data Summary: Mean=348.4, Std. Dev.=20.89, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.929, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

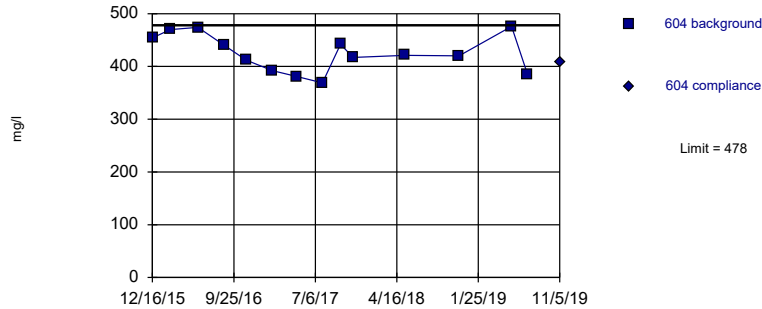


Background Data Summary: Mean=436.8, Std. Dev.=20.01, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9561, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

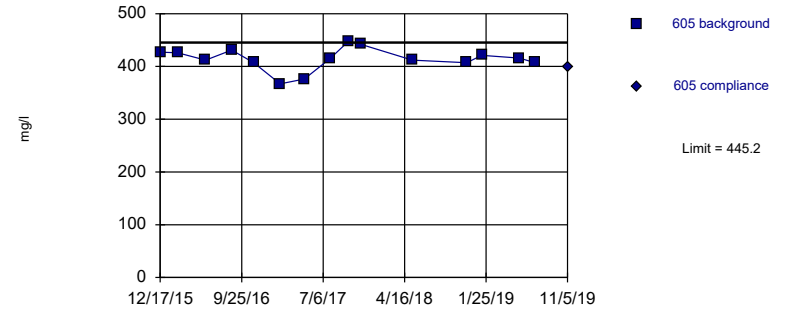


Background Data Summary: Mean=425.3, Std. Dev.=35.45, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9457, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric



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 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

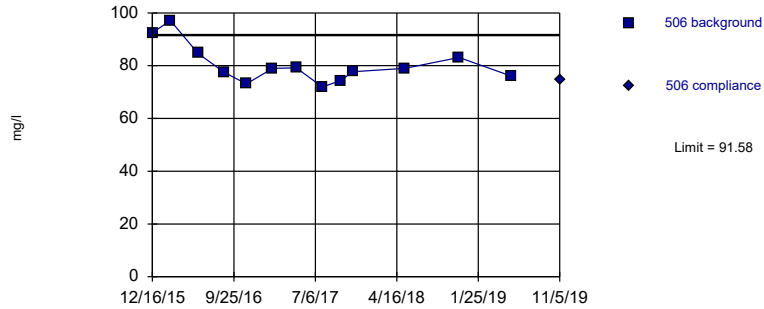
# Prediction Limit

Constituent: Calcium Analysis Run 2/21/2020 3:41 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 | 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 |

Within Limit

### Prediction Limit Intrawell Parametric

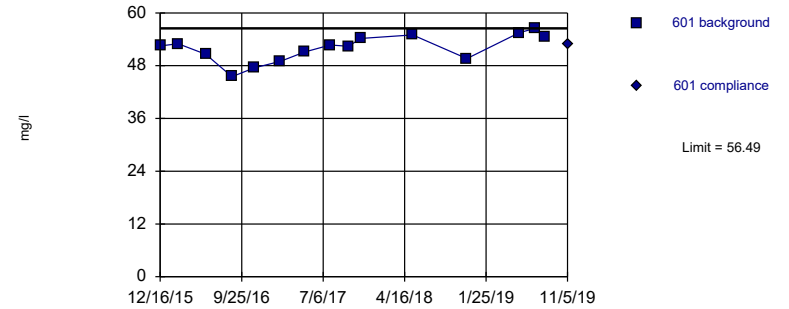


Background Data Summary: Mean=80.4, Std. Dev.=7.382, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8755, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

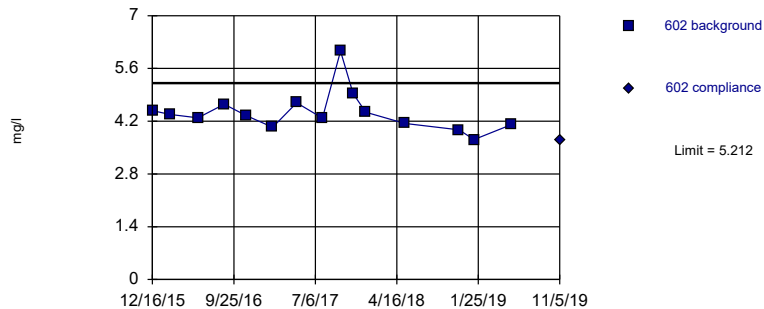


Background Data Summary: Mean=51.97, Std. Dev.=3.1, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9652, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

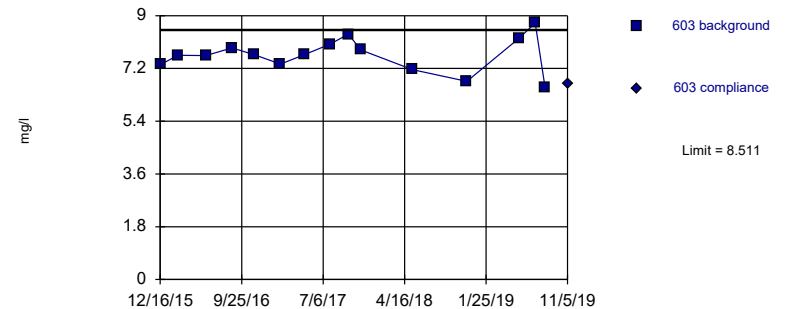


Background Data Summary (based on square root transformation): Mean=2.102, Std. Dev.=0.1238, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8603, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric



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 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

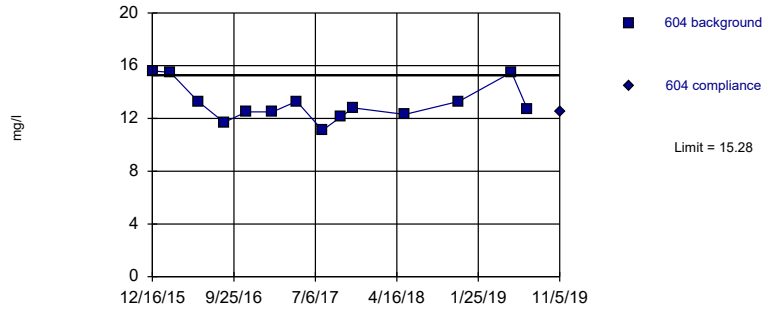
# Prediction Limit

Constituent: Chloride Analysis Run 2/21/2020 3:41 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 |

Within Limit

### Prediction Limit Intrawell Parametric

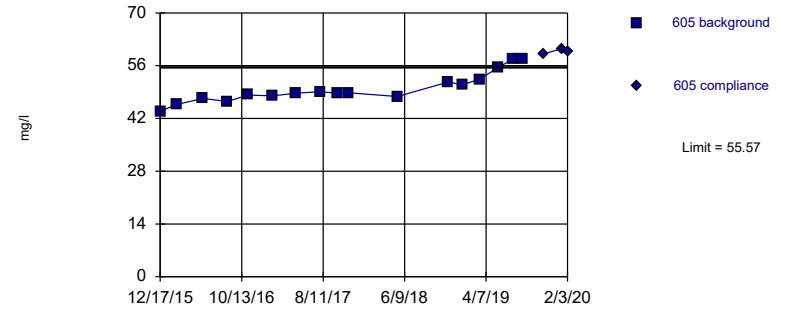


Background Data Summary: Mean=13.16, Std. Dev.=1.425, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8723, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Exceeds Limit

### Prediction Limit Intrawell Parametric

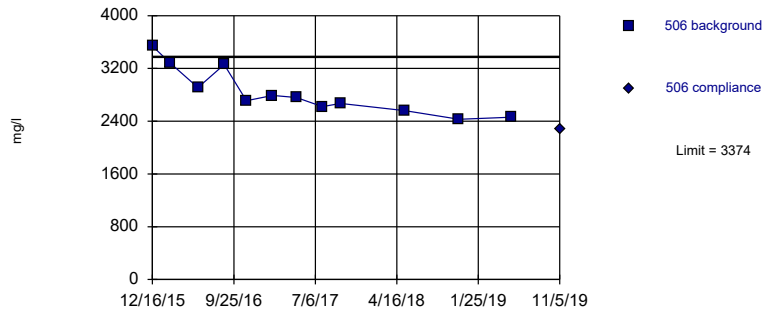


Background Data Summary: Mean=49.93, Std. Dev.=3.99, n=17. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.904, critical = 0.851. Kappa = 1.413 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric



# Prediction Limit

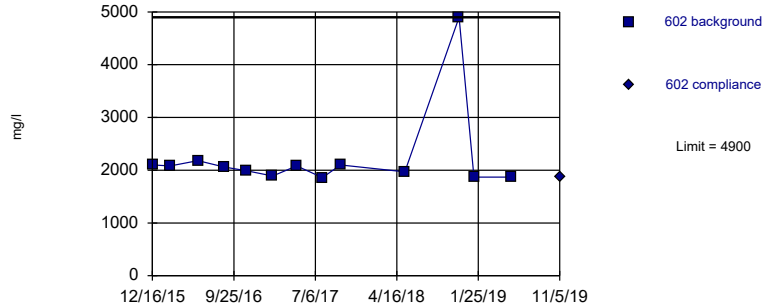
Constituent: Chloride, Dissolved Solids Analysis Run 2/21/2020 3:41 PM View: LF CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

|            | 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 |      |                  |      |      |      |
| 11/5/2019  |      | 12.5 |      | 59.1 |                  | 2280 |      | 3880 |
| 1/14/2020  |      |      |      | 60.5 | 1st Verification |      |      |      |
| 2/3/2020   |      |      |      | 59.8 | 2nd Verification |      |      |      |



Within Limit

Prediction Limit  
Intrawell Non-parametric



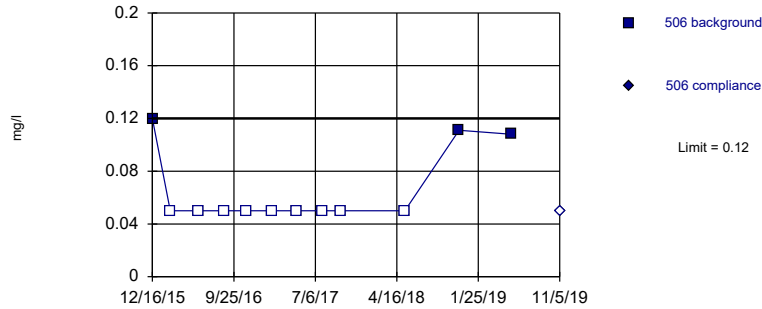
# Prediction Limit

Constituent: Dissolved Solids Analysis Run 2/21/2020 3:41 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 |

Within Limit

Prediction Limit  
Intrawell Non-parametric

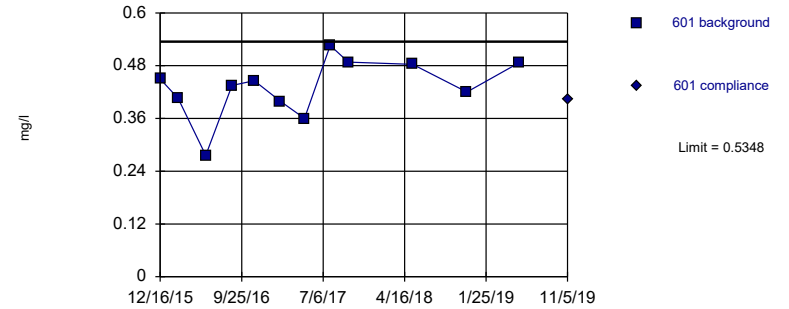


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Fluoride Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

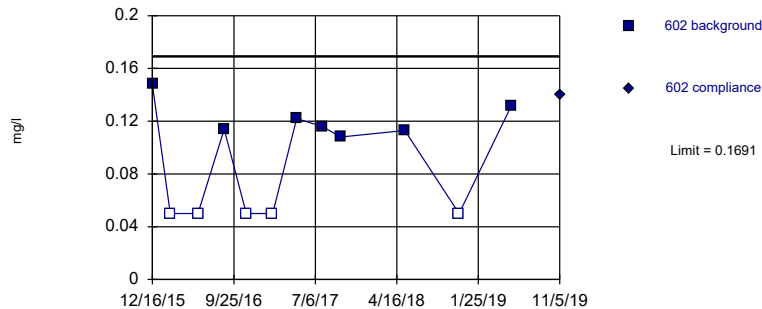


Background Data Summary: Mean=0.4313, Std. Dev.=0.06712, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9364, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

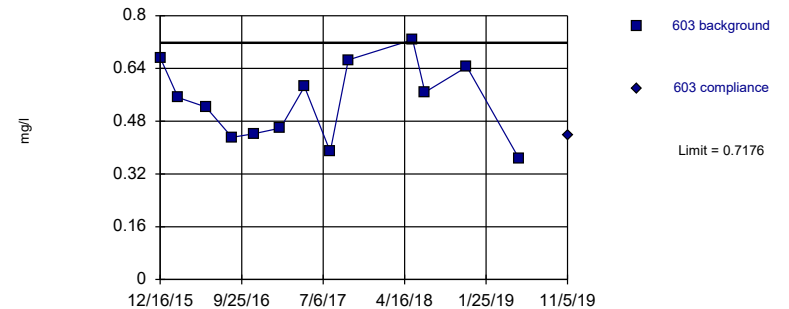


Background Data Summary (after Aitchison's Adjustment): Mean=0.07108, Std. Dev.=0.06358, n=12, 41.67% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8063, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



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 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

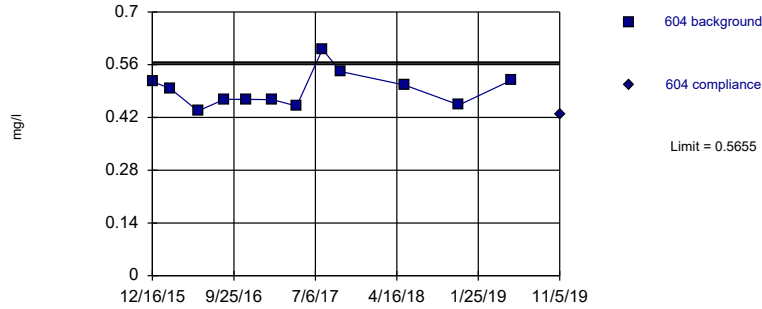
# Prediction Limit

Constituent: Fluoride Analysis Run 2/21/2020 3:41 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 |

Within Limit

Prediction Limit  
Intrawell Parametric

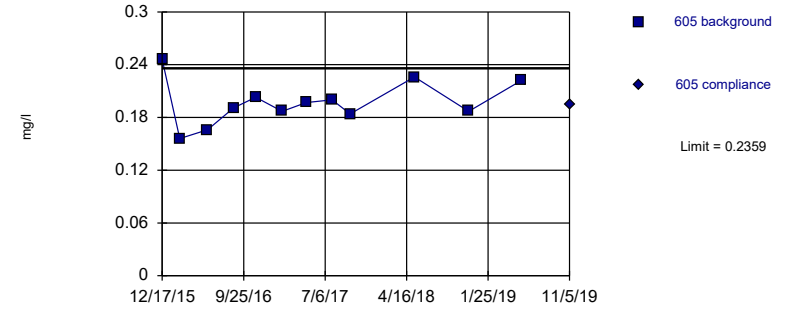


Background Data Summary: Mean=0.4936, Std. Dev.=0.04663, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9142, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

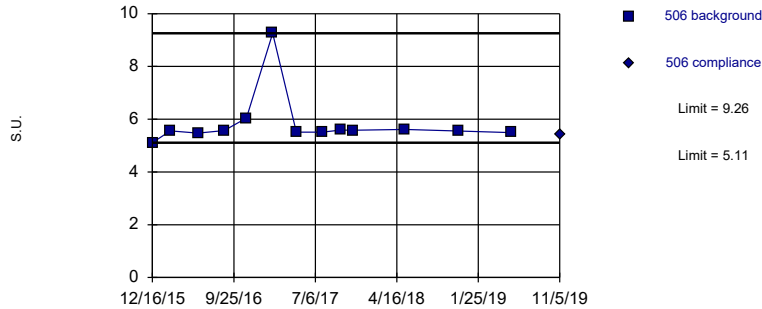


Background Data Summary: Mean=0.1971, Std. Dev.=0.02515, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9677, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limits

Prediction Limit  
Intrawell Non-parametric

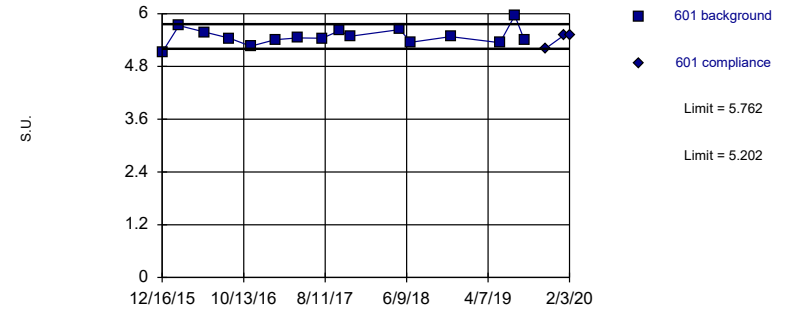


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 13 background values. Well-constituent pair annual alpha = 0.007539. Individual comparison alpha = 0.003773 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: pH Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limits

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=5.482, Std. Dev.=0.1956, n=16. Seasonality was not detected with 95% confidence. 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 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

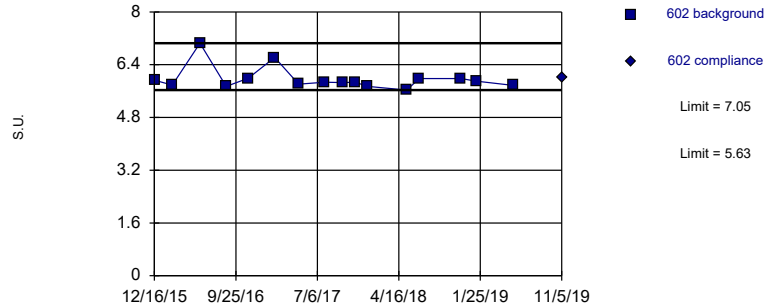
# Prediction Limit

Constituent: Fluoride, pH Analysis Run 2/21/2020 3:41 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 1st Verification |

Within Limits

### Prediction Limit Intrawell Non-parametric

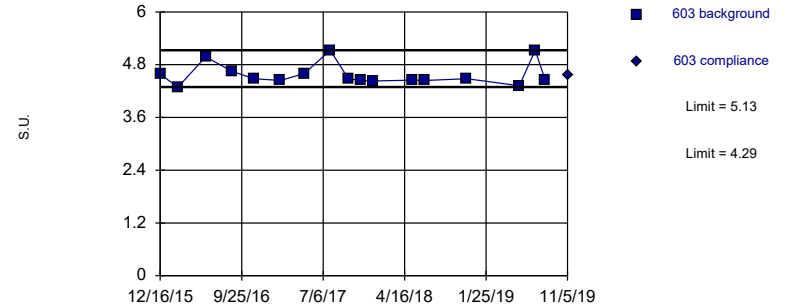


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 16 background values. Well-constituent pair annual alpha = 0.004102. Individual comparison alpha = 0.002052 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: pH Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limits

### Prediction Limit Intrawell Non-parametric

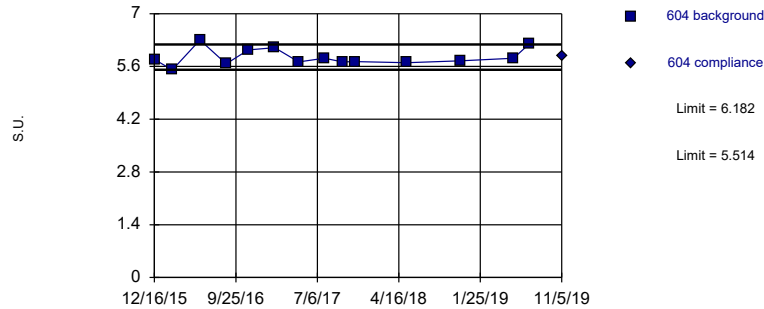


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 17 background values. Well-constituent pair annual alpha = 0.003639. Individual comparison alpha = 0.00182 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: pH Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limits

### Prediction Limit Intrawell Parametric

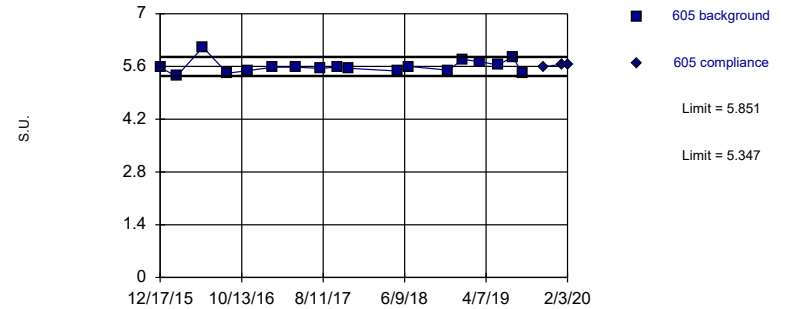


Background Data Summary: Mean=5.848, Std. Dev.=0.2249, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8937, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limits

### Prediction Limit Intrawell Parametric



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 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

# Prediction Limit

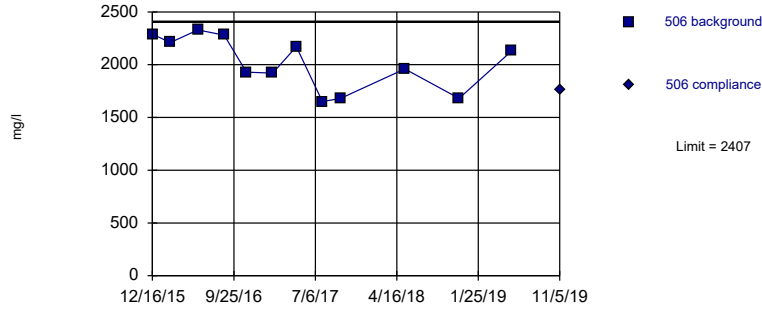
Constituent: pH Analysis Run 2/21/2020 3:41 PM View: LF CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

|            | 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 |                   |
| 11/5/2019  |      | 6   |      | 4.56 |      | 5.89 |      | 5.59              |
| 1/14/2020  |      |     |      |      |      |      |      | 5.66 Extra Sample |
| 2/3/2020   |      |     |      |      |      |      |      | 5.64 Extra Sample |



Within Limit

Prediction Limit  
Intrawell Parametric



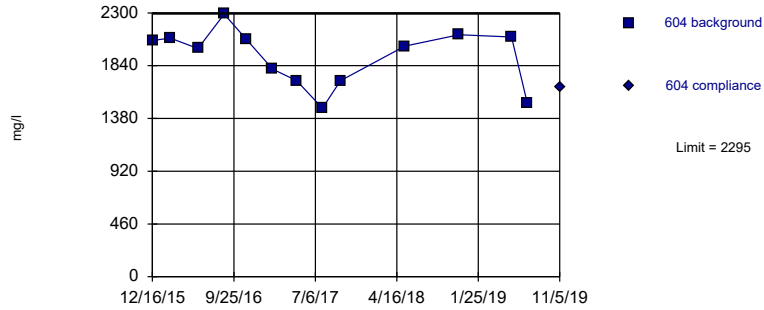
# Prediction Limit

Constituent: Sulfate Analysis Run 2/21/2020 3:41 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 |

Within Limit

Prediction Limit  
Intrawell Parametric

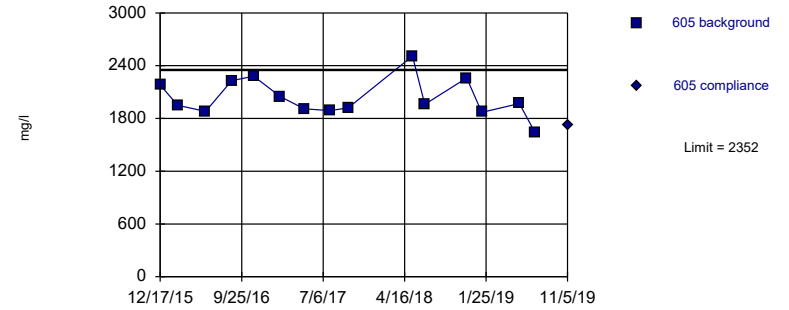


Background Data Summary: Mean=1916, Std. Dev.=250.6, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9059, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



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 2/21/2020 3:39 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

# Prediction Limit

Constituent: Sulfate Analysis Run 2/21/2020 3:41 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 |

# Prediction Limit

Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Printed 2/21/2020, 3:41 PM

| <u>Constituent</u>      | <u>Well</u> | <u>Upper Lim.</u> | <u>Lower Lim.</u> | <u>Date</u>     | <u>Observ.</u> | <u>Sig.</u> | <u>Bg N</u> | <u>%NDs</u> | <u>Transform</u> | <u>Alpha</u>   | <u>Method</u>             |
|-------------------------|-------------|-------------------|-------------------|-----------------|----------------|-------------|-------------|-------------|------------------|----------------|---------------------------|
| Boron (mg/l)            | 506         | 0.2               | n/a               | 11/5/2019       | 0.1ND          | No          | 12          | 100         | n/a              | 0.002173       | NP Intra (NDs) 1 of 3     |
| Boron (mg/l)            | 601         | 0.203             | n/a               | 11/5/2019       | 0.1ND          | No          | 12          | 91.67       | n/a              | 0.002173       | NP Intra (NDs) 1 of 3     |
| Boron (mg/l)            | 602         | 5.168             | n/a               | 11/5/2019       | 4.16           | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Boron (mg/l)            | 603         | 7.275             | n/a               | 11/5/2019       | 5.96           | No          | 13          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Boron (mg/l)            | 604         | 5.376             | n/a               | 11/5/2019       | 4.3            | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Boron (mg/l)            | 605         | 2.045             | n/a               | 11/5/2019       | 1.5            | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Calcium (mg/l)          | 506         | 442.8             | n/a               | 11/5/2019       | 341            | No          | 13          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Calcium (mg/l)          | 601         | 507.3             | n/a               | 11/5/2019       | 457            | No          | 14          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Calcium (mg/l)          | 602         | 379.5             | n/a               | 11/5/2019       | 325            | No          | 14          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Calcium (mg/l)          | 603         | 466               | n/a               | 11/5/2019       | 410            | No          | 15          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Calcium (mg/l)          | 604         | 478               | n/a               | 11/5/2019       | 407            | No          | 14          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Calcium (mg/l)          | 605         | 445.2             | n/a               | 11/5/2019       | 399            | No          | 15          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Chloride (mg/l)         | 506         | 91.58             | n/a               | 11/5/2019       | 74.5           | No          | 13          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Chloride (mg/l)         | 601         | 56.49             | n/a               | 11/5/2019       | 52.8           | No          | 15          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Chloride (mg/l)         | 602         | 5.212             | n/a               | 11/5/2019       | 3.69           | No          | 15          | 0           | sqrt(x)          | 0.00188        | Param Intra 1 of 3        |
| Chloride (mg/l)         | 603         | 8.511             | n/a               | 11/5/2019       | 6.66           | No          | 15          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Chloride (mg/l)         | 604         | 15.28             | n/a               | 11/5/2019       | 12.5           | No          | 14          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| <b>Chloride (mg/l)</b>  | <b>605</b>  | <b>55.57</b>      | <b>n/a</b>        | <b>2/3/2020</b> | <b>59.8</b>    | <b>Yes</b>  | <b>17</b>   | <b>0</b>    | <b>No</b>        | <b>0.00188</b> | <b>Param Intra 1 of 3</b> |
| Dissolved Solids (mg/l) | 506         | 3374              | n/a               | 11/5/2019       | 2280           | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Dissolved Solids (mg/l) | 601         | 4871              | n/a               | 11/5/2019       | 3880           | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Dissolved Solids (mg/l) | 602         | 4900              | n/a               | 11/5/2019       | 1880           | No          | 13          | 0           | n/a              | 0.001886       | NP Intra (normality) ...  |
| Dissolved Solids (mg/l) | 603         | 3310              | n/a               | 11/5/2019       | 2530           | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Dissolved Solids (mg/l) | 604         | 3150              | n/a               | 11/5/2019       | 2340           | No          | 13          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Dissolved Solids (mg/l) | 605         | 3020              | n/a               | 11/5/2019       | 2380           | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Fluoride (mg/l)         | 506         | 0.12              | n/a               | 11/5/2019       | 0.05ND         | No          | 12          | 75          | n/a              | 0.002173       | NP Intra (NDs) 1 of 3     |
| Fluoride (mg/l)         | 601         | 0.5348            | n/a               | 11/5/2019       | 0.402          | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Fluoride (mg/l)         | 602         | 0.1691            | n/a               | 11/5/2019       | 0.14           | No          | 12          | 41.67       | No               | 0.00188        | Param Intra 1 of 3        |
| Fluoride (mg/l)         | 603         | 0.7176            | n/a               | 11/5/2019       | 0.436          | No          | 13          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Fluoride (mg/l)         | 604         | 0.5655            | n/a               | 11/5/2019       | 0.428          | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Fluoride (mg/l)         | 605         | 0.2359            | n/a               | 11/5/2019       | 0.195          | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| pH (S.U.)               | 506         | 9.26              | 5.11              | 11/5/2019       | 5.44           | No          | 13          | 0           | n/a              | 0.003773       | NP Intra (normality) ...  |
| pH (S.U.)               | 601         | 5.762             | 5.202             | 1/14/2020       | 5.51           | No          | 16          | 0           | No               | 0.000...       | Param Intra 1 of 3        |
| pH (S.U.)               | 602         | 7.05              | 5.63              | 11/5/2019       | 6              | No          | 16          | 0           | n/a              | 0.002052       | NP Intra (normality) ...  |
| pH (S.U.)               | 603         | 5.13              | 4.29              | 11/5/2019       | 4.56           | No          | 17          | 0           | n/a              | 0.00182        | NP Intra (normality) ...  |
| pH (S.U.)               | 604         | 6.182             | 5.514             | 11/5/2019       | 5.89           | No          | 14          | 0           | No               | 0.000...       | Param Intra 1 of 3        |
| pH (S.U.)               | 605         | 5.851             | 5.347             | 2/3/2020        | 5.64           | No          | 18          | 0           | No               | 0.000...       | Param Intra 1 of 3        |
| Sulfate (mg/l)          | 506         | 2407              | n/a               | 11/5/2019       | 1760           | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Sulfate (mg/l)          | 601         | 3735              | n/a               | 11/5/2019       | 2950           | No          | 14          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Sulfate (mg/l)          | 602         | 1569              | n/a               | 11/5/2019       | 1110           | No          | 14          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Sulfate (mg/l)          | 603         | 2801              | n/a               | 11/5/2019       | 2010           | No          | 13          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Sulfate (mg/l)          | 604         | 2295              | n/a               | 11/5/2019       | 1650           | No          | 13          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Sulfate (mg/l)          | 605         | 2352              | n/a               | 11/5/2019       | 1730           | No          | 15          | 0           | No               | 0.00188        | Param Intra 1 of 3        |

Montrose Generating Station  
Determination of Statistically Significant Increases  
CCR Landfill  
March 10, 2020

## **ATTACHMENT 2**

### **Sanitas™ Configuration Settings**

Exclude data flags:

Data Reading Options

- Individual Observations
- Mean of Each:  Month
- Median of Each:  Season

Automatically Process Resamples...

- Black and White Output
- Four Plots Per Page
  - Always Combine Data Pages...
  - Include Tick Marks on Data Page
  - Use Constituent Name for Graph Title
- Draw Border Around Text Reports and Data Pages
- Enlarge/Reduce Fonts (Graphs):
- Enlarge/Reduce Fonts (Data/Text Reports):
- Wide Margins (on reports without explicit setting)
- Use CAS# (Not Const. Name)
- Truncate File Names to  Characters
- Include Limit Lines when found in Database...
- Show Deselected Data on Time Series  ▾
- Show Deselected Data on all Data Pages  ▾

- Prompt to Overwrite/Append Summary Tables
- Round Limits to  Sig. Digits (when not set in data file)
- User-Set Scale
- Indicate Background Data
- Show Exact Dates
- Thick Plot Lines

Zoom Factor:  ▾

- Output Decimal Precision
- Less Precision
  - Normal Precision
  - More Precision

Store Print Jobs in Multiple Constituent Mode

Printer:  ▾



Use Modified Alpha...

Test Residuals For Normality (Parametric test only)  at Alpha = 0.01

Continue Parametric if Unable to Normalize

Transformation (Parametric test only)

- Use Ladder of Powers
- Natural Log or No Transformation
- Never Transform
- Use Specific Transformation:

- Use Best W Statistic
- Plot Transformed Values

Use Non-Parametric Test (Sen's Slope/Mann-Kendall) when Non-Detects Percent >

Include  % Confidence Interval around Trend Line

Automatically Remove Outliers (Parametric test only)

Note: there is no "Always Use Non-Parametric" checkbox on this tab because, for consistency with prior versions, Sen's Slope / Mann-Kendall (the non-parametric alternative) is available as a report in its own right, under Analysis->Intrawell->Trend.

Test for Normality using Shapiro-Wilk/Francia at Alpha = 0.01

Use Non-Parametric Test when Non-Detects Percent > 50

Use Aitchison's Adjustment when Non-Detects Percent > 15

Optional Further Refinement: Use Aitchison's when NDs % > 50

Use Poisson Prediction Limit when Non-Detects Percent > 90

Transformation

Use Ladder of Powers

Natural Log or No Transformation

Never Transform

Use Specific Transformation: Natural Log

Use Best W Statistic

Plot Transformed Values

Deseasonalize (Intra- and InterWell)

If Seasonality Is Detected

If Seasonality Is Detected Or Insufficient to Test

Always (When Sufficient Data)  Never

Always Use Non-Parametric

Facility

Statistical Evaluations per Year:

Constituents Analyzed:

Downgradient (Compliance) Wells:

Sampling Plan

Comparing Individual Observations

1 of 1  1 of 2  1 of 3  1 of 4

2 of 4 ("Modified California")

IntraWell Other

Stop if Background Trend Detected at Alpha = 0.05

Plot Background Data

Override Standard Deviation:

Override DF:  Override Kappa:

Automatically Remove Background Outliers

2-Tailed Test Mode...

Show Deselected Data Lighter

Non-Parametric Limit = Highest Background Value

Non-Parametric Limit when 100% Non-Detects:

Highest/Second Highest Background Value

Most Recent PQL if available, or MDL

Most Recent Background Value (subst. method)

Rank Von Neumann, Wilcoxon Rank Sum / Mann-Whitney

- Use Modified Alpha...
- 2-Tailed Test Mode...
- Combine Background Wells on Mann-Whitney...

Outlier Tests

- EPA 1989 Outlier Screening (fixed alpha of 0.05)
- Dixon's at  $\alpha=$   or if  $n >$   Rosner's at  $\alpha=$    Use EPA Screening to establish Suspected Outliers
- Tukey's Outlier Screening, with IQR Multiplier =   Use Ladder of Powers to achieve Best W Stat
- Test For Normality  at Alpha = 
  - Stop if Non-Normal
  - Continue with Parametric Test if Non-Normal
  - Tukey's if Non-Normal, with IQR Multiplier =   Use Ladder of Powers to achieve Best W Stat
- No Outlier If Less Than  Times Median
- Apply Rules found in Ohio Guidance Document 0715
- Combine Background Wells on the Outlier Report...

Piper, Stiff Diagram

- Combine Wells  Label Constituents
- Combine Dates  Label Axes
- Use Default Constituent Names  Note Cation-Anion Balance (Piper only)
- Use Constituent Definition File

Jared Morrison  
December 20, 2022

**ATTACHMENT 2-2**  
**Spring 2020 Semiannual Detection Monitoring Statistical Analyses**

**MEMORANDUM**

**September 28, 2020**

**To: Montrose Generating Station  
400 SW Highway P  
Clinton, MO 64735  
Eversource Energy, Inc.**



**From: SCS Engineers**

**RE: Determination of Statistically Significant Increases - CCR Landfill  
Spring 2020 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 21, 2020. Review and validation of the results from the May 2020 Detection Monitoring Event was completed on June 29, 2020, 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 14, 2020 and August 26, 2020.

The completed statistical evaluation identified one Appendix III constituent above the prediction limit established for monitoring well MW-605.

| Constituent/Monitoring Well | *UPL  | Observation<br>May 21, 2020 | 1st Verification<br>July 14, 2020 | 2nd Verification<br>August 26, 2020 |
|-----------------------------|-------|-----------------------------|-----------------------------------|-------------------------------------|
| Chloride                    |       |                             |                                   |                                     |
| MW-605                      | 55.57 | 60.2                        | 62.1                              | 61.6                                |

\*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 a SSI above the background prediction limit for chloride in 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, 1<sup>st</sup> verification re-sample results (when applicable), 2<sup>nd</sup> verification re-sample results (when applicable), extra sample results for pH because pH is collected as part of the



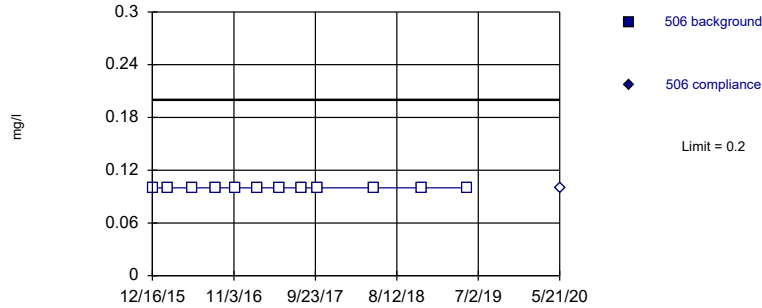
Montrose Generating Station  
Determination of Statistically Significant Increases  
CCR Landfill  
September 28, 2020

## **ATTACHMENT 1**

**Sanitas™ Output**

Within Limit

Prediction Limit  
Intrawell Non-parametric

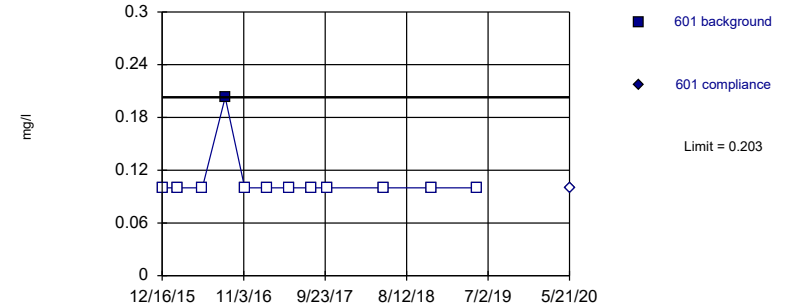


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron Analysis Run 9/9/2020 2:22 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Non-parametric

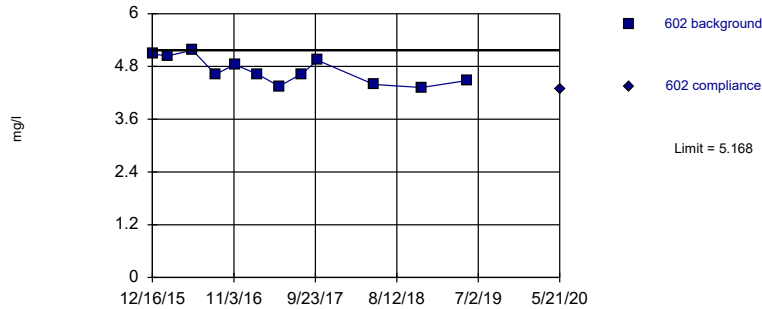


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron Analysis Run 9/9/2020 2:22 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

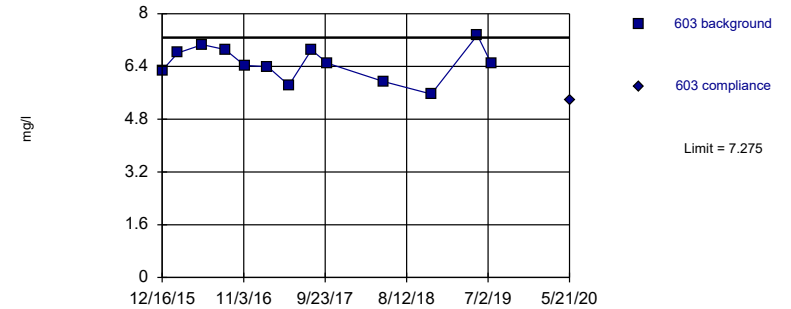


Background Data Summary: Mean=4.707, Std. Dev.=0.2995, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9228, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron Analysis Run 9/9/2020 2:22 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



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 9/9/2020 2:22 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose



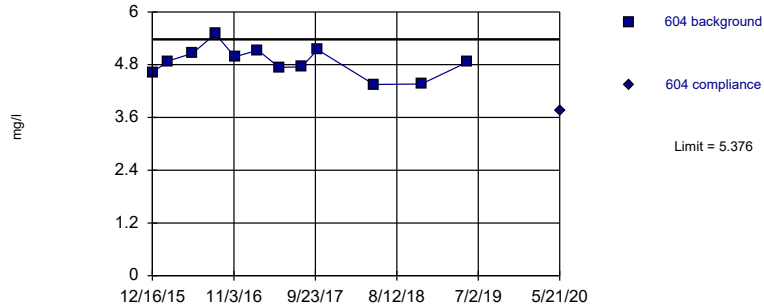
# Prediction Limit

Constituent: Boron Analysis Run 9/9/2020 2:25 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 |      |
| 5/21/2020  |      | <0.2 |       | <0.2 |      | 4.27 |      | 5.37 |

Within Limit

### Prediction Limit Intrawell Parametric

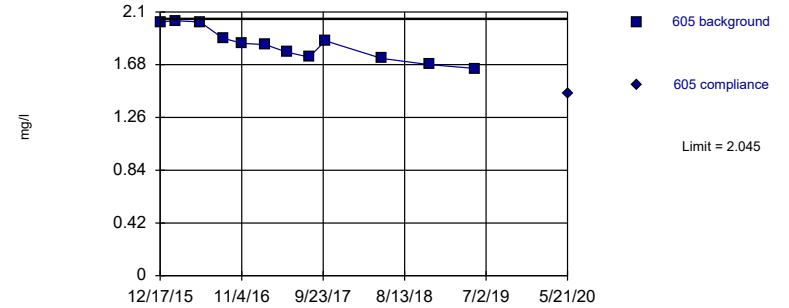


Background Data Summary: Mean=4.864, Std. Dev.=0.3316, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9664, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron Analysis Run 9/9/2020 2:22 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

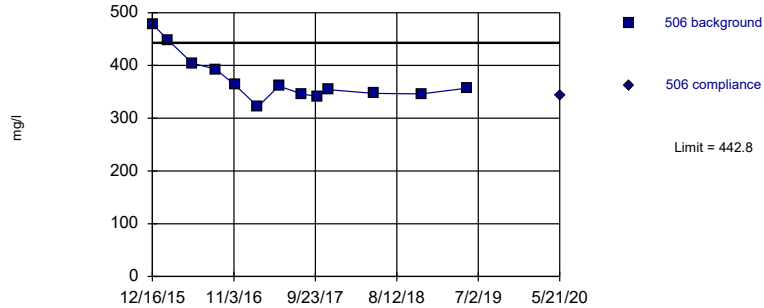


Background Data Summary: Mean=1.842, Std. Dev.=0.132, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9267, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron Analysis Run 9/9/2020 2:22 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

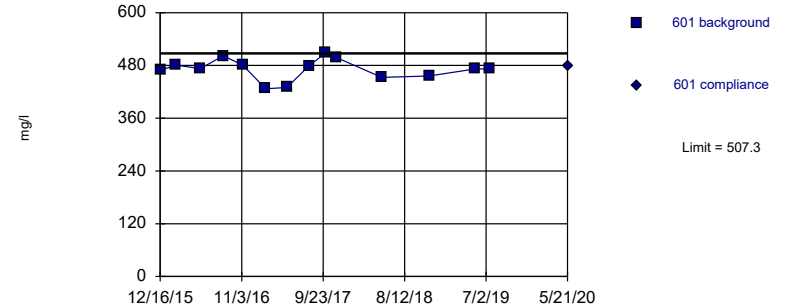


Background Data Summary: Mean=373.9, Std. Dev.=45.49, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8335, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 9/9/2020 2:22 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric



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 9/9/2020 2:22 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

# Prediction Limit

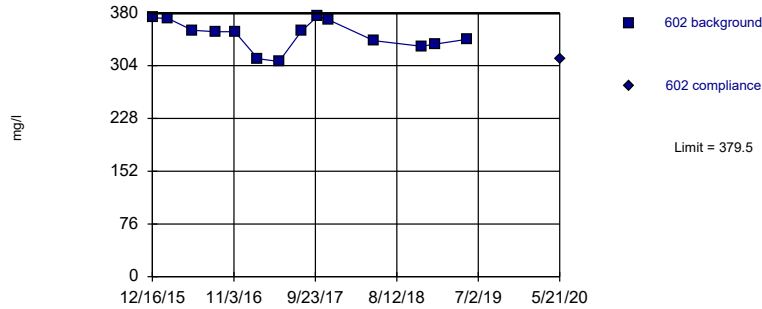
Constituent: Boron, Calcium Analysis Run 9/9/2020 2:25 PM View: LF CCR III

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 |     |
| 5/21/2020  |      | 3.76 |      | 1.45 |     | 343 |     | 478 |

Within Limit

### Prediction Limit Intrawell Parametric

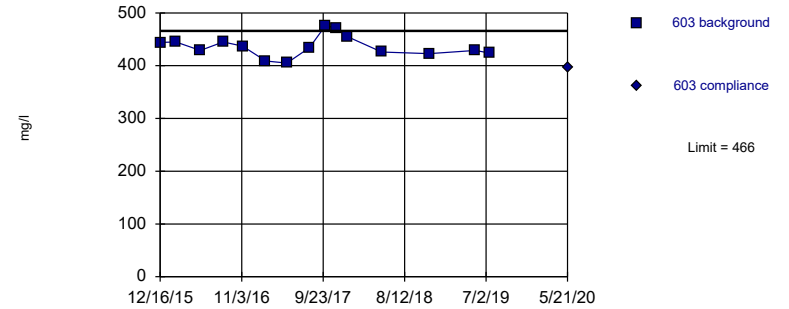


Background Data Summary: Mean=348.4, Std. Dev.=20.89, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.929, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 9/9/2020 2:22 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

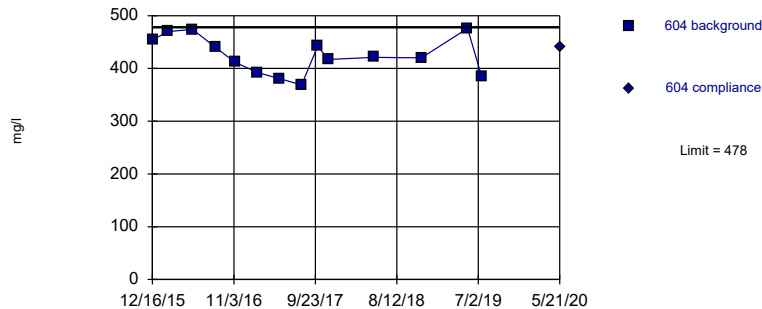


Background Data Summary: Mean=436.8, Std. Dev.=20.01, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9561, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 9/9/2020 2:22 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

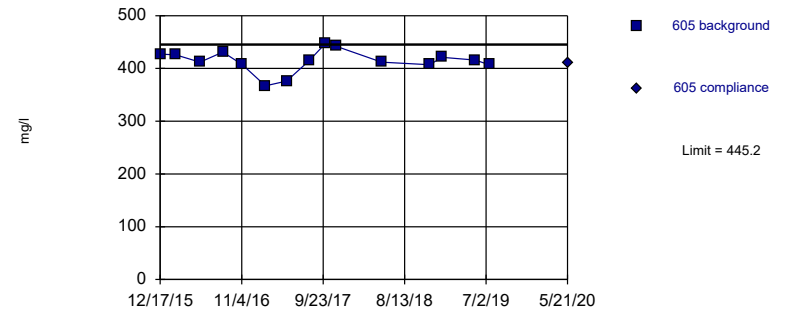


Background Data Summary: Mean=425.3, Std. Dev.=35.45, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9457, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 9/9/2020 2:22 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric



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 9/9/2020 2:22 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

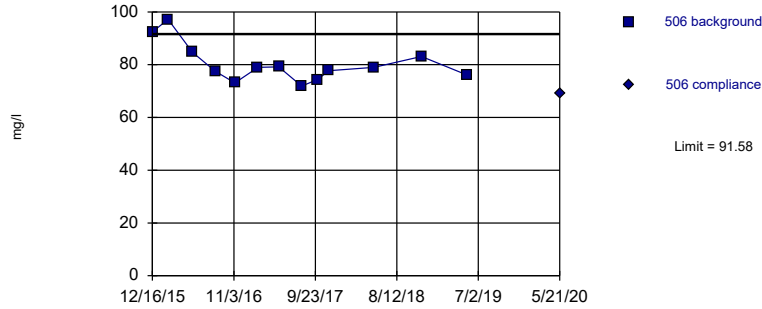
# Prediction Limit

Constituent: Calcium Analysis Run 9/9/2020 2:25 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 | 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 |     |
| 5/21/2020  |     | 313 |     | 397 |     | 440 |     | 411 |

Within Limit

Prediction Limit  
Intrawell Parametric

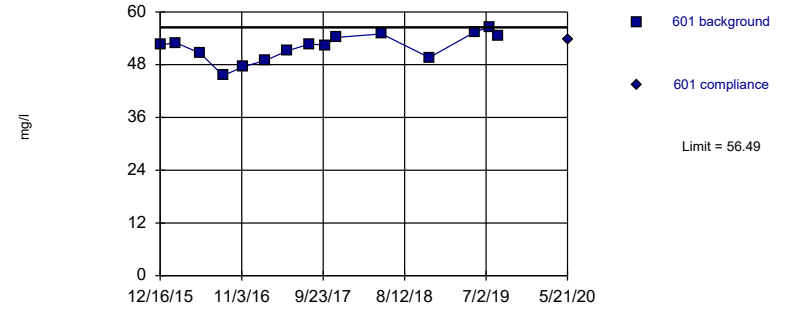


Background Data Summary: Mean=80.4, Std. Dev.=7.382, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8755, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 9/9/2020 2:22 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

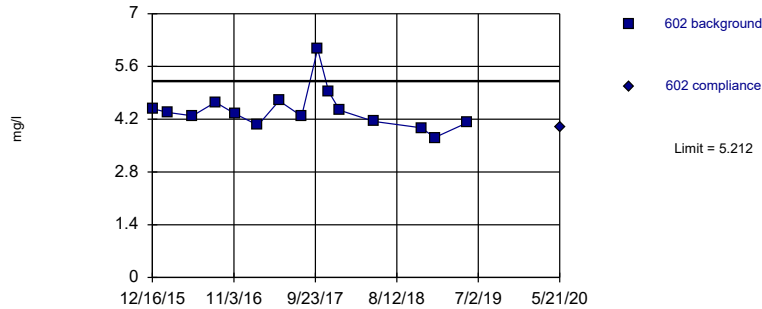


Background Data Summary: Mean=51.97, Std. Dev.=3.1, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9652, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 9/9/2020 2:22 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

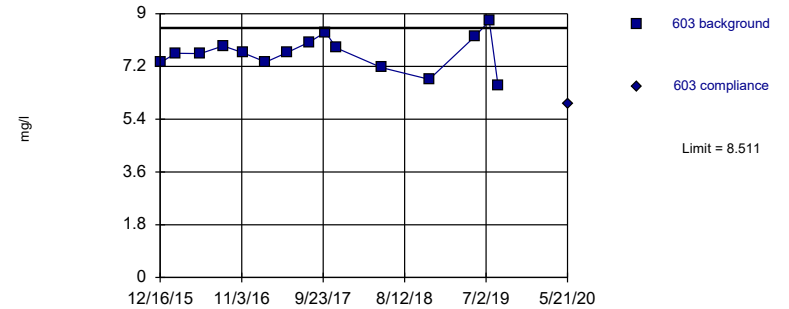


Background Data Summary (based on square root transformation): Mean=2.102, Std. Dev.=0.1238, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8603, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 9/9/2020 2:22 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



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 9/9/2020 2:22 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

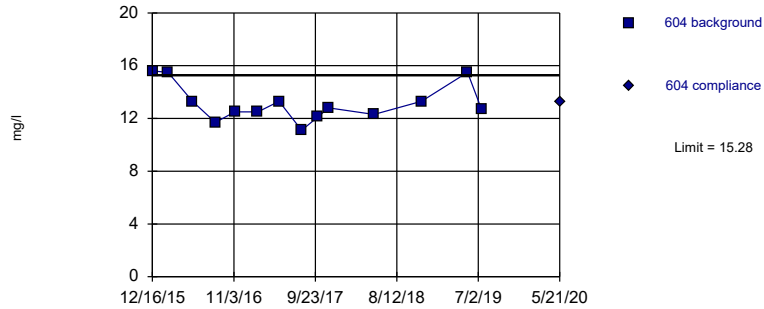
# Prediction Limit

Constituent: Chloride Analysis Run 9/9/2020 2:25 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 |      |
| 5/21/2020  |      | 69.3 |      | 53.8 |      | 3.99 |      | 5.93 |

Within Limit

Prediction Limit  
Intrawell Parametric

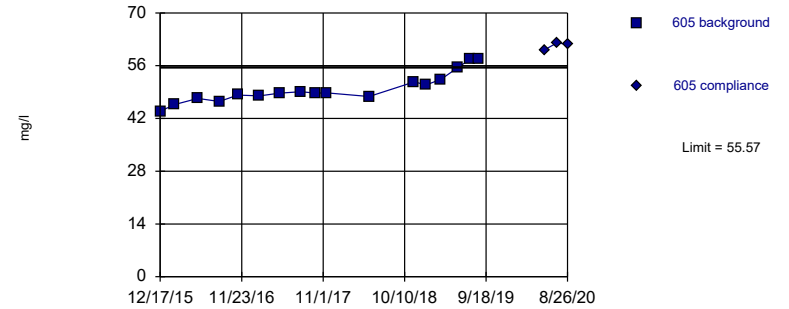


Background Data Summary: Mean=13.16, Std. Dev.=1.425, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8723, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 9/9/2020 2:22 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Exceeds Limit

Prediction Limit  
Intrawell Parametric

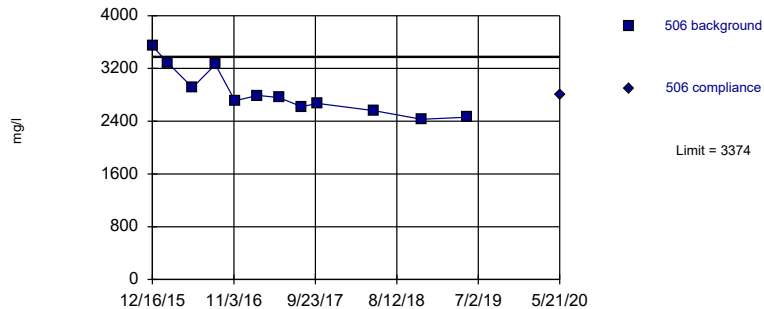


Background Data Summary: Mean=49.93, Std. Dev.=3.99, n=17. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.904, critical = 0.851. Kappa = 1.413 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

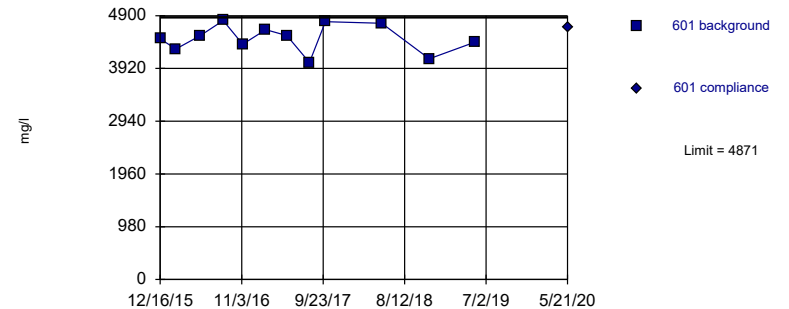


Background Data Summary: Mean=2833, Std. Dev.=351.4, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8961, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids Analysis Run 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



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 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose



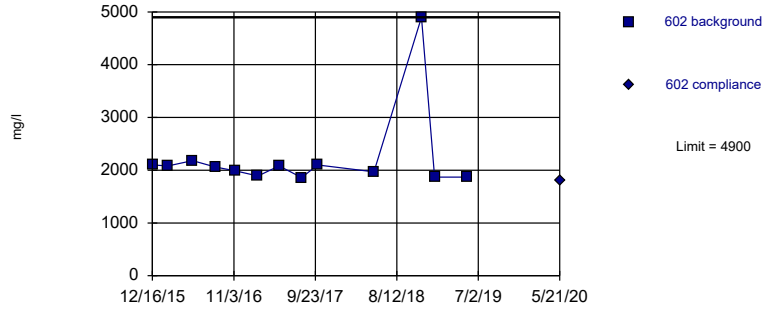
# Prediction Limit

Constituent: Chloride, Dissolved Solids Analysis Run 9/9/2020 2:25 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 |      |                         |      |      |      |
| 5/21/2020  |      | 13.3 |      | 60.2 |                         | 2800 |      | 4680 |
| 7/14/2020  |      |      |      | 62.1 | 1st Verification Sample |      |      |      |
| 8/26/2020  |      |      |      | 61.6 | 2nd Verification Sample |      |      |      |

Within Limit

Prediction Limit  
Intrawell Non-parametric

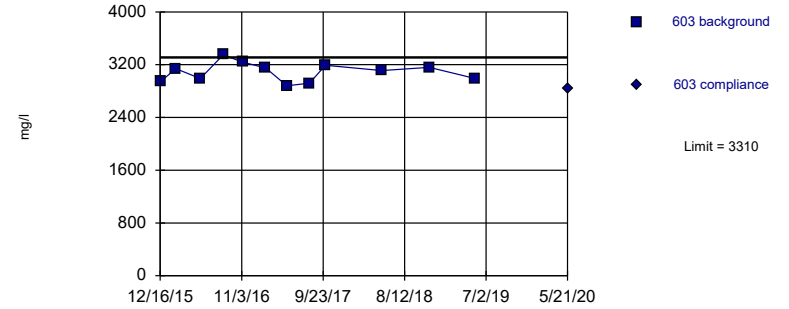


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 13 background values. Well-constituent pair annual alpha = 0.003769. Individual comparison alpha = 0.001886 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Dissolved Solids Analysis Run 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

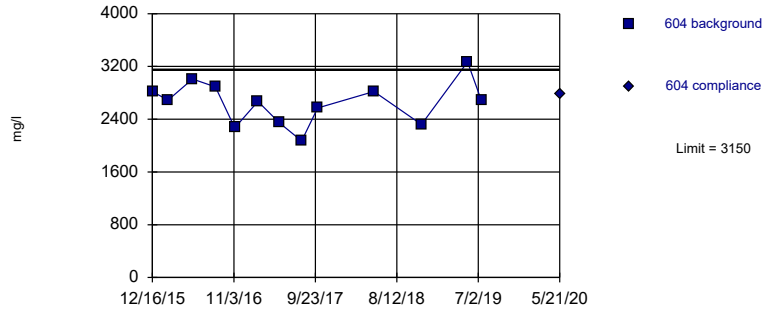


Background Data Summary: Mean=3088, Std. Dev.=143.6, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9528, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids Analysis Run 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

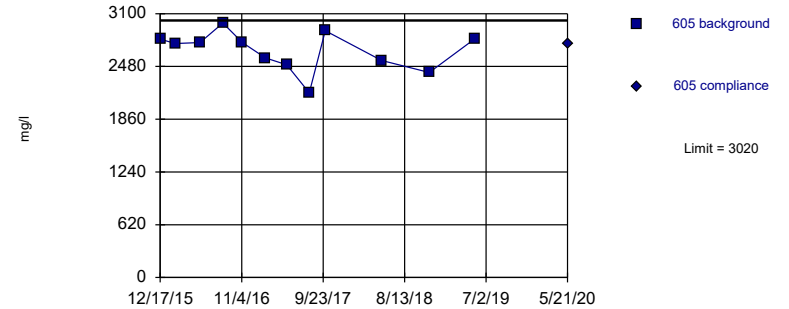


Background Data Summary: Mean=2648, Std. Dev.=331.5, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9778, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids Analysis Run 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



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 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

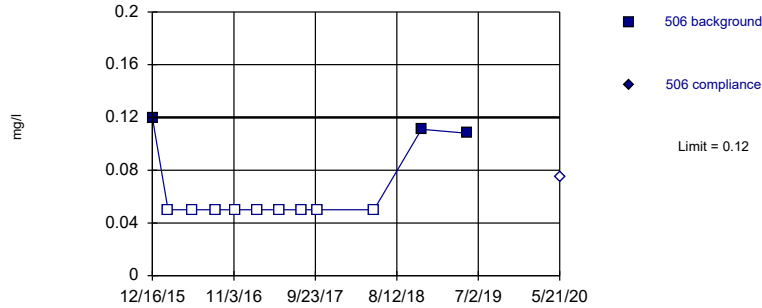
# Prediction Limit

Constituent: Dissolved Solids Analysis Run 9/9/2020 2:25 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 |      |      |      |
| 5/21/2020  |      | 1800 |      | 2840 |      | 2780 |      | 2740 |

Within Limit

Prediction Limit  
Intrawell Non-parametric

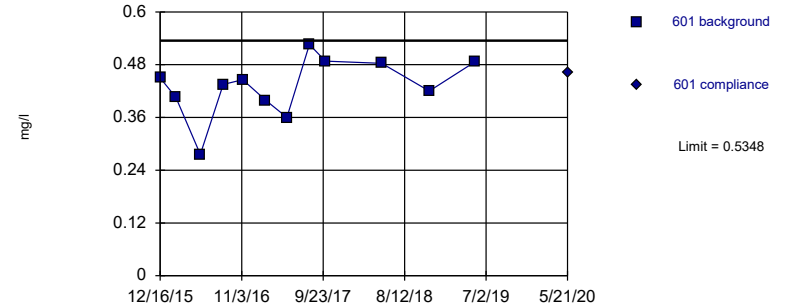


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Fluoride Analysis Run 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

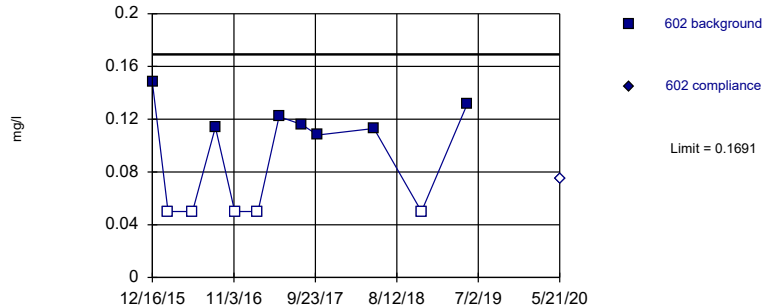


Background Data Summary: Mean=0.4313, Std. Dev.=0.06712, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9364, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

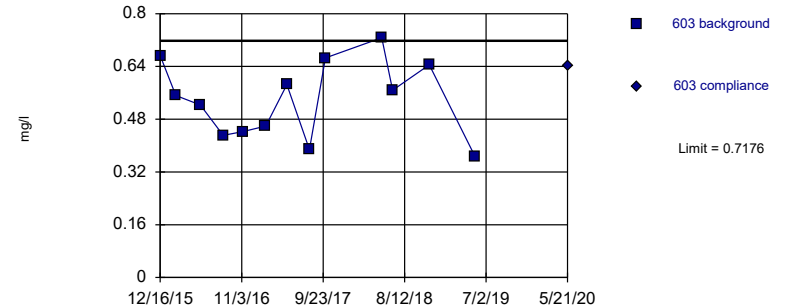


Background Data Summary (after Aitchison's Adjustment): Mean=0.07108, Std. Dev.=0.06358, n=12, 41.67% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8063, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



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 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

# Prediction Limit

Constituent: Fluoride Analysis Run 9/9/2020 2:25 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 |       |
| 5/21/2020  |       | <0.15 |       | 0.462 |       | <0.15 |       | 0.642 |



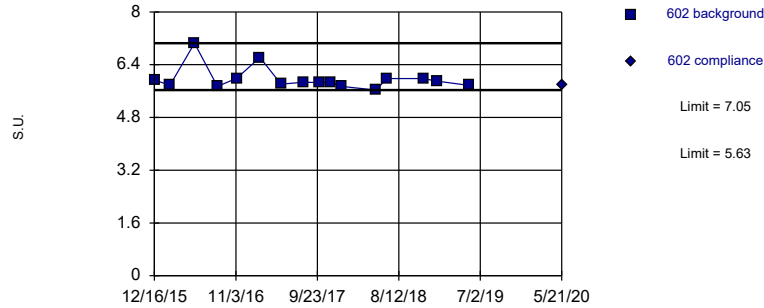
# Prediction Limit

Constituent: Fluoride, pH Analysis Run 9/9/2020 2:25 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 |      |
| 5/21/2020  |       | 0.489 |       | 0.219 |      | 5.53 |      | 5.42 |

Within Limits

Prediction Limit  
Intrawell Non-parametric

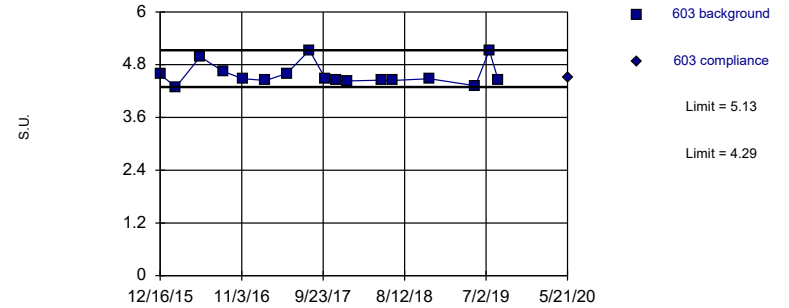


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 16 background values. Well-constituent pair annual alpha = 0.004102. Individual comparison alpha = 0.002052 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: pH Analysis Run 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limits

Prediction Limit  
Intrawell Non-parametric

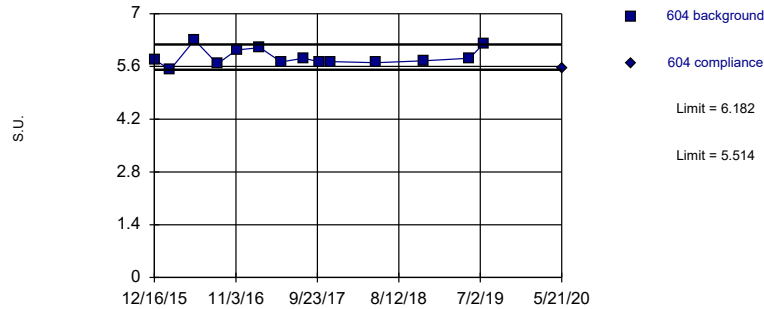


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 17 background values. Well-constituent pair annual alpha = 0.003639. Individual comparison alpha = 0.00182 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: pH Analysis Run 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limits

Prediction Limit  
Intrawell Parametric

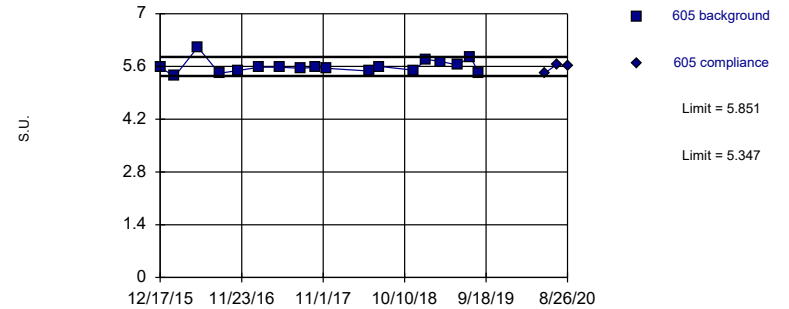


Background Data Summary: Mean=5.848, Std. Dev.=0.2249, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8937, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limits

Prediction Limit  
Intrawell Parametric



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 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose



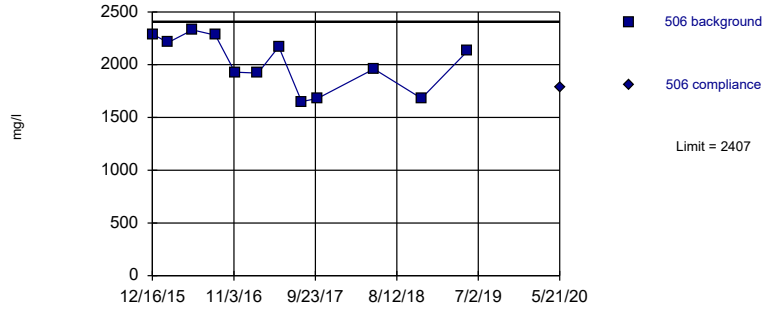
# Prediction Limit

Constituent: pH Analysis Run 9/9/2020 2:25 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 |                   |
| 5/21/2020  |      | 5.79 |      | 4.5 |      | 5.54 |      | 5.42              |
| 7/14/2020  |      |      |      |     |      |      |      | 5.66 Extra Sample |
| 8/26/2020  |      |      |      |     |      |      |      | 5.62 Extra Sample |

Within Limit

Prediction Limit  
Intrawell Parametric

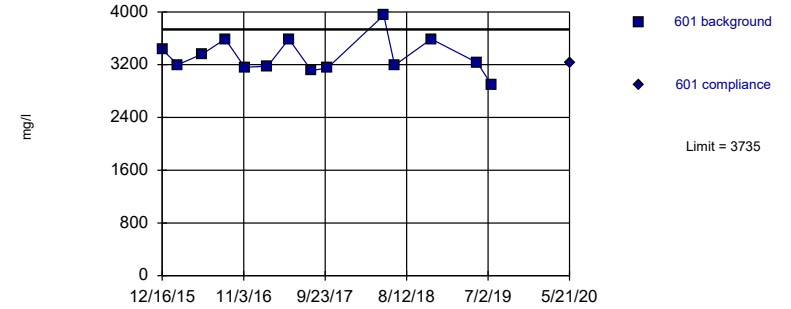


Background Data Summary: Mean=2019, Std. Dev.=251.7, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8935, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

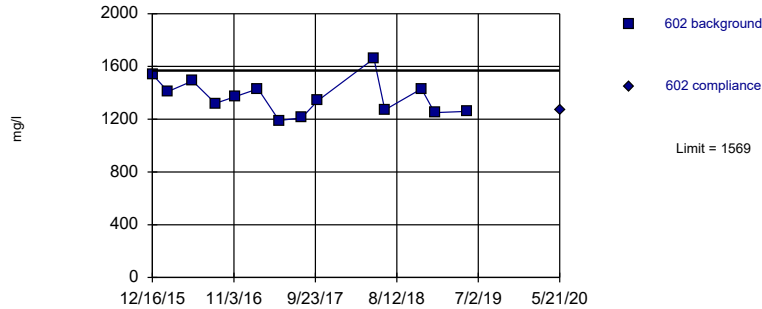


Background Data Summary: Mean=3331, Std. Dev.=272, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9196, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

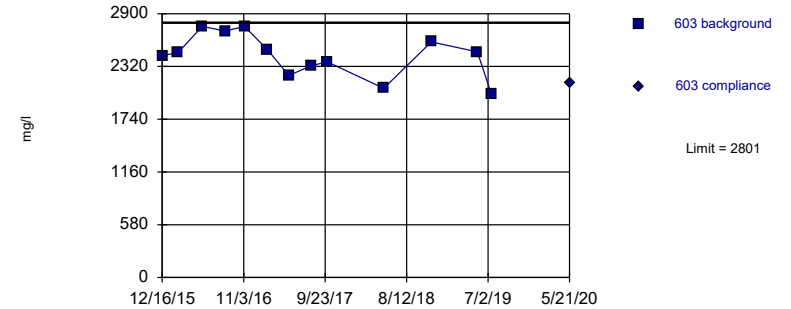


Background Data Summary: Mean=1369, Std. Dev.=134.2, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.956, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



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 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

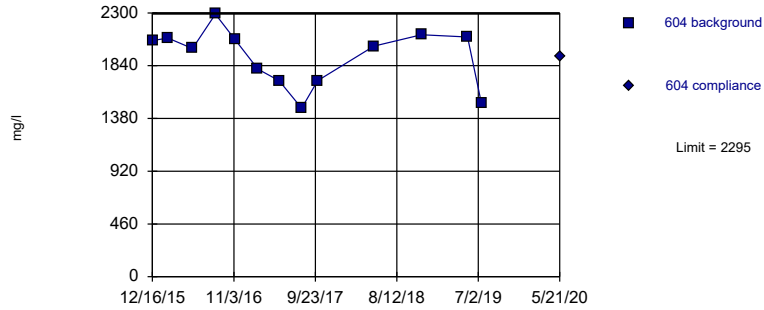
# Prediction Limit

Constituent: Sulfate Analysis Run 9/9/2020 2:25 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 |      |
| 5/21/2020  |      | 1780 |      | 3230 |      | 1270 |      | 2140 |

Within Limit

Prediction Limit  
Intrawell Parametric

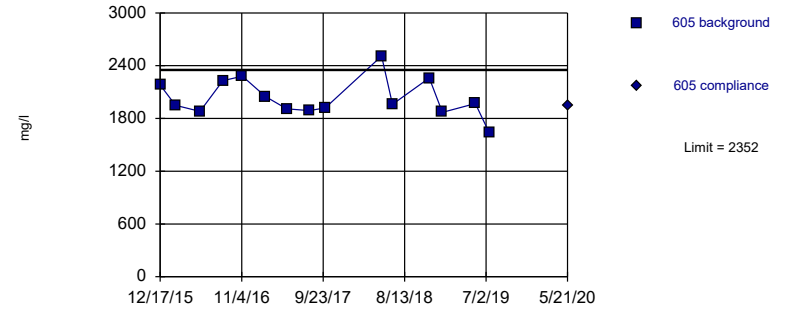


Background Data Summary: Mean=1916, Std. Dev.=250.6, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9059, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



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 9/9/2020 2:23 PM View: LF CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

# Prediction Limit

Constituent: Sulfate Analysis Run 9/9/2020 2:25 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 |      |
| 5/21/2020  |      | 1920 |      | 1940 |

# Prediction Limit

Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Printed 9/9/2020, 2:25 PM

| <u>Constituent</u>      | <u>Well</u> | <u>Upper Lim.</u> | <u>Lower Lim.</u> | <u>Date</u>      | <u>Observ.</u> | <u>Sig.</u> | <u>Bg N</u> | <u>%NDs</u> | <u>Transform</u> | <u>Alpha</u>   | <u>Method</u>             |
|-------------------------|-------------|-------------------|-------------------|------------------|----------------|-------------|-------------|-------------|------------------|----------------|---------------------------|
| Boron (mg/l)            | 506         | 0.2               | n/a               | 5/21/2020        | 0.1ND          | No          | 12          | 100         | n/a              | 0.002173       | NP Intra (NDs) 1 of 3     |
| Boron (mg/l)            | 601         | 0.203             | n/a               | 5/21/2020        | 0.1ND          | No          | 12          | 91.67       | n/a              | 0.002173       | NP Intra (NDs) 1 of 3     |
| Boron (mg/l)            | 602         | 5.168             | n/a               | 5/21/2020        | 4.27           | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Boron (mg/l)            | 603         | 7.275             | n/a               | 5/21/2020        | 5.37           | No          | 13          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Boron (mg/l)            | 604         | 5.376             | n/a               | 5/21/2020        | 3.76           | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Boron (mg/l)            | 605         | 2.045             | n/a               | 5/21/2020        | 1.45           | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Calcium (mg/l)          | 506         | 442.8             | n/a               | 5/21/2020        | 343            | No          | 13          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Calcium (mg/l)          | 601         | 507.3             | n/a               | 5/21/2020        | 478            | No          | 14          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Calcium (mg/l)          | 602         | 379.5             | n/a               | 5/21/2020        | 313            | No          | 14          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Calcium (mg/l)          | 603         | 466               | n/a               | 5/21/2020        | 397            | No          | 15          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Calcium (mg/l)          | 604         | 478               | n/a               | 5/21/2020        | 440            | No          | 14          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Calcium (mg/l)          | 605         | 445.2             | n/a               | 5/21/2020        | 411            | No          | 15          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Chloride (mg/l)         | 506         | 91.58             | n/a               | 5/21/2020        | 69.3           | No          | 13          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Chloride (mg/l)         | 601         | 56.49             | n/a               | 5/21/2020        | 53.8           | No          | 15          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Chloride (mg/l)         | 602         | 5.212             | n/a               | 5/21/2020        | 3.99           | No          | 15          | 0           | sqrt(x)          | 0.00188        | Param Intra 1 of 3        |
| Chloride (mg/l)         | 603         | 8.511             | n/a               | 5/21/2020        | 5.93           | No          | 15          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Chloride (mg/l)         | 604         | 15.28             | n/a               | 5/21/2020        | 13.3           | No          | 14          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| <b>Chloride (mg/l)</b>  | <b>605</b>  | <b>55.57</b>      | <b>n/a</b>        | <b>8/26/2020</b> | <b>61.6</b>    | <b>Yes</b>  | <b>17</b>   | <b>0</b>    | <b>No</b>        | <b>0.00188</b> | <b>Param Intra 1 of 3</b> |
| Dissolved Solids (mg/l) | 506         | 3374              | n/a               | 5/21/2020        | 2800           | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Dissolved Solids (mg/l) | 601         | 4871              | n/a               | 5/21/2020        | 4680           | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Dissolved Solids (mg/l) | 602         | 4900              | n/a               | 5/21/2020        | 1800           | No          | 13          | 0           | n/a              | 0.001886       | NP Intra (normality) ...  |
| Dissolved Solids (mg/l) | 603         | 3310              | n/a               | 5/21/2020        | 2840           | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Dissolved Solids (mg/l) | 604         | 3150              | n/a               | 5/21/2020        | 2780           | No          | 13          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Dissolved Solids (mg/l) | 605         | 3020              | n/a               | 5/21/2020        | 2740           | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Fluoride (mg/l)         | 506         | 0.12              | n/a               | 5/21/2020        | 0.075ND        | No          | 12          | 75          | n/a              | 0.002173       | NP Intra (NDs) 1 of 3     |
| Fluoride (mg/l)         | 601         | 0.5348            | n/a               | 5/21/2020        | 0.462          | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Fluoride (mg/l)         | 602         | 0.1691            | n/a               | 5/21/2020        | 0.075ND        | No          | 12          | 41.67       | No               | 0.00188        | Param Intra 1 of 3        |
| Fluoride (mg/l)         | 603         | 0.7176            | n/a               | 5/21/2020        | 0.642          | No          | 13          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Fluoride (mg/l)         | 604         | 0.5655            | n/a               | 5/21/2020        | 0.489          | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Fluoride (mg/l)         | 605         | 0.2359            | n/a               | 5/21/2020        | 0.219          | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| pH (S.U.)               | 506         | 9.26              | 5.11              | 5/21/2020        | 5.53           | No          | 13          | 0           | n/a              | 0.003773       | NP Intra (normality) ...  |
| pH (S.U.)               | 601         | 5.762             | 5.202             | 5/21/2020        | 5.42           | No          | 16          | 0           | No               | 0.000...       | Param Intra 1 of 3        |
| pH (S.U.)               | 602         | 7.05              | 5.63              | 5/21/2020        | 5.79           | No          | 16          | 0           | n/a              | 0.002052       | NP Intra (normality) ...  |
| pH (S.U.)               | 603         | 5.13              | 4.29              | 5/21/2020        | 4.5            | No          | 17          | 0           | n/a              | 0.00182        | NP Intra (normality) ...  |
| pH (S.U.)               | 604         | 6.182             | 5.514             | 5/21/2020        | 5.54           | No          | 14          | 0           | No               | 0.000...       | Param Intra 1 of 3        |
| pH (S.U.)               | 605         | 5.851             | 5.347             | 8/26/2020        | 5.62           | No          | 18          | 0           | No               | 0.000...       | Param Intra 1 of 3        |
| Sulfate (mg/l)          | 506         | 2407              | n/a               | 5/21/2020        | 1780           | No          | 12          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Sulfate (mg/l)          | 601         | 3735              | n/a               | 5/21/2020        | 3230           | No          | 14          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Sulfate (mg/l)          | 602         | 1569              | n/a               | 5/21/2020        | 1270           | No          | 14          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Sulfate (mg/l)          | 603         | 2801              | n/a               | 5/21/2020        | 2140           | No          | 13          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Sulfate (mg/l)          | 604         | 2295              | n/a               | 5/21/2020        | 1920           | No          | 13          | 0           | No               | 0.00188        | Param Intra 1 of 3        |
| Sulfate (mg/l)          | 605         | 2352              | n/a               | 5/21/2020        | 1940           | No          | 15          | 0           | No               | 0.00188        | Param Intra 1 of 3        |

Montrose Generating Station  
Determination of Statistically Significant Increases  
CCR Landfill  
September 28, 2020

## **ATTACHMENT 2**

### **Sanitas™ Configuration Settings**

Exclude data flags:

Data Reading Options

- Individual Observations
- Mean of Each:  Month
- Median of Each:  Season

Automatically Process Resamples...



- Black and White Output
- Four Plots Per Page
  - Always Combine Data Pages...
  - Include Tick Marks on Data Page
  - Use Constituent Name for Graph Title
- Draw Border Around Text Reports and Data Pages
- Enlarge/Reduce Fonts (Graphs):
- Enlarge/Reduce Fonts (Data/Text Reports):
- Wide Margins (on reports without explicit setting)
- Use CAS# (Not Const. Name)
- Truncate File Names to  Characters
- Include Limit Lines when found in Database...
- Show Deselected Data on Time Series  ▾
- Show Deselected Data on all Data Pages  ▾

- Prompt to Overwrite/Append Summary Tables
- Round Limits to  Sig. Digits (when not set in data file)
- User-Set Scale
- Indicate Background Data
- Show Exact Dates
- Thick Plot Lines

Zoom Factor:  ▾

- Output Decimal Precision
- Less Precision
  - Normal Precision
  - More Precision

Store Print Jobs in Multiple Constituent Mode

Printer:  ▾

Use Modified Alpha...

Test Residuals For Normality (Parametric test only)  at Alpha = 0.01

Continue Parametric if Unable to Normalize

Transformation (Parametric test only)

- Use Ladder of Powers
- Natural Log or No Transformation
- Never Transform
- Use Specific Transformation:

- Use Best W Statistic
- Plot Transformed Values

Use Non-Parametric Test (Sen's Slope/Mann-Kendall) when Non-Detects Percent >

Include  % Confidence Interval around Trend Line

Automatically Remove Outliers (Parametric test only)

Note: there is no "Always Use Non-Parametric" checkbox on this tab because, for consistency with prior versions, Sen's Slope / Mann-Kendall (the non-parametric alternative) is available as a report in its own right, under Analysis->Intrawell->Trend.

Test for Normality using Shapiro-Wilk/Francia at Alpha = 0.01

Use Non-Parametric Test when Non-Detects Percent > 50

Use Aitchison's Adjustment when Non-Detects Percent > 15

Optional Further Refinement: Use Aitchison's when NDs % > 50

Use Poisson Prediction Limit when Non-Detects Percent > 90

Transformation

Use Ladder of Powers

Natural Log or No Transformation

Never Transform

Use Specific Transformation: Natural Log

Use Best W Statistic

Plot Transformed Values

Deseasonalize (Intra- and InterWell)

If Seasonality Is Detected

If Seasonality Is Detected Or Insufficient to Test

Always (When Sufficient Data)  Never

Always Use Non-Parametric

Facility

Statistical Evaluations per Year:

Constituents Analyzed:

Downgradient (Compliance) Wells:

Sampling Plan

Comparing Individual Observations

1 of 1  1 of 2  1 of 3  1 of 4

2 of 4 ("Modified California")

IntraWell Other

Stop if Background Trend Detected at Alpha = 0.05

Plot Background Data

Override Standard Deviation:

Override DF:  Override Kappa:

Automatically Remove Background Outliers

2-Tailed Test Mode...

Show Deselected Data Lighter

Non-Parametric Limit = Highest Background Value

Non-Parametric Limit when 100% Non-Detects:

Highest/Second Highest Background Value

Most Recent PQL if available, or MDL

Most Recent Background Value (subst. method)

Rank Von Neumann, Wilcoxon Rank Sum / Mann-Whitney

- Use Modified Alpha...
- 2-Tailed Test Mode...
- Combine Background Wells on Mann-Whitney...

Outlier Tests

- EPA 1989 Outlier Screening (fixed alpha of 0.05)
- Dixon's at  $\alpha=$   or if  $n >$   Rosner's at  $\alpha=$    Use EPA Screening to establish Suspected Outliers
- Tukey's Outlier Screening, with IQR Multiplier =   Use Ladder of Powers to achieve Best W Stat
- Test For Normality using Shapiro-Wilk/Francia at Alpha = 
  - Stop if Non-Normal
  - Continue with Parametric Test if Non-Normal
  - Tukey's if Non-Normal, with IQR Multiplier =   Use Ladder of Powers to achieve Best W Stat
- No Outlier If Less Than  Times Median
- Apply Rules found in Ohio Guidance Document 0715
- Combine Background Wells on the Outlier Report...

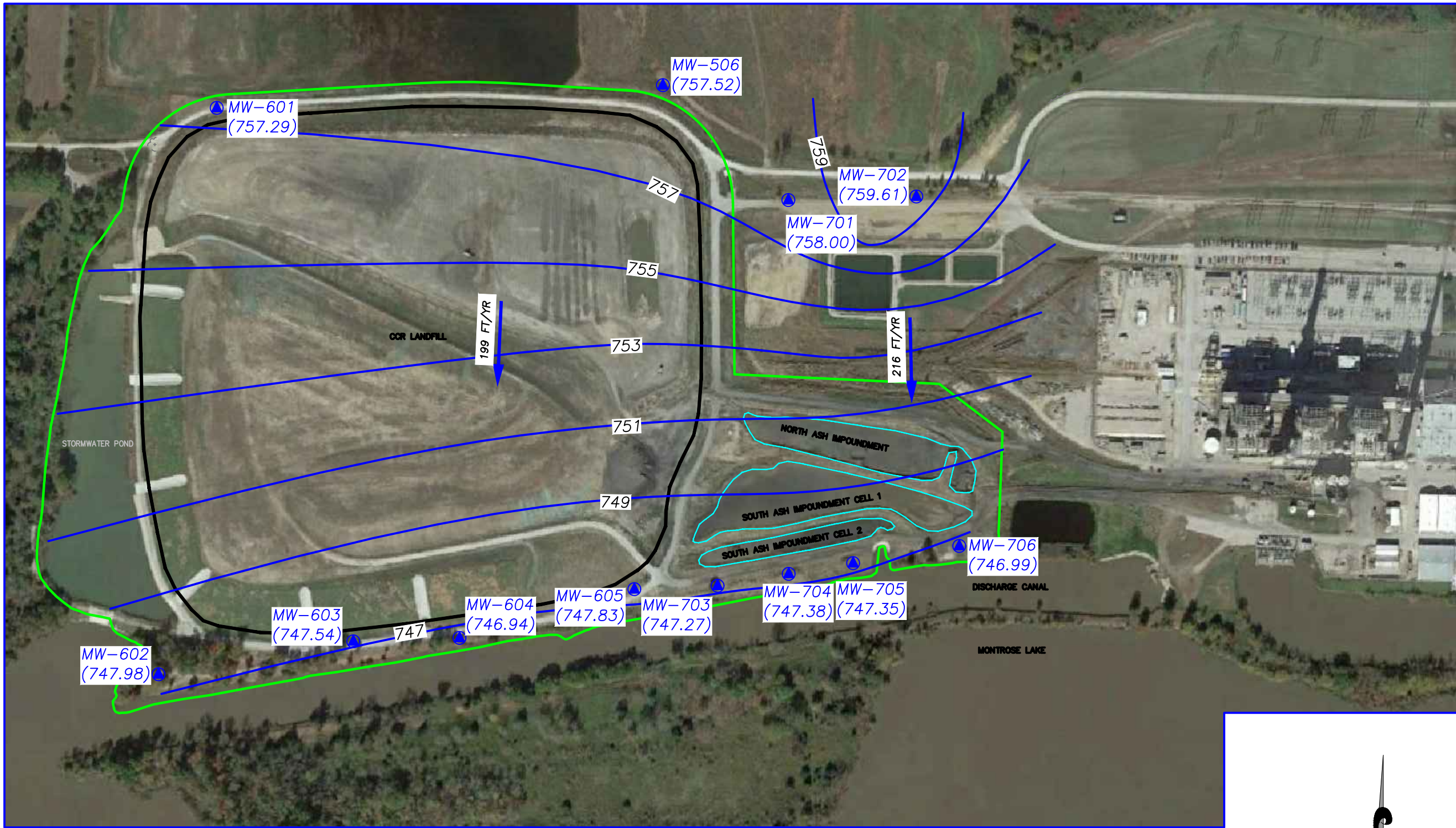
Piper, Stiff Diagram

- Combine Wells  Label Constituents
- Combine Dates  Label Axes
- Use Default Constituent Names  Note Cation-Anion Balance (Piper only)
- Use Constituent Definition File

Jared Morrison  
December 20, 2022

**ATTACHMENT 3**  
**Groundwater Potentiometric Surface Maps**



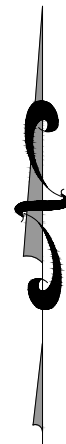
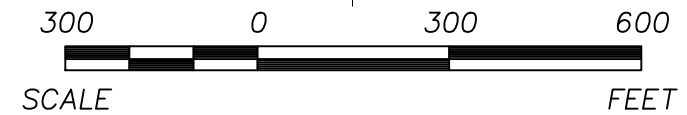


**LEGEND:**

- PERMITTED SOLID WASTE FACILITY BOUNDARY (APPROXIMATE)
- CCR LANDFILL UNIT BOUNDARY (APPROXIMATE)
- ▲ MW-506 (757.17) CCR GROUNDWATER MONITORING WELL SYSTEM
- ASH IMPOUNDMENT UNIT BOUNDARY (APPROXIMATE)
- GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS (REPRESENTATIVE OF THIS UNIT)
- ← GROUNDWATER FLOW DIRECTION AND CALCULATED GROUNDWATER FLOW RATE (FT/YR)

**NOTES:**

1. HORIZONTAL DATUM: MISSOURI STATE PLANE COORDINATE SYSTEM, WEST ZONE (NAD 83)
2. VERTICAL DATUM: NAVD 88
3. GOOGLE EARTH IMAGE DATED MARCH 2020.
4. APPROXIMATE BOUNDARY LOCATIONS PROVIDED BY AECOM.
5. WATER LEVEL MEASUREMENTS COMPLETED ON MAY 21, 2020.



| REV. | DATE | CK. | BY |
|------|------|-----|----|
| 1    |      |     |    |
| 2    |      |     |    |
| 3    |      |     |    |
| 4    |      |     |    |
| 5    |      |     |    |

SHEET TITLE  
**POTENTIOMETRIC SURFACE MAP CCR LANDFILL AND ASH IMPOUNDMENT (MAY 2020)**

PROJECT TITLE  
**2020 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ADDENDUM**

CLIENT  
**EVERGY METRO, INC.  
 MONTROSE GENERATING STATION  
 MONTROSE, MISSOURI**

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

PROJ. NO. 27213168.20  
 DESK. BY: TGW  
 CHK. BY: JRR  
 O/A. RW. BY: JRR  
 PROJ. MGR. JRF

CADD FILE:  
 27213168.20\_FIG2\_MAY20.DWG

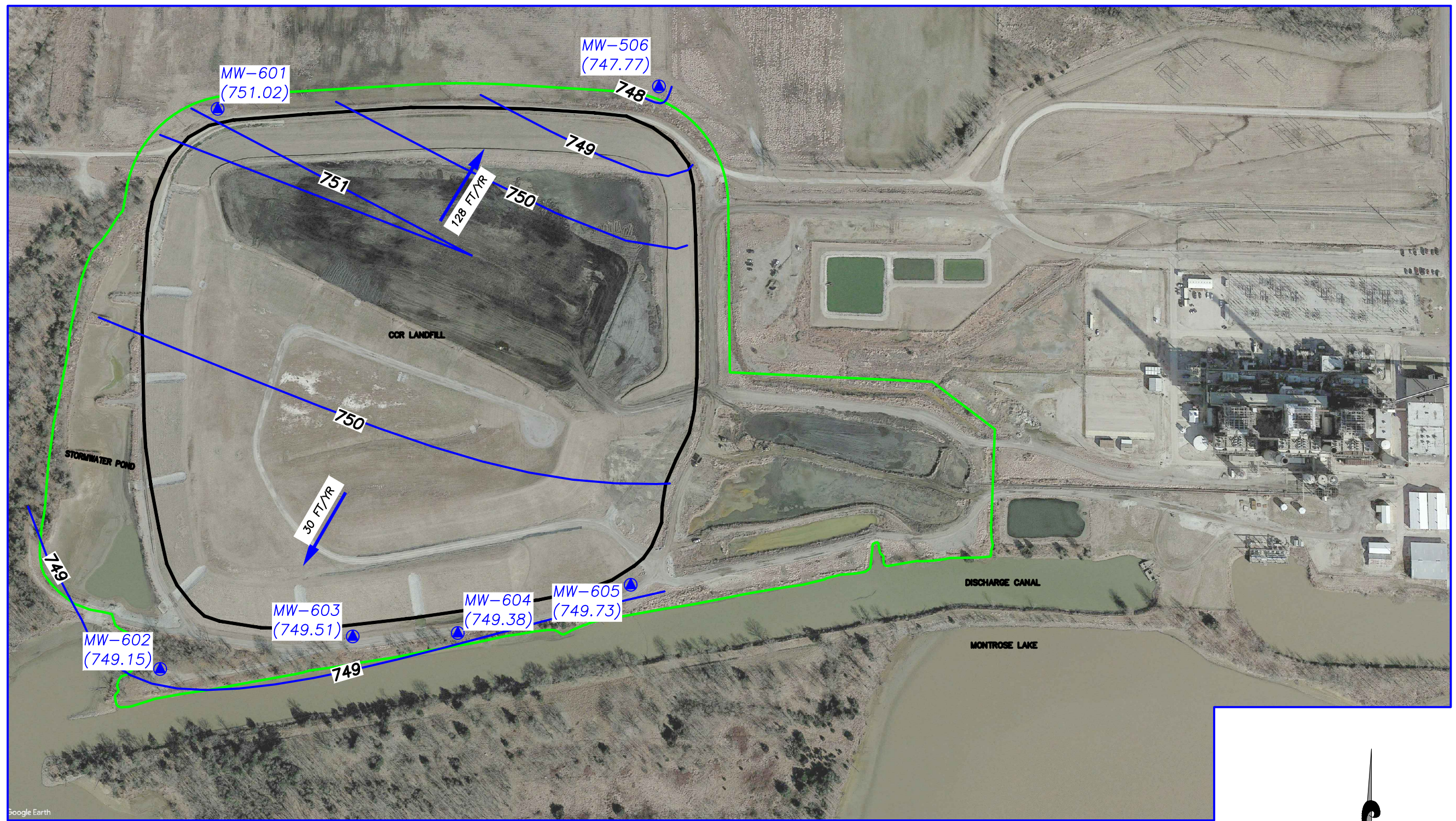
DATE:  
 12/19/2022

FIGURE NO.  
**2**

N:\KCP\PROJECTS\GROUNDWATER\DWG\MONTROSE\2020 GROUNDWATER\27213168.20\_FIG2\_MAY20.DWG



N:\KCP\PROJECTS\GROUNDWATER\DWG\MONTROSE\2020\GROUNDWATER\NOVEMBER 2020\27213168.20\_FIG2\_NOVEMBER 2020 V3.DWG



**LEGEND:**

- PERMITTED SOLID WASTE FACILITY BOUNDARY (APPROXIMATE)
- CCR LANDFILL UNIT BOUNDARY (APPROXIMATE)
- MW-506 (747.77) CCR GROUNDWATER MONITORING WELL SYSTEM
- ASH IMPOUNDMENT UNIT BOUNDARY (APPROXIMATE)
- GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS (REPRESENTATIVE OF THIS UNIT)
- GROUNDWATER FLOW DIRECTION AND CALCULATED GROUNDWATER FLOW RATE (FT/YR)

**NOTES:**

1. HORIZONTAL DATUM: MISSOURI STATE PLANE COORDINATE SYSTEM, WEST ZONE (NAD 83)
2. VERTICAL DATUM: NAVD 88
3. GOOGLE EARTH IMAGE DATED MARCH 2020.
4. APPROXIMATE BOUNDARY LOCATIONS PROVIDED BY AECOM.
5. WATER LEVEL MEASUREMENTS COMPLETED ON NOVEMBER 10, 2020.



| REV. | DATE | BY | CHK. |
|------|------|----|------|
| 1    |      |    |      |
| 2    |      |    |      |
| 3    |      |    |      |
| 4    |      |    |      |
| 5    |      |    |      |

**SHEET TITLE**  
**POTENTIOMETRIC SURFACE MAP CCR LANDFILL (NOVEMBER 2020)**

**PROJECT TITLE**  
**2020 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ADDENDUM**

**CLIENT**  
**EVERGY METRO, INC.**  
**MONTROSE GENERATING STATION**  
**MONTROSE, MISSOURI**

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

DATE: 12/19/2022

FIGURE NO. **3**

|            |             |
|------------|-------------|
| PROJ. NO.  | 27213168.20 |
| TASK NO.   | ALR         |
| DATE       | ALR         |
| CHK. BY    | JRR         |
| PROJ. MGR. | JRR         |
| QA/RV BY   | JRR         |
| PROJ. MGR. | JRR         |