2023 Annual Groundwater Monitoring and Corrective Action Report

Prairie Creek Generating Station
Cedar Rapids, Iowa

Prepared for:

Alliant Energy

SCS ENGINEERS

25223074.00 | January 31, 2024

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02/26/2024 - Classification: Internal - ECRM13238692

OVERVIEW OF CURRENT STATUS

Prairie Creek Generating Station (PCS)
2023 Annual Report

In accordance with §257.90(e)(6), this section at the beginning of the annual report provides an overview of the current status of groundwater monitoring and corrective action programs for the coal combustion residual (CCR) unit. The groundwater monitoring system at PCS monitors the closure area for 10 former CCR units. Supporting information is provided in the text of the annual report.

Category	Rule Requirement	Site Status
Monitoring Status – Start of Year	(i) 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;	Assessment
Monitoring Status – End of Year	(ii) 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;	Assessment
Statistically Significant Increases (SSIs)	(iii) 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):	

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Category	Rule Requirement	Site Status
	(A) Identify those constituents listed in Appendix III to this part and the names of the monitoring wells associated with such an increase; and	SSIs initially determined on January 15, 2018, based on October 2017 monitoring results. In 2023, SSIs for semiannual events for compliance wells at the waste boundary included the following; see **Table 5** for complete results. <u>October 2022</u> Boron: MW-303, MW-304, MW-305, MW-306, MW-307, MW-308 Field pH: MW-306, MW-307, MW-308 Sulfate: MW-303, MW-304, MW-305, MW-308 Total Dissolved Solids: MW-303, <u>April 2023</u> Boron: MW-303, MW-304, MW-305, MW-306, MW-307, MW-308 Field pH: MW-306, MW-307, MW-308 Sulfate: MW-304, MW-305, MW-308,
	(B) Provide the date when the assessment monitoring program was initiated for the CCR unit.	July 16, 2018
Statistically Significant Levels (SSL) Above Groundwater Protection Standard	(iv) 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;	Arsenic: Initially determined to be at SSL above GPS on January 14, 2019, at MW-303, MW-304, and MW-305. In 2023, concentrations determined to be at SSL above the GPS at compliance wells as follows:

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Category	Rule Requirement	Site Status
		October 2022 MW-303, MW-304, MW-308 April 2023 MW-303, MW-304, MW-308 Molybdenum: Initially determined to be at SSL above GPS on January 14, 2019, at MW-306. In 2023, concentrations determined to be at SSL above the GPS at compliance wells as follows: October 2022 MW-306 April 2023 MW-306
	(B) Provide the date when the assessment of corrective measures was initiated for the CCR unit;	April 15, 2019
	(C) Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and	Selection of remedy in progress. A public meeting date has not been set.
	(D) Provide the date when the assessment of corrective measures was completed for the CCR unit.	September 12, 2019 – Original ACM August 9, 2021 – Addendum No. 1 to ACM
Selection of Remedy	(v) Whether a remedy was selected pursuant to §257.97 during the current annual reporting period, and if so, the date of remedy selection; and	Selection of remedy is in progress
Corrective Action	(vi) Whether remedial activities were initiated or are ongoing pursuant to §257.98 during the current annual reporting period.	Not applicable – Selection of remedy is in progress

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1.0 INTRODUCTION

This 2023 Annual Groundwater Monitoring and Corrective Action Report was prepared to support compliance with the groundwater monitoring requirements of the Coal Combustion Residuals (CCR) Rule [40 CFR 257.50-107]. Specifically, this report was prepared to fulfill the requirements of 40 CFR 257.90(e). The applicable sections of the Rule are provided below in *italics*, followed by applicable information relative to the 2023 Annual Groundwater Monitoring and Corrective Action Report for the CCR Units. The Prairie Creek Generating Station (PCS) site location is shown on **Figure 1**.

This report covers the period of groundwater monitoring from January 1, 2023, through December 31, 2023.

The groundwater monitoring system at PCS monitors the closure area for 10 former CCR units. All CCR units at PCS were closed in 2018. CCR was consolidated and capped in accordance with §257.102(d), and closure certification was completed in December 2018.

The monitoring system is designed to detect monitored constituents at the waste boundary of the facility as required by 40 CFR 257.91(d). The groundwater monitoring system currently consists of two upgradient background wells, six downgradient compliance monitoring wells at the waste boundary, two supplemental background wells, and five downgradient delineation wells installed to characterize site conditions and evaluate the nature and extent of groundwater impacts (**Figure 2** and **Table 1**). An additional upgradient monitoring well was installed to monitor water level only.

2.0 BACKGROUND

To provide context for the annual report, the following background information is provided in this section of the report, prior to the annual report requirement sections:

- Geologic and hydrogeologic setting
- CCR Rule monitoring system

2.1 GEOLOGIC AND HYDROGEOLOGIC SETTING

2.1.1 Regional Information

The geologic formation beneath PCS that meets the definition of the "uppermost aquifer," as defined by section 257.53 of the CCR Rule, is the surficial alluvial aquifer. A summary of regional hydrogeologic units in east-central Iowa is provided in **Appendix A**. The alluvial aquifer comprises Cedar River valley sand, gravel, silt, and clay deposits. This deposit is present along the Cedar River valley and is used for municipal supply by the City of Cedar Rapids approximately 4.5 miles upstream of PCS. A map of the regional surficial aquifers in east-central Iowa is included in **Appendix A.**

The alluvial aquifer is underlain by Devonian and Silurian limestone and dolomite bedrock. A bedrock geology map and cross sections of the area are provided in **Appendix A**. The Devonian and Silurian bedrock are also aquifer units and are likely hydraulically connected to the alluvial aquifer above. The Silurian limestone is several hundred feet thick at the site and is underlain by an Ordovician confining unit.

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2.1.2 Site Information

Monitoring wells MW-301 through MW-310 were installed to intersect the surficial alluvium aquifer at the site. The unconsolidated materials at these well locations are generally sand and silt with minor clay and gravel. The total boring depths were between 15.5 and 30.5 feet and bedrock was not encountered in any monitoring well boring. Boring logs and well construction forms for MW-301 through MW-310 are included in **Appendix B**.

Assessment piezometers MW-301A, MW-306A, MW-309A, and MW-310A were installed in June and July 2020. Unconsolidated materials were also observed in the deeper piezometer borings, and bedrock was not encountered. The boring for upgradient piezometer MW-301A encountered a thick lean clay layer and the well is screened within the clay. The other three piezometers are screened in sandy materials. The total boring depths were between 45 and 60 feet. Boring logs and well construction forms for the four deeper piezometers are included in **Appendix B**.

Sidegradient supplemental background monitoring well MW-312 and groundwater elevation-only well MW-311 were installed in May 2022. The unconsolidated materials at these well locations are generally sand and silt. Wells are screened predominantly in sand. Total boring depths are 16 to 20 feet. Boring logs and well construction forms for MW-311 and MW-312 are included in **Appendix B**.

The sampling event summary and groundwater elevation data for the CCR monitoring wells are included in **Tables 2** and **3**. Water table elevations and groundwater flow patterns for the April and November 2023 monitoring events are shown on **Figures 3** and **4**, respectively. Both water table maps show groundwater flow moving north toward Prairie Creek, which is a tributary of the Cedar River.

Estimated horizontal gradients and flow velocities are provided in **Table 4A**. Vertical hydraulic gradients for the well nests are provided in **Table 4B**. For both the April and November 2023 events, the vertical gradients indicate upward flow at the MW-306/MW-306A, MW-309/MW-309A, and MW-310/MW-310A nests and downward flow at the MW-301/MW-301A nest.

2.2 CCR RULE MONITORING SYSTEM

The current groundwater monitoring system established in accordance with the CCR Rule consists of two upgradient (background) monitoring wells, six downgradient compliance monitoring wells, one upgradient piezometer, one sidegradient supplemental background monitoring well, and five additional downgradient monitoring wells and piezometers to assist with the assessment monitoring and selection of remedy process. The background wells are MW-301 and MW-302, and the six downgradient wells at the waste boundary include MW-303, MW-304, MW-305, MW-306, MW-307, and MW-308. An additional monitoring well, MW-311, was installed to provide information on water level elevations only and is not part of the compliance monitoring network. Monitoring well MW-312 was installed as a sidegradient, supplemental background well to provide groundwater quality information in the Prairie Creek valley.

The shallow downgradient delineation monitoring wells include MW-309 and MW-310. The deeper downgradient piezometers include MW-306A, MW-309A, and MW-310A. The upgradient piezometer, MW-301A, was also installed to assist with the selection of remedy process.

The CCR Rule wells are installed in the alluvial aquifer, which is the uppermost aquifer unit. Shallow monitoring well depths range from approximately 15 to 32 feet, measured from the top of the well

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casing. The piezometer depths range from approximately 47 to 62 feet, measured from top of well casing. Upgradient piezometer MW-301A is installed in a clay till unit below the alluvial aquifer. This well is not used in the statistical evaluation of background conditions because it is not installed in the same hydrostratigraphic unit as the downgradient wells.

3.0 § 257.90(E) ANNUAL REPORT REQUIREMENTS

Annual groundwater monitoring and corrective action report. For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1). At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

3.1 §257.90(E)(1) SITE MAP

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

A map showing the site location is provided on **Figure 1**. A map with an aerial image showing the closure area, former CCR units, and all background (or upgradient) and downgradient monitoring wells with identification numbers for the groundwater monitoring program is provided as **Figure 2**.

3.2 §257.90(E)(2) MONITORING SYSTEM CHANGES

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

There were no changes to the groundwater monitoring system in 2023.

3.3 §257.90(E)(3) SUMMARY OF SAMPLING EVENTS

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

Two groundwater sampling events were completed in 2023. Semiannual groundwater monitoring events were completed in April and November 2023. 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 or assessment monitoring program is included in **Table 2**.

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The validation and evaluation of the October 2022 monitoring event data was completed and transmitted to Interstate Power and Light (IPL) on February 14, 2023. The validation and evaluation of the April 2023 assessment monitoring event data was completed and transmitted to IPL on August 29, 2023. The validation and evaluation of the November 2023 monitoring event data was in progress at the end of 2023 and will be transmitted to IPL in 2024; therefore, the November 2023 monitoring results will be included in the 2024 annual report. The November 2023 groundwater elevation data is included in this report.

In the October 2022 and April 2023 semiannual events, groundwater samples collected from the background wells and the compliance wells installed at the waste boundary event were analyzed for Appendix III and Appendix IV constituents. Samples collected from the delineation wells were analyzed for select Appendix IV parameters. Supplemental groundwater quality parameters were included in the monitoring program in 2023 to support the selection of remedy process, including the characterization of aquifer conditions and evaluation of monitored natural attenuation (MNA).

Analytical results for the October 2022 and April 2023 sampling events are shown in **Table 5**. Field parameter results for the October 2022 and April 2023 sampling events are provided in **Table 6**. The results of the analytical laboratory analyses are provided in the October 2022 and April 2023 laboratory reports in **Appendix C**. Historical results for each monitoring well through April 2023 are summarized in **Appendix D**.

3.4 § 257.90(E)(4) MONITORING TRANSITION NARRATIVE

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

There was no monitoring program transition in 2023.

The PCS monitoring program transitioned to assessment monitoring beginning in April 2018 and assessment monitoring continued through 2023. An Assessment of Corrective Measures (ACM) was initiated for the PCS CCR units in April 2019 and completed in September 2019. An addendum to the ACM was submitted August 9, 2021. The ACM was initiated in response to the detection of arsenic and molybdenum at statistically significant levels (SSLs) exceeding the GPS. Assessment monitoring continued during the ACM and will continue during the selection of remedy.

The evaluation of the October 2022 assessment monitoring results was completed in February 2023. Evaluation of the April 2023 assessment monitoring results was completed in August 2023. Evaluation of November 2023 results will be completed in March 2024.

In accordance with the Unified Guidance for Statistical Analysis of Groundwater Monitoring Data at Resource Conservation and Recovery Act (RCRA) Facilities (U.S. EPA, 2009), the comparison of assessment monitoring results to the GPS was based on the lower confidence limit (LCL) for the arithmetic mean. The LCL evaluation was completed for each Appendix IV parameter that has been detected at a concentration exceeding the GPS in at least one sample result since assessment monitoring was initiated, which include arsenic, molybdenum, and lithium. The LCLs were calculated with Sanitas™ using historical concentrations measured since assessment monitoring began in April 2018. The LCL evaluations completed for the evaluation of the October 2022 and April 2023 monitoring events are provided in **Appendix E**.

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Based on the LCL evaluations completed following the October 2022 and April 2023 events, SSLs above the GPS were identified for the following parameters and wells:

- Arsenic:
  - Compliance wells MW-303, MW-304, and MW-308
  - Delineation wells MW-309 and MW-310
- Lithium: None
- Molybdenum:
  - Compliance well MW-306

The SSLs for arsenic at MW-303, MW-304, MW-308, MW-309, and MW-310 and for molybdenum at MW-306 are consistent with previous SSL determinations. Lithium was detected above the GPS in the October 2022 and April 2023 samples from MW-308, but the LCL for lithium at MW-308 remains below the GPS according to the statistical analyses provided in **Appendix E**.

The comparison of Appendix III and Appendix IV parameter results to background concentrations was completed in accordance with 40 CFR 257.93(f)(3) using a prediction interval or tolerance interval procedure, in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper prediction limit (UPL) or upper tolerance limit (UTL). The UPLs and UTLs are shown in **Table 5**. As part of the January 2023 evaluation of the October 2022 monitoring results, the background data set was updated and interwell UPLs and UTLs were calculated using background well data collected through October 2022. The updated statistical evaluation of background is included in **Appendix E**.

3.5 § 257.90(E)(5) OTHER REQUIREMENTS

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

Additional potentially applicable requirements for the annual report, and the location of the requirement within the Rule, are provided in the following sections. For each cited section of the Rule, the portion referencing the annual report requirement is provided below in *italics*, followed by applicable information relative to the 2023 Annual Groundwater Monitoring and Corrective Action Report.

3.5.1 § 257.90(e) General Requirements

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.

Status of Groundwater Monitoring and Corrective Action Program. The groundwater monitoring and corrective action program is currently in the selection of remedy process, with assessment monitoring continuing.

Summary of Key Actions Completed.

- Collected third round of groundwater samples from the mini piezometers in the bed of Prairie Creek (January 2023).

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- Collected creek sediment cores at six locations adjacent to the mini-piezometer nests in Prairie Creek (January 2023).
- Abandoned entire network of mini piezometers in bed of Prairie Creek (January 2023).
- Performed laboratory analysis for arsenic and molybdenum in soil, sediment, and groundwater samples. Also performed XRF and XRD total compositional analysis of soil and sediment samples for arsenic and molybdenum (January 2023).
- Evaluated test data from stepped pumping test performed at MW-306 to support ACM (January and February 2023).
- Evaluated soil, sediment, surface water, and groundwater results and updated conceptual model of arsenic and molybdenum geochemistry at the site to support ACM (January and February 2023).
- Completed statistical evaluation for the October 2022 monitoring event and prepared groundwater monitoring results letter (February 14, 2023).
- Completed two semiannual groundwater sampling and analysis events (April and November 2023).
- Completed statistical evaluation for the April 2023 monitoring event and prepared groundwater monitoring results letter (August 29, 2023).
- Prepared semiannual progress reports for the Selection of Remedy process (March and September 2023).
- Drilled two angle borings into the closed impoundments to identify the ash and native soil contacts and collected ash samples from the base of the ash at each boring location to support ACM. The ash samples were submitted for leach testing to evaluate the potential for constituents in the ash to leach to the underlying groundwater. The leach testing is in progress (October 2023).
- Continued work on the selection of remedy in accordance with § 257.97.

Description of Any Problems Encountered.

- No issues were encountered in 2023.

Discussion of Actions to Resolve the Problems.

- Not applicable. No issues were encountered in 2023.

Projection of Key Activities for the Upcoming Year (2024).

- Complete two semiannual assessment monitoring events (April and November 2024).

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- Complete statistical evaluation and determination of any SSLs exceeding the GPS and prepare groundwater monitoring results letters for the November 2023 and April 2024 monitoring events (March and August 2024).

- Install a 6-inch-diameter extraction well and two, 2-inch-diameter observation piezometers near existing monitoring well MW-306. Perform an extraction well stepped pumping test to evaluate and design a groundwater extraction plan for the molybdenum-impacted groundwater in the vicinity of monitoring well MW-306. Groundwater samples will be collected at intervals throughout the pumping test to evaluate the pumping effects on molybdenum concentrations.

- Prepare ACM Addendum No. 2, which will include a summary of the ash borings, ash leach testing, creek and hand-auger soil borings, creek piezometer data, and extraction well stepped pumping test results.

- Continue work on the selection of remedy in accordance with § 257.97.

3.5.2 § 257.94(d) Alternative Detection Monitoring Frequency

The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer in the annual groundwater monitoring and corrective action report required by § 257.90(e).

Not applicable. The PCS closure area is no longer in the detection monitoring program.

3.5.3 § 257.94(e)(2) Alternative Source Demonstration for Detection Monitoring

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.

Not applicable. The PCS closure area is no longer in the detection monitoring program.

3.5.4 § 257.95(c) Alternative Assessment Monitoring Frequency

The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer in the annual groundwater monitoring and corrective action report required by § 257.90(e).

Not applicable. Assessment monitoring has been initiated at the site but no alternative assessment monitoring frequency is proposed at this time.

3.5.5 § 257.95(d)(3) Assessment Monitoring Results and Standards

Include the recorded concentrations required by paragraph (d)(1) of this section, identify the background concentrations established under § 257.94(b), and identify the groundwater protection standards established under paragraph (d)(2) of this section in the annual groundwater monitoring and corrective action report required by § 257.90(e).

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The 2023 assessment monitoring results, background UPLs or UTLs, and GPSs established for PCS are provided in **Table 5**. The laboratory reports are provided in **Appendix C**. Historical monitoring results are summarized in **Appendix D**.

Supplemental groundwater quality parameters were included in the monitoring program in 2023 to support the selection of remedy process, including the evaluation of MNA. The results for the supplemental parameters are included in **Table 5** and in the laboratory reports in **Appendix C**.

3.5.6 § 257.95(d)(3)(ii) Alternative Source Demonstration for Assessment Monitoring

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.

Not applicable. No alternative source demonstration for assessment monitoring was completed in 2023.

3.5.7 § 257.96(a) Extension of Time for Corrective Measures Assessment

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 measure 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 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.

The ACM was initiated on April 15, 2019. The July 10, 2019 certification, demonstrating the need for a 90-day deadline extension was provided in the 2019 Annual Groundwater Monitoring and Corrective Action Report. The ACM was completed on September 19, 2019.

3.6 §257.90(E)(6) OVERVIEW

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.

The specific requirements for the overview under §257.90(e)(6) are listed and the information is provided at the beginning of this report, before the Table of Contents.

4.0 REFERENCE

U.S. Environmental Protection Agency (U. S. EPA), 2009, Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, EPA 530-R-09-007, March 2009.

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Tables

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Table 1. Groundwater Monitoring Well Network
Prairie Creek Generating Station
SCS Engineers Project #25223074.00

Monitoring Well	Location in Monitoring Network	Role in Monitoring Network
MW-301	Upgradient	Background
MW-301A	Upgradient, deeper	Supplemental Background
MW-302	Upgradient	Background
MW-303	Downgradient	Compliance
MW-304	Downgradient	Compliance
MW-305	Downgradient	Compliance
MW-306	Downgradient	Compliance
MW-306A	Downgradient, deeper	Delineation
MW-307	Downgradient	Compliance
MW-308	Downgradient	Compliance
MW-309	Downgradient	Delineation
MW-309A	Downgradient, deeper	Delineation
MW-310	Downgradient	Delineation
MW-310A	Downgradient, deeper	Delineation
MW-311	Upgradient	Water level only
MW-312	Sidegradient	Supplemental Background

Created by: RM Date: 12/14/2020
by: NLB Date: 12/28/2023
Checked by: RM Date: 1/5/2024

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Table 2. CCR Rule Groundwater Samples Summary
Prairie Creek Generating Station
SCS Engineers Project #25223074.00

Sample Dates	Background Well	Supplemental Background Well	Supplemental Background Well	Background Well	Compliance Wells				Delineation Well	Compliance Wells		Delineation Wells			
	MW-301	MW-301A	MW-312	MW-302	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307	MW-308	MW-309	MW-309A	MW-310	MW-310A
April 19-20, 2023	A	A	A	A	A	A	A	A	A-NE	A	A	A-NE	A-NE	A-NE	A-NE
November 6-7, 2023	A	A	A	A	A	A	A	A	A-NE	A	A	A-NE	A-NE	A-NE	A-NE
Total Samples	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

Abbreviations:
A = Assessment Monitoring Program
A-NE = Assessment monitoring for nature and extent, wells sampled for arsenic, lithium, molybdenum, and iron.

Notes:
1. MW-311 was installed in May 2022 and is used as a water level only well

Created by: NDK Date: 1/4/2018
Last revision by: NLB Date: 12/28/2023
Checked by: TK Date: 1/19/2024

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Table 3. Water Level Summary
IPL - Prairie Creek / SCS Engineers Project #25223074.00

Ground Water Elevation in feet above mean sea level (amsl)																
Well Number	**MW-301**	**MW-302**	**MW-303**	**MW-304**	**MW-305**	**MW-306**	**MW-307**	**MW-308**	**MW-309**	**MW-310**	**MW-301A**	**MW-306A**	**MW-309A**	**MW-310A**	**MW-311**	**MW-312**
Top of Casing Elevation (feet amsl)	732.55	722.68	709.46	709.66	709.61	712.54	721.16	719.67	711.80	711.93	732.07	711.50	710.54	710.68	724.36	711.60
Screen Length (ft)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0	5.0	5.0	5.0	10.0	10.0
Total Depth (ft from top of casing)	25.10	17.39	17.01	17.09	17.00	31.91	23.27	23.21	15.00	15.00	56.15	61.85	47.31	47.47	18.81	18.65
Top of Well Screen Elevation (ft)	717.45	715.29	702.45	702.57	702.61	685.63	707.89	706.46	703.11	703.09	680.92	654.65	668.23	668.21	715.55	703.95
Measurement Date																
December 20, 2016	716.05	715.80	703.36	703.42	703.46	703.32	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
January 23, 2017	716.05	716.18	704.64	704.56	704.59	704.49	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
February 23, 2017	715.87	715.96	704.46	704.65	704.67	704.59	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
March 28, 2017	715.80	715.86	703.81	703.99	704.09	703.99	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
April 27, 2017	716.70	716.48	705.07	705.08	705.04	704.98	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
May 25, 2017	717.08	716.68	705.37	705.37	705.29	705.34	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
June 28, 2017	716.10	715.63	703.96	704.16	704.11	703.94	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
August 17, 2017	715.35	714.88	702.83	702.96	702.91	702.74	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
October 17, 2017	714.36	714.33	702.95	703.17	703.21	703.16	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
May 8, 2018	713.95	713.94	705.36	705.54	705.61	705.51	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
August 6, 2018	714.30	714.24	702.64	702.62	702.56	702.68	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
October 9, 2018	715.74	717.13	707.86	707.81	707.73	707.88	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
March 11, 2019	NM	NM	NM	704.24	704.05	NM	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
April 22-23, 2019	716.44	716.10	703.83	703.93	703.93	704.23	709.86	706.19	NI	NI	NI	NI	NI	NI	NI	NI
October 28-29, 2019	715.86	715.68	704.10	704.15	704.17	704.40	708.57	706.31	703.84	703.71	NI	NI	NI	NI	NI	NI
January 9, 2020	NM	NM	NM	NM	NM	NM	NM	NM	703.10	702.81	NI	NI	NI	NI	NI	NI
April 27, 2020	715.80	715.58	703.10	702.84	703.02	703.35	NM	NM	702.84	702.53	NI	NI	NI	NI	NI	NI
May 27, 2020	NM	NM	NM	NM	NM	NM	708.14	705.64	NM	NM	NI	NI	NI	NI	NI	NI
September 14, 2020	715.30	715.57	703.70	703.74	703.74	703.84	708.75	706.13	703.28	702.83	694.12	704.03	703.63	703.43	NI	NI
October 19-21, 2020	714.77	714.16	702.16	702.13	702.02	702.26	706.56	703.87	701.97	701.78	704.32	702.43	702.17	702.00	NI	NI
April 26-27, 2021	715.84	715.36	702.75	702.80	702.66	702.75	706.38	705.05	702.68	702.11	716.76	703.63	702.92	702.69	NI	NI
July 14, 2021	NM	NM	NM	NM	NM	NM	NM	703.38	NM	NM	NM	NM	NM	NM	NI	NI
October 20-22, 2021	713.44	713.09	701.84	701.80	701.75	702.02	706.29	703.21	701.70	701.48	707.07	702.31	701.60	701.76	NI	NI
February 22, 2022	NM	NM	NM	NM	NM	NM	NM	702.84	NM	NM	NM	NM	NM	NM	NI	NI
April 25-27, 2022	714.50	715.27	703.85	703.82	703.76	704.02	708.27	705.45	703.56	703.33	707.77	704.16	702.93	703.68	NI	NI
May 25, 2022	714.57	714.12	702.96	702.95	702.88	703.23	707.55	704.83	702.86	702.60	703.71	703.47	703.08	702.92	709.86	703.52
July 15, 2022	714.26	713.81	703.17	703.27	703.23	703.53	709.27	705.26	703.04	702.82	707.97	703.72	703.30	703.19	710.01	703.80
October 10-12, 2022	722.08	712.56	701.93	701.86	701.73	701.97	705.32	702.60	702.08	701.73	706.76	702.18	702.12	701.92	707.83	702.85
April 19-20, 2023	714.10	713.90	702.37	702.43	702.36	702.74	707.21	703.97	702.30	702.04	708.02	703.03	702.61	702.44	NM	701.96
November 6-7, 2023	712.29	711.86	701.55	701.54	701.38	701.68	704.67	702.18	701.59	701.34	681.93	701.92	701.70	701.51	707.38	702.24
Bottom of Well Elevation (ft)	707.45	705.29	692.45	692.57	692.61	680.63	697.89	696.46	693.11	693.09	675.92	649.65	663.23	663.21	705.55	692.95

Created by: MDB Date: 5/1/2017
Last rev. by: NLB Date: 11/17/2023
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Proj Mgr/Scient QA/QC: TK Date: 1/17/2024

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Table 4A. Horizontal Gradients and Flow Velocities
Prairie Creek Generating Station
SCS Engineers Project #25223074.00

	Flow Path A - Northwest				
Sampling Dates	**h1 (ft)**	**h2 (ft)**	**Δl (ft)**	**Δh/Δl (ft/ft)**	**V (ft/d)**
April 19-20, 2023	708.00	701.34	779	0.009	1.7
November 6-7, 2023	710.00	702.04	815	0.010	1.9

Wells	**K Value (cm/sec)**	**K Value (ft/d)**
MW-301	N/A	N/A
MW-301A	N/A	N/A
MW-302	N/A	N/A
MW-303	1.2E-02	34
MW-304	1.3E-02	36
MW-305	1.6E-01	439
MW-306	5.0E-02	141
MW-306A	1.2E-02	35
MW-307	1.8E-02	50
MW-308	5.3E-03	15
MW-309	5.0E-02	142
MW-309A	1.1E-01	303
MW-310	1.7E-02	47
MW-310A	5.1E-02	145
Geometric Mean	2.7E-02	77

Assumed Porosity, n
0.40

Groundwater flow velocity equation: $V = [K*(\Delta h/\Delta l)] / n$

Notes:
1. Geometric mean calculation does not include upgradient wells MW-301, MW-301A, or MW-302.
2. See Figures 3 and 4 for velocity calculation flow path locations.

ft = feet
ft/d = feet per day
K = hydraulic conductivity
n = effective porosity
V = groundwater flow velocity
h1, h2 = point interpreted groundwater elevation at locations 1 and 2
Δl = distance between location 1 and 2
Δh/Δl = hydraulic gradient

Created by: NDK Date: 9/29/2022
Last revision by: NLB Date: 12/28/2023
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02/26/2024 - Classification: Internal - ECRM13238692

Table 4B. Vertical Gradients
Prairie Creek Generating Station / SCS Engineers Project #25223074.00
2023

Vertical Hydraulic Gradients	MW-301/MW-301A		MW-306/MW-306A		MW-309/MW-309A		MW-310/MW-310A	
Shallow Well	MW-301		MW-306		MW-309		MW-310	
Screen midpoint[2] (feet amsl)	712.45		683.13		698.11		698.09	
Deep Well	MW-301A		MW-306A		MW-309A		MW-310A	
Screen midpoint (feet amsl)	678.42		652.15		665.73		665.71	
Measurement Date	**Distance Between Midpoints[2] (ft)**	**Vertical Gradient (ft/ft)**	**Distance Between Midpoints (ft)**	**Vertical Gradient (ft/ft)**	**Distance Between Midpoints[2] (ft)**	**Vertical Gradient (ft/ft)**	**Distance Between Midpoints[2] (ft)**	**Vertical Gradient (ft/ft)**
April 19-20, 2023	32.4	-0.188	31.0	0.009	32.0	0.010	31.9	0.013
November 6-7, 2023	31.4	-0.965	31.0	0.008	31.6	0.003	31.5	0.005

Notes:
1: A positive vertical gradient indicates upward groundwater flow. A negative gradient indicates downward flow.
2: The well screens at MW-309 and MW-310 were not fully submerged during the May, July, and October 2022 sampling events, and at MW-301 during the April, May, and July 2022 sampling events. In these cases, the effective screen midpoint is calculated at the midpoint between the water table elevation and screen bottom elevation, and this value is used to calculate Distance Between Midpoints.

Created by: RM Date: 1/18/2021
Last rev. by: NLB Date: 12/29/2023
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Proj Mgr QA/QC: TK Date: 1/17/2024

02/26/2024 - Classification: Internal - ECRM13238692

Table 5. Groundwater Analytical Summary
Prairie Creek Generating Station, Cedar Rapids, IA / SCS Engineers Project #25223074.00

				Background Well		Supplemental Background Well		Background Well		Compliance Wells							
Parameter Name	**UPL Method**	**UPL**	**GPS**	**MW-301**		**MW-301A**		**MW-302**		**MW-303**		**MW-304**		**MW-305**		**MW-306**	
				10/12/2022	4/20/2023	10/13/2022	4/20/2023	10/12/2022	4/20/2023	10/12/2022	4/19/2023	10/12/2022	4/19/2023	10/12/2022	4/19/2023	10/12/2022	4/19/2023
Groundwater Elevation, ft amsl				722.08	714.10	706.76	708.02	712.56	713.90	701.93	702.37	701.86	702.43	701.73	702.36	701.97	702.74
Appendix III																	
Boron, ug/L	P	63.3		<58	<380	68 J	<380	<58	<380	1100	1000	960	770	1,200	1,200	2,100	2,300
Calcium, mg/L	P	184		170	200	69	73	140	170	120	130	130	130	140	170	57	66
Chloride, mg/L	P	32.6		110	100	2.7 J	4.1 J	92	120	13	18	12	9.5	19	15	17	18
Fluoride, mg/L	NP	0.28		<0.22	<0.38	<0.22	<0.38	<0.22	<0.38	0.30 J	0.49 J	0.34 J	0.51 J	<0.22	<0.38	<0.22	0.49 J
Field pH, Std. Units	P	7.42		7.03	6.92	7.00	6.89	6.63	6.80	7.08	7.20	7.04	7.00	7.24	7.07	7.68	7.60
Sulfate, mg/L	P	131		100	100	4.0 J	3.6 J	89	80	160	120	220	220	330	370	110	130
Total Dissolved Solids, mg/L	P	810		730	700	250	260	620	590	660	520	710	610	850	800	380	360
Appendix IV		**UTL**	**GPS**														
Antimony, ug/L	NP	1.1	6	<0.69	<5.0	<0.69	<5.0	<0.69	<5.0	<0.69	<5.0	1.1 J	<5.0	0.72 J	<5.0	<0.69	<5.0
Arsenic, ug/L	NP	9	10	<0.75	<2.7	1.3 J	<2.7	0.76 J	<2.7	42	34	19	14	12	9.9 J	<0.75	<2.7
Barium, ug/L	P	333	2,000	290	270	140	120	210	170	130	100	120	100	160	150	60	62
Beryllium, ug/L	NP	0.27	4	<0.27	<1.7	<0.27	<1.7	<0.27	<1.7	<0.27	<1.7	<0.27	<1.7	<0.27	<1.7	<0.27	<1.7
Cadmium, ug/L	NP	0.38	5	0.068 J	<0.50	<0.055	<0.50	0.072 J	<0.50	<0.055	<0.50	<0.055	<0.50	<0.055	<0.50	0.065 J	<0.50
Chromium, ug/L	P	7.52	100	4.8 J	<5.5	<1.1	<5.5	2.0 J	<5.5	<1.1	<5.5	<1.1	<5.5	<1.1	<5.5	<1.1	<5.5
Cobalt, ug/L	P	6.12	6	<0.19	<0.85	0.76	<0.85	0.21 J	1.5 J	0.43 J	<0.85	0.65	0.89 J	0.63	<0.85	<0.19	0.89
Fluoride, mg/L	NP	0.28	4	<0.22	<0.38	<0.22	<0.38	<0.22	<0.38	0.30 J	0.49 J	0.34 J	0.51 J	<0.22	<0.38	<0.22	0.49 J
Lead, ug/L	P	1.16	15	<0.24	<1.2	0.41 J	<1.2	<0.24	<1.2	0.58	<1.2	<0.24	<1.2	<0.24	<1.2	<0.24	<1.2
Lithium, ug/L	P	18.2	40	14	16 J	<2.5	<13	7.8 J	<13	18	16 J	15	15 J	19	20 J	<2.5	<13
Mercury, ug/L	DQ	DQ	2	<0.11	<0.14	<0.11	<0.14	<0.11	<0.14	<0.11	<0.14	<0.11	<0.14	<0.11	<0.14	<0.11	<0.14
Molybdenum, ug/L	NP	1.3	100	<1.2	<4.6	3.4	<4.6	<1.2	<4.6	15	12	27	20	78	35	210	200
Selenium, ug/L	P	2.9	50	1.3 J	<7.0	<0.96	<7.0	1.2 J	<7.0	<0.96	<7.0	<0.96	<7.0	<0.96	<7.0	<0.96	<7.0
Thallium, ug/L	NP	0.5	2	<0.26	<1.3 F1	<0.26	<1.3	<0.26	<1.3	<0.26	<1.3	<0.26	<1.3	<0.26	<1.3	<0.26	<1.3
Radium 226/228 Combined, pCi/L	P	2.91	5	0.977	0.391	0.876	1.85	0.681	0.940	0.783	0.375	0.811	0.300	0.539	1.24	0.356	0.809
Additional Parameters Monitored for Selection of Remedy																	
Arsenic - dissolved, ug/L	UPL or GPS not applicable			--	--	--	--	--	--	48	--	20	--	13	--	--	--
Calcium, ug/L				180,000	--	76,000	--	150,000	--	140,000	--	140,000	--	160,000	--	60,000	--
Cobalt - dissolved,# ug/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lithium - dissolved,# ug/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron, dissolved,# ug/L				<36	--	4,600	--	<36	--	2,800	--	1,100	--	59 J	--	1,600	--
Iron, ug/L				<36	<180	6,700	1,900	170	1,600	3,200	2,400	1,200	2,300	91 J	<180	1,800	2,000
Magnesium ug/L				54,000	--	23,000	--	47,000	--	44,000	--	45,000	--	46,000	--	13,000	--
Manganese, dissolved,# ug/L				5.5 J	--	380	--	18	--	1,700	--	1,300	--	1,500	--	110	--
Manganese, ug/L				<3.6	--	460	--	20	--	1,700	--	1,300	--	1,600	--	110	--
Molybdenum dissolved, ug/L				--	--	--	--	--	--	--	--	--	--	--	--	210	--
Potassium, ug/L				1,100	--	1,600	--	820	--	5,500	--	6,000	--	6,200	--	1,000	--
Sodium, ug/L				17,000	--	12,000	--	21,000	--	40,000	--	46,000	--	72,000	--	55,000	--
Bicarbonate Alkalinity, mg/L				490	--	300	--	360	--	410	--	390	--	380	--	190	--
Carbonate Alkalinity, mg/L				<4.6	--	<4.6	--	<4.6	--	<4.6	--	<4.6	--	<4.6	--	<4.6	--
Total Alkalinity, mg/L				490	--	300	--	360	--	410	--	390	--	380	--	190	--

4.4
30.8
17

Blue highlighted cell indicates the compliance well result exceeds the UPL (background) and the LOQ.
Yellow highlighted cell indicates the compliance well result exceeds the GPS.
Grayscale indicates Additional Parameters sampled for selection of remedy and evaluation of Monitored Natural Attenuation.

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Table 5. Groundwater Analytical Summary
Prairie Creek Generating Station, Cedar Rapids, IA / SCS Engineers Project #25223074.00

				Delineation Well		Compliance Wells				Delineation Wells								Supplemental Background Well	
Parameter Name	**UPL Method**	**UPL**	**GPS**	**MW-306A**		**MW-307**		**MW-308**		**MW-309**		**MW-309A**		**MW-310**		**MW-310A**		**MW-312**	
				10/12/2022	4/19/2023	10/12/2022	4/20/2023	10/12/2022	4/20/2023	10/12/2022	4/19/2023	10/12/2022	4/19/2023	10/12/2022	4/19/2023	10/12/2022	4/19/2023	10/12/2022	4/19/2023
Groundwater Elevation, ft amsl				702.18	703.03	705.32	707.21	702.60	703.97	702.08	702.30	702.12	702.61	701.73	702.04	701.92	704.44	702.85	701.96
Appendix III																			
Boron, ug/L	P	63.3		2,200	--	1200	600	6,000	5,500	1,500	--	660	--	1100	--	190	--	220	<380
Calcium, mg/L	P	184		150	--	21	26	52	96	110	--	110	--	130	--	140	--	92	99
Chloride, mg/L	P	32.6		66	--	2.8 J	17	6.6	6.2	14	--	30	--	22	--	52	--	68	69
Fluoride, mg/L	NP	0.28		<0.22	--	<0.22	0.53 J	<0.22	0.52 J	0.24 J	--	<0.22	--	<0.22	--	<0.22	--	<0.22	<0.38
Field pH, Std. Units	P	7.42		7.26	7.32	9.13	9.17	9.14	9.20	7.46	7.37	7.13	7.32	7.26	7.39	7.51	7.41	6.97	7.04
Sulfate, mg/L	P	131		340	--	50	29	180	240	140	--	130	--	210	--	150	--	22	41
Total Dissolved Solids, mg/L	P	810		790	--	110	66	370	450	590	--	520	--	690	--	620	--	420	400
Appendix IV		**UTL**	**GPS**																
Antimony, ug/L	NP	1.1	6	<0.69	--	0.70 J	<5.0	<0.69	<5.0	<0.69	--	<0.69	--	<0.69	--	<0.69	--	<0.69	<5.0
Arsenic, ug/L	NP	9	10	<0.75	<2.7	6.1	6.2 J	39	46	47	28	0.77 J	<2.7	23	24	<0.75	<2.7	9.2	9.0 J
Barium, ug/L	P	333	2,000	140	--	58	50	41	71	110	--	190	--	190	--	180	--	180	150
Beryllium, ug/L	NP	0.27	4	<0.27	--	<0.27	<1.7	<0.27	<1.7	<0.27	--	<0.27	--	<0.27	--	<0.27	--	<0.27	<1.7
Cadmium, ug/L	NP	0.38	5	<0.055	--	<0.055	<0.50	<0.055	<0.50	<0.055	--	<0.055	--	<0.055	--	<0.055	--	<0.055	<0.50
Chromium, ug/L	P	7.52	100	<1.1	--	<1.1	<5.5	<1.1	<5.5	<1.1	--	<1.1	--	<1.1	--	<1.1	--	<1.1	<5.5
Cobalt, ug/L	P	6.12	6	<0.19	--	<0.19	<0.85	<0.19	<0.85	<0.19	--	0.22 J	--	<0.19	--	1.0	--	<0.19	<0.85
Fluoride, mg/L	NP	0.28	4	<0.22	--	<0.22	0.53 J	<0.22	0.52 J	0.24 J	--	<0.22	--	<0.22	--	<0.22	--	<0.22	<0.38
Lead, ug/L	P	1.16	15	<0.24	--	<0.24	2.9	<0.24	<1.2	<0.24	--	<0.24	--	<0.24	--	<0.24	--	<0.24	<1.2
Lithium, ug/L	P	18.2	40	5.1 J	<13	13	<13	42	53	15	16 J	5.7 J	<13	15	15 J	4.0 J	<13	5.6 J	<13
Mercury, ug/L	DQ	DQ	2	<0.11	--	<0.11	<0.14	<0.11	<0.14	<0.11	--	<0.11	--	<0.11	--	<0.11	--	<0.11	<0.14
Molybdenum, ug/L	NP	1.3	100	19	21	7.2	21	63	88	23	21	9.0	10	58	33	18	16	14	7.7 J
Selenium, ug/L	P	2.9	50	<0.96	--	2.4 J	<7.0	<0.96	<7.0	<0.96	--	<0.96	--	<0.96	--	<0.96	--	<0.96	<7.0
Thallium, ug/L	NP	0.5	2	<0.26	--	<0.26	<1.3	<0.26	<1.3	<0.26	--	<0.26	--	<0.26	--	<0.26	--	<0.26	<1.3
Radium 226/228 Combined, pCi/L	P	2.91	5	0.861	--	0.362	0.0723	0.514	0.0698	1.07	--	1.21	--	0.813	--	0.818	--	0.690	1.14
Additional Parameters Monitored for Selection of Remedy																			
Arsenic - dissolved, ug/L	UPL or GPS not applicable			--	--	--	--	41	--	48	--	--	--	24	--	--	--	9.7	--
Calcium, ug/L				160,000	--	22,000	--	57,000	--	120,000	--	120,000	--	140,000	--	150,000	--	100,000	--
Cobalt - dissolved,[#] ug/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lithium - dissolved,[#] ug/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.3 J	--
Iron, dissolved,[#] ug/L				1,600	--	<36	--	<36	--	860	--	9,100	--	4,400	--	6,300	--	7,100	--
Iron, ug/L				1,800	1,800	<36	<180	<36	<180	1,300	2,100	9,500	9,800	5,800	6,800	6,800	6,000	7,600	6,400
Magnesium ug/L				47,000	--	3,300	--	3,300	--	33,000	--	32,000	--	34,000	--	40,000	--	22,000	--
Manganese, dissolved,[#] ug/L				380	--	3.6 J	--	58	--	890	--	800	--	1,300	--	360	--	1,500	--
Manganese, ug/L				390	--	<3.6	--	58	--	910	--	770	--	1,400	--	370	--	1,500	--
Molybdenum dissolved, ug/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--	14	--
Potassium, ug/L				1,800	--	1,900	--	6,700	--	5,200	--	2,300	--	6,400	--	1,100	--	2,800	--
Sodium, ug/L				39,000	--	8,000	--	37,000	--	38,000	--	21,000	--	56,000	--	16,000	--	31,000	--
Bicarbonate Alkalinity, mg/L				220	--	96	--	130	--	380	--	290	--	370	--	340	--	320	--
Carbonate Alkalinity, mg/L				<4.6	--	<4.6	--	<4.6	--	<4.6	--	<4.6	--	<4.6	--	<4.6	--	<4.6	--
Total Alkalinity, mg/L				220	--	96	--	130	--	380	--	290	--	370	--	340	--	320	--

02/26/2024 - Classification: Internal - ECRM13238692

Table 5. Groundwater Analytical Summary
Prairie Creek Generating Station, Cedar Rapids, IA / SCS Engineers Project #25223074.00

Abbreviations:

UPL = Upper Prediction Limit
-- = Not Analyzed
µg/L = micrograms per liter
mg/L = milligrams per liter

GPS = Groundwater Protection Standard
LOD = Limit of Detection
LOQ = Limit of Quantitation

DQ= Double Quantification
P = Parametric UPL with 1-of-2 retesting
NP = Nonparametric UPL with 1-of-2 retesting

Notes:

J = Estimated concentration at or above the LOD and below the LOQ.
* = UPL is below the LOQ for background sampling. For compliance wells, only results confirmed above the LOQ are evaluated as potential Statistically Significant Increases above background.

1. An individual result above the UPL or GPS does not constitute an SSI above background or statistically significant level above the GPS. See the accompanying letter text for identification of statistically significant results.
2. GPS is the United States Environmental Protection Agency (USEPA) Maximum Contamination Level (MCLs), if established; otherwise, the values from 40 CFR 257.95(h)(2).
3. Interwell UPLs calculated based on results from background wells MW-301 and MW-302.

Created by:	NDK	Date:	4/22/2021
Last revision by:	RM	Date:	7/31/2023
Checked by:	NLB	Date:	8/2/2023
Proj Mgr QA/QC:	TK	Date:	1/19/2024

02/26/2024 - Classification: Internal - ECRM13238692

Table 6. Groundwater Field Data Summary
Prairie Creek Generating Station / SCS Engineers Project #25223074.00

Well	Sample Date	Groundwater Elevation (feet)	Field Temperature (deg C)	Field pH (Std. Units)	Oxygen, Dissolved (mg/L)	Field Specific Conductance (umhos/cm)	Field Oxidation Potential (mV)	Turbidity (NTU)
MW-301	10/12/2022	722.08	13.0	7.03	4.18	1184	-41.3	3.18
	4/20/2023	714.10	10.9	6.92	4.66	1231	110.7	0.02
MW-301A	10/13/2022	706.76	12.7	7.00	2.19	537	41.8	4.27
	4/20/2023	708.02	10.1	6.89	3.84	568	177.2	NM
MW-302	10/12/2022	712.56	14.7	6.63	2.53	1051	48.3	4.35
	4/20/2023	713.90	7.2	6.80	2.49	1095	113.3	0.02
MW-303	10/12/2022	701.93	15.6	7.08	0.06	1047	-32	1.15
	4/19/2023	702.37	8.1	7.20	0.13	940	-76	0.99
MW-304	10/12/2022	701.86	15.6	7.04	0.05	1081	8	1.65
	4/19/2023	702.43	9.2	7.00	0.11	1014	-41	0.02
MW-305	10/12/2022	701.73	16.1	7.24	0.06	1268	34	3.00
	4/19/2023	702.36	7.3	7.07	0.80	1192	42	0.10
MW-306	10/12/2022	701.97	12.6	7.68	0.49	579	-100	4.93
	4/19/2023	702.74	12.0	7.60	0.35	632	-124	0.02
MW-306A	10/12/2022	702.18	13.1	7.26	0.14	1148	-82	5.51
	4/19/2023	703.03	12.1	7.32	0.19	1163	-85	0.02
MW-307	10/12/2022	705.32	21.4	9.13	0.09	187	18	3.08
	4/20/2023	707.21	11.5	9.17	0.23	215	103	0.02
MW-308	10/12/2022	702.60	15.1	9.14	0.07	578	-19	3.57
	4/20/2023	703.97	12.4	9.20	0.15	689	-116	0.02
MW-309	10/12/2022	702.08	18.2	7.46	0.21	902	-135	4.59
	4/19/2023	702.30	12.6	7.37	0.19	1066	-89	5.19
MW-309A	10/12/2022	702.12	16.0	7.13	0.19	837	-106	1.30
	4/19/2023	702.61	14.7	7.32	0.18	893	-120	0.02
MW-310	10/12/2022	701.73	17.3	7.26	0.07	1039	-149	0.58
	4/19/2023	702.04	12.2	7.39	0.19	1060	-128	4.61
MW-310A	10/12/2022	701.92	15.5	7.51	0.23	969	-129	0.00
	4/19/2023	702.44	14.4	7.41	0.26	1015	-124	0.02
MW-312	10/12/2022	702.85	24.8	6.97	0.05	795	-85	3.27
	4/19/2023	701.96	17.8	7.04	0.11	799	-82	1.36

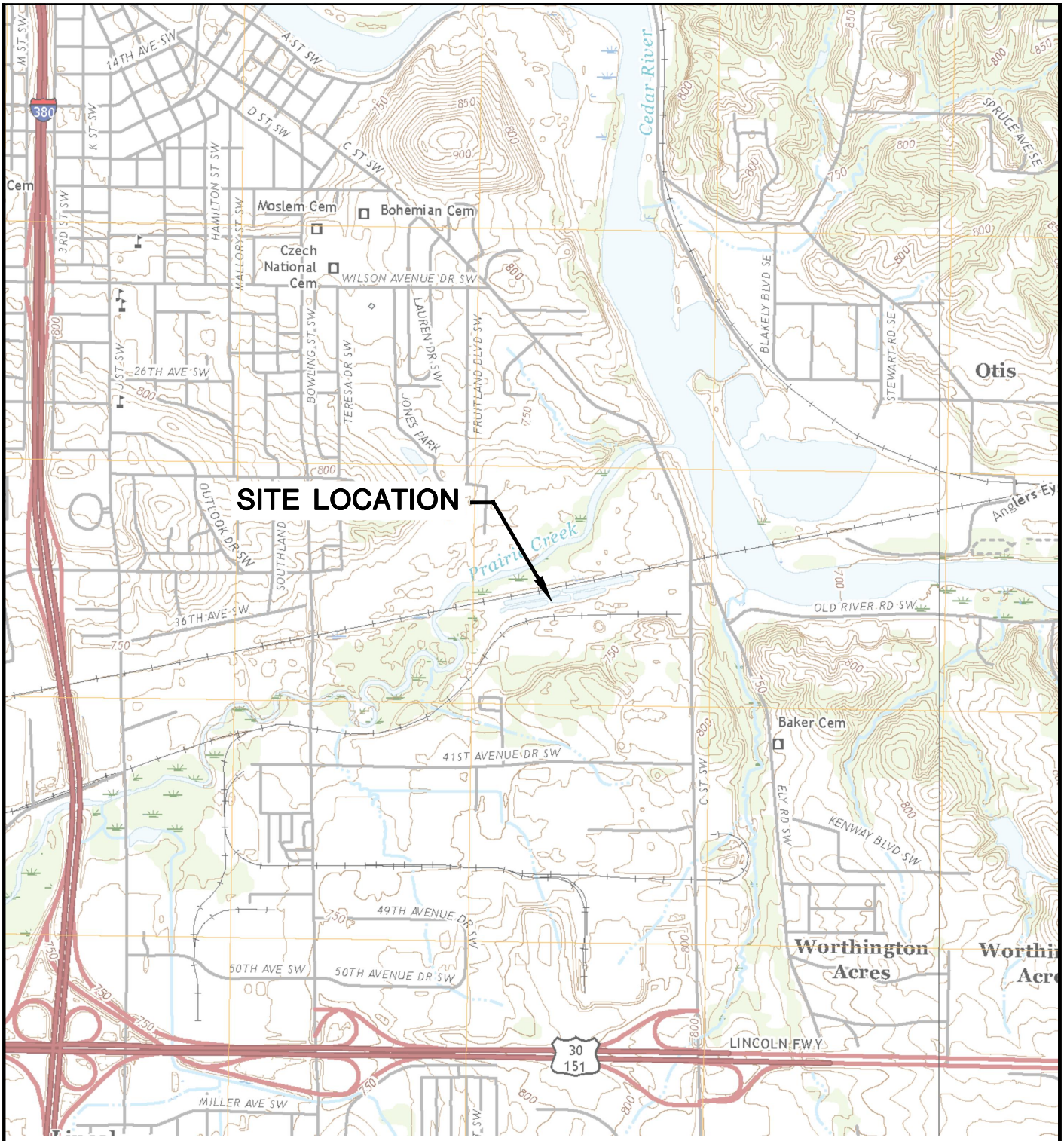
Abbreviations:
NM = Not Measured

Created by: NDK Date: 4/22/2021
Last revision by: EMS Date: 7/27/2023
Checked by: RM Date: 7/31/2023
PM QA/QC: TK Date: 1/17/2024

02/26/2024 - Classification: Internal - ECRM13238692

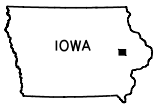
Figures

02/26/2024 - Classification: Internal - ECRM13238692



N

CEDAR RAPIDS SOUTH QUADRANGLE
IOWA–LINN CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
2018
SCALE: 1" = 2,000'



CLIENT	ALLIANT ENERGY 4902 N. BILTMORE LANE, #1000 MADISON, WI 53718	SITE	ALLIANT ENERGY PRAIRIE CREEK GENERATING STATION CEDAR RAPIDS, IA

SITE LOCATION MAP

PROJECT NO.	25219074.00	DRAWN BY:	BSS
DRAWN:	11/18/2019	CHECKED BY:	MDB
REVISED:	01/14/2020	APPROVED BY:	TK 01/30/2020

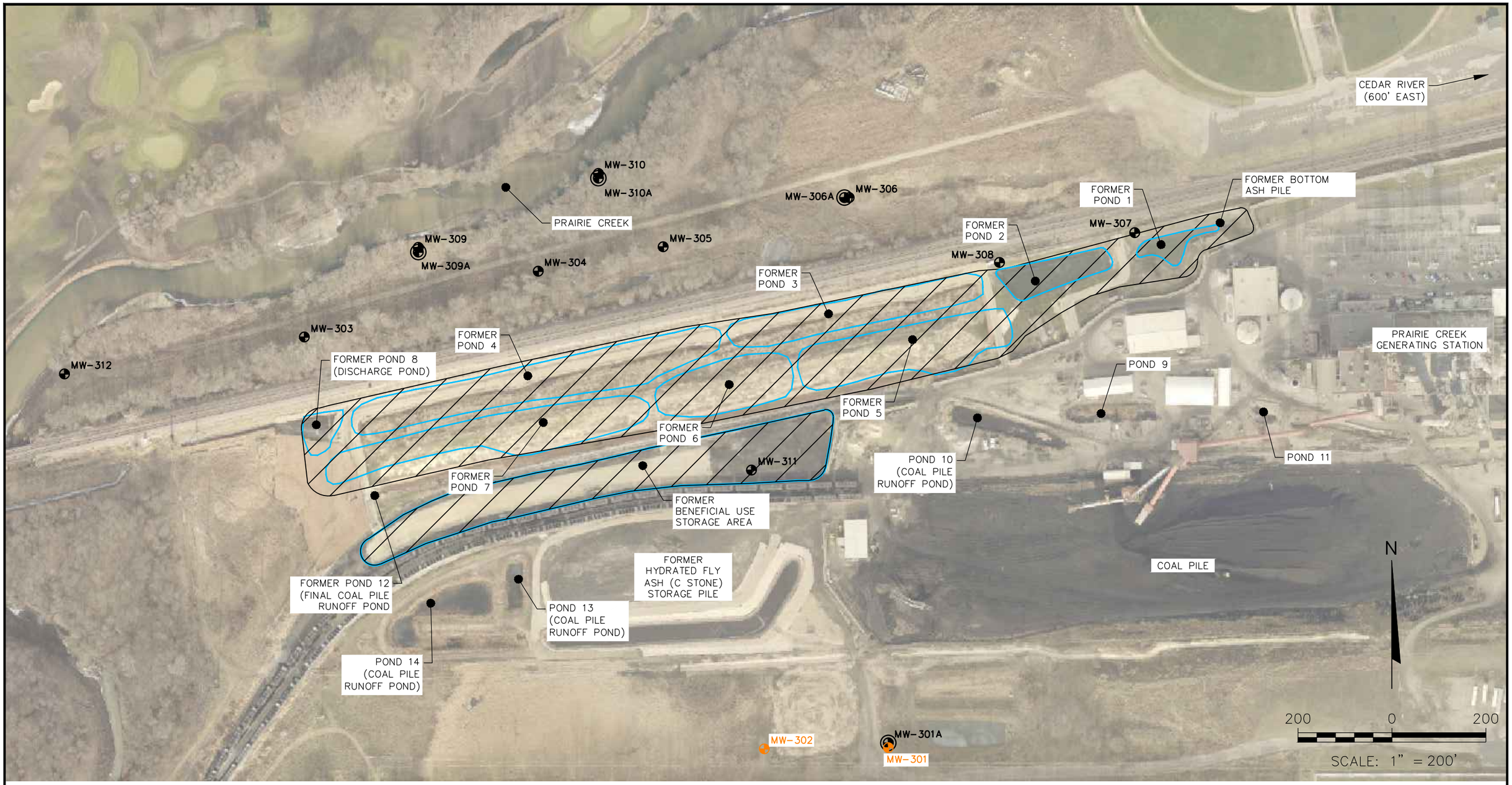
ENGINEER

SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718–6751
PHONE: (608) 224–2830

FIGURE
1

I:\25219074.00\Drawings\CCR 2019 Annual Report\Site Location Map.dwg, 1/30/2020 3:28:29 PM

02/26/2024 - Classification: Internal - ECRM13238692



LEGEND

- MONITORING WELL
- BACKGROUND MONITORING WELL
- PIEZOMETER
- FORMER CCR UNITS
- APPROXIMATE CLOSURE AREA (SEE NOTE 1)

NOTES:

1. PCS PONDS 1-8, THE BOTTOM ASH PILE, AND THE BENEFICIAL USE STORAGE AREA WERE CLOSED IN DECEMBER 2018. LIMITS ARE APPROXIMATE.
2. AERIAL PHOTO IMPORTED FROM THE ARCMAP BASEMAP (CEDAR RAPIDS, IOWA GIS – DECEMBER 22, 2018).
3. MONITORING WELLS MW-301 THROUGH MW-306 INSTALLED BY CASCADE DRILLING BETWEEN OCTOBER 31 AND DECEMBER 6, 2016.
4. MONITORING WELLS MW-307 AND MW-308 INSTALLED BY CASCADE DRILLING ON NOVEMBER 27, 2018.
5. MONITORING WELLS MW-309 AND MW-310 INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING ON AUGUST 5-6, 2019.
6. MONITORING WELLS MW-301A AND MW-306A INSTALLED BY CASCADE DRILLING ON JUNE 22-24, 2020.
7. MONITORING WELLS MW-309A AND MW-310A WERE INSTALLED BY CASCADE DRILLING ON JULY 23, 2020.
8. THE BACKGROUND MONITORING WELLS FOR THE PRAIRIE CREEK GENERATING STATION ARE: MW-301 AND MW-302.

PROJECT NO.	25222074.00	DRAWN BY:	BSS/KP
DRAWN:	11/18/2019	CHECKED BY:	RM
REVISED:	01/19/2024	APPROVED BY:	TK 1/19/2024

ENGINEER: SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

CLIENT: INTERSTATE POWER AND LIGHT
4902 N. BILTMORE LANE, #1000
MADISON, WI 53718

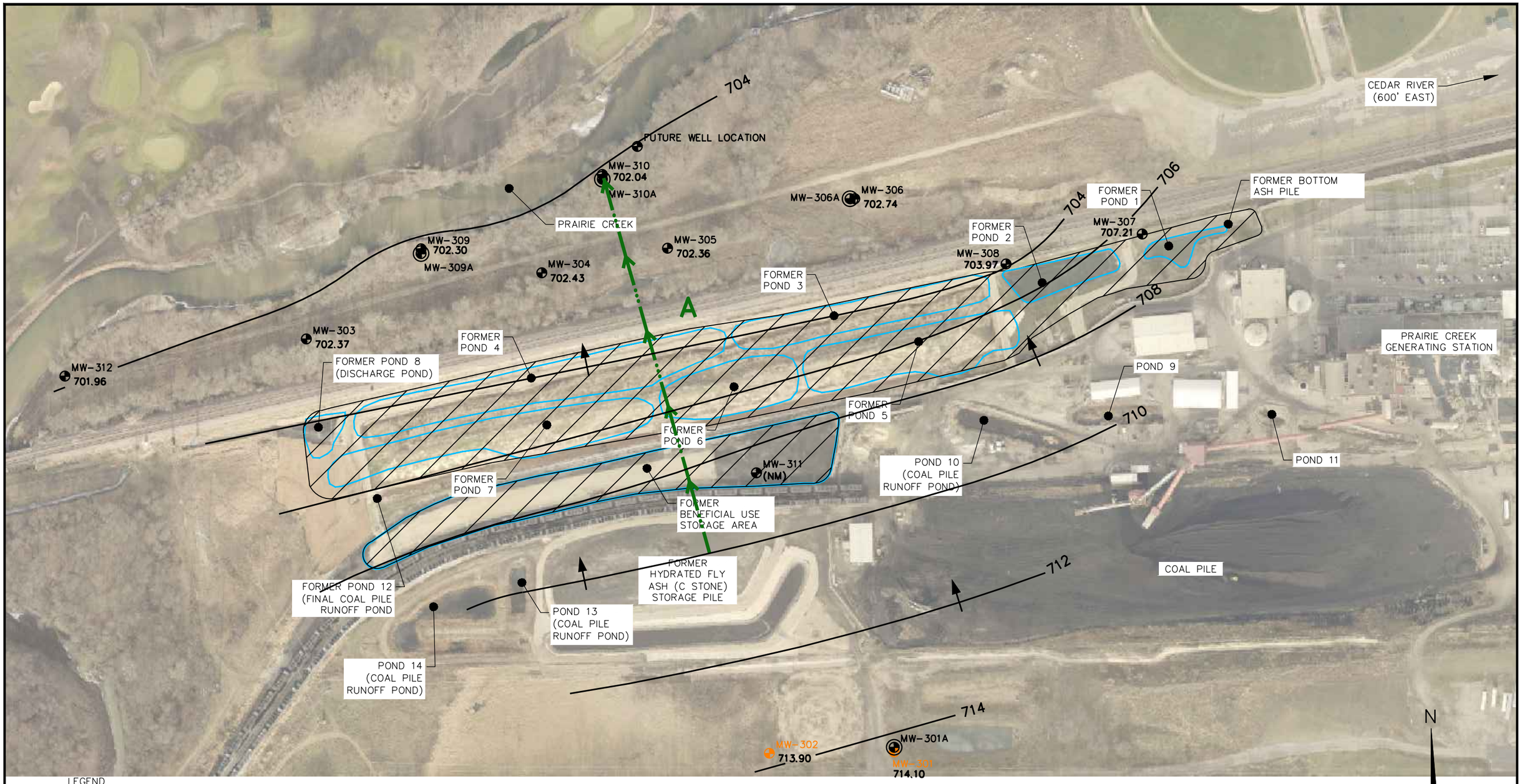
SITE: ALLIANT ENERGY
PRAIRIE CREEK GENERATING STATION
CEDAR RAPIDS, IA

SITE PLAN AND
MONITORING WELL LOCATIONS

FIGURE
2

I:\25222074.00\Drawings\Site Plan and Monitoring Well Locations.dwg, 1/19/2024 4:31:07 PM

02/26/2024 - Classification: Internal - ECRM13238692



LEGEND

- MONITORING WELL
- BACKGROUND MONITORING WELL
- PIEZOMETER
- CCR UNITS
- APPROXIMATE CLOSURE AREA
- 713.44 WATER TABLE ELEVATION (APRIL 19–20, 2023)
- (NM) NOT MEASURED
- WATER TABLE CONTOUR
- FLOW PATH FOR VELOCITY CALCULATION (SEE TABLE 4A)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTES:

1. SEE FIGURE 2 FOR BASE MAP NOTES.

200 0 200

SCALE: 1" = 200'

PROJECT NO.	25223074.00	DRAWN BY:	KP
DRAWN:	06/15/2023	CHECKED BY:	NB
REVISED:	01/19/2024	APPROVED BY:	TK 1/19/2024

ENGINEER: SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

CLIENT: ALLIANT ENERGY
4902 N. BILTMORE LANE, #1000
MADISON, WI 53718

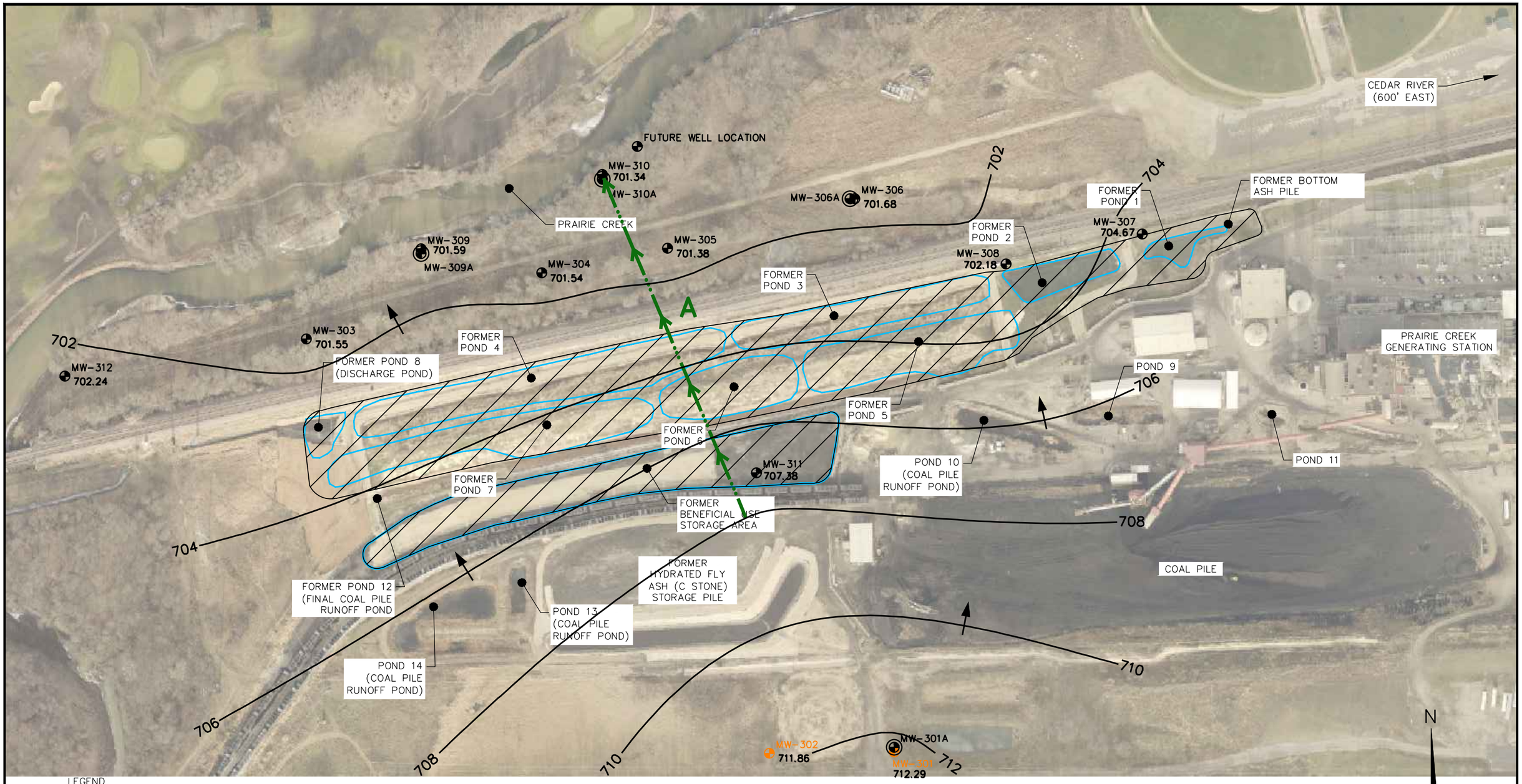
SITE: ALLIANT ENERGY
PRAIRIE CREEK GENERATING STATION
CEDAR RAPIDS, IA

WATER TABLE MAP
APRIL 2023

FIGURE 3

I:\25223074.00\Drawings\Wtbl.dwg, 1/19/2024 4:35:38 PM

02/26/2024 - Classification: Internal - ECRM13238692



LEGEND

- MONITORING WELL
- BACKGROUND MONITORING WELL
- PIEZOMETER
- CCR UNITS
- APPROXIMATE CLOSURE AREA
- 713.44 WATER TABLE ELEVATION (NOVEMBER 6-7, 2023)
- WATER TABLE CONTOUR
- FLOW PATH FOR VELOCITY CALCULATION (SEE TABLE 4A)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTES:

1. SEE FIGURE 2 FOR BASE MAP NOTES.

200 0 200

SCALE: 1" = 200'

PROJECT NO.	25223074.00	DRAWN BY:	KP
DRAWN:	12/04/2023	CHECKED BY:	NLB
REVISED:	01/19/2024	APPROVED BY:	TK 1/19/2024

ENGINEER: SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

CLIENT: ALLIANT ENERGY
4902 N. BILTMORE LANE, #1000
MADISON, WI 53718

SITE: ALLIANT ENERGY
PRAIRIE CREEK GENERATING STATION
CEDAR RAPIDS, IA

WATER TABLE MAP
NOVEMBER 2023

FIGURE 4

I:\25223074.00\Drawings\Wtbl.dwg, 1/19/2024 4:37:08 PM

02/26/2024 - Classification: Internal - ECRM13238692

Appendix A

Regional Hydrogeologic Information

02/26/2024 - Classification: Internal - ECRM13238692

Table PC-2. Regional Hydrogeologic Stratigraphy
Prairie Creek Generating Station / SCS Engineers Project #25215053.01

Age of Rocks	Hydrogeologic Unit	General Thickness (feet)	Name of Rock Unit*	Type of Rock
Quaternary (0-1 million years old)	Surficial Aquifers • Alluvial • Buried-Channel • Drift	0 to 400	Undifferentiated	• Sand, gravel, silt, and clay • Sand, gravel, silt, and clay • Till (sandy, pebbly clay), sand, and silt
Pennsylvanian (280 to 310 million years old)	Aquiclude, locally contains waterbearing sandstone	0 to 70	Undifferentiated	• Shale, sandstone, limestone, and coal
Mississippian (310 to 345 million years old	Mississippian Aquifer	0 to 220	Meramecian Series Osagean Series Kinderhookian Series	• Limestone and sandstone • Dolomite, limestone, and shale • Limestone, dolomite, and siltstone
Devonian (345 to 400 million years old)	Devonian Aquiclude	0 to 350	Yellow Spring Group Lime Creek Group	• Shale, dolomite, and siltstone • Dolomite and shale
	Devonian Aquifer	0 to 400	Cedar Valley Limestone Wapsipinicon Limestone	• Limestone and dolomite • Dolomite, limestone, and shale
Silurian (400 to 425 million years old)	Silurian Aquifer	0 to 450	Gower Dolomite Hopkinton Dolomite Kankakee Limestone Edgewood Dolomite	• Dolomite, with some chert and limestone
Ordovician (425 to 500 million years old)	Aquiclude	300 to 600	Maquoketa Shale Galena Dolomite Decorah Formation Platteville Formation	• Dolomite and shale • Dolomite and chert • Limestone and shale • Limestone and shale
	Cambrian-Ordovician aquifer	400 to 650	St. Peter sandstone Prairie du Chien Formation Jordan Sandstone St. Lawrence Dolomite	• Sandstone • Dolomite, sandstone, and shale • Sandstone • Dolomite
Cambrian (500 to 600 million years old)	Cambrian confining beds	90 to 290	Franconia Sandstone	• Shale, siltstone, and sandstone
	Dresbach Aquifer	157 to 1644	Dresbach Group Galesville Sandstone Eau Claire Sandstone Mt. Simon Sandstone	• Sandstone • Sandstone, shale, and dolomite • Sandstone
Precambrian (600 million to more than 2 billion years old)	Precambrian rocks	Unknown	Crystalline rocks, undifferentiated	• Sandstone, igneous and metamorphic rocks

*This nomenclature and classification of rock units in this report are those of the Iowa Geological Survey and do not necessarily coincide with those accepted by the U.S. Geological Survey.

Source: "Water Resources of East-Central Iowa," Iowa Geologic Survey Water Atlas No. 6.

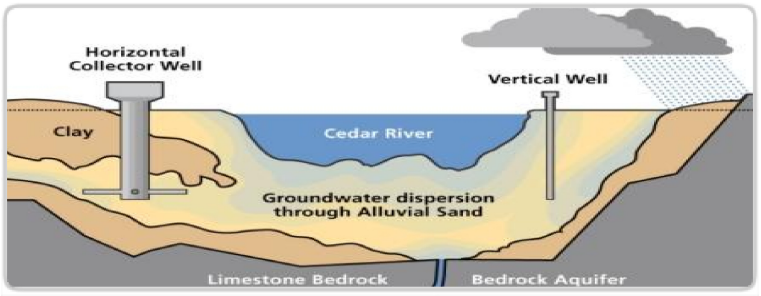
I:\25215053\Reports\Report 8 - OGS\Tables\Regional_Hydrogeologic_Stratigraphy.doc

02/26/2024 - Classification: Internal - ECRM13238692

Resident Resources

Parks & Recreation
Utilities
Energy Management
Garbage & Recycling
Utility Bills
Water
About Us
Backflow Prevention
Outages/Main Breaks
Our Treatment Process
Water Quality
Our Watershed
Water Quality Report
Best Tasting Water
Water Engineering
In the Home
Drought
Water Conservation
Utility Bills
5 in 1 Dam
Sewer Maintenance
Water Pollution Control
Sewer
Storm Water
City Buses
Rental Services
Neighborhood Services
Streets Services
Housing Services
CleanUpCR
iGreenCR
Library
Public Safety
City Services
Get Involved
Americans with Disabilities Act

Our Watershed



SHARE

Where Does Our Water Come From?

The City of Cedar Rapids obtains its drinking water supplies from shallow vertical and collector wells constructed in the sand and gravel deposits along the Cedar River. Those deposits form an underground water-bearing layer called an alluvial aquifer. Because of continuous pumping of the City's wells, most of the water in the aquifer is pulled from the river. The rest of the water is supplied as water percolates up from a deeper bedrock aquifer or down from the top of the ground.

Our drinking water from those wells benefits from natural filtration through the riverbank. This natural sand filtration has proven beneficial, pre-treating the water before it ever reaches the City's two treatment plants (both conventional lime-softening facilities).

Watershed Monitoring

In order to most effectively manage our water resources, the Cedar Rapids Water Division has worked with state and federal agencies to complete a source water assessment, identifying potential contamination sources in the Cedar River watershed. The results of that assessment, paired with a continuous monitoring program, help us better understand our watershed. We have confirmed that some contaminants, including nitrate, herbicides and bacteria, enter the Cedar River watershed upstream from our wells. The watershed of the Cedar River upstream from Cedar Rapids is over 6,500 square miles and extends into southern Minnesota. Monitoring of these contaminants will continue to ensure a strong watershed protection program.

If you are interested in reviewing our source water assessment or any monitoring results, please contact the CRWD at 319-286-5910.

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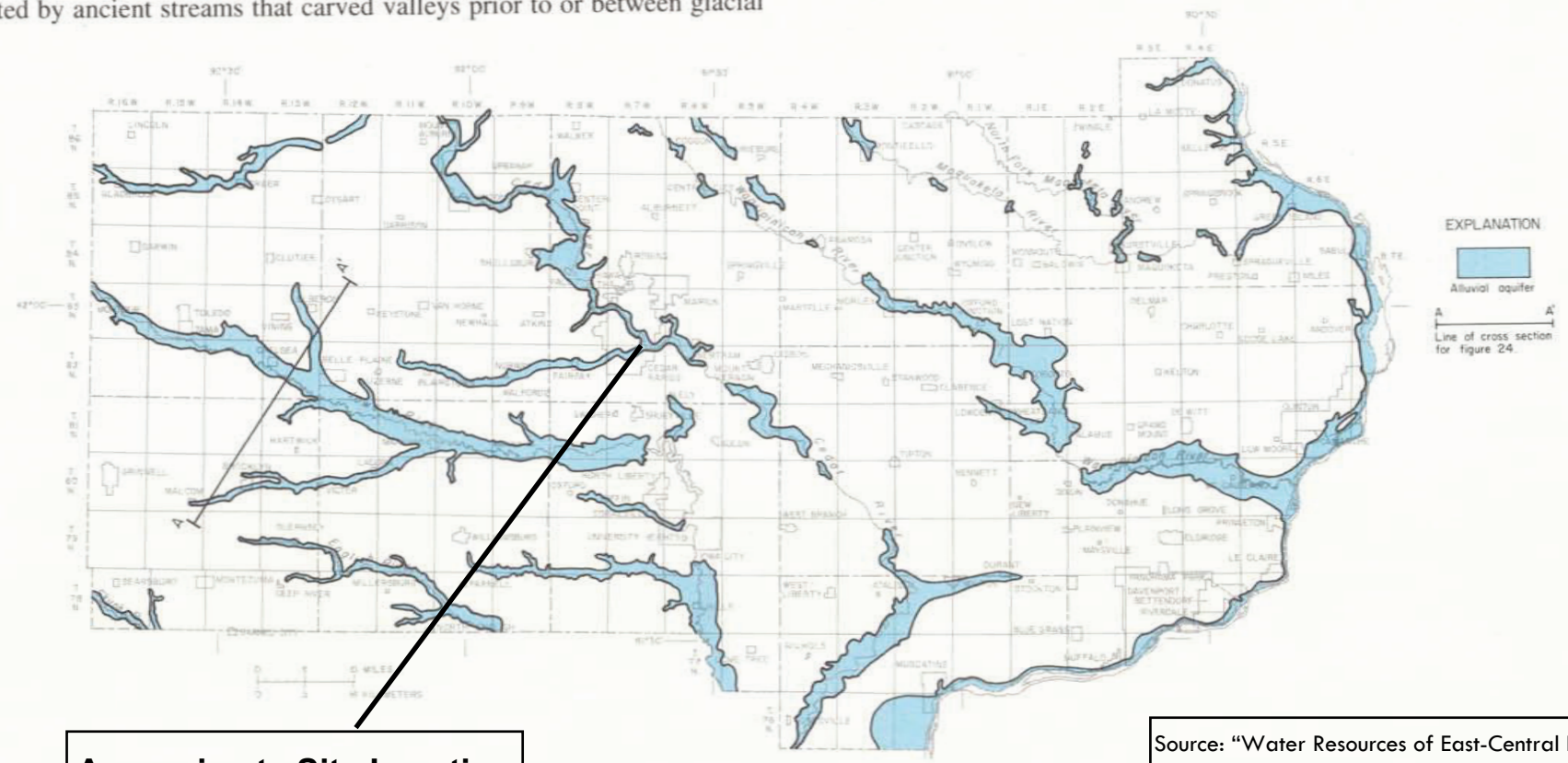
Surficial Aquifers

The surficial aquifers are located within the unconsolidated materials above the bedrock surface. They are subdivided into alluvial, buried-channel, and drift aquifers.

The alluvial aquifers are deposits located along present-day watercourses. They consist of sands and gravels interbedded with less-permeable silts and clays and lie beneath the flood plains of larger rivers and creeks. In the eastern half of the report area, the Iowa, Cedar, Wapsipinicon, and Maquoketa Rivers as well as Buffalo Creek alternately flow through narrow bedrock gorges and wide flood plains (fig. 22). Thus the alluvial aquifers occur irregularly in the valleys of these rivers.

The buried-channel aquifers (fig. 23) are the unconsolidated material deposited by ancient streams that carved valleys prior to or between glacial advances. Many of these ancient valleys were scoured deeply into the bedrock and are much wider than the valleys of present streams (fig. 24). Buried channels may be easily recognized on the bedrock topography map (fig. 25), but are only poorly expressed in the modern landscape. While they are not generally expressed as primary features of present topography, they exert noticeable influences on modern drainage. Prairie Creek near Cedar Rapids, Deep Creek near Preston, and the lower stretches of the Cedar, Wapsipinicon, and Maquoketa Rivers follow the courses of buried channels. See figures 22 and 23. In addition, most of the irregularly occurring alluvial aquifers in the eastern half of the report area are located where modern stream valleys intersect buried bedrock channels.



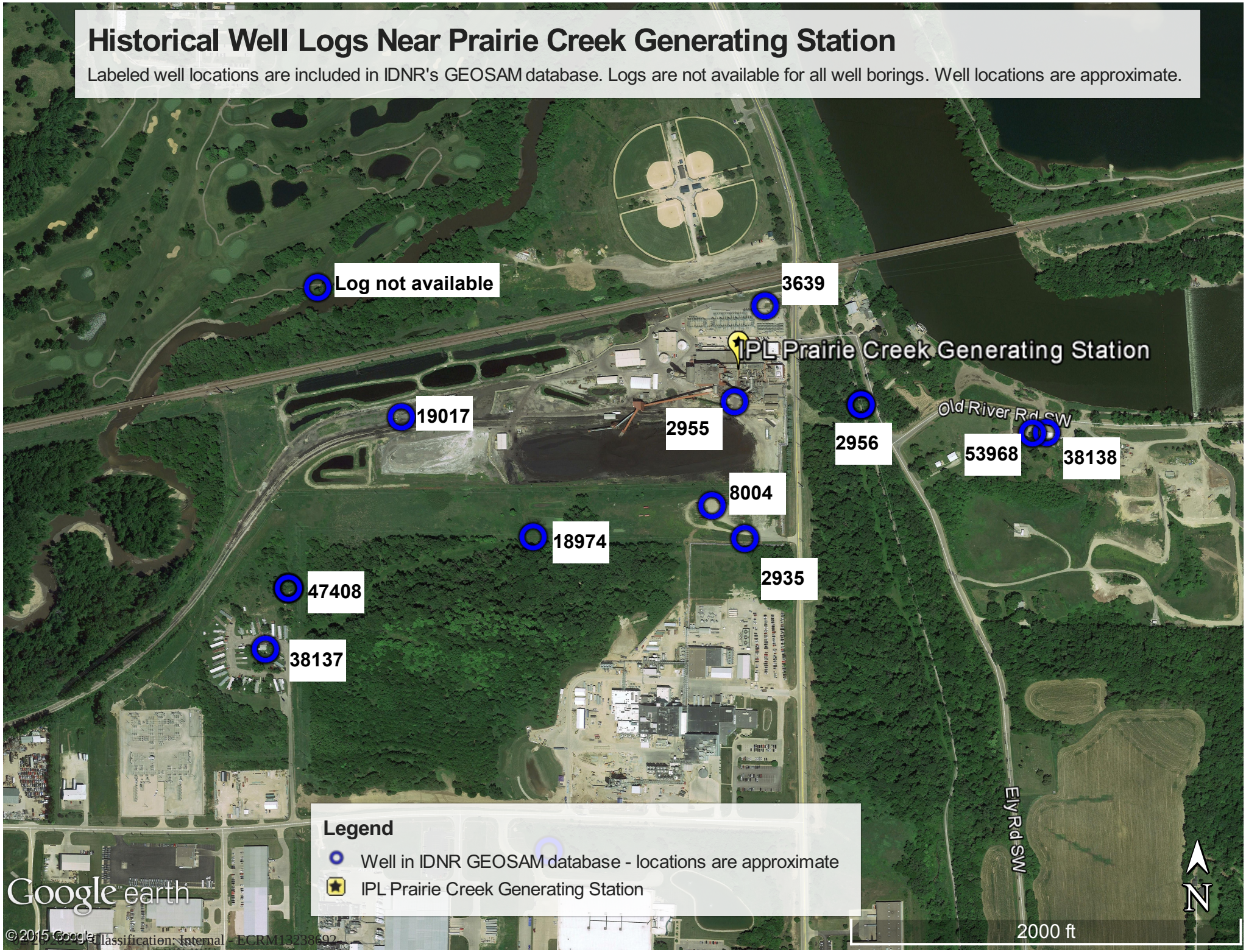
Source: "Water Resources of East-Central Iowa," Iowa Geologic Survey Water Atlas No. 6.

Figure 22.—Areal distribution of alluvial aquifers in east-central Iowa

02/26/2024 - Classification: Internal - ECRM13238692

Historical Well Logs Near Prairie Creek Generating Station

Labeled well locations are included in IDNR's GEOSAM database. Logs are not available for all well borings. Well locations are approximate.



Classification: Internal - ECRM13238692

FORM NO. 79 - In stock and for sale by Mid-West Prtg. Co., Tulsa W-2935

STATE
IOWA

CEDAR RAPIDS (LINN)

NE¼ SE NE
SEC.
3

CENTRAL IOWA POWER CO-OP

Test hole No. 1

TWP. 82N RGE. 7W

COMMENCED COMPLETED

Art Bruinekool

CASING RECORD

LOGGED BY
Aug 11, 1947 SE & Jr.

REMARKS
S.W.L. 19.6' below L.S - 8-11-47

Elev. 722 ±

T.D. 75'

CB 7-3

Alluv. prob Iowan

soil reddish brn, silty
sd med to crse, dirty, brn to red
yel crser this is clean

Gray clay masses sdy slt sdy, calc, gr. Aluv.

sd crs pbls
some pbls
cht pbls

sd med poorly sorted rd, bright
slt & clay bl gr. v. fn; slt lam, wh, qtz
sd, crse to v. crsw. some grav.
yel bedrock reported

71

Bertram

Otis

T.D 75'

100

02/26/2024 - Classification: Internal - ECRM13238692

General | Construction | Logs | Stratigraphy | Water | Storage

Identification

Date Received	
Owner Name	Hide-A-Way Manor
Alt Name	
WNumber	38137
PWTS ID	
Storet ID	
SDWIS ID	2411834
USGS ID	
Project	SOURCE WATER PROTECTION
Operator	Unknown

Location

State	Iowa
County	Linn
Quadrangle	Cedar Rapids South, Iowa
Township	T82N
Range	R7W
Section	3
Quarter	SW NE NE
Latitude	41.9401300000
Longitude	-91.6478370000
Accuracy	GPS +/- 20 m.
UTM X	612089
UTM Y	4644013

Site

Site Type	Drilled hole
Well Status	Active
Field Located	
Elevation	741 ft
Elevation Accuracy	Digital Elevation Model Accurate to 5 ft
Landscape Position	Valley

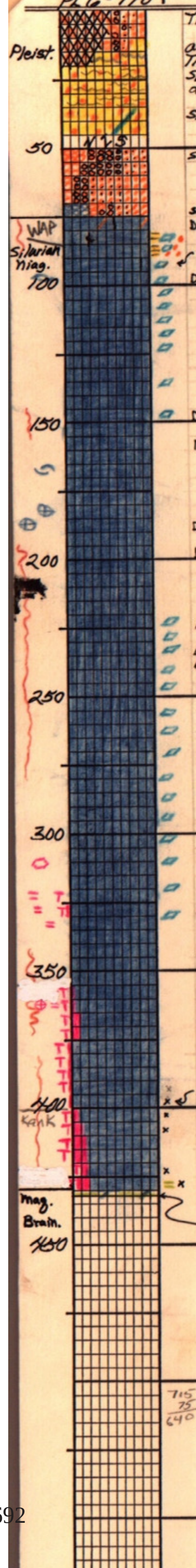
Drilling

Drilling Company	Unknown
Drilling Date	
Drill Method	Unknown
Bedrock Depth	
Well Depth	142 ft
Total Depth	142 ft
Well Types	Public Access
Aquifers	Silurian

FORM NO. 79—In stock and for sale by Ross-Martin Co., Tulsa. W-19017

STATE Iowa	Cedar Rapids (Linn)
SW NW SW NE	Iowa Elec. L & P #5
SEC. 3	
TWP. 82 RGE. 7W	COMMENCED — COMPLETED 10/66
	Thorpe
	CASING RECORD
	LOGGED July 1974 BY Gilmore
El. 715' Topo.	REMARKS
TD. 432'	

PLG-740



Till, dull yel brn, oxid, leached grding to sd & grav.
aa. mixed w/ gr slt.
Till aa + slt & clay
Slt, olive gr, clayey, sdy
aa. sli calc.
Slt, tan, sli sdy, few pieces of grav. size. calc

Sd & grav., varicolored.

Sd & grav aa + broken Dol, crm - tan, pt SL-dense, vf.
Dol, m-lt gr, dense, sli vuggy, few emb sd grains + Dol, lt yel gr, Xln, vf-f, sli sdy, sli vuggy.
Dol, gr orng pnk, Xln, vf. + Dol, yel gr, Xln, f.
Dol, pale orng - yel orng, Xln, vf.

Dol aa to gr orng pnk, Xln, vf-f, sli vuggy
Dol, mod yel brn - gr orng pnk, Xln, vf-f, mod dense

Dol, pnk orng - yel gr, Xln, vf-m
Dol, orng-pnk, orng yel, Xln, f-m, vuggy

Dol, lt gr orng pnk, Xln, f-vf, sli vuggy
Dol, orng-pnk, orn-yel, Xln, f-m, sli vuggy
Dol aa + lt gr orng pnk.

Dol, gr orng pnk, v pale orng, orng yel, Xln, f-vf, sli vuggy
Dol, v pale orng, Xln, f-vf,

Cht, lt gr-wht, s., trip. Dol, v pale orng - v. pale yel orng, Xln, f-vf.
Dol, gr orng pnk, Xln, f-m.
Dol, v pale orng - lt gr orng pnk, Xln, f.

Cht, wht, yel gr, S-R, trip. Dol, gr orng pnk - pale orng, Xln, f-m, vuggy
aa. + Dol, yel gr, Xln, f.
Cht, off wht, lt gr, yel gr, porcel, trip. Dol, mixed aa.
Cht aa. Dol, lt gr yel, Xln, f-m.
Dol aa, + some gr orng pnk aa.
Dol, v pale yel brn - yel gr, Xln, m-f, few pyrite fleck

Cht, wht, yel gr, sli mott gr, S-R, sli trip. Dol aa, few gr orng pnk pieces.

Few pyrite flecks in cht. & dol.
Dol, yel gr, some sulfide mott, Xln, f.
Sh, lt grn gr, pulv, dolo. 30% Dol aa - recirc. + trace of Edgewood s/s.
TD. 432

715
75
640

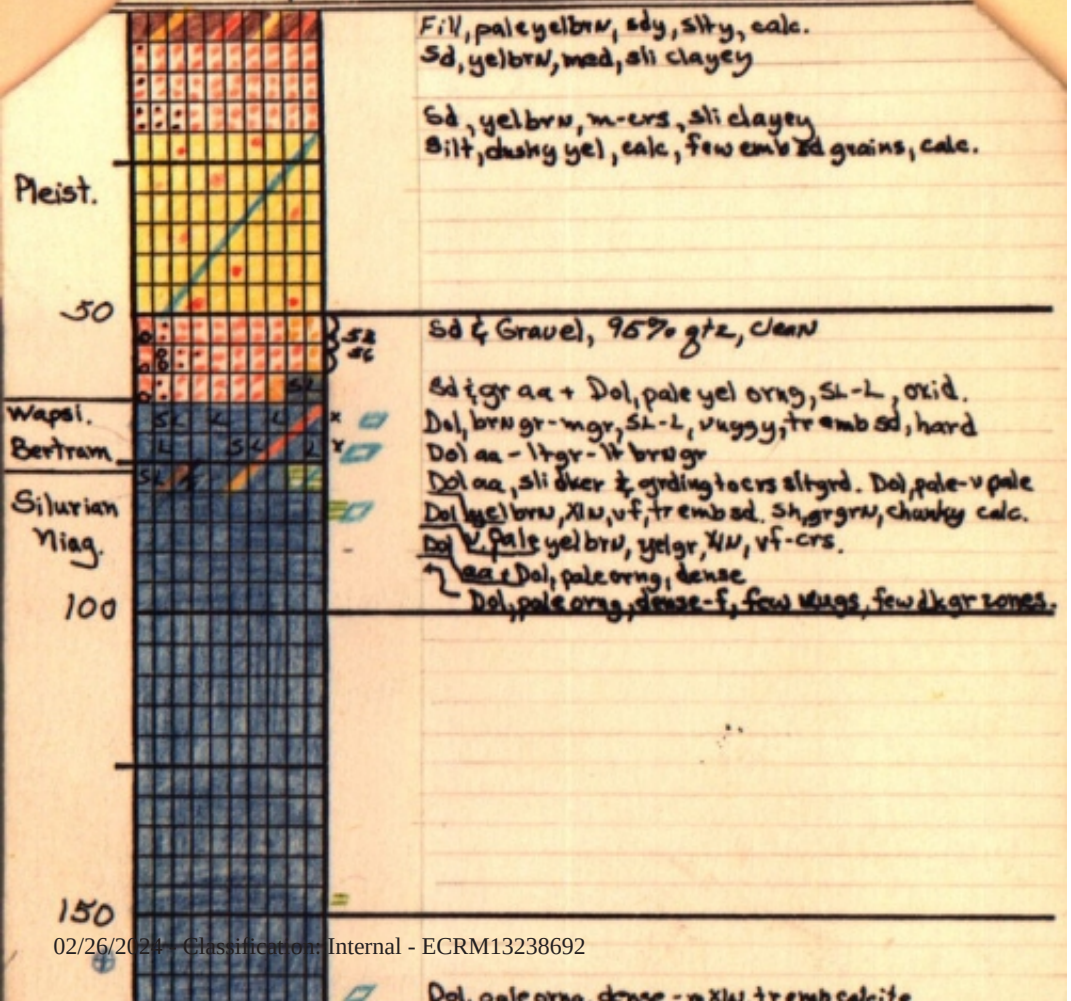
430
75
355

3

02/26/2024 - Classification: Internal - ECRM13238692

FORM NO. 79—In stock and for sale by Ross-Martin Co., Tulsa. W-18974

STATE Iowa	Cedar Rapids (Linn)
SE NE SW NE	Central Iowa Power #4
SEC. 3	
TWP. 82 RGE. 7W	COMMENCED 8-22-66 COMPLETED 9-14-66
3°	Thorpe Well Co.
	CASING RECORD 42" csg 0-5', 32" csg +1'-23', 24" csg +1'7"-69'7", 16" csg +2'10"-90'
	LOGGED 10-22-71 BY Gilmore
EL. 722'	REMARKS Cable tools
TD. 439'	SWL-40'-58', PL-113.9'
	Yield-600 gpm
PL6-717	



Fill, pale yel brn, sdy, slty, calc.
Sd, yel brn, med, sli clayey

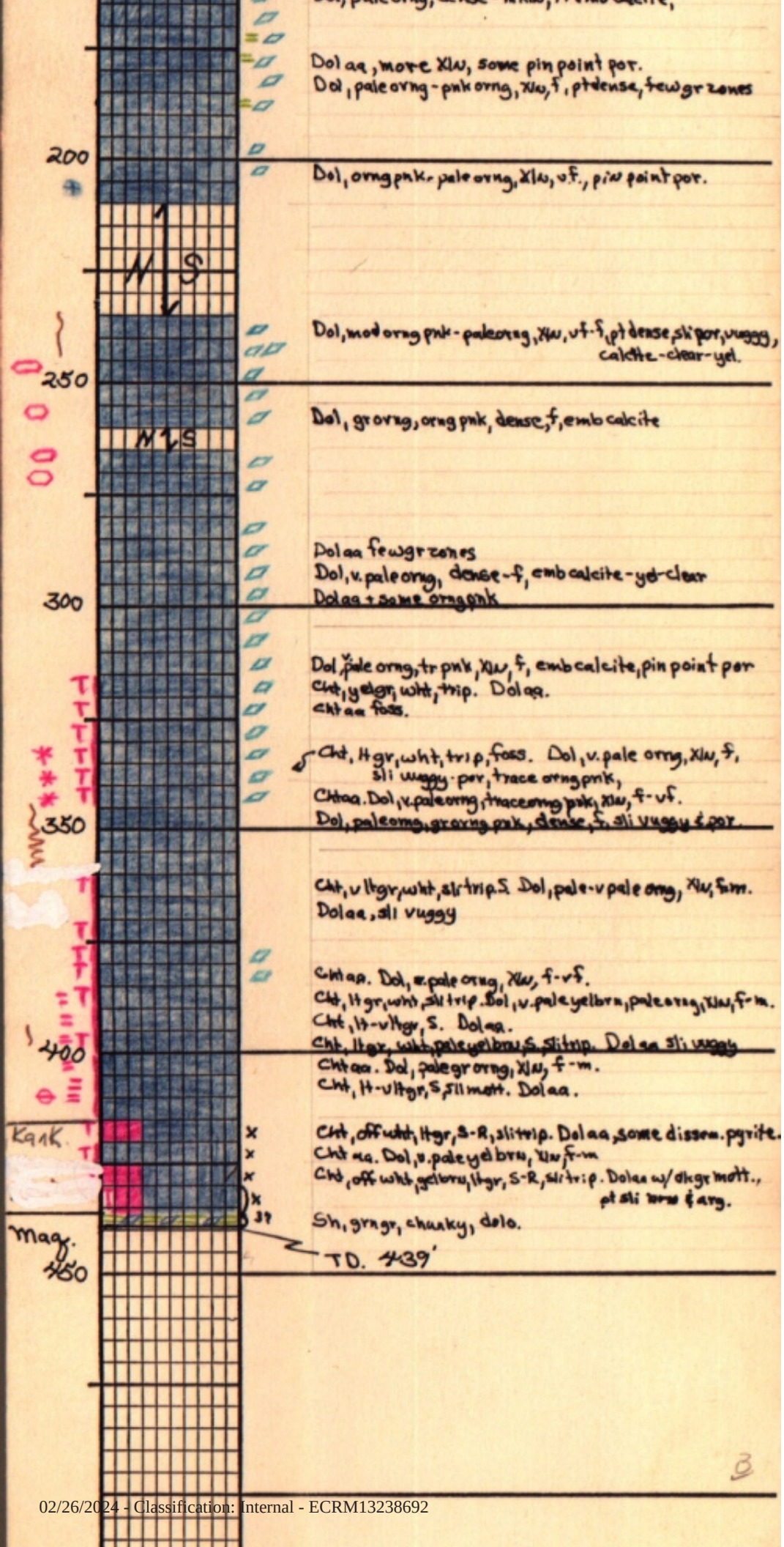
Sd, yel brn, m-crs, sli clayey
Silt, dusky yel, calc, few emb sd grains, calc.

Sd & Gravel, 95% qtz, clean

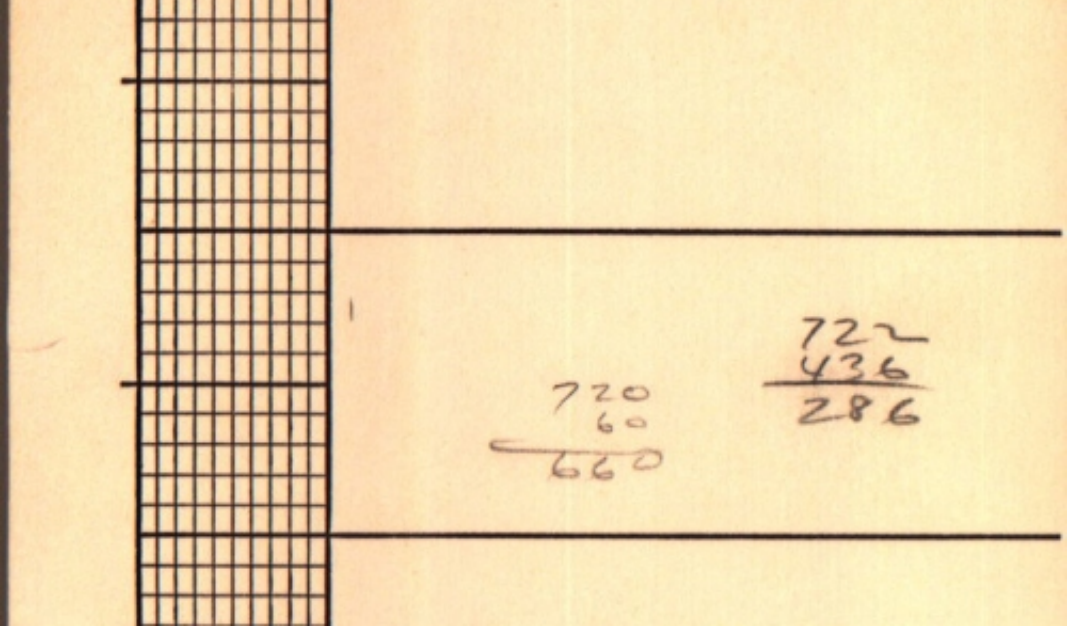
Sd & gr aa + Dol, pale yel org, SL-L, oxid.
Dol, brn gr-m gr, SL-L, vuggy, tr emb sd, hard
Dol aa - lt gr - lt brn gr
Dol aa, sli diver & grading to crs sltgrd. Dol, pale-v pale
Dol yel brn, XLN, vf, tr emb sd. Sh, gr grn, chunky calc.
Dol v. pale yel brn, yel gr, XLN, vf-crs.
aa & Dol, pale org, dense
Dol, pale org, dense-f, few vugs, few dk gr zones.

Dol, pale org, dense - m XLN, tr emb calcite

02/26/2024 - Classification: Internal - ECRM13238692



02/26/2024 - Classification: Internal - ECRM13238692



02/26/2024 - Classification: Internal - ECRM13238692

FORM NO. 79—In stock and for sale by Ross-Martin Co., Tulsa. W-8004

STATE IOWA	CEDAR RAPIDS (LINN)
NW NESENE APP. C ~~NE SE~~	CENTRAL IOWA POWER COOP #3
SEC. 3 NWNWNESENE	(REA)
TWP. 82N RGE. 7W	COMMENCED AUG. 21 – COMPLETED SEPT. 14, 1956
	HOEG & AMES
	CASING RECORD 77' OF 20" CASING
	99' OF 12" CASING (CEMENTED)
	LOGGED FEB. 25, 1957 BY NORTHUP
EL 722'	REMARKS SWL 38.67'
TD 434 [redacted]	PL 144.9' @
	SWL 39.12'
ml 3/57	PWL 145±' @ 476 gpm
EK8-1	

PLEIS.

50

WAPSI.

Bert.

SILURIAN

100

NIAG.

150

- 77'
- 93
- 99

LOESS YEL., NON CALC.
TILL YELLOW, OXIDIZED, LEACHED

TILL YELLOW, UNOXIDIZED, UNLEACHED

TILL SLI. MIXED – A-A, BECOMING GR.
GRAVEL & A-A; SD. LT. GR. CRSE TO f. A-A

GRAVEL f. A-A
GRAVEL ON; SD. GR. + YEL. CRSE. A-A

X LS. LT. GY, BF; LITHO DOLO.
LS. LT. GY, LITHO DOLO.
DOL. CRM. M.-TO f. CALC.; LS. A-A
DOL. CRM. f. GY-GR.
DOL. CRM. + BF. f. SAC.

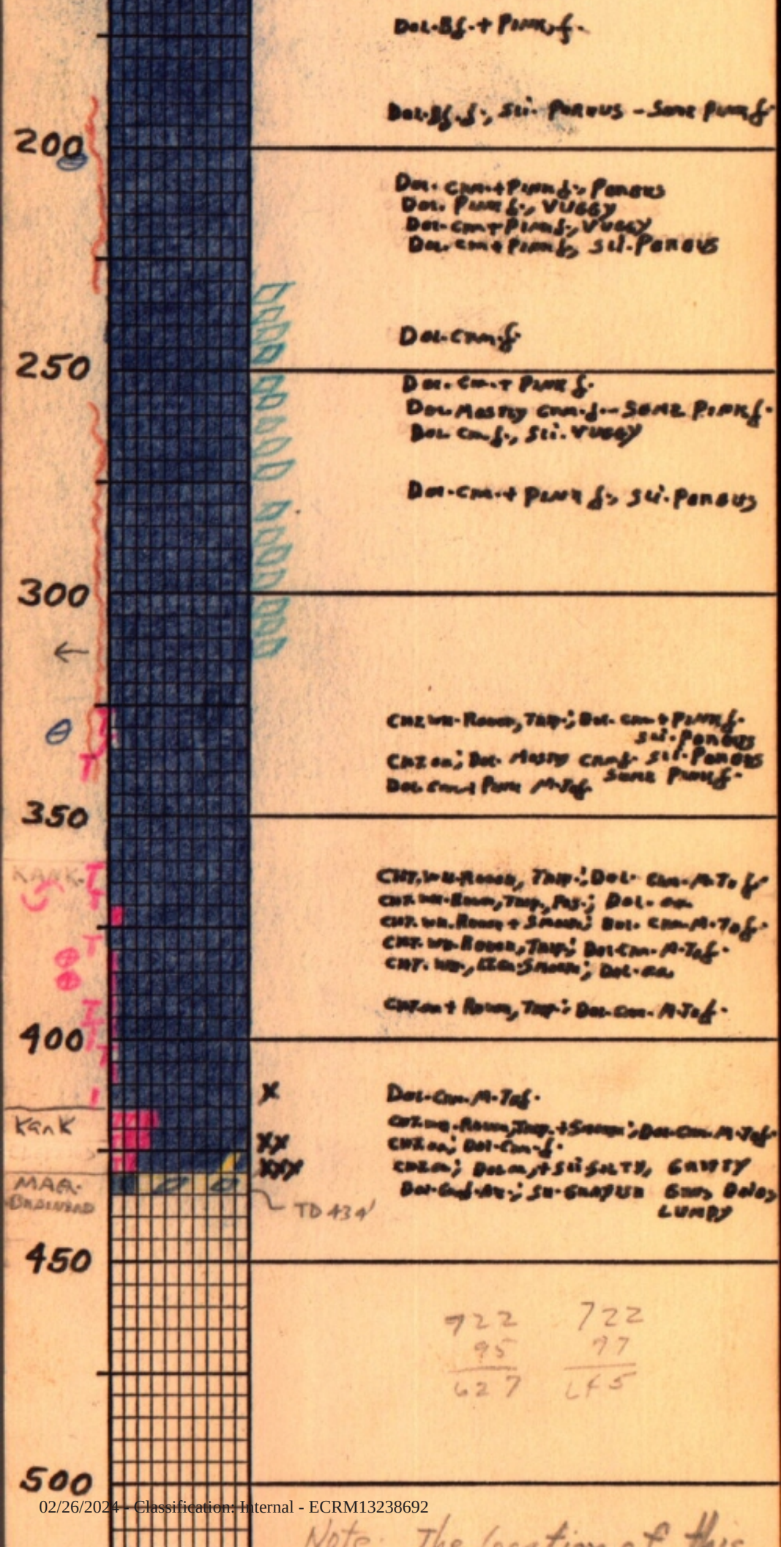
DOL. CRM. f.

DOL. GR. + SLI. VUGGY

X DOL. CRM. + BF. f.
X DOL. CRM. f.
X DOL. CRM. + PINK f.

DOL. CRM. + PINK M.-TO f.
DOL. CRM. + PINK f.

02/26/2024 ... Internal - ECRM13238632



02/26/2024 - Classification: Internal - ECRM13238692

well should be checked. The map provided by the Company indicates the plant is in the

NE¼ sec. 3-82-7W

Elev. should be checked also.

A set of geophysical logs was ran 3-23-76. Caliper and radiation logs gave indications of major cavities from 200-220', and 300-320', Those

logs are on file with the Carbonate Hydrology Project data.

3-24-76
Bunker

LB

722
430
292

02/26/2024 - Classification: Internal - ECRM13238692

FORM NO. 79 - In stock and for sale by Mid-West Prtg. Co., Tulsa N-3639

STATE: IOWA

Cedar Rapids (Linn)

SE SE-NE-NE

Central Iowa Power Co-op #1

SEC. 3

(NORTH) R.E.A.

TWP. 82N RGE. 7W

COMMENCED: May 5-1949

COMPLETED: June 1, 1949

Hoes & Ames - Ed Martin

CASING RECORD: 110' of 12" Casing Cemented in 20" hole - Open 12" hole below

LOGGED BY: M. Parker RW.

EL. 722'

TD 434'

CE10-6

REMARKS: Pump setting 290'
2nd Prod. Test after 1st acid.
SWL. 24.50'
PWL 250±' @ 248 gpm
for 1½ hrs. When rate ~~was increased to 256 gpm~~
well started pumping air

Wapsi
50
Ken.
Otis
Sil-
H 100
200
300
400
Kank
Maq.

silt, lt-tan. fn-sd, rd, cmb. calc.
a.a.
Dol. yel-tan. fn-xln, sdy, silty.
a.a.
Dol. buff, speckled, tan. v.sdy. silty. spklng
Dol. lt to med gray, v.fn to sublith. 2nd a.a.
Dol. a.a. cmb. calcite in part.
Dol. gray, mottled. v.fn-subl.
Dol. gray & tan. fn-xln. sdy, arg. Sh. dk grn, sdy. Trace.
Dol, gray & tan. fn-med xln. spkl. silty, sdy
Dol. gray, tan, & greenish, fn-med. sdy, arg.
Ls, bf-gr, mot, sl-frag. tr grn. shale

630

Dol, yel-pk, f-m sac por.

Sd, A, clr.
v. small qtz. X's

722
92
630

Dol, yel, f sac, less por.
Dol, yel-pk, f sac, dens, little por; Sh yel grn unc.
vug. fos. por.
Cht, wh-bf, G-S; Dol, pk brn f dns, vug

Dol, pk-bf, f, vug fos.

Dol, crm f vug fos.

Dol, pk + pch, f, vug.
crm

Cht, wh-bf, T-G; Dol, crm v.f.

pk-crm f-m

722
350
372

372

Dol, gr bf.

Cht, wh G, S, T

722
415
307

Cht, some bf.
Dol, mot w blk pyr.; Sh, gr amor.
Dol, crm, m.
Sh, grn, soft.; Dol, grn f

722
425
297

Driller reports Shale at 432' - TD 434'. When measured hole was found to be 5' deeper than shown on samples.

722
425
297

02/26/2024 - Classification: Internal - ECRM13238692

FORM NO. 79 - In stock and for sale by Mid-West Prtg. Co., Tulsa W-2956

STATE: Iowa

CEDAR RAPIDS (LINN)

NW-SW-NW

Central Iowa Power Co-op #3 ('47)

SEC. 2

TWP. 82N RGE. 7W

COMMENCED August 13, 1947 COMPLETED

Pella Tank & Pipe Co. Brumbaugh

CASING RECORD

cased with 5-3/16" casing (removed)

LOGGED Aug. 25, 1947 BY M. Parker

REMARKS

El. 715

No water level data

T.D. 55'

Test hole abandoned

CB8-1

0

Top soil dk. brn. silty sdy.
Sd. fn-med R-a dirty clay tan v. sdy.
Sd med-crse R-a. dirty.
Sd. a.a. some gravel
Clay H. gray silty sdy v. silty calc
a.a.
Clay H. gray-tan v. v. sdy.
clay a.a. & Sd. fn-med a-r.
Sd. med-crse a-r-dirty some gravel

50

T.D. = 55'

715
55
660

02/26/2024 - Classification: Internal - ECRM13238692

FORM NO. 79 - In stock and for sale by Mid-West Prtg. Co., Tulsa W-2955

STATE
Iowa

CEDAR RAPIDS (LINN)

NE-SE-NE
SEC.
3

Central Iowa Power Coop. Testhole #2

TWP. 82N RGE. 7W

COMMENCED COMPLETED

Art Brunekool

CASING RECORD
5 3/16" casing to bedrock

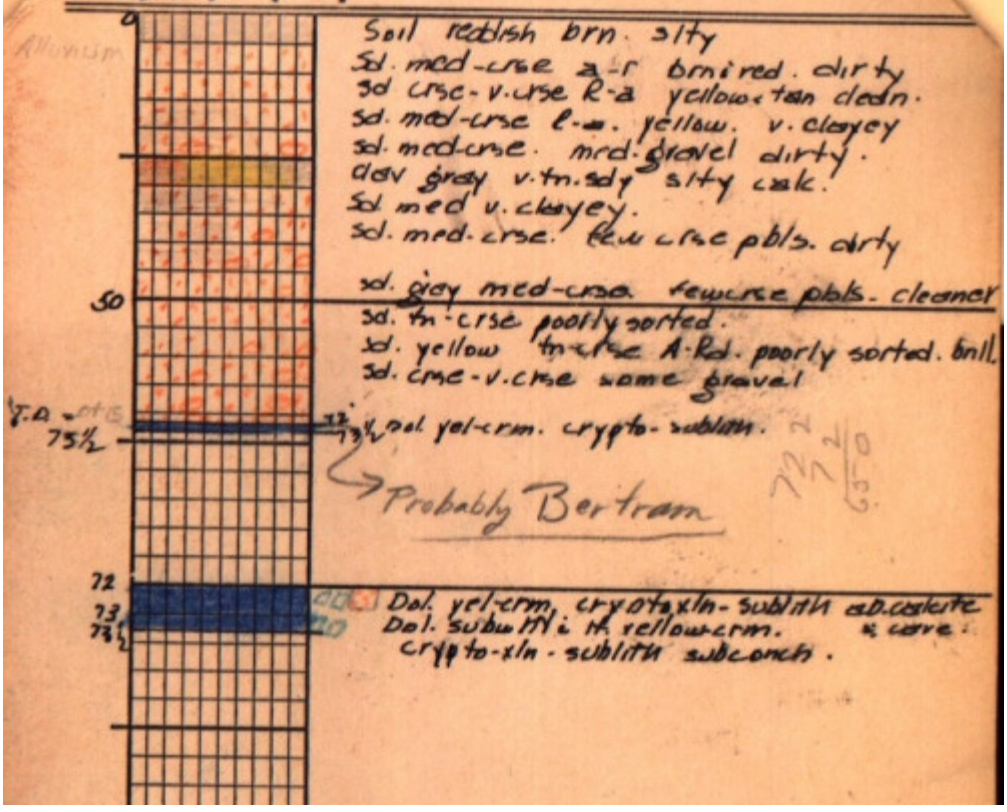
LOGGED BY
Aug 13, 1947 M Parker

REMARKS

El. 722±

T.D. 73½

CD7-9



02/26/2024 - Classification: Internal - ECRM13238692

General | Construction | Logs | Stratigraphy | Water | Storage

Identification

Date Received	
Owner Name	New Shack Tavern, The
Alt Name	
WNumber	38138
PWTS ID	
Storet ID	
SDWIS ID	2409013
USGS ID	
Project	SOURCE WATER PROTECTION
Operator	Unknown

Location

State	Iowa
County	Linn
Quadrangle	Cedar Rapids South, Iowa
Township	T82N
Range	R7W
Section	2
Quarter	NW SW NE
Latitude	41.9431790000
Longitude	-91.6330300000
Accuracy	GPS
UTM X	613311
UTM Y	4644371

Site

Site Type	Drilled hole
Well Status	Not Used
Field Located	
Elevation	728 ft
Elevation Accuracy	Digital Elevation Model Accurate to 5 ft
Landscape Position	Valley

Drilling

Drilling Company	Unknown
Drilling Date	
Drill Method	Unknown
Bedrock Depth	
Well Depth	120 ft
Total Depth	120 ft
Well Types	Public Access
Aquifers	Silurian

General | Construction | Logs | Stratigraphy | Water | Storage

Identification

Date Received	
Owner Name	New Shack Tavern, The
Alt Name	
WNumber	53968
PWTS ID	
Storet ID	
SDWIS ID	2413414
USGS ID	
Project	SOURCE WATER PROTECTION
Operator	Unknown

Location

State	Iowa
County	Linn
Quadrangle	Cedar Rapids South, Iowa
Township	T82N
Range	R7W
Section	2
Quarter	NW SW NE
Latitude	41.9431730000
Longitude	-91.6332960000
Accuracy	GPS +/- 20 m.
UTM X	613289
UTM Y	4644370

Site

Site Type	Drilled hole
Well Status	Not Used
Field Located	
Elevation	731 ft
Elevation Accuracy	Digital Elevation Model Accurate to 5 ft
Landscape Position	Valley

Drilling

Drilling Company	Unknown
Drilling Date	
Drill Method	Unknown
Bedrock Depth	
Well Depth	40 ft
Total Depth	40 ft
Well Types	Public Access
Aquifers	Alluvium

Iowa Department of Natural Resources Geological Survey Bureau
109 Trowbridge Hall Iowa City, Ia. 52242-1319 PH (319) 335-1575

WELL RECORD 47408

Permit No. _____

Site identification

Property Owner Kloubec Aquaculture Well Number _____

Address 3800 est SW C.R.

Tenant _____

Well Depth 335 ft Date Completed 7 / 25 / 96

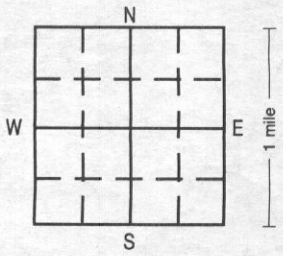
Location

County Linn

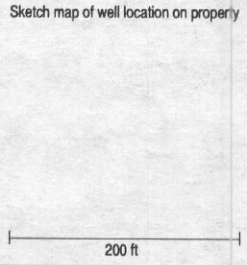
____ mi. N/S and ____ mi. E/W of intersection of _____ and _____

____ 1/4 of the ____ 1/4 of the ____ 1/4 of Sec 3 TWP 82 RNG 7 E/W

Show exact location of well in section grid with a dot (●).



Sketch map of well location on property



☐ upland ☒ hillside ☐ valley Elevation (if known) _____

Formation log

From	To	Color	Hardness	Formation description
0	38	Yellow		Clay
38	78			Limestone
78	170			Devonian
170	335			Silurian

use additional sheets as needed

Remarks (including depth of lost drilling fluids, materials, or tools)

Well use

☐ Domestic ☐ Municipal ☐ Industrial
☒ Livestock ☐ Public Supply ☐ Monitoring
☐ Test Well ☐ Irrigation ☐ Other _____ (explain)

Drill method

☒ rotary ☐ auger ☐ cable other _____

Hole size

16 inch from 0 ft to 20 ft
8 inch from 20 ft to 100 ft

hole size continued
6 inch from 100 ft to 335 ft
____ inch from ____ ft to ____ ft

Record all depth measurements from ground level (GL). Use (+) for above GL measurements.

Casing

Drive shoe (yes / no) Pitless adaptor (yes / no)

Size (ID/OD)	Type / Wt	Depth top	Depth bottom	Amount (length)
6 SDR 21	PVC	+1	100	101
~~5 100#~~				
4½ SCH 40	PVC	95	215	120

Perforated or slotted casing? (yes / no)

Perforated / slotted from 175 ft to 215 ft
Perforated / slotted from _____ ft to _____ ft

Casing grouted? (yes / no)

Type	Depth Top	Depth Bottom	Amount
Bensel	0	20	2 SACKS
Bentonite Pellets	20	100	

Well screen? (yes / no)

Diameter	Slot size	Depth Top	Depth Bottom	Length	Material

Bottom capped (yes / no) with _____
Seals / Packers (yes / no) kind _____ depth _____ ft
Gravel packed (yes / no) from _____ ft to _____ ft
type _____ amount _____

Well developed? (yes / no)

Explain A.R

Pump installed? (yes / no) Date ____ / ____ / ____

Installer's name ~~Bob~~ Same
Type of pump Sub Depth to intake 200 ft
Pump diameter 4 Rated capacity 70 GPM

Water information

Aquifer: ☐ sand/gravel ☒ limestone ☐ sandstone
Main water-supply zone from 175 ft to 335 ft
Final water level (static water level) 110 ft (below / above) GL.
Pumping water level 180 ft below GL; ☐ tape ☐ airline ☐ E-line Est
At yield of 100 GPM; ☐ orifice ☐ volumetric ☒ estimate Date 7/25

Water quality test? (yes / no) Date tested ____ / ____ / ____

Tested by _____
Test results _____

Contractor Gingerich Well & Pump

Address 1321 Locust Ave, Kalona
Driller Kirk Gingerich Certification no. 40046

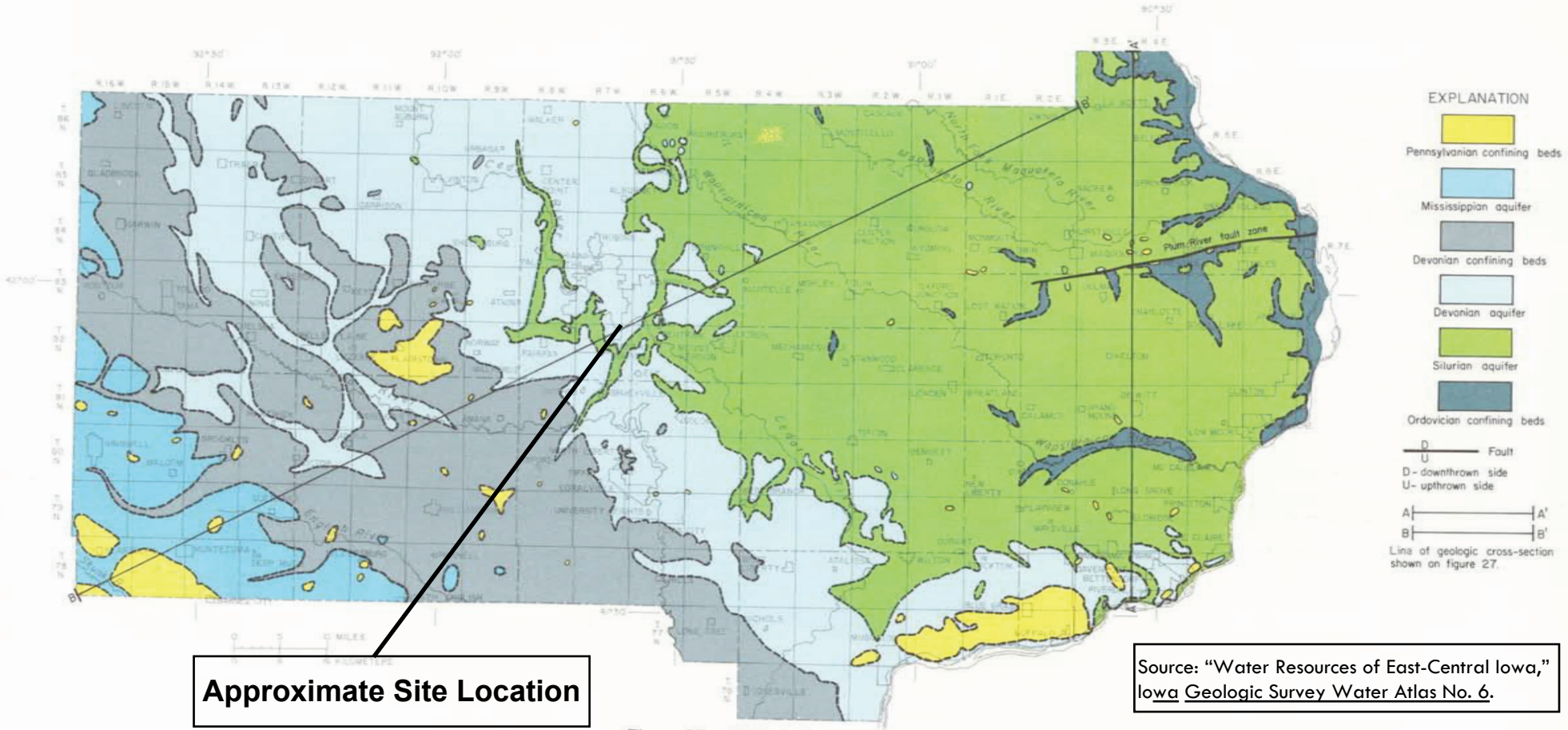
02/26/2024 - Classification: Internal - ECRM13238692
white copy - **Iowa DNR, Geological Survey Bureau** blue copy - **Well Contractor** pink copy - **Customer** yellow copy - **County Health Officer**

Bedrock Aquifers

The bedrock hydrogeologic map (fig. 26) shows the aquifers and confining beds that make up the bedrock surface in east-central Iowa. Pennsylvanian confining beds are the bedrock in the extreme southwest corner of the area, in southeast Muscatine County and southwest Scott County, and in other small outlying localities. The Mississippian aquifer is found beneath the surficial deposits in most of the southwest part of the region. The Devonian confining beds comprise the bedrock surface in an area about 25 miles wide extending from the northwest corner to the south-central part of the report area. They have been partly or completely removed in parts of the Belle Plaine and Poweshiek buried bedrock channels.

The Devonian aquifer is the bedrock in a broad belt that parallels the northeast side of the Devonian confining beds. This belt is from 12 to 25 miles wide and extends from northern Benton and Linn Counties to the southern border of Muscatine County. The Devonian and Silurian aquifers are separated by an irregular zone of relatively thin shale occurring near the base of the Devonian and represented by a single line on figure 26.

The Silurian aquifer comprises the bedrock surface over most of the eastern half of the area. In the extreme northeastern border area the Ordovician confining beds are found at the bedrock surface. They also appear in several buried bedrock channels where the Silurian aquifer has been removed locally by erosion.



Source: "Water Resources of East-Central Iowa," Iowa Geologic Survey Water Atlas No. 6.

Figure 26.—Bedrock hydrogeologic map

02/26/2024 - Classification: Internal - ECRM13238692

The Cambrian-Ordovician aquifer and the underlying Dresbach aquifer are not at the bedrock surface in east-central Iowa. These aquifers are shallowest in the northeastern part of the area; they slope southwest and become progressively deeper in the subsurface. Figure 27 shows that all the rock units are approximately parallel to each other and dip (slope) toward the southwest.

A major structural feature, the Plum River fault zone, extends approximately 30 miles through southern Jackson County and northwest Clinton County. This structure continues eastward approximately 40 miles into northwest Illinois, where it was originally recognized and mapped (Kolata and Buschbach, 1976). As much as 400 feet of vertical displacement has been inferred by the Illinois State Geological Survey in the vicinity of Savannah, Illinois, and similar displacements may occur in Iowa between Preston and Maquoketa. In the vicinity of Preston, an uplifted area south of the fault zone is indicated by the anomalous presence of the Ordovician confining beds at the land surface. Preliminary results from an ongoing research drilling program in the Devonian and Silurian aquifers have indicated a possible extension of the structure as far west as southern Linn County, Iowa. The Plum River fault zone is probably quiescent, as no evidence of geologically recent movement along the fault has been found.

The fault zone has cut the various bedrock aquifers and confining beds, and faulting has placed them adjacent to rock units of dissimilar hydrologic characteristics (fig. 27). Depending on the local displacement or associated fracturing, the fault may serve either as a barrier to or a conduit for ground water movement. Where an aquifer is placed against a confining bed the fault may serve as an impediment to ground-water movement. Where two different aquifers are placed against one another by the fault there may be continuity between the two aquifers.

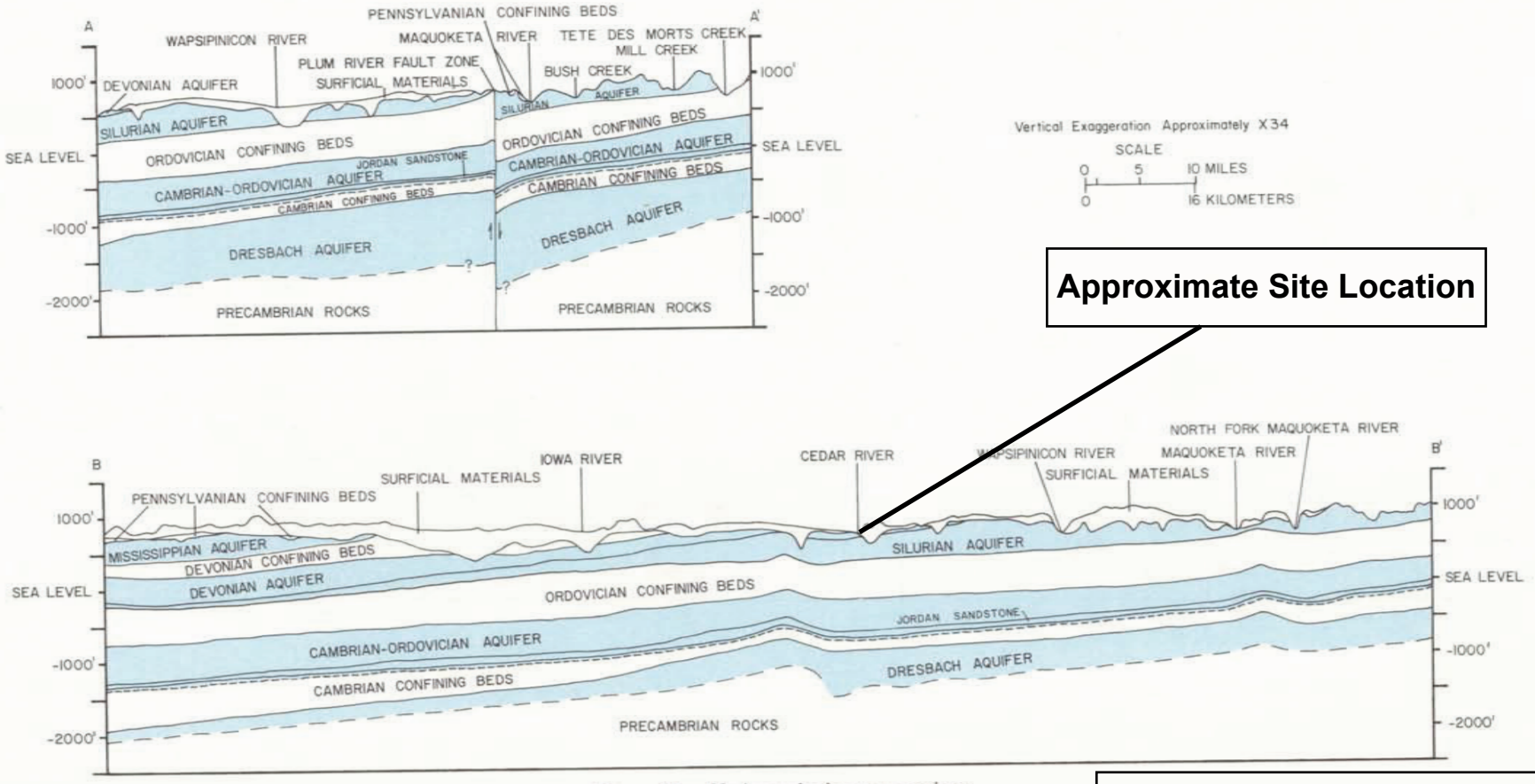


Figure 27.—Hydrogeologic cross sections

Source: "Water Resources of East-Central Iowa," Iowa Geologic Survey Water Atlas No. 6.

02/26/2024 - Classification: Internal - ECRM13238692

Appendix B

Boring Logs and Well Construction Documentation

02/26/2024 - Classification: Internal - ECRM13238692

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL - Prairie Creek Generating Station SCS#: 25215135.60		MW-301

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Mike Mueller Cascade Drilling	10/31/2016	10/31/2016	HSA

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-301	Feet	730.0 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 3,447,401 N, 5,426,409 E S/C/N
SW 1/4 of NE 1/4 of Section 3, T 82 N, R 7 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Linn	Cedar Rapids

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				TOPSOIL.										
S1	19	3 4 4 6	1–5	SILT WITH SAND, very dark grayish brown (10YR 3/2).	ML			0.5		M				
S2	24	2 7 6 9	6–7	LEAN CLAY WITH SAND, dark grayish brown (10YR 4/2).	CL			0.3		M				
S3	22	3 3 4 6	8–9	POORLY GRADED SAND WITH SILT, dark yellowish brown (10YR 3/4), medium grained.	SP			0.4		M				
S4	23	3 4 4 5	10–12	SANDY SILT, dark yellowish brown (10YR 3/4).	ML			0.3		M				
S5	12	4 9 11 12	13–16	POORLY GRADED GRAVEL, dark yellowish brown (10YR 3/4), coarse grained.	GP			0.3		W				water at 12.5 ft bgs.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm SCS Engineers
2830 Dairy Drive Madison, WI 53711
Tel: (608) 224-2830
Fax:

02/26/2024 - Classification: Internal - ECRM13238692

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-301

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
S6	17	5 11 11 11	17	POORLY GRADED GRAVEL, dark yellowish brown (10YR 3/4), coarse grained. *(continued)*	GP			0.3		W				
			18											
S7	17	5 8 9 9	19					0.2		W				
			20											
S8	23	2 2 1 4	21					0.2		W				
			22											
			23											
				End of boring at 23.5 ft bgs.										

02/26/2024 - Classification: Internal - ECRM13238692

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Prairie Creek Generating Station SCS#: 25220057		MW301A

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Roy Buckenberger Cascade	6/23/2020	6/23/2020	vibratory

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW301A	Feet	Feet	6.0 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S / C / N
1/4 of 1/4 of Section , T N, R
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Linn	Cedar Rapids, Iowa

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			1	Topsoil. 10YR3/4.	ML									
1	36		2–5	Silt with trace fine sand. 10YR3/4.					1.0	M				
			6		ML									
2	36		7–9						1.0	W				
			10	No Return.										
	0		11–15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel:
Zach Watson	SCS Engineers 2830 Dairy Dr., Madison, WI, 53718	Fax:

02/26/2024 - Classification: Internal - ECRM13238692

Boring Number MW301A

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			16	Silty Sand. Fine Sand. Well Graded. 10YR3/4.										
			17											
3	60		18		SM					W				
			19											
			20	Tan and Rust colored Silty Sand. 2.5Y4/3 and 10YR3/4.										
			21											
			22											
4	60		23		SM					W				
			24											
			25	Silty Gravel. 2.5Y2.5/1										
			26		GM									
			27	Lean Clay. Stiff and uniform. No coarse material. Grey. 5Y4/1.										
5	60		28						1.3	W				
			29											
			30											
			31											
			32											
6	60		33		CL				1.0	W				
			34											
			35											
			36											
			37											
7	60		38						1.5	W				
			39											
			40											

02/26/2024 - Classification: Internal - ECRM13238692

Boring Number MW301A

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			41	Lean Clay. Stiff and uniform. No coarse material. Grey. 5Y4/1. *(continued)*										
			42											
8	60		43						1.0	W				
			44											
			45											
			46											
			47		CL									
9	60		48						1.0	W				
			49											
			50											
			51											
10	48		52						1.5	W				
			53											
			54											

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL - Prairie Creek Generating Station SCS#: 25215135.60		MW-302

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Mike Mueller Cascade Drilling	10/31/2016	10/31/2016	HSA

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-302	Feet	720.3 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 3,447,399 N, 5,426,146 E S/C/N
SW 1/4 of NE 1/4 of Section 3, T 82 N, R 7 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Linn	Cedar Rapids

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	TOPSOIL.										
			1	SILT WITH SAND, very dark grayish brown (10YR 3/2).										
			2											
			3		ML									
S1	5	1 4 8 9	4					0.5		M				water at 4.0 ft bgs.
			5	SILTY SAND, greenish gray (5GY6/1).										
S2	14	2 3 3 7	6		SM			1.0		W				
			7	POORLY GRADED SAND, greenish gray (5GY 6/1), coarse grained.										
			8											
S3	12	1 2 2 2	9	Same as above except, dark yellowish brown (10YR 3/4).				0.7		W				
			10											
S4	24	2 3 4 6	11		SP			0.5		W				
			12											
			13											
S5	14	1 2 2 2	14					0.5		W				
			15											
			16											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm SCS Engineers
2830 Dairy Drive Madison, WI 53711

Tel: (608) 224-2830
Fax:

02/26/2024 - Classification: Internal - ECRM13238692

SCS ENGINEERS
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SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-302 Page 2 of 2

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S6	23	2 3 4 4		SILT, greenish gray (5GY 6/1).	ML			0.3		W				
			17	End of boring at 17 ft bgs.										

02/26/2024 - Classification: Internal - ECRM13238692

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SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL - Prairie Creek Generating Station SCS#: 25215135.60		MW-303

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Mike Mueller Cascade Drilling	12/6/2016	12/6/2016	HSA

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-303	Feet	707.0 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 3,448,275 N, 5,425,166 E S/C/N
NW 1/4 of NE 1/4 of Section 3, T 82 N, R 7 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Linn	Cedar Rapids

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	SILT, very dark grayish brown (10YR 3/2).	ML									
S1	20	20 20 27 34	2 3 4					0.2		M				
			5	POORLY GRADED SAND, very dark grayish brown (10YR 3/2), coarse grained.	SP									
S2	12	2 17 20 21	6 7					0.2		W				saturation @ 5ft.
S3	16	7 8 8 6	8 9 10					0.2		W				
S4	17	4 3 3 3	11 12					0.2		W				
S5	17	1 1 2 3	13 14 15	Same as above except, brown (10YR 5/3), trace fine gravel.						W				
				End of boring at 15.5 ft bgs.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [signature] Firm SCS Engineers
2830 Dairy Drive Madison, WI 53711
Tel: (608) 224-2830
Fax:

02/26/2024 - Classification: Internal - ECRM13238692

SCS ENGINEERS
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SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL - Prairie Creek Generating Station SCS#: 25215135.60		MW-304

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Mike Mueller Cascade Drilling	12/6/2016	12/6/2016	HSA

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-304	Feet	707.1 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 3,448,415 N, 5,425,664 E S/C/N
NW 1/4 of NE 1/4 of Section 3, T 82 N, R 7 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Linn	Cedar Rapids

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S1	6	50/0.2	1–4	SILT, very dark grayish brown (10YR 3/2),	ML			0.2		M				water in borehole at 3 ft bgs.
S2	5	6 5 7 7	5–7					0.3		W				saturation @ 5ft.
S3	5	3 4 6 9	8–9	POORLY GRADED SAND, very dark grayish brown, medium to coarse grained.	SP					W				
S4	12	1 2 2 2	10–12							W				
S5	23	4 6 6 8	13–14							W				
			15	SILTY CLAY, gray.	CL									
				End of boring at 15.5 ft bgs.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [signature] Firm SCS Engineers
2830 Dairy Drive Madison, WI 53711
Tel: (608) 224-2830
Fax:

02/26/2024 - Classification: Internal - ECRM13238692

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SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL - Prairie Creek Generating Station SCS#: 25215135.60		MW-305

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Mike Mueller Cascade Drilling	12/5/2016	12/5/2016	HSA

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-305	Feet	707.1 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 3,448,467 N, 5,425,930 E S/C/N
NW 1/4 of NE 1/4 of Section 3, T 82 N, R 7 W
Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Linn	Cedar Rapids

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	SILT, very dark grayish brown (10YR 3/2), trace sand.	ML									
S1	17	1 3 5 6	2 3 4					0.2		M				water in borehole at 3 ft bgs.
			5	POORLY GRADED SAND, dark brown (10YR 3/3), coarse sand.										
S2	12	1 3 4 5	6 7					0.1		W				saturation @ 5ft.
S3	18	1 1 3 4	8 9		SP			0.9		W				
S4	14	9 13 21 19	10 11 12					0.4		W				
S5	16	14 15 23	13 14							W				
			15	LEAN CLAY, very dark gray (10YR 3/1).	CL									
				End of boring at 15.5 ft bgs.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: (608) 224-2830
	SCS Engineers 2830 Dairy Drive Madison, WI 53711	Fax:

02/26/2024 - Classification: Internal - ECRM13238692

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SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL - Prairie Creek Generating Station SCS#: 25215135.60		MW-306

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Mike Mueller Cascade Drilling	11/2/2016	11/2/2016	HSA

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-306	Feet	710.1 Feet	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 3,448,572 N, 5,426,326 E S/C/N
NW 1/4 of NE 1/4 of Section 3, T 82 N, R 7 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Linn	Cedar Rapids

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	SILT, dark yellowish brown (10YR 3/4).	ML									
			2											
			3											
S1	9.5	4 5 5 5	4	POORLY GRADED SAND, very dark grayish brown (10YR 3/2), coarse grained.	SP			0.7		W				Plastic debris- water at 4 ft bgs
			5	SILT, very dark grayish brown (10YR 3/2).										
S2	14	1 1 1 1	6					0.5		W				
			7											
S3	NR	3 2 1 1	8		ML			-		-				plastic debris
			9											
			10											
S4	NR	1 1 2 3	11					-		-				
			12											
			13	POORLY GRADED SAND, very dark gray (10YR 3/1), coarse grained.										
S5	10	1 2 3 3	14		SP			0.1		W				plastic and glass debris
			15											
			16											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm SCS Engineers
2830 Dairy Drive Madison, WI 53711
Tel: (608) 224-2830
Fax:

02/26/2024 - Classification: Internal - ECRM13238692

Boring Number MW-306 Page 2 of 2

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S6	22	2 1 1 1	17	POORLY GRADED SAND, very dark gray (10YR 3/1), coarse grained. *(continued)*				0.4		W				plastic debris
S7	19	2 1 1 1	18 19					0.3		W				
S8	6	2 1 1 2	20 21					0.2		W				
S9	14	8 4 4 12	22 23 24	Same as above except, dark gray (5Y 4/1).	SP			0.6		W				
S10	20	4 4 15 22	25 26 27					0.3		W				
S11	12	8 8 20 31	28 29 30					0.2		W				
				End of boring at 30.5 ft bgs.										

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SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Prairie Creek Generating Station SCS#: 25220057		MW306A

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Roy Buckenberger Cascade	6/23/2020	6/23/2020	vibratory

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW306A	Feet	Feet	6.0 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S / C / N
1/4 of 1/4 of Section , T N, R
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Linn	Cedar Rapids, Iowa

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	Topsoil. Organic Material.	ML									
			1	Waste. Plastic wrapping. Soil.										
1	60		2							W				
			3	Tan/Brown soil/silt. 10YR3/4.										
			4		ML									
			5	Dark Black Sand and Silt. Well Graded. 10YR2/1.										
			6											
2	60		7		SW					W				
			8											
			9											
			10	Well Graded Sand. Light Grey. 2.5Y3/1.										
			11		SW									
			12	Silt with fine sand.										
3	60		13							W				
			14		ML									
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel:
Zach Watson	SCS Engineers 2830 Dairy Dr., Madison, WI, 53718	Fax:

02/26/2024 - Classification: Internal - ECRM13238692

Boring Number MW306A

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			16	Well graded sand. 2.5Y3/1.										
			17											
4	60		18		SW					W				
			19											
			20											
			21											
			22	Silt with Sand. 5Y4/2.										
5	60		23		ML					W				
			24											
			25	Well Graded Sand.										
			26											
			27											
6	60		28							W				
			29											
			30		SW									
			31											
			32											
7	60		33							W				
			34											
			35	Finer sand than above.										
			36											
			37											
8	60		38		SW					W				
			39											
			40											

02/26/2024 - Classification: Internal - ECRM13238692

Boring Number MW306A

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			41	Well Graded Sand. Fine sand to gravel. Some rocks greater than 1 inch in size.										
			42											
9	60		43		SW					W				
			44											
			45	Lean Clay. Soft. 2.5Y3/2. Sand Lens at 54 feet.										
			46											
			47											
10	60		48						0.5	W				
			49											
			50											
			51		CL									
			52											
11	60		53						2.0	W				
			54											
			55						2.5					
			56											
			57	Well Graded Sand. Fine to Coarse grained. Few fines.										
12	60		58							W				
			59		SW									
			60											
			61											

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Prairie Creek Generating Station SCS#: 25218184		MW-307

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Mike Mueller Cascade Drilling, LP	11/27/2018	11/27/2018	sonic

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
MW-307	708.5 Feet	718.9 Feet	6.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 3,448,497 N, 5,426,934 E S/C/N
NE 1/4 of NE 1/4 of Section 3, T 83 N, R 7 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Linn	Cedar Rapids

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S1			1–5	Topsoil and clay, black, (10YR 2/1), (Fill).						M				
			5–6	Black ash? (Fill).										
S2			6–7	LEAN CLAY, black (10YR 2/1), (Fill).	CL					M				
			7–8	SILT, dark gray/black, (5YR 3/1).	ML									
S3			8–9							M				
			9–10	LEAN CLAY, dark gray, (5YR 2.5/2).										
S4			10–11		CL					M				
			11–13											
S5			13–14	SILTY SAND, coarse sand, light brown, (2.5YR 3/1).	SM					W				
			14–15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [signature] Firm SCS Engineers
3900 kilroy Airport Way Long Beach, CA 90806 Tel: Fax:

02/26/2024 - Classification: Internal - ECRM13238692

Boring Number MW-307 Page 2 of 2

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			16	SILTY SAND, fine to medium, light brown, (2.5YR 4/4).										
S6					SM					W				
			17	SILTY SAND, medium to coarse, light brown, (2.5YR 5/4).										
			18											
S7			19		SM					W				
			20											
			21	End of boring at 21 feet below ground surface.										

02/26/2024 - Classification: Internal - ECRM13238692

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Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Prairie Creek Generating Station SCS#: 25218184		MW-308

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Mike Mueller Cascade Drilling, LP	11/27/2018	11/27/2018	sonic

Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
MW-308	711.5 Feet	717.5 Feet	6.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 3,448,434 N, 5,426,646 E S/C/N
NE 1/4 of NE 1/4 of Section 3, T 83 N, R 7 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ S Feet ☐ E ☐ W Feet

Facility ID	County	Civil Town/City/ or Village
	Linn	Cedar Rapids

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P200	RQD/ Comments
			0	Topsoil, black.										
			1	LEAN CLAY, black, (2.5YR 2.5/1), (Fill).										
S1			2		CL					M				
			3											
S2			4	LEAN CLAY, brown, (2.5YR 4/4), (Fill).	CL				1.5	M				
			5											
S3			6	Ash, black, (2.5YR 3/1), (Fill).						M				
S4			7							M				
			8	LEAN CLAY with silt, gray, (5YR 5/1).										
S5			9		CL					M				
			10	SANDY SILT, dark gray, (5YR 2.5/1).										
S6			11							W				
			12		ML									
			13											
S7			14	Same as above but (5YR 2.5/2).						W				
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm SCS Engineers
3900 kilroy Airport Way Long Beach, CA 90806
Tel:
Fax:

02/26/2024 - Classification: Internal - ECRM13238692

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-308 Page 2 of 2

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			16	SANDY SILT, dark gray, (5YR 2.5/1). *(continued)*										
S8			17	Same as above but (5YR 2.5/1).	ML					W				
			18											
			19											
			20	SILTY SAND, coarse, (5YR 4/2).										
S9			21		SM					W				
				End of boring at 21 feet below ground surface.										

02/26/2024 - Classification: Internal - ECRM13238692

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL - Prairie Creek Generating Station SCS#: 25218218.00		MW-309

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Jeff Crank Roberts Environmental Drilling, Inc.	8/5/2019	8/5/2019	4 1/4" hollow stem auger

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-309	Feet MSL	708.1 Feet MSL	8.5 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 3,448,466 N, 5,425,409 E S/C/N
NW 1/4 of NE 1/4 of Section 3, T 82 N, R 7 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Linn	Cedar Rapids

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S1	8	1 3 3 4	1	SILT, dark brown, (10YR 2/1), with sand, trace gravel.	ML					M				
			2											
S2	18	3 3 2 3	3	SILTY SAND.	SM					M				
			4											
S3	12	1 1 1 2	5	SILT, with sand, brown, (10YR 3/2), soft.	ML					W				
			6											
S4	12	2 2 1 2	7	SILTY SAND, mottled grey, tan, and brown.						W				
			8	Variable color - grey, rust, and tan.	SM									
S5	20	0 1 2 1	9	Coarser sand.						W				
			10											
S6	12	0 0 1 1	11	POORLY GRADED SAND, coarse, some fine and medium sand.						W				
			12											
S7	12	1 1 3 3	13	With organic material.	SP					W				
			14											
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Firm SCS Engineers Tel: Fax:

02/26/2024 - Classification: Internal - ECRM13238692

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-309 Page 2 of 2

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S8	12	1 2 4 5	16		SP					W				
			17	End of Boring.										Blind drilled from 16' to 17'

02/26/2024 - Classification: Internal - ECRM13238692

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Prairie Creek Generating Station SCS#: 25220057		MW309A

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Roy Buckenberger Cascade	7/23/2020	7/23/2020	vibratory

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW309A	Feet	Feet	6.0 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S / C / N
1/4 of 1/4 of Section , T N, R
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Linn	Cedar Rapids, Iowa

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1	60		1–5	Topsoil. Organic material, roots, trace coarse material. 10YR2/1.	ML					M				
2	60		5–10	Silty Sand. Fine to medium grained sand. Well Graded. 10YR3/4.	SM					W				
3	60		10–15	Well graded Gravel with sand. Four inch lens of silt with sand. 7.5YR2/1. Well Graded sand with gravel towards base (14-15 feet).	GW					W				

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel:
Zach Watson	SCS Engineers 2830 Dairy Dr., Madison, WI, 53718	Fax:

02/26/2024 - Classification: Internal - ECRM13238692

Boring Number MW309A

Sample										Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID		Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			16	Silty Sand. Fine to coarse sand with a few lenses of silt with sand. 2.5Y3/2.											
			17												
4	60		18								W				
			19												
			20		SM										
			21												
			22												
5	60		23								W				
			24												
			25	Well graded Sand. Fine to coarse grained sand. 2.5Y3/2.											
			26												
			27												
6	60		28								W				
			29												
			30												
			31												
			32												
7	60		33		SW						W				
			34												
			35												
			36												
			37												
8	60		38								W				
			39												
			40												

02/26/2024 - Classification: Internal - ECRM13238692

Boring Number MW309A

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			41	Well graded Sand. Fine to coarse grained sand. 2.5Y3/2. *(continued)*										
			42											
9	60		43		SW					W				
			44											
			45											
			46											

02/26/2024 - Classification: Internal - ECRM13238692

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
IPL - Prairie Creek Generating Station SCS#: 25218218.00		MW-310

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Jeff Crank Roberts Environmental Drilling, Inc.	8/6/2019	8/6/2019	4 1/4" hollow stem auger

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-310	Feet MSL	708.09 Feet MSL	8.5 in.

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 3,448,623 N, 5,425,792 E S/C/N
NW 1/4 of NE 1/4 of Section 3, T 82 N, R 7 W
Lat ° ' "
Long ° ' "
Local Grid Location
Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Linn		Cedar Rapids

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S1	12	1 2 2 4	1	SILTY SAND, brown, (10YR 2/1), (topsoil).	SM					M				
S2	2	6 6 4 4	3							M				
S3	10	4 4 2 3	5	LEAN CLAY, brown, (10YR 2/1), some lenses of silty sand, organic material.	CL					M				
S4	6	3 1 1 2	7							M				
S5	20	3 2 1 1	9	SILTY SAND, coarse.	SM					W				
S6	18	3 2 1 1	11							W				
S7	12	1 1 2 2	13							W				
			14	SILTY GRAVEL, with sand.	GM									

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Firm SCS Engineers
2830 Dairy Drive Madison, WI 53718
Tel: 608-224-2830
Fax:

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

02/26/2024 - Classification: Internal - ECRM13238692

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-310 Use only as an attachment to Form 4400-122.

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S8	12	1 5 4 3	16		GM					W				
			17	End of Boring.										Blind drilled from 16' to 17'

02/26/2024 - Classification: Internal - ECRM13238692

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Prairie Creek Generating Station SCS#: 25220057		MW310A

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Roy Buckenberger Cascade	7/23/2020	7/23/2020	vibratory

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW310A	Feet	Feet	6.0 in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S / C / N
1/4 of 1/4 of Section , T N, R
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Linn	Cedar Rapids, Iowa

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			1	Topsoil. Organic material, roots and plant material.	ML									
1	60		2	Lean Clay. Soft, trace coarse material. 2.5Y3/2.						M				
			3											
			4											
			5		CL									
			6											
			7											
2	60		8						0.5	W				
			9	Fine to Coarse Sand. Well Graded Sand. 2.5Y3/1.										
			10											
			11											
			12		SW									
3	60		13							W				
			14											
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel:
Zach Watson	SCS Engineers 2830 Dairy Dr., Madison, WI 53718	Fax:

02/26/2024 - Classification: Internal - ECRM13238692

Boring Number MW310A

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			16	Lean Clay. trace coarse material (Fine Sand). 5Y4/1.										
			17											
4	60		18		CL				1.5	W				
			19											
			20											
			21	Well graded sand with silt and gravel. 5Y4/2.										
			22											
5	60		23							W				
			24											
			25											
			26											
			27		SW-SM									
6	60		28							W				
			29											
			30											
			31											
			32											
7	60		33							W				
				Silt with gravel.	ML									
			34	Well graded sand with silt and gravel. 5Y4/2.										
			35											
			36											
			37		SW-SM									
8	60		38							W				
			39											
			40											

Boring Number MW310A

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			41	Well graded sand with silt and gravel. 5Y4/2. *(continued)*										
			42											
9	60		43		SW-SM					W				
			44											
			45											
			46											

02/26/2024 - Classification: Internal - ECRM13238692

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Prairie Creek Generating Station SCS#: 25222074.00		MW-311

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Duncan List Terracon	5/9/2022	5/9/2022	hollow stem auger

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-311	10.84 Feet MSL	721.6 Feet MSL	8.25" in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane 3,447,992 N, 5,426,118 E S / C / N
1/4 of 1/4 of Section , T N, R
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Linn	Cedar Rapids

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1–15	Hydrovaced through gravel, sand, and silt, black to gray.	SP-SM									
S1	12	3 5 5 5	8–10	POORLY GRADED SAND, fine to coarse grained, gray to black.	SP									
S2	12	3 5 5 5	10–12	SILT, black with roots.	ML									
S3	14	2 3 3 5	13–15	POORLY GRADED SAND, fine to coarse grained, gray with trace silt. Same as above but transitions to brown at 14 feet below ground surface (bgs).	SP									

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm SCS Engineers
3900 Kilroy Airport Way Long Beach, CA 90806
Tel:
Fax:

02/26/2024 - Classification: Internal - ECRM13238692

Boring Number MW-311 Page 2 of 2

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S4	6	3 4 5 5	16	POORLY GRADED SAND, fine to coarse grained, gray with trace silt. *(continued)* POORLY GRADED SAND, fine to coarse grained, brown.	SP									
S5	20	2 3 4 4	17	SILTY SAND, brown.	SM									
			18	POORLY GRADED SAND, fine to coarse grained, brown. Same as above but with gravel and light brwon.	SP									
S6	20	4 3 2 3	19											
			20	End of Boring at 20' below ground surface.										

02/26/2024 - Classification: Internal - ECRM13238692

SCS ENGINEERS
Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Prairie Creek Generating Station SCS#: 25222074.00		MW-312

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Duncan List Terracon	5/9/2022	5/9/2022	hollow stem auger

Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW-312	703.85 Feet MSL	709.0 Feet MSL	8.25" in

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane 3,448,197 N, 5,424,656 E S / C / N
1/4 of 1/4 of Section , T N, R
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	Civil Town/City/ or Village
	Linn	Cedar Rapids

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S1	17	2 3 2 2	1	SILT WITH SAND, dark brown (topsoil).	ML									
			2	SILT, black with roots.										
S2	17	5 2 2 3	3		ML									
			4											
S3	21	2 1 1 1	5											
			6	SILTY SAND, black.	SM									
S4	20	2 1 1 0	7	POORLY GRADED SAND, fine to coarse grained, gray with a thin lense of black silt around 7.6' below ground surface.	SP									Water at 6'
			8	Same as above but mottled, medium brown to gray with trace gravel.										
S5	14	2 1 1 1	9											
			10											
S6	16	1 WH 1 1	11											
			12	No recovery.										
S7	0	WH 1 1 1	13											
			14	No recovery.										
			15											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel:
	SCS Engineers 3900 Kilroy Airport Way Long Beach, CA 90806	Fax:

02/26/2024 - Classification: Internal - ECRM13238692

Boring Number MW-312 Page 2 of 2

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
S8	0		16	End of boring at 16' below ground surface.										

02/26/2024 - Classification: Internal - ECRM13238692

Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Prairie Creek Generating Station Permit No.:

Well or Piezometer No: MW-301

Dates Started: 10/31/16 Date Completed: 10/31/16

A. SURVEYED LOCATIONS AND ELEVATIONS

Locations (± 0.5 ft):

Specify corner of site: SE of parcel 19031-51001-00000

Distance & direction along boundary: 145' W

Distance & direction from boundary to wall: 76' N

Elevations (± 0.01 ft MSL):

Ground Surface: 729.95

Top of protective casing: 732.97

Top of well casing: 732.55

Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Name & Address of Construction Company:
Cascade Drilling, LP
301 Alderson St
Schofield, WI 54476

Name of Driller: Mike Mueller

Drilling Method: HSA

Drilling Fluid: NA

Bore Hole Diameter: 8.5 inch

Soil Sampling Method: Spoon

Depth of Boring: 23.5 ft

C. MONITORING WELL INSTALLATION

Casing material: PVC sch 40

Length of casing: 12.5 ft

Outside casing diameter: 2.38"

Inside casing diameter: 2"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC

Screen opening size: 0.010"

Screen length: 10 ft

Depth of well: 22.5 ft

Filter Pack:

Material: Red Flint

Grain size: #40

Volume: 300 lbs

Seal (minimum 3 ft length above filter pack):

Material: 3/8 inch bentonite chips

Placement method: Gravity

Volume: 200 lbs

Backfill (if different from seal):

Material:

Placement method:

Volume:

Surface seal design:

Material of protective casing: Steel 6 inch

Material of grout between protective casing and well casing: sand

Protective cap:

Material: Steel, vented

Vented: ☑ Yes ☐ No Locking: ☐ Yes ☐ No

Well Cap:

Material: PVC

Vented: ☐ Yes ☑ No

D. GROUNDWATER MEASURMENT (± 0.01 ft below top of inner well casing)

Water level: 16.27 Stabilization Time: ~5 min

Well development method: Pump and surge block

Average depth of frostline:

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½x11 inch map showing locations of all monitoring wells and piezometers.

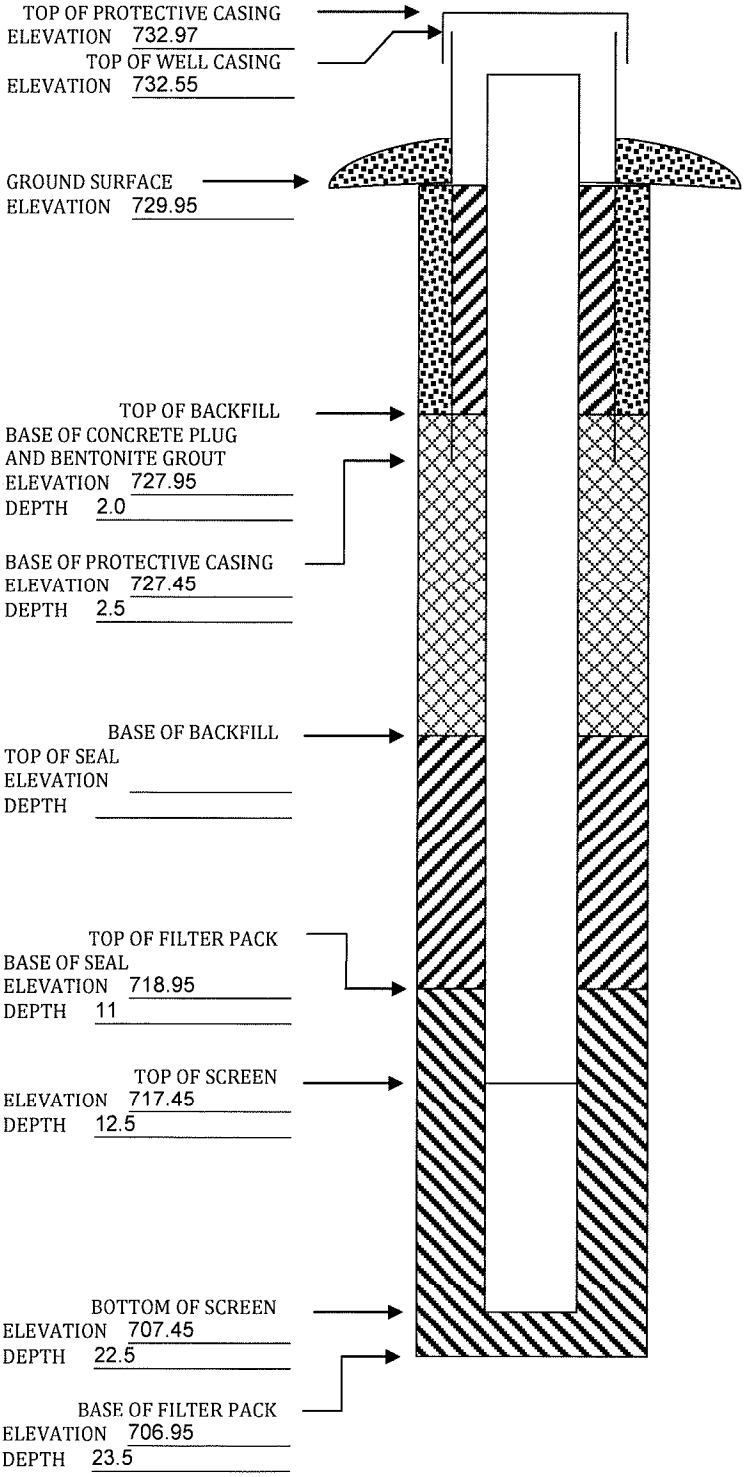
Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

02/26/2024 - Classification: Internal - ECRM13238692

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



02/26/2024 - Classification: Internal - ECRM13238692

Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Prairie Creek Generating Station Permit No.:

Well or Piezometer No: MW-302

Dates Started: 10/31/16 Date Completed: 10/31/16

A. SURVEYED LOCATIONS AND ELEVATIONS

Locations (± 0.5 ft):

Specify corner of site: SE of parcel19031-51001-00000

Distance & direction along boundary: 462' W

Distance & direction from boundary to wall: 79' N

Elevations (± 0.01 ft MSL):

Ground Surface: 720.29

Top of protective casing: 723.27

Top of well casing: 722.68

Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Name & Address of Construction Company:
Cascade Drilling, LP
301 Alderson St
Schofield, WI 54476

Name of Driller: Mike Mueller

Drilling Method: HSA

Drilling Fluid: NA

Bore Hole Diameter: 8.5 inch

Soil Sampling Method: Spoon

Depth of Boring: 23.5 ft

C. MONITORING WELL INSTALLATION

Casing material: PVC sch 40

Length of casing: 5 ft

Outside casing diameter: 2.38"

Inside casing diameter: 2"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC

Screen opening size: 0.010"

Screen length: 10 ft

Depth of well: 15 ft

Filter Pack:

Material: Red Flint

Grain size: #40

Volume: 300 lbs

Seal (minimum 3 ft length above filter pack):

Material: 3/8 inch bentonite chips

Placement method: Gravity

Volume: 50 lbs

Backfill (if different from seal):

Material:

Placement method:

Volume:

Surface seal design:

Material of protective casing: Steel 6 inch

Material of grout between protective casing and well casing: sand

Protective cap:

Material: Steel, vented

Vented: ☒ Yes ☐ No Locking: ☐ Yes ☐ No

Well Cap:

Material: PVC

Vented: ☐ Yes ☒ No

D. GROUNDWATER MEASURMENT (± 0.01 ft below top of inner well casing)

Water level: 6.39 Stabilization Time: ~5 min

Well development method: Pump and surge block

Average depth of frostline:

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½x11 inch map showing locations of all monitoring wells and piezometers.

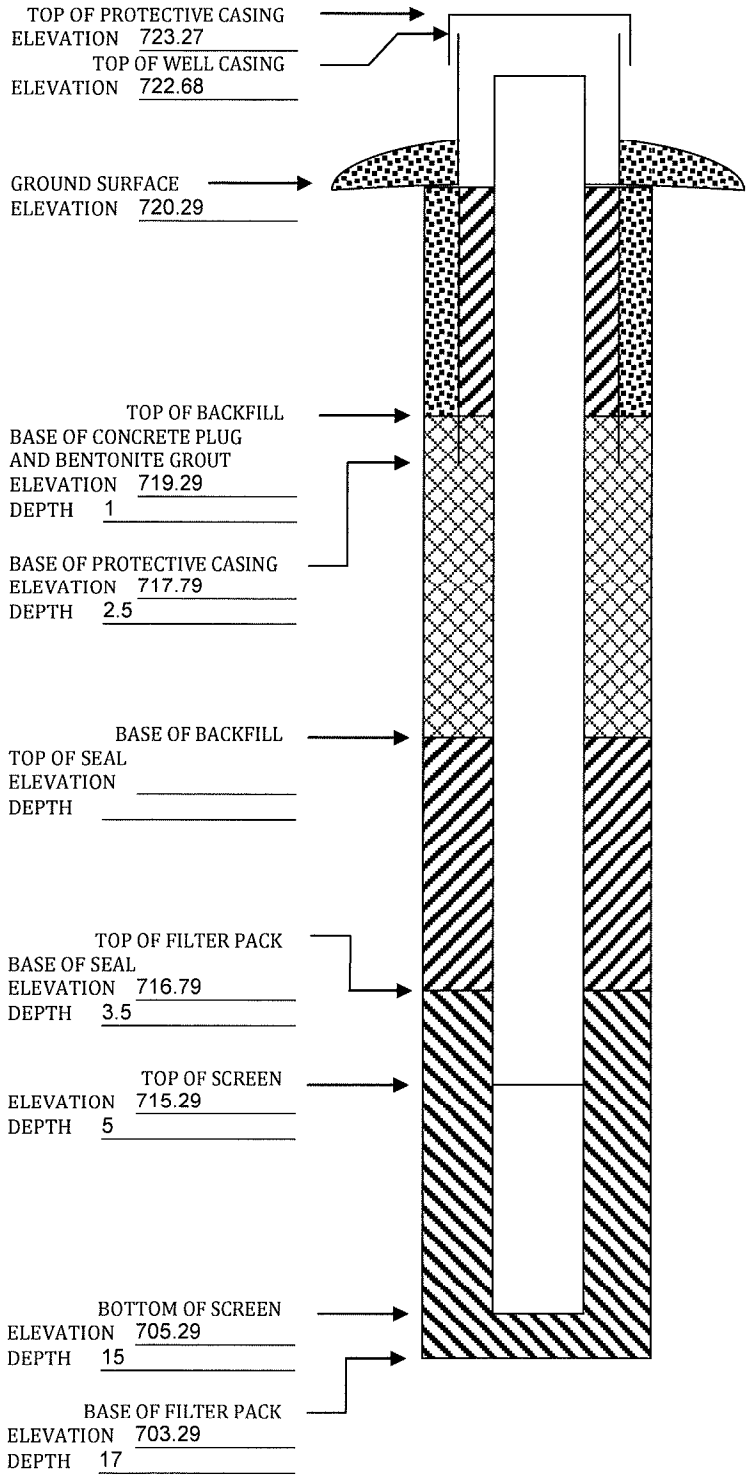
Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

02/26/2024 - Classification: Internal - ECRM13238692

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



02/26/2024 - Classification: Internal - ECRM13238692

Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Prairie Creek Generating Station Permit No.:

Well or Piezometer No: MW-303

Dates Started: 12/6/16 Date Completed: 12/6/16

A. SURVEYED LOCATIONS AND ELEVATIONS

Locations (± 0.5 ft):

Specify corner of site: NE of parcel 19032-01001-00000

Distance & direction along boundary: 2,348' NW

Distance & direction from boundary to wall: 1,477' S

Elevations (± 0.01 ft MSL):

Ground Surface: 706.95

Top of protective casing: 709.85

Top of well casing: 709.46

Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Name & Address of Construction Company:
Cascade Drilling, LP
301 Alderson St
Schofield, WI 54476

Name of Driller: Mike Mueller

Drilling Method: HSA

Drilling Fluid: NA

Bore Hole Diameter: 8.5 inch

Soil Sampling Method: Spoon

Depth of Boring: 15.5 ft

C. MONITORING WELL INSTALLATION

Casing material: PVC sch 40

Length of casing: 4.5 ft

Outside casing diameter: 2.38"

Inside casing diameter: 2"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC

Screen opening size: 0.010"

Screen length: 10 ft

Depth of well: 14.5 ft

Filter Pack:

Material: Red Flint

Grain size: #40

Volume: 300 lbs

Seal (minimum 3 ft length above filter pack):

Material: 3/8 inch bentonite chips

Placement method: Gravity

Volume: 50 lbs

Backfill (if different from seal):

Material:

Placement method:

Volume:

Surface seal design:

Material of protective casing: Steel 6 inch

Material of grout between protective casing and well casing: sand

Protective cap:

Material: Steel, vented

Vented: ☒ Yes ☐ No Locking: ☐ Yes ☐ No

Well Cap:

Material: PVC

Vented: ☐ Yes ☒ No

D. GROUNDWATER MEASURMENT (± 0.01 ft below top of inner well casing)

Water level: 5.81 Stabilization Time: ~ 5 min

Well development method: Pump and surge block

Average depth of frostline:

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½x11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

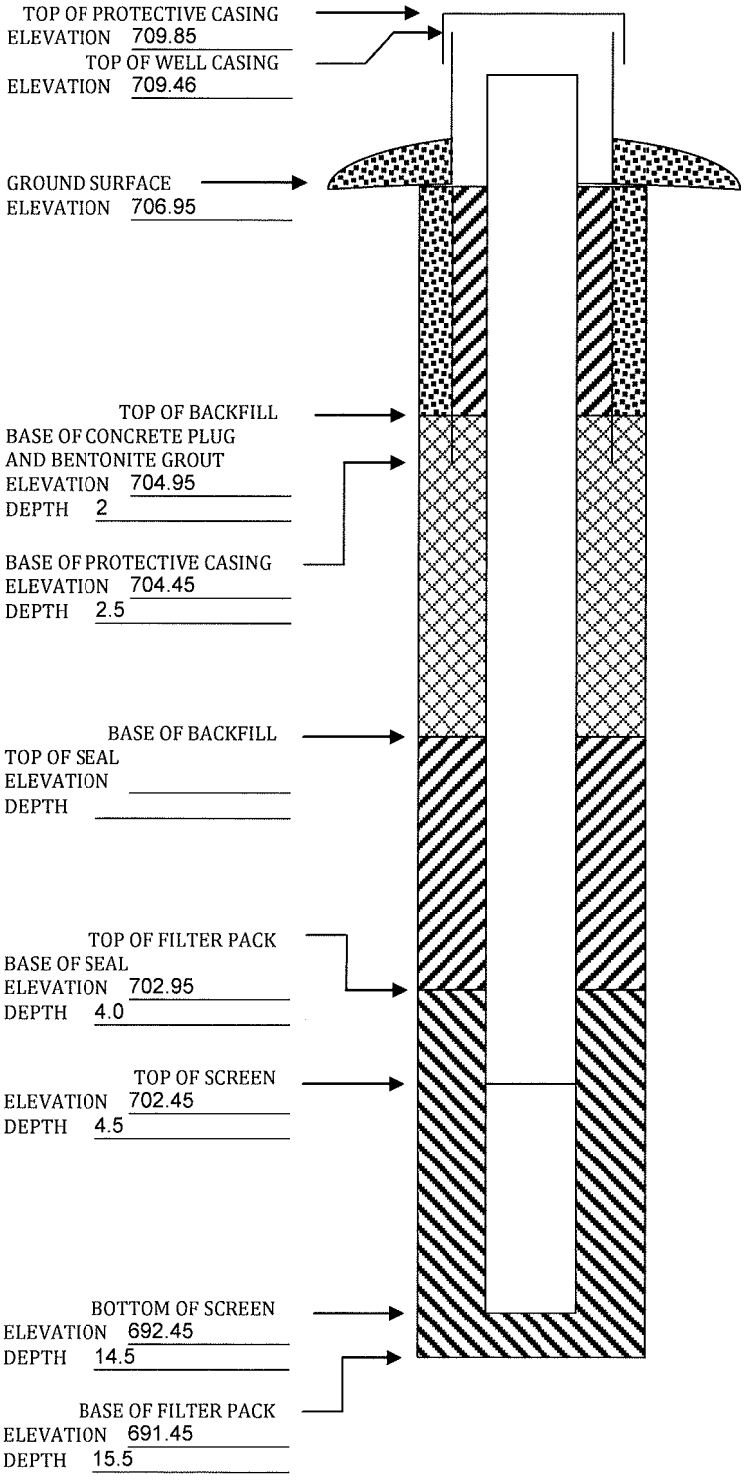
Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

02/26/2024 - Classification: Internal - ECRM13238692

02/26/2024 - Classification: Internal - ECRM1323692

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Prairie Creek Generating Station Permit No.:

Well or Piezometer No: MW-304

Dates Started: 12/6/16 Date Completed: 12/6/16

A. SURVEYED LOCATIONS AND ELEVATIONS

Locations (± 0.5 ft):

Specify corner of site: NE of parcel 19032-01001-00000

Distance & direction along boundary: 1878' NW

Distance & direction from boundary to wall: 1,317' S

Elevations (± 0.01 ft MSL):

Ground Surface: 707.07

Top of protective casing: 710.12

Top of well casing: 709.66

Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Name & Address of Construction Company:
Cascade Drilling, LP
301 Alderson St
Schofield, WI 54476

Name of Driller: Mike Mueller

Drilling Method: HSA

Drilling Fluid: NA

Bore Hole Diameter: 8.5 inch

Soil Sampling Method: Spoon

Depth of Boring: 15.5 ft

C. MONITORING WELL INSTALLATION

Casing material: PVC sch 40

Length of casing: 4.5 ft

Outside casing diameter: 2.38"

Inside casing diameter: 2"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC

Screen opening size: 0.010"

Screen length: 10 ft

Depth of well: 14.5 ft

Filter Pack:

Material: Red Flint

Grain size: #40

Volume: 300 lbs

Seal (minimum 3 ft length above filter pack):

Material: 3/8 inch bentonite chips

Placement method: Gravity

Volume: 50 lbs

Backfill (if different from seal):

Material:

Placement method:

Volume:

Surface seal design:

Material of protective casing: Steel 6 inch

Material of grout between protective casing and well casing: sand

Protective cap:

Material: Steel, vented

Vented: ☐ Yes ☐ No Locking: ☑ Yes ☐ No

Well Cap:

Material: PVC

Vented: ☐ Yes ☑ No

D. GROUNDWATER MEASURMENT (± 0.01 ft below top of inner well casing)

Water level: 5.89 Stabilization Time: ~ 5 min

Well development method: Bailer and surge block

Average depth of frostline:

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½x11 inch map showing locations of all monitoring wells and piezometers.

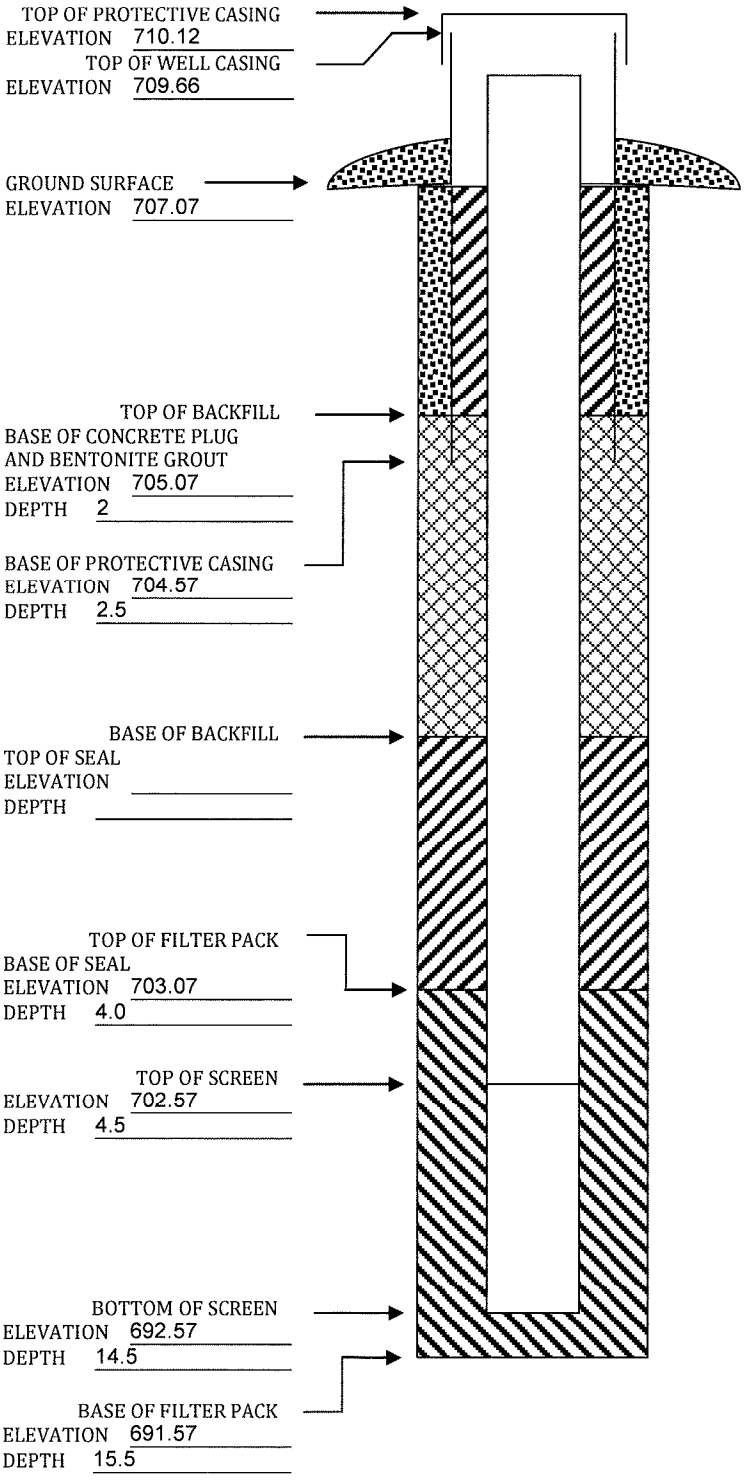
Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

02/26/2024 - Classification: Internal - ECRM13238692

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



02/26/2024 - Classification: Internal - ECRM13238692

Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Prairie Creek Generating Station Permit No.:

Well or Piezometer No: MW-305

Dates Started: 12/5/16 Date Completed: 12/5/16

A. SURVEYED LOCATIONS AND ELEVATIONS

Locations (± 0.5 ft):

Specify corner of site: NE of parcel 19032-01001-00000

Distance & direction along boundary: 1,594' NW

Distance & direction from boundary to wall: 1,274' S

Elevations (± 0.01 ft MSL):

Ground Surface: 707.11

Top of protective casing: 710.11

Top of well casing: 709.61

Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Name & Address of Construction Company:
Cascade Drilling, LP
301 Alderson St
Schofield, WI 54476

Name of Driller: Mike Mueller

Drilling Method: HSA

Drilling Fluid: NA

Bore Hole Diameter: 8.5 inch

Soil Sampling Method: Spoon

Depth of Boring: 15.5 ft

C. MONITORING WELL INSTALLATION

Casing material: PVC sch 40

Length of casing: 4.5 ft

Outside casing diameter: 2.38"

Inside casing diameter: 2"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC

Screen opening size: 0.010"

Screen length: 10 ft

Depth of well: 14.5 ft

Filter Pack:

Material: Red Flint

Grain size: #40

Volume: 250 lbs

Seal (minimum 3 ft length above filter pack):

Material: 3/8 inch bentonite chips

Placement method: Gravity

Volume: 50 lbs

Backfill (if different from seal):

Material:

Placement method:

Volume:

Surface seal design:

Material of protective casing: Steel 6 inch

Material of grout between protective casing and well casing: sand

Protective cap:

Material: Steel, vented

Vented: ☐ Yes ☐ No Locking: ☑ Yes ☐ No

Well Cap:

Material: PVC

Vented: ☐ Yes ☑ No

D. GROUNDWATER MEASURMENT (± 0.01 ft below top of inner well casing)

Water level: 5.68 Stabilization Time: ~5 min

Well development method: Bailer and surge block

Average depth of frostline:

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½x11 inch map showing locations of all monitoring wells and piezometers.

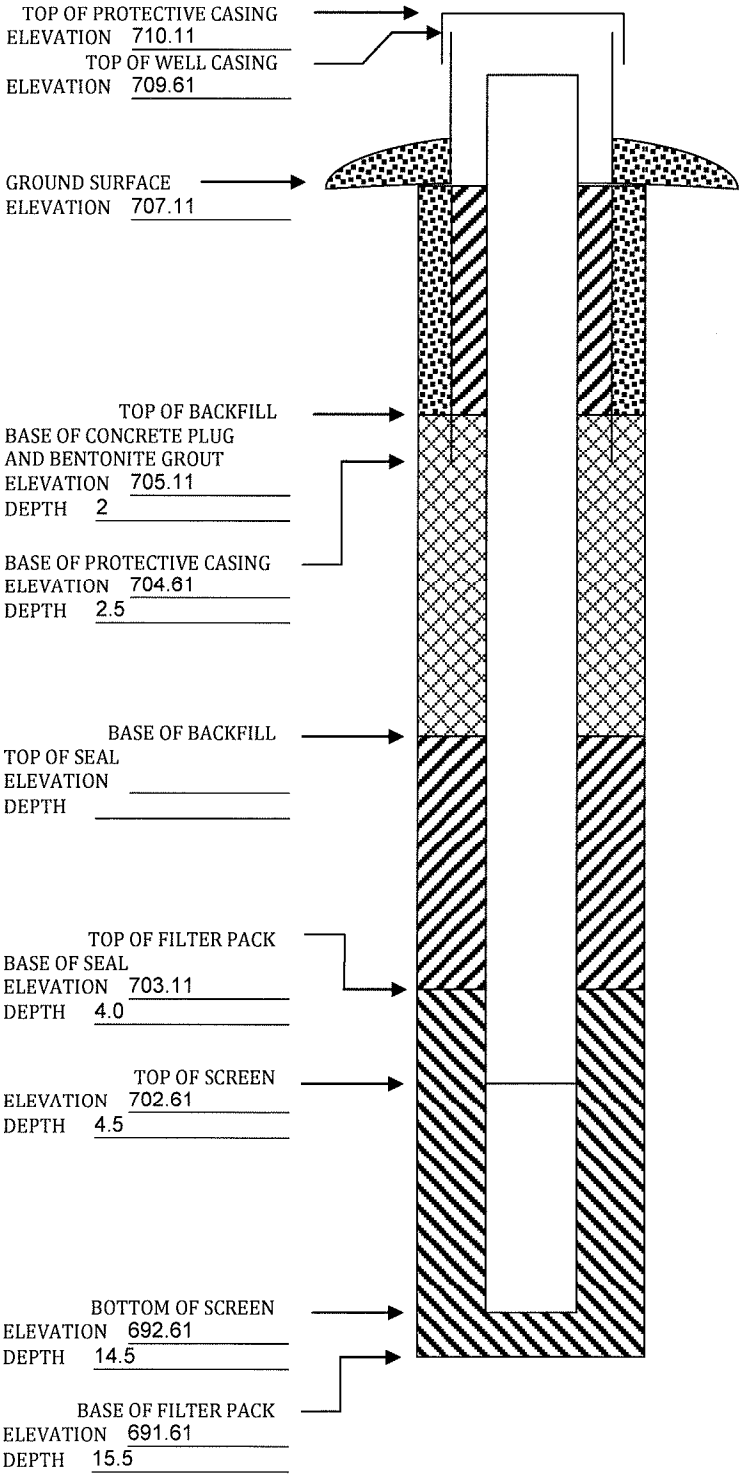
Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

02/26/2024 - Classification: Internal - ECRM13238692

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



02/26/2024 - Classification: Internal - ECRM13238692

Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Prairie Creek Generating Station Permit No.:

Well or Piezometer No: MW-306

Dates Started: 11/2/16 Date Completed: 11/2/16

A. SURVEYED LOCATIONS AND ELEVATIONS

Locations (± 0.5 ft):

Specify corner of site: NE of parcel19032-01001-00000

Distance & direction along boundary: 1,203' NW

Distance & direction from boundary to wall: 1,205' S

Elevations (± 0.01 ft MSL):

Ground Surface: 710.13

Top of protective casing: 712.9

Top of well casing: 712.54

Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Name & Address of Construction Company:
Cascade Drilling, LP
301 Alderson St
Schofield, WI 54476

Name of Driller: Mike Mueller

Drilling Method: HSA

Drilling Fluid: NA

Bore Hole Diameter: 8.5 inch

Soil Sampling Method: Spoon

Depth of Boring: 30.5 ft

C. MONITORING WELL INSTALLATION

Casing material: PVC sch 40

Length of casing: 24.5 ft

Outside casing diameter: 2.38"

Inside casing diameter: 2"

Casing joint type: threaded

Casing/screen joint type: threaded

Screen material: PVC

Screen opening size: 0.010"

Screen length: 5 ft

Depth of well: 29.5 ft

Filter Pack:

Material: Red Flint

Grain size: #40

Volume: 150 lbs

Seal (minimum 3 ft length above filter pack):

Material: 3/8 inch bentonite chips

Placement method: Gravity

Volume: 500 lbs

Backfill (if different from seal):

Material:

Placement method:

Volume:

Surface seal design:

Material of protective casing: Steel 6 inch

Material of grout between protective casing and well casing: sand

Protective cap:

Material: Steel, vented

Vented: ☑ Yes ☐ No Locking: ☐ Yes ☐ No

Well Cap:

Material: PVC

Vented: ☐ Yes ☑ No

D. GROUNDWATER MEASURMENT (± 0.01 ft below top of inner well casing)

Water level: 8.75 Stabilization Time: ~ 5 min

Well development method: Bailer and surge block

Average depth of frostline:

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½x11 inch map showing locations of all monitoring wells and piezometers.

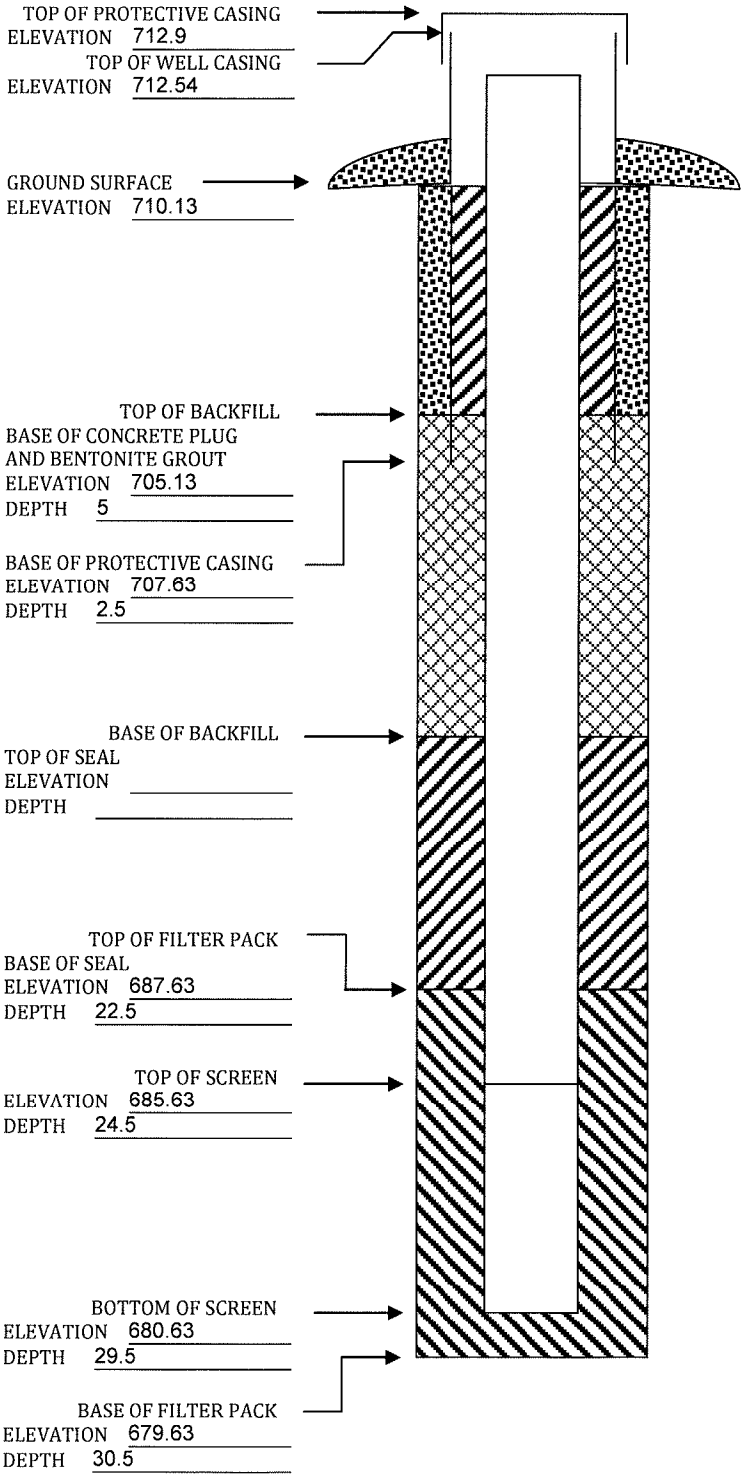
Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

Questions? Call or Email: Nina Koger, Environmental Engineer Sr., 515-281-8986, Nina.Koger@dnr.iowa.gov

02/26/2024 - Classification: Internal - ECRM13238692

ELEVATIONS: ± 0.01 ft MSL
DEPTHS: ± 0.1 ft FROM GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL.)



02/26/2024 - Classification: Internal - ECRM13238692

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL Prairie Creek Generating Station — Permit No.: PPW18-0051

Well or Piezometer No.: MW-307 — Dates Started: 11/27/2018 — Date Completed: 11/27/2018

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site: NE — Distance and direction along boundary: 1,140 W

Distance and direction from boundary to surface monitoring well: 5 S

Elevation (+0.01 ft. MSL)

Ground Surface: 718.89 — Top of protective casing: 721.35

Top of well casing: 721.16 — Benchmark elevation: 718.58

Benchmark description: CP #5

B. SOIL BORING INFORMATION

Construction Company Name: Cascade Drilling LP

Address: 301 Anderson St — City, State, Zip Code: Schofield, WI 54476

Name of driller: Mike Mueller

Drilling method: Sonic — Drilling fluid: NA — Bore Hole diameter: 6.5"

Soil sampling method: Sonic soil core — Depth of boring: 21

C. MONITORING WELL INSTALLATION

Casing material: PVC Sch. 40 — Placement method: Gravity

Length of casing: 13.3' — Volume: 1.8 cu. ft

Outside casing diameter: 2.38" — Backfill (if different from seal): NA

Inside casing diameter: 2" — Material:

Casing joint type: Threaded — Placement method:

Casing/screen joint type: Threaded — Volume:

Screen material: PVC Sch. 40 — Surface seal design:

Screen opening size: 0.01" — Material of protective casing: 6 inch Steel

Material of grout between protective casing and well casing: Bent. chips below grade

Screen length: 10 ft

Depth of Well: 21' — Protective cap:

Filter Pack: — Material: Steel

Material: Red Flint Sand — Vented?: ☒ Y ☐ N — Locking?: ☒ Y ☐ N

Grain Size: #40 — Well cap:

Volume: 2.5 cu. ft — Material: PVC

Seal (minimum 3 ft. length above filter pack): — Vented?: ☒ Y ☐ N

Material: 3/8" Bentonite Chips

D. GROUNDWATER MEASUREMENT (+0.01 foot below top of inner well casing)

Water level: 13.12' — Stabilization time: <5 minutes

Well development method: Surged and pumped until water ran clear, removed ~400 gallons.

Average depth of frost line: 4'

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature: [signature] — Certification #: 9362 — Date: 11/27/18

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½ inch x 11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

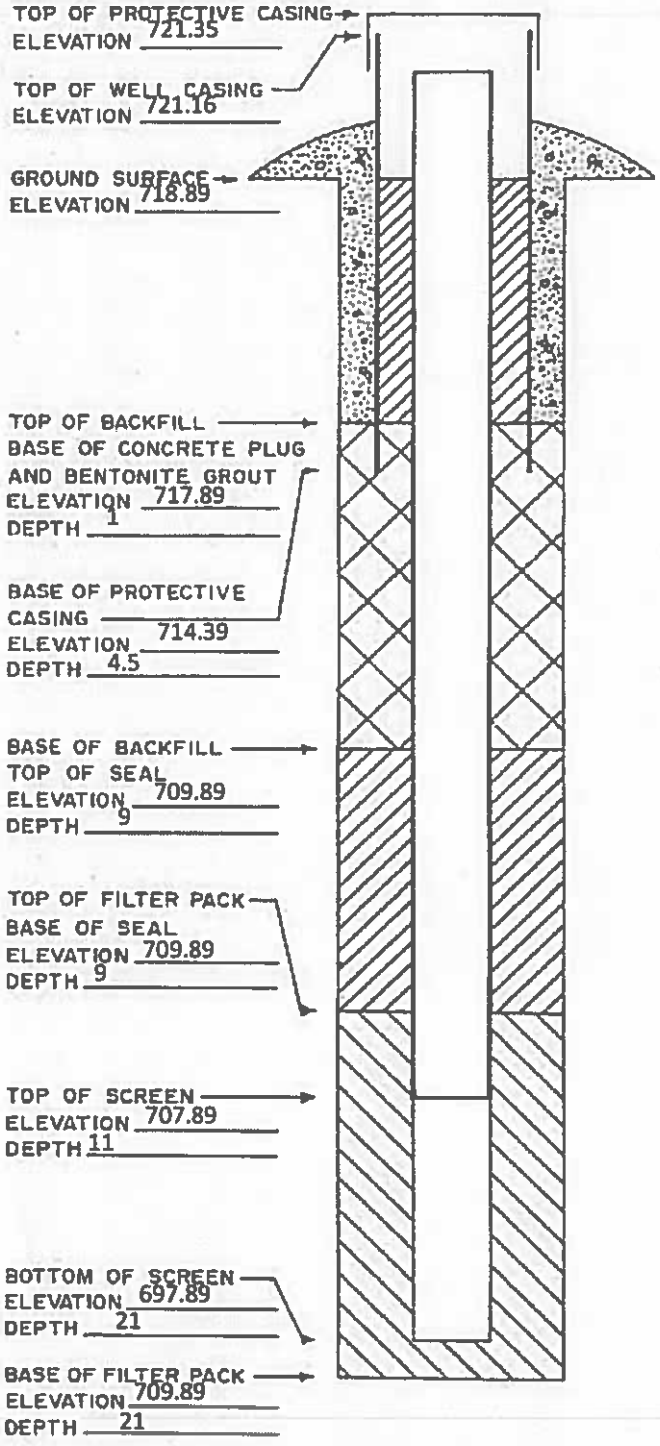
09/2017 cmc — DNR Form 542-1277

02/26/2024 - Classification: Internal - ECRM13238692

ELEVATIONS: ± 0.01 FT. MSL

DEPTHS: ± 0.1 FT. FROM GROUND SERFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



02/26/2024 - Classification: Internal - ECRM13238692

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL Prairie Creek Generating Station — Permit No.: PPW18-0051

Well or Piezometer No.: MW-308 — Dates Started: 11/27/2018 — Date Completed: 11/27/2018

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site: NE — Distance and direction along boundary: 950' W

Distance and direction from boundary to surface monitoring well: 5 S

Elevation (+0.01 ft. MSL)

Ground Surface: 717.46 — Top of protective casing: 719.98

Top of well casing: 719.67 — Benchmark elevation: 718.58

Benchmark description: CP #5

B. SOIL BORING INFORMATION

Construction Company Name: Cascade Drilling LP

Address: 301 Anderson St — City, State, Zip Code: Schofield, WI 54476

Name of driller: Mike Mueller

Drilling method: Sonic — Drilling fluid: NA — Bore Hole diameter: 6.5"

Soil sampling method: Sonic soil core — Depth of boring: 21

C. MONITORING WELL INSTALLATION

Casing material: PVC Sch. 40 — Placement method: Gravity

Length of casing: 13.2' — Volume: 1.8 cu. ft

Outside casing diameter: 2.38" — Backfill (if different from seal): NA

Inside casing diameter: 2" — Material:

Casing joint type: Threaded — Placement method:

Casing/screen joint type: Threaded — Volume:

Screen material: PVC Sch. 40 — Surface seal design:

Screen opening size: 0.01" — Material of protective casing: 6 inch Steel

Material of grout between protective casing and well casing: Bent. chips below grade

Screen length: 10 ft

Depth of Well: 21' — Protective cap:

Filter Pack: — Material: Steel

Material: Red Flint Sand — Vented?: ☒ Y ☐ N — Locking?: ☒ Y ☐ N

Grain Size: #40 — Well cap:

Volume: 2.5 cu. ft — Material: PVC

Seal (minimum 3 ft. length above filter pack): — Vented?: ☒ Y ☐ N

Material: 3/8" Bentonite Chips

D. GROUNDWATER MEASUREMENT (±0.01 foot below top of inner well casing)

Water level: 14.49' — Stabilization time: <5 minutes

Well development method: Surged and pumped until water ran clear, removed ~475 gallons.

Average depth of frost line: 4'

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature: [signature] — Certification #: 9362 — Date: 11/22/18

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½ inch x 11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

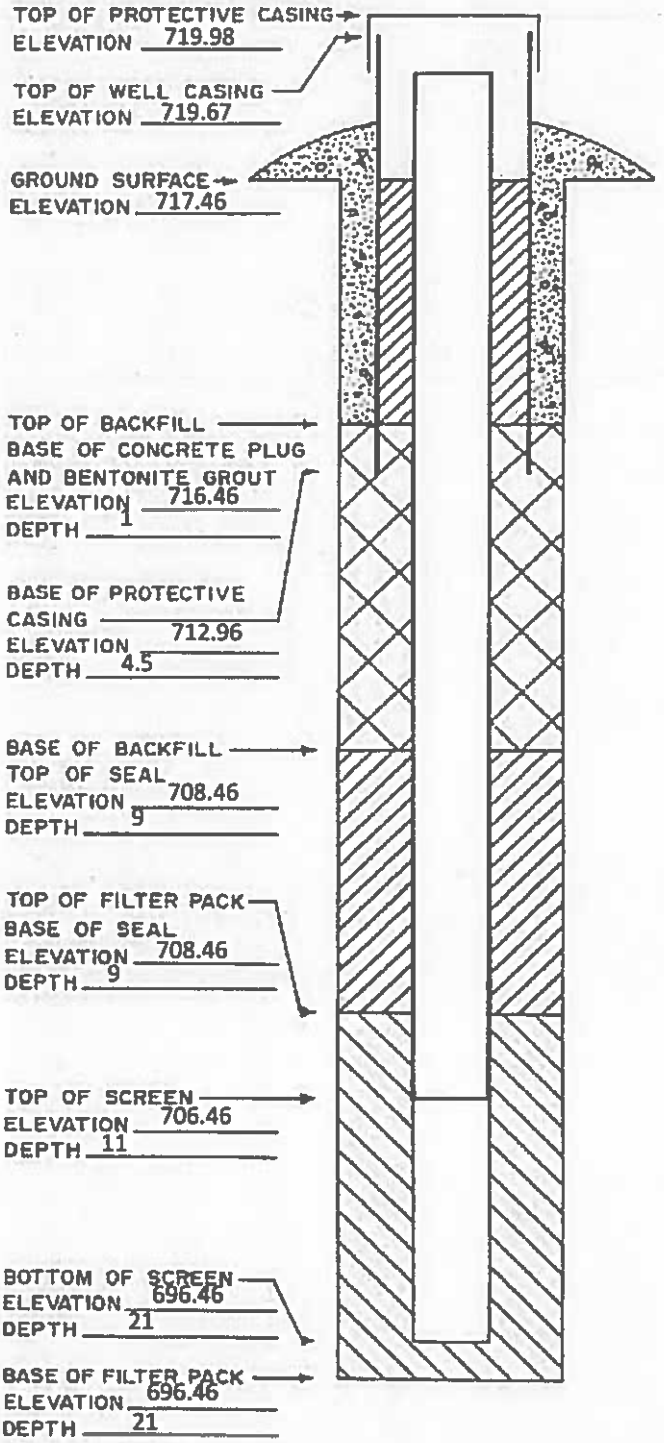
09/2017 cmc — DNR Form 542-1277

02/26/2024 - Classification: Internal - ECRM13238692

ELEVATIONS: ± 0.01 FT. MSL

DEPTHS: ± 0.1 FT. FROM GROUND SERFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



02/26/2024 - Classification: Internal - ECRM13238692

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: Prairie Creek Generating Station | Permit No.:
Well or Piezometer No.: MW301A | Dates Started: 6/23/2020 | Date Completed: 6/24/2020

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site: SE of parcel 19031-51001-00 | Distance and direction along boundary: 145' W
Distance and direction from boundary to surface monitoring well: 80' N
Elevation (+0.01 ft. MSL):
Ground Surface: 729.40 | Top of protective casing: 732.45
Top of well casing: 732.07 | Benchmark elevation:
Benchmark description: On-site benchmark. NAVD_88 datum elevations.

B. SOIL BORING INFORMATION

Construction Company Name: Cascade Drilling
Address: 301 Alderson St. | City, State, Zip Code: Schofield, WI, 54476
Name of driller: Mike Mueller
Drilling method: Rotosonic | Drilling fluid: Water | Bore Hole diameter: 6 inches
Soil sampling method: 5 foot sections | Depth of boring: 54 feet

C. MONITORING WELL INSTALLATION

Casing material: PVC
Length of casing: 56 feet
Outside casing diameter: 2.4 inches
Inside casing diameter: 2.0 inches
Casing joint type: Threaded
Casing/screen joint type:
Screen material: PVC
Screen opening size: 0.01 inches
Screen length: 5 feet
Depth of Well: 53 feet below ground surface
Filter Pack: Red Flint Filter Pack Sand
Material: Sand
Grain Size:
Volume: 1.3 cubic feet
Seal (minimum 3 ft. length above filter pack): Bentonite Grout
Material: Bentonite Grout

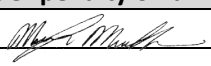
Placement method: Tremie Pipe
Volume: 7.5 cubic feet
Backfill (if different from seal): None
Material:
Placement method:
Volume:
Surface seal design: Cememt
Material of protective casing: Steel
Material of grout between protective casing and well casing: Bentonite and Filter Sand
Protective cap:
Material: Aluminium
Vented?: ☒ Y ☐ N | Locking?: ☒ Y ☐ N
Well cap:
Material: Plastic
Vented?: ☐ Y ☒ N

D. GROUNDWATER MEASUREMENT (±0.01 foot below top of inner well casing)

Water level: 27.75 | **Stabilization time:** <5 minutes
Well development method: Surged & purged
Average depth of frost line: 4 ft

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature:  **Certification #:** 9362 **Date:** 6-24-2020

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½ inch x 11 inch map showing locations of all monitoring wells and piezometers.

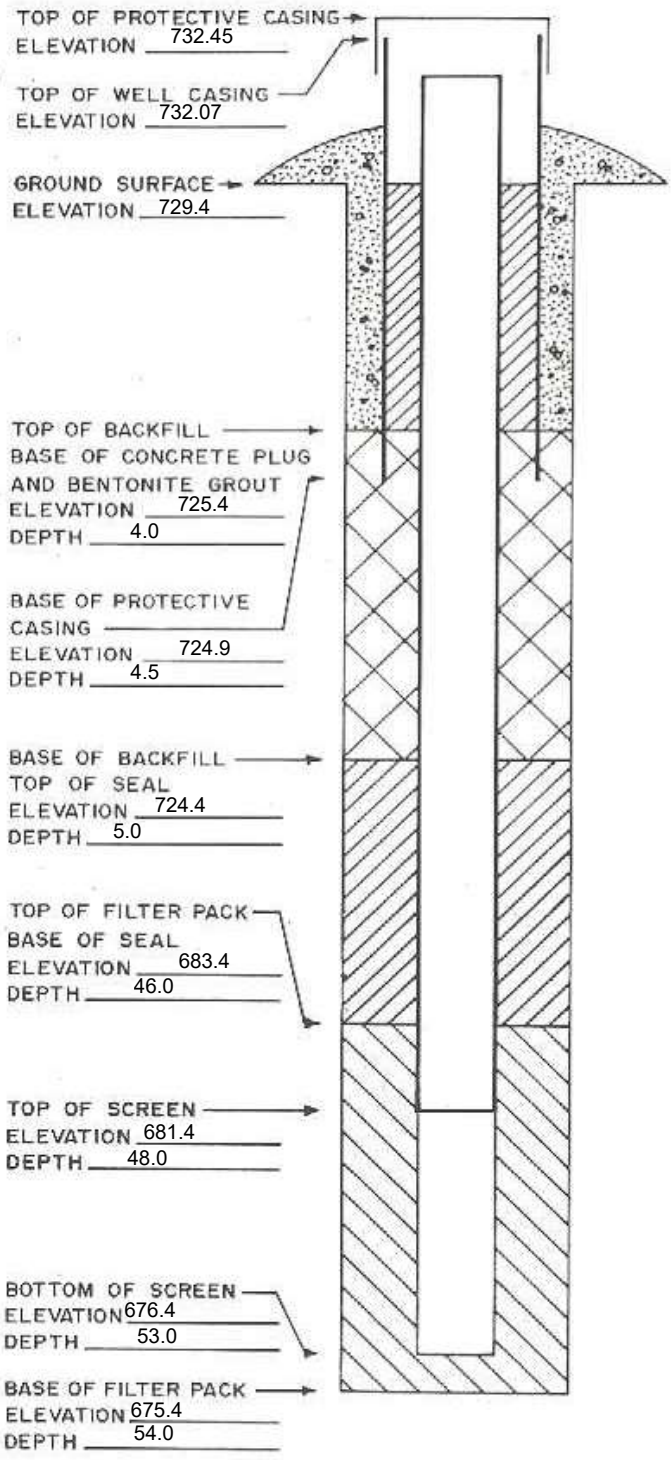
Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

02/26/2024 - Classification: Internal - ECRM13238692

ELEVATIONS: ± 0.01 FT. MSL

DEPTHS: ± 0.1 FT. FROM GROUND SERFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



02/26/2024 - Classification: Internal - ECRM13238692

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: Prairie Creek Generating Station | Permit No.:
Well or Piezometer No.: MW306A | Dates Started: 6/23/2020 | Date Completed: 6/24/2020

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site: NE of parcel 19032-01001-0 | Distance and direction along boundary: 1,210' W
Distance and direction from boundary to surface monitoring well: 1,205' S
Elevation (+0.01 ft. MSL)
Ground Surface: 708.9 | Top of protective casing: 712.50
Top of well casing: 711.50 | Benchmark elevation:
Benchmark description: On-site benchmark, NAVD_88 datum.

B. SOIL BORING INFORMATION

Construction Company Name: Cascade Drilling
Address: 301 Alderson St. | City, State, Zip Code: Schofield, WI, 54476
Name of driller: Mike Mueller
Drilling method: Rotosonic | Drilling fluid: Water | Bore Hole diameter: 6 inches
Soil sampling method: 5 foot sections | Depth of boring: 61 feet

C. MONITORING WELL INSTALLATION

Casing material: PVC | Placement method: Tremie Pipe
Length of casing: 63 feet | Volume: 8.5 cubic feet
Outside casing diameter: 2.4 inches | Backfill (if different from seal): None
Inside casing diameter: 2.0 inches | Material:
Casing joint type: Threaded | Placement method:
Casing/screen joint type: | Volume:
Screen material: PVC | Surface seal design: Cememt
Screen opening size: 0.01 inches | Material of protective casing: Steel
Material of grout between protective casing and well casing: Bentonite and FIlter Sand
Screen length: 5 feet
Depth of Well: 60 feet below ground surface | Protective cap:
Filter Pack: Red Flint Filter Pack Sand | Material: Aluminium
Material: Sand | Vented?: ☒ Y ☐ N | Locking?: ☒ Y ☐ N
Grain Size: | Well cap:
Volume: 1.3 cubic feet | Material: Plastic
Seal (minimum 3 ft. length above filter pack): Bentonite Grout | Vented?: ☐ Y ☒ N
Material: Bentonite Grout

D. GROUNDWATER MEASUREMENT (±0.01 foot below top of inner well casing)

Water level: 9.07 | **Stabilization time**: <5 minutes
Well development method: Surged and purged
Average depth of frost line: 4 ft

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature | **Certification #**: 9362 | **Date**: 6-24-2020

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½ inch x 11 inch map showing locations of all monitoring wells and piezometers.

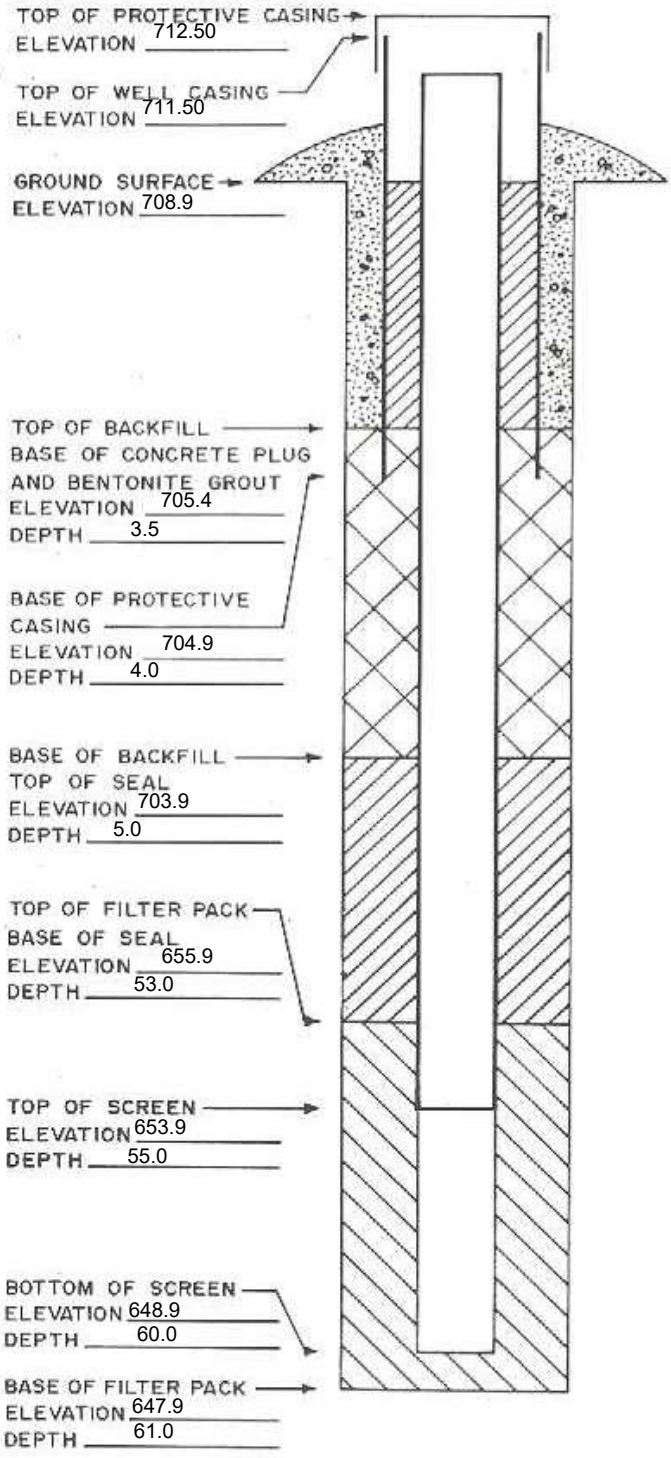
Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

02/26/2024 - Classification: Internal - ECRM13238692

ELEVATIONS: ± 0.01 FT. MSL

DEPTHS: ± 0.1 FT. FROM GROUND SERFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



02/26/2024 - Classification: Internal - ECRM13238692

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: Prairie Creek Generating Station | Permit No.:
Well or Piezometer No.: MW309A | Dates Started: 7/23/2020 | Date Completed: 7/23/2020

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site: NW of parcel 19031-7600-2 | Distance and direction along boundary: 320' E
Distance and direction from boundary to surface monitoring well: 295' N
Elevation (+0.01 ft. MSL):
Ground Surface: 708.0 | Top of protective casing: 711.05
Top of well casing: 710.54 | Benchmark elevation:
Benchmark description: On-site benchmark, NAVD_88 datum.

B. SOIL BORING INFORMATION

Construction Company Name: Cascade Drilling
Address: 301 Alderson St. | City, State, Zip Code: Schofield, WI, 54476
Name of driller: Mike Mueller
Drilling method: Rotosonic | Drilling fluid: Water | Bore Hole diameter: 6 inches
Soil sampling method: 5 foot sections | Depth of boring: 46 feet

C. MONITORING WELL INSTALLATION

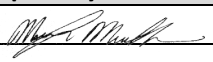
Casing material: PVC | Placement method: Gravity
Length of casing: 47.5 feet | Volume: 5.9 cubic feet
Outside casing diameter: 2.4 inches | Backfill (if different from seal): None
Inside casing diameter: 2.0 inches | Material:
Casing joint type: Threaded | Placement method:
Casing/screen joint type: | Volume:
Screen material: PVC | Surface seal design: Cement
Screen opening size: 0.01 inches | Material of protective casing: Steel
Material of grout between protective casing and well casing: Bentonite and Filter Sand
Screen length: 5 feet
Depth of Well: 45 feet below ground surface | Protective cap:
Filter Pack: Red Flint Filter Pack Sand | Material: Aluminium
Material: Sand | Vented?: ☒ Y ☐ N | Locking?: ☒ Y ☐ N
Grain Size: | Well cap:
Volume: 1.4 cubic feet | Material: Rubber
Seal (minimum 3 ft. length above filter pack): Bentonite Chips | Vented?: ☐ Y ☒ N
Material: Bentonite Chips

D. GROUNDWATER MEASUREMENT (±0.01 foot below top of inner well casing)

Water level: 8.37 | **Stabilization time:** < 5 minutes
Well development method: Surged and purged
Average depth of frost line: 4 ft

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature:  **Certification #:** 9362 **Date:** 7-23-2020

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½ inch x 11 inch map showing locations of all monitoring wells and piezometers.

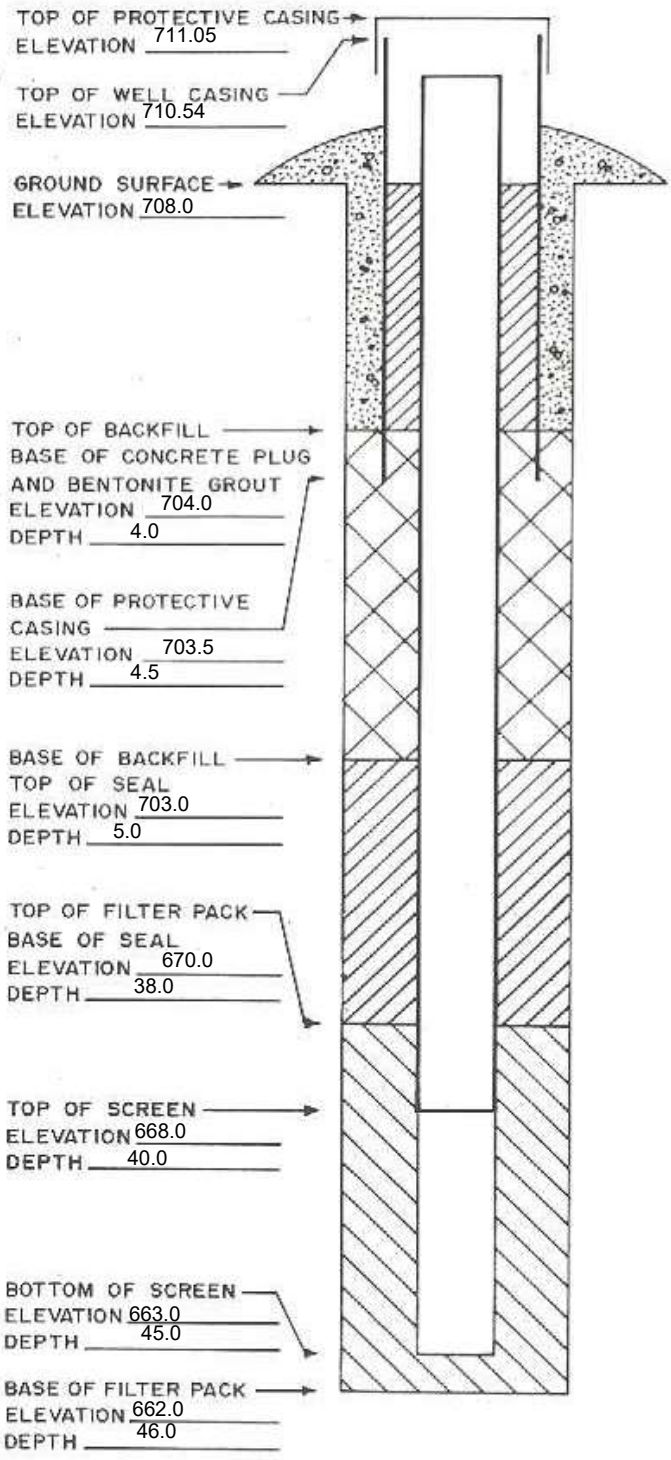
Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

02/26/2024 - Classification: Internal - ECRM13238692

ELEVATIONS: ± 0.01 FT. MSL

DEPTHS: ± 0.1 FT. FROM GROUND SERFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



02/26/2024 - Classification: Internal - ECRM13238692

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: Prairie Creek Generating Station | Permit No.:
Well or Piezometer No.: MW310A | Dates Started: 7/23/2020 | Date Completed: 7/23/2020

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site: NW of parcel 19031-7600-2 | Distance and direction along boundary: 600' E
Distance and direction from boundary to surface monitoring well: 345' N
Elevation (+0.01 ft. MSL):
Ground Surface: 708.2 | Top of protective casing: 711.01
Top of well casing: 710.68 | Benchmark elevation:
Benchmark description: On-site benchmark, NAVD_88 datum.

B. SOIL BORING INFORMATION

Construction Company Name: Cascade Drilling
Address: 301 Alderson St. | City, State, Zip Code: Schofield, WI, 54476
Name of driller: Mike Mueller
Drilling method: Rotosonic | Drilling fluid: Water | Bore Hole diameter: 6 inches
Soil sampling method: 5 foot sections | Depth of boring: 46 feet

C. MONITORING WELL INSTALLATION

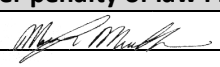
Casing material: PVC | Placement method: Gravity
Length of casing: 47.5 feet | Volume: 5.9 cubic feet
Outside casing diameter: 2.4 inches | Backfill (if different from seal): None
Inside casing diameter: 2.0 inches | Material:
Casing joint type: Threaded | Placement method:
Casing/screen joint type: | Volume:
Screen material: PVC | Surface seal design: Cement
Screen opening size: 0.01 inches | Material of protective casing: Steel
Material of grout between protective casing and well casing: Bentonite and Filter Sand
Screen length: 5 feet
Depth of Well: 45 feet below ground surface | Protective cap:
Filter Pack: Red Flint Filter Pack Sand | Material: Aluminium
Material: Sand | Vented?: ☒ Y ☐ N | Locking?: ☒ Y ☐ N
Grain Size: | Well cap:
Volume: 1.4 cubic feet | Material: Rubber
Seal (minimum 3 ft. length above filter pack): Bentonite Chips | Vented?: ☐ Y ☒ N
Material: Bentonite Chips

D. GROUNDWATER MEASUREMENT (±0.01 foot below top of inner well casing)

Water level: 8.68 | **Stabilization time:** < 5 minutes
Well development method: Surged and purged
Average depth of frost line: 4 ft

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature:  **Certification #:** 9362 **Date:** 7-23-2020

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½ inch x 11 inch map showing locations of all monitoring wells and piezometers.

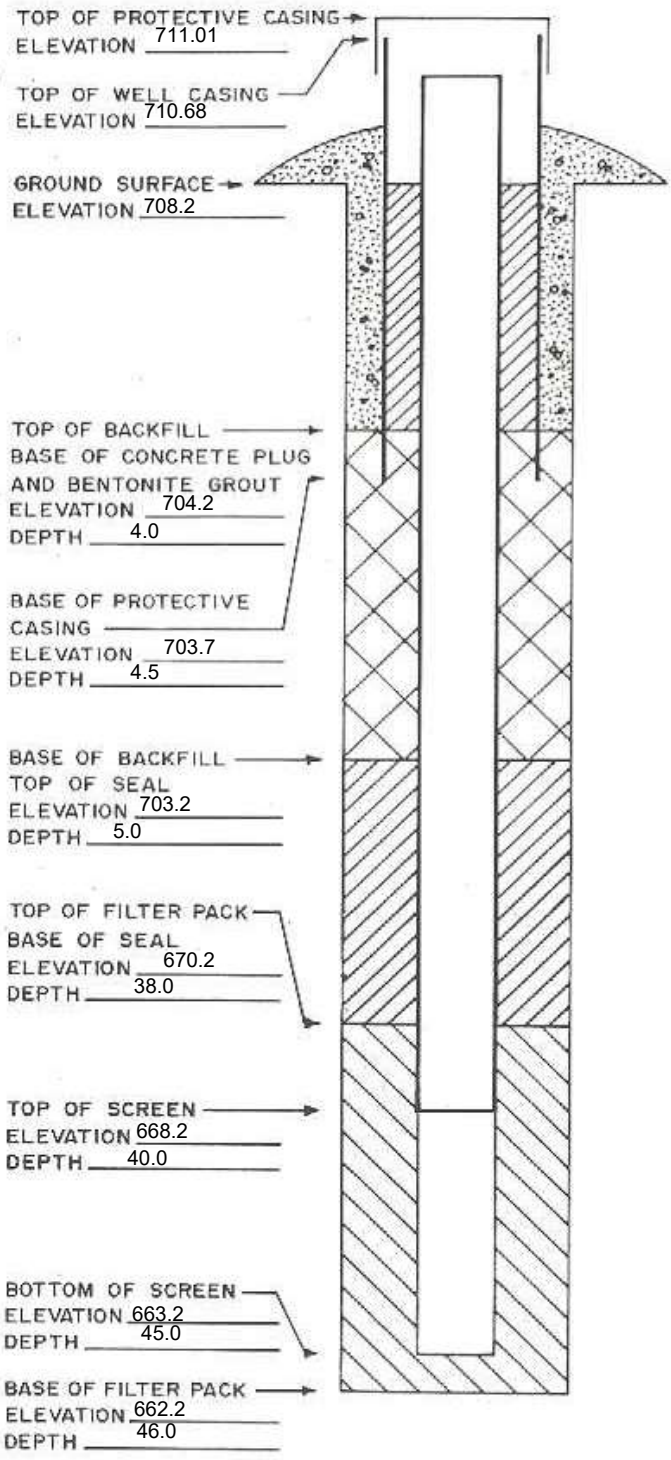
Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

02/26/2024 - Classification: Internal - ECRM13238692

ELEVATIONS: ± 0.01 FT. MSL

DEPTHS: ± 0.1 FT. FROM GROUND SERFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



02/26/2024 - Classification: Internal - ECRM13238692

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: Prairie Creek Generating Station | Permit No.: PPW22-0010

Well or Piezometer No.: MW-311 | Dates Started: 5/9/2022 | Date Completed: 5/9/2022

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site: NW | Distance and direction along boundary: 188' S

Distance and direction from boundary to surface monitoring well: 870' E

Elevation (+0.01 ft. MSL)

Ground Surface: 721.55 | Top of protective casing: 724.71

Top of well casing: 724.36 | Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Construction Company Name: Terracon

Address: 2640 12th St SW | City, State, Zip Code: Cedar Rapids, IA 52404

Name of driller: Duncan List

Drilling method: Auger | Drilling fluid: None | Bore Hole diameter: 8"

Soil sampling method: Split Spoon | Depth of boring: 20'

C. MONITORING WELL INSTALLATION

Casing material: Schedule 40 PVC | Placement method: Gravity

Length of casing: 6' | Volume: 8 bags

Outside casing diameter: 2.37 | **Backfill** (if different from seal):

Inside casing diameter: 2.01 | Material: NA

Casing joint type: Thread | Placement method: NA

Casing/screen joint type: Thread | Volume: NA

Screen material: Schedule 40 PVC | **Surface seal design:**

Screen opening size: 0.010 | Material of protective casing: Steel

Material of grout between protective casing and well casing: Bentonite chips

Screen length: 10'

Depth of Well: 16' | **Protective cap:**

Filter Pack: | Material: Steel

Material: Filter Sand | Vented?: ☒ Y ☐ N | Locking?: ☒ Y ☐ N

Grain Size: 16/30 | **Well cap:**

Volume: 9 cu. ft. | Material: Plastic

Seal (minimum 3 ft. length above filter pack): | Vented?: ☐ Y ☒ N

Material: 3/8' Bentonite Chips

D. GROUNDWATER MEASUREMENT (±0.01 foot below top of inner well casing)

Water level: 14.50' | **Stabilization time:** < 1 hr

Well development method: surged and pumped

Average depth of frost line: 4'

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature: [signature] | **Certification #:** 11183 | **Date:** 8/24/22

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½ inch x 11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

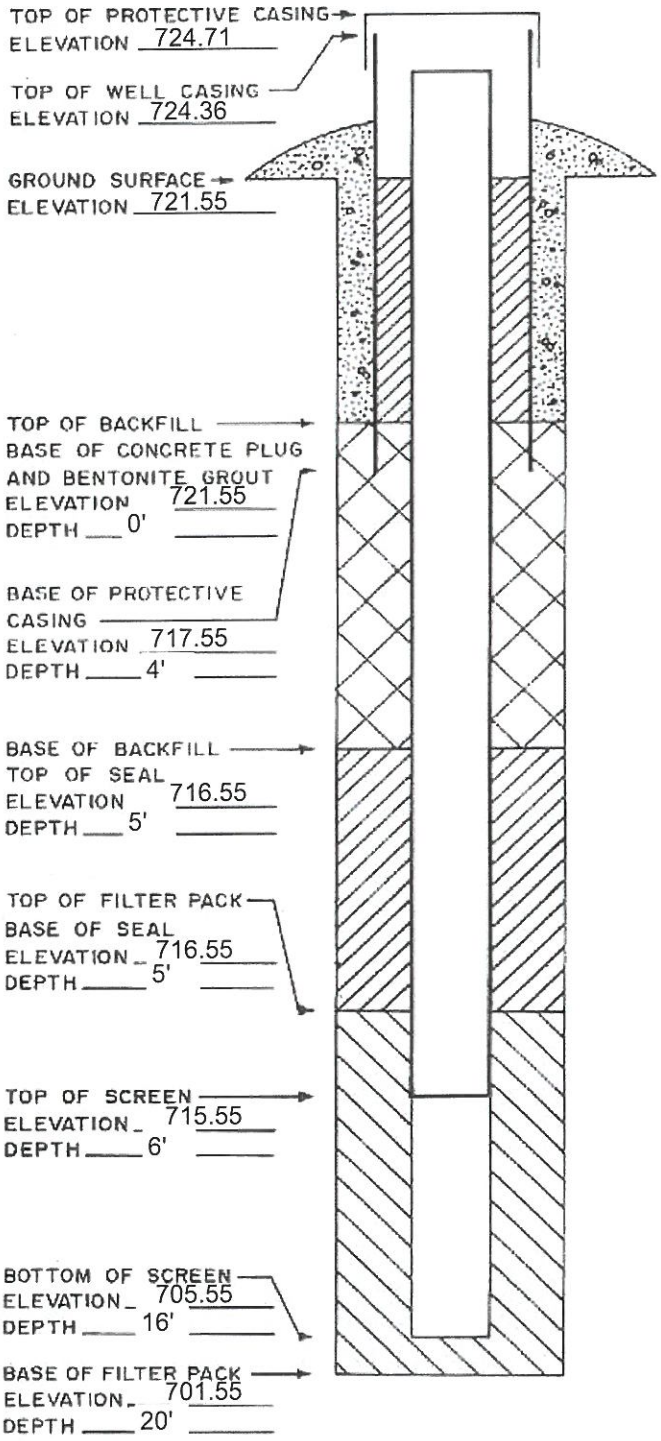
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

02/26/2024 - Classification: Internal - ECRM13238692

ELEVATIONS: ± 0.01 FT. MSL

DEPTHS: ± 0.1 FT. FROM GROUND SERFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



02/26/2024 - Classification: Internal - ECRM13238692

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: Prairie Creek Generating Station | Permit No.: PPW22-0011

Well or Piezometer No.: MW-312 | Dates Started: 5/9/2022 | Date Completed: 5/9/2022

A. SURVEYED LOCATION AND ELEVATION OF POINT (+0.5 ft.)

Specify corner of site: SW | Distance and direction along boundary: 2,092' ENE

Distance and direction from boundary to surface monitoring well: 60' NNW

Elevation (+0.01 ft. MSL)

Ground Surface: 708.95 | Top of protective casing: 711.93

Top of well casing: 711.60 | Benchmark elevation:

Benchmark description:

B. SOIL BORING INFORMATION

Construction Company Name: Terracon

Address: 2640 12th St SW | City, State, Zip Code: Cedar Rapids, IA 52404

Name of driller: Duncan List

Drilling method: Auger | Drilling fluid: None | Bore Hole diameter: 8"

Soil sampling method: Split Spoon | Depth of boring: 16'

C. MONITORING WELL INSTALLATION

Casing material: Schedule 40 PVC | Placement method: Gravity

Length of casing: 5' | Volume: 2 bags

Outside casing diameter: 2.37 | **Backfill** (if different from seal):

Inside casing diameter: 2.01 | Material: NA

Casing joint type: Thread | Placement method: NA

Casing/screen joint type: Thread | Volume: NA

Screen material: Schedule 40 PVC | **Surface seal design:**

Screen opening size: 0.010 | Material of protective casing: Steel

Material of grout between protective casing and well casing: Filter Sand

Screen length: 10'

Depth of Well: 15' | **Protective cap:**

Filter Pack: | Material: Steel

Material: Filter Sand | Vented?: ☒ Y ☐ N | Locking?: ☒ Y ☐ N

Grain Size: 16/30 | **Well cap:**

Volume: 2 bags | Material: Plastic

Seal (minimum 3 ft. length above filter pack): | Vented?: ☐ Y ☒ N

Material: 3/8' Bentonite Chips

D. GROUNDWATER MEASUREMENT (±0.01 foot below top of inner well casing)

Water level: 8.08' | **Stabilization time:** < 1 hour

Well development method: Surged and pumped

Average depth of frost line: 4'

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature: [signature] | **Certification #:** 11183 | **Date:** 8/29/22

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 ½ inch x 11 inch map showing locations of all monitoring wells and piezometers.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E. 9th St, Des Moines, IA 50319.

Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

09/2017 cmc

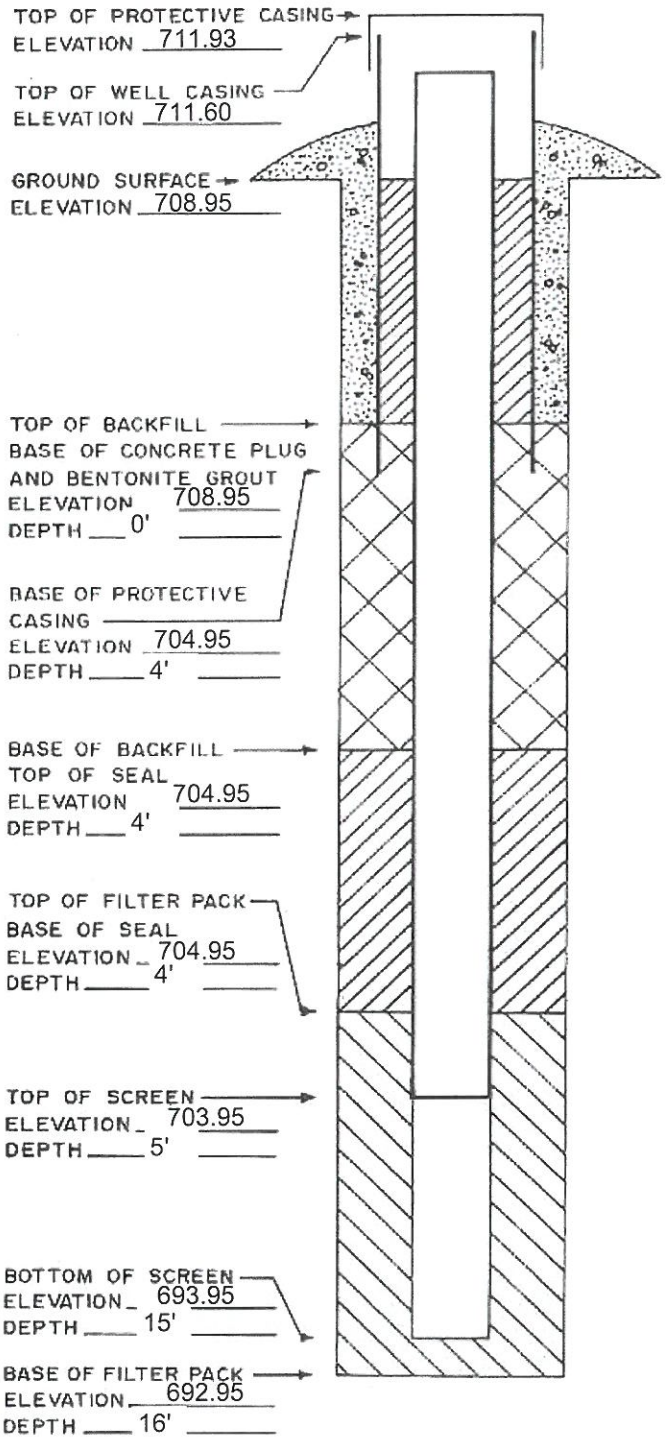
DNR Form 542-1277

02/26/2024 - Classification: Internal - ECRM13238692

ELEVATIONS: ± 0.01 FT. MSL

DEPTHS: ± 0.1 FT. FROM GROUND SERFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK INTERVAL).



02/26/2024 - Classification: Internal - ECRM13238692

Appendix C

Laboratory Reports

02/26/2024 - Classification: Internal - ECRM13238692

C1 October 2022 Assessment Monitoring

02/26/2024 - Classification: Internal - ECRM13238692

Eurofins Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Meghan Blodgett
SCS Engineers
2830 Dairy Drive
Madison Wisconsin 53718

Generated 11/22/2022 10:38:37 AM Revision 1

JOB DESCRIPTION

Prairie Creek MNA 25222074

JOB NUMBER

310-242479-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

02/26/2024 - Classification: Internal - ECRM13238692

myEOL

Table of Contents

Case Narrative

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Job ID: 310-242479-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-242479-1

Comments
No additional comments.

Revision
The report being provided is a revision of the original report sent on 10/31/2022. The report (revision 1) is being revised due to: Updated unit to ug/L per client.

Receipt
The samples were received on 10/14/2022 5:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.8º C.

Metals
Method 3005A: The reference method requires samples to be preserved to a pH of <2. The following samples were received with insufficient preservation at a pH of >2: MW-309 (310-242479-11) and (310-242479-A-11 DU). The sample(s) was preserved to the appropriate pH in the laboratory.

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

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

Sample Summary

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-242479-1	MW-301	Water	10/12/22 15:50	10/14/22 17:15
310-242479-2	MW-301A	Water	10/13/22 12:00	10/14/22 17:15
310-242479-3	MW-302	Water	10/12/22 15:55	10/14/22 17:15
310-242479-4	MW-303	Water	10/12/22 10:40	10/14/22 17:15
310-242479-5	MW-304	Water	10/12/22 11:40	10/14/22 17:15
310-242479-6	MW-305	Water	10/12/22 12:35	10/14/22 17:15
310-242479-7	MW-306	Water	10/12/22 13:55	10/14/22 17:15
310-242479-8	MW-306A	Water	10/12/22 13:45	10/14/22 17:15
310-242479-9	MW-307	Water	10/12/22 15:00	10/14/22 17:15
310-242479-10	MW-308	Water	10/12/22 14:00	10/14/22 17:15
310-242479-11	MW-309	Water	10/12/22 09:20	10/14/22 17:15
310-242479-12	MW-309A	Water	10/12/22 09:35	10/14/22 17:15
310-242479-13	MW-310	Water	10/12/22 11:50	10/14/22 17:15
310-242479-14	MW-310A	Water	10/12/22 11:50	10/14/22 17:15
310-242479-15	MW-312	Water	10/12/22 09:05	10/14/22 17:15

Detection Summary

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-301 — Lab Sample ID: 310-242479-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	180000		500	190	ug/L	1		6020A	Total/NA
Magnesium	54000		500	150	ug/L	1		6020A	Total/NA
Potassium	1100		500	150	ug/L	1		6020A	Total/NA
Sodium	17000		1000	610	ug/L	1		6020A	Total/NA
Manganese	5.5	J	10	3.6	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	490		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	490		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-301A — Lab Sample ID: 310-242479-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	76000		500	190	ug/L	1		6020A	Total/NA
Iron	6700		100	36	ug/L	1		6020A	Total/NA
Magnesium	23000		500	150	ug/L	1		6020A	Total/NA
Manganese	460		10	3.6	ug/L	1		6020A	Total/NA
Potassium	1600		500	150	ug/L	1		6020A	Total/NA
Sodium	12000		1000	610	ug/L	1		6020A	Total/NA
Iron	4600		100	36	ug/L	1		6020A	Dissolved
Manganese	380		10	3.6	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	300		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	300		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-302 — Lab Sample ID: 310-242479-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	150000		500	190	ug/L	1		6020A	Total/NA
Iron	170		100	36	ug/L	1		6020A	Total/NA
Magnesium	47000		500	150	ug/L	1		6020A	Total/NA
Manganese	20		10	3.6	ug/L	1		6020A	Total/NA
Potassium	820		500	150	ug/L	1		6020A	Total/NA
Sodium	21000		1000	610	ug/L	1		6020A	Total/NA
Manganese	18		10	3.6	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	360		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	360		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-303 — Lab Sample ID: 310-242479-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	140000		500	190	ug/L	1		6020A	Total/NA
Iron	3200		100	36	ug/L	1		6020A	Total/NA
Magnesium	44000		500	150	ug/L	1		6020A	Total/NA
Manganese	1700		10	3.6	ug/L	1		6020A	Total/NA
Potassium	5500		500	150	ug/L	1		6020A	Total/NA
Sodium	40000		1000	610	ug/L	1		6020A	Total/NA
Arsenic	48		2.0	0.75	ug/L	1		6020A	Dissolved
Iron	2800		100	36	ug/L	1		6020A	Dissolved
Manganese	1700		10	3.6	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	410		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	410		10	4.6	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-304 — Lab Sample ID: 310-242479-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	140000		500	190	ug/L	1		6020A	Total/NA
Iron	1200		100	36	ug/L	1		6020A	Total/NA
Magnesium	45000		500	150	ug/L	1		6020A	Total/NA
Manganese	1300		10	3.6	ug/L	1		6020A	Total/NA
Potassium	6000		500	150	ug/L	1		6020A	Total/NA
Sodium	46000		1000	610	ug/L	1		6020A	Total/NA
Arsenic	20		2.0	0.75	ug/L	1		6020A	Dissolved
Iron	1100		100	36	ug/L	1		6020A	Dissolved
Manganese	1300		10	3.6	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	390		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	390		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-305 — Lab Sample ID: 310-242479-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	160000		500	190	ug/L	1		6020A	Total/NA
Iron	91	J	100	36	ug/L	1		6020A	Total/NA
Magnesium	46000		500	150	ug/L	1		6020A	Total/NA
Manganese	1600		10	3.6	ug/L	1		6020A	Total/NA
Potassium	6200		500	150	ug/L	1		6020A	Total/NA
Sodium	72000		1000	610	ug/L	1		6020A	Total/NA
Arsenic	13		2.0	0.75	ug/L	1		6020A	Dissolved
Iron	59	J	100	36	ug/L	1		6020A	Dissolved
Manganese	1500		10	3.6	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	380		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	380		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-306 — Lab Sample ID: 310-242479-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	60000		500	190	ug/L	1		6020A	Total/NA
Iron	1800		100	36	ug/L	1		6020A	Total/NA
Magnesium	13000		500	150	ug/L	1		6020A	Total/NA
Manganese	110		10	3.6	ug/L	1		6020A	Total/NA
Potassium	1000		500	150	ug/L	1		6020A	Total/NA
Sodium	55000		1000	610	ug/L	1		6020A	Total/NA
Iron	1600		100	36	ug/L	1		6020A	Dissolved
Manganese	110		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	210		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	190		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	190		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-306A — Lab Sample ID: 310-242479-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	160000		500	190	ug/L	1		6020A	Total/NA
Iron	1800		100	36	ug/L	1		6020A	Total/NA
Magnesium	47000		500	150	ug/L	1		6020A	Total/NA
Manganese	390		10	3.6	ug/L	1		6020A	Total/NA
Potassium	1800		500	150	ug/L	1		6020A	Total/NA
Sodium	39000		1000	610	ug/L	1		6020A	Total/NA
Iron	1600		100	36	ug/L	1		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-306A (Continued) — Lab Sample ID: 310-242479-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	380		10	3.6	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	220		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	220		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-307 — Lab Sample ID: 310-242479-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	22000		500	190	ug/L	1		6020A	Total/NA
Magnesium	3300		500	150	ug/L	1		6020A	Total/NA
Potassium	1900		500	150	ug/L	1		6020A	Total/NA
Sodium	8000		1000	610	ug/L	1		6020A	Total/NA
Manganese	3.6	J	10	3.6	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	96		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	96		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-308 — Lab Sample ID: 310-242479-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	57000		500	190	ug/L	1		6020A	Total/NA
Magnesium	3300		500	150	ug/L	1		6020A	Total/NA
Manganese	58		10	3.6	ug/L	1		6020A	Total/NA
Potassium	6700		500	150	ug/L	1		6020A	Total/NA
Sodium	37000		1000	610	ug/L	1		6020A	Total/NA
Arsenic	41		2.0	0.75	ug/L	1		6020A	Dissolved
Manganese	58		10	3.6	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	130		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	130		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-309 — Lab Sample ID: 310-242479-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	120000		500	190	ug/L	1		6020A	Total/NA
Iron	1300		100	36	ug/L	1		6020A	Total/NA
Magnesium	33000		500	150	ug/L	1		6020A	Total/NA
Manganese	910		10	3.6	ug/L	1		6020A	Total/NA
Potassium	5200		500	150	ug/L	1		6020A	Total/NA
Sodium	38000		1000	610	ug/L	1		6020A	Total/NA
Arsenic	48		2.0	0.75	ug/L	1		6020A	Dissolved
Iron	860		100	36	ug/L	1		6020A	Dissolved
Manganese	890		10	3.6	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	380		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	380		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-309A — Lab Sample ID: 310-242479-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	120000		500	190	ug/L	1		6020A	Total/NA
Iron	9500		100	36	ug/L	1		6020A	Total/NA
Magnesium	32000		500	150	ug/L	1		6020A	Total/NA
Manganese	770		10	3.6	ug/L	1		6020A	Total/NA
Potassium	2300		500	150	ug/L	1		6020A	Total/NA
Sodium	21000		1000	610	ug/L	1		6020A	Total/NA
Iron	9100		100	36	ug/L	1		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-309A (Continued) — Lab Sample ID: 310-242479-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	800		10	3.6	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	290		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	290		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-310 — Lab Sample ID: 310-242479-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	140000		500	190	ug/L	1		6020A	Total/NA
Iron	5800		100	36	ug/L	1		6020A	Total/NA
Magnesium	34000		500	150	ug/L	1		6020A	Total/NA
Manganese	1400		10	3.6	ug/L	1		6020A	Total/NA
Potassium	6400		500	150	ug/L	1		6020A	Total/NA
Sodium	56000		1000	610	ug/L	1		6020A	Total/NA
Arsenic	24		2.0	0.75	ug/L	1		6020A	Dissolved
Iron	4400		100	36	ug/L	1		6020A	Dissolved
Manganese	1300		10	3.6	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	370		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	370		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-310A — Lab Sample ID: 310-242479-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	150000		500	190	ug/L	1		6020A	Total/NA
Iron	6800		100	36	ug/L	1		6020A	Total/NA
Magnesium	40000		500	150	ug/L	1		6020A	Total/NA
Manganese	370		10	3.6	ug/L	1		6020A	Total/NA
Potassium	1100		500	150	ug/L	1		6020A	Total/NA
Sodium	16000		1000	610	ug/L	1		6020A	Total/NA
Iron	6300		100	36	ug/L	1		6020A	Dissolved
Manganese	360		10	3.6	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	340		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	340		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-312 — Lab Sample ID: 310-242479-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	100000		500	190	ug/L	1		6020A	Total/NA
Iron	7600		100	36	ug/L	1		6020A	Total/NA
Magnesium	22000		500	150	ug/L	1		6020A	Total/NA
Manganese	1500		10	3.6	ug/L	1		6020A	Total/NA
Potassium	2800		500	150	ug/L	1		6020A	Total/NA
Sodium	31000		1000	610	ug/L	1		6020A	Total/NA
Arsenic	9.7		2.0	0.75	ug/L	1		6020A	Dissolved
Iron	7100		100	36	ug/L	1		6020A	Dissolved
Lithium	6.3	J	10	2.5	ug/L	1		6020A	Dissolved
Manganese	1500		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	14		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	320		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	320		10	4.6	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-301

Date Collected: 10/12/22 15:50
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-1

Matrix: Water

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**180000**		500	190	ug/L		10/19/22 09:00	10/21/22 23:41	1
Iron	<36		100	36	ug/L		10/19/22 09:00	10/21/22 23:41	1
Magnesium	**54000**		500	150	ug/L		10/19/22 09:00	10/21/22 23:41	1
Manganese	<3.6		10	3.6	ug/L		10/19/22 09:00	10/21/22 23:41	1
Potassium	**1100**		500	150	ug/L		10/19/22 09:00	10/21/22 23:41	1
Sodium	**17000**		1000	610	ug/L		10/19/22 09:00	10/21/22 23:41	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		10/20/22 09:15	10/27/22 15:03	1
Manganese	**5.5**	**J**	10	3.6	ug/L		10/20/22 09:15	10/27/22 15:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**490**		10	4.6	mg/L			10/18/22 10:31	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/18/22 10:31	1
Total Alkalinity as CaCO3 (SM 2320B)	**490**		10	4.6	mg/L			10/18/22 10:31	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-301A

Date Collected: 10/13/22 12:00
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-2

Matrix: Water

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	76000		500	190	ug/L		10/19/22 09:00	10/21/22 23:44	1
Iron	6700		100	36	ug/L		10/19/22 09:00	10/21/22 23:44	1
Magnesium	23000		500	150	ug/L		10/19/22 09:00	10/21/22 23:44	1
Manganese	460		10	3.6	ug/L		10/19/22 09:00	10/21/22 23:44	1
Potassium	1600		500	150	ug/L		10/19/22 09:00	10/21/22 23:44	1
Sodium	12000		1000	610	ug/L		10/19/22 09:00	10/21/22 23:44	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	4600		100	36	ug/L		10/20/22 09:15	10/27/22 15:13	1
Manganese	380		10	3.6	ug/L		10/20/22 09:15	10/27/22 15:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	300		10	4.6	mg/L			10/22/22 10:51	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/22/22 10:51	1
Total Alkalinity as CaCO3 (SM 2320B)	300		10	4.6	mg/L			10/22/22 10:51	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-302

Date Collected: 10/12/22 15:55
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-3

Matrix: Water

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**150000**		500	190	ug/L		10/19/22 09:00	10/21/22 23:48	1
Iron	**170**		100	36	ug/L		10/19/22 09:00	10/21/22 23:48	1
Magnesium	**47000**		500	150	ug/L		10/19/22 09:00	10/21/22 23:48	1
Manganese	**20**		10	3.6	ug/L		10/19/22 09:00	10/21/22 23:48	1
Potassium	**820**		500	150	ug/L		10/19/22 09:00	10/21/22 23:48	1
Sodium	**21000**		1000	610	ug/L		10/19/22 09:00	10/21/22 23:48	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		10/20/22 09:15	10/27/22 15:17	1
Manganese	**18**		10	3.6	ug/L		10/20/22 09:15	10/27/22 15:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**360**		10	4.6	mg/L			10/18/22 10:31	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/18/22 10:31	1
Total Alkalinity as CaCO3 (SM 2320B)	**360**		10	4.6	mg/L			10/18/22 10:31	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-303

Date Collected: 10/12/22 10:40
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-4

Matrix: Water

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	140000		500	190	ug/L		10/19/22 09:00	10/21/22 23:51	1
Iron	3200		100	36	ug/L		10/19/22 09:00	10/21/22 23:51	1
Magnesium	44000		500	150	ug/L		10/19/22 09:00	10/21/22 23:51	1
Manganese	1700		10	3.6	ug/L		10/19/22 09:00	10/21/22 23:51	1
Potassium	5500		500	150	ug/L		10/19/22 09:00	10/21/22 23:51	1
Sodium	40000		1000	610	ug/L		10/19/22 09:00	10/21/22 23:51	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	48		2.0	0.75	ug/L		10/20/22 09:15	10/27/22 15:20	1
Iron	2800		100	36	ug/L		10/20/22 09:15	10/27/22 15:20	1
Manganese	1700		10	3.6	ug/L		10/20/22 09:15	10/27/22 15:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	410		10	4.6	mg/L			10/18/22 10:31	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/18/22 10:31	1
Total Alkalinity as CaCO3 (SM 2320B)	410		10	4.6	mg/L			10/18/22 10:31	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-304

Date Collected: 10/12/22 11:40
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-5

Matrix: Water

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	140000		500	190	ug/L		10/19/22 09:00	10/21/22 23:55	1
Iron	1200		100	36	ug/L		10/19/22 09:00	10/21/22 23:55	1
Magnesium	45000		500	150	ug/L		10/19/22 09:00	10/21/22 23:55	1
Manganese	1300		10	3.6	ug/L		10/19/22 09:00	10/21/22 23:55	1
Potassium	6000		500	150	ug/L		10/19/22 09:00	10/21/22 23:55	1
Sodium	46000		1000	610	ug/L		10/19/22 09:00	10/21/22 23:55	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20		2.0	0.75	ug/L		10/20/22 09:15	10/27/22 15:24	1
Iron	1100		100	36	ug/L		10/20/22 09:15	10/27/22 15:24	1
Manganese	1300		10	3.6	ug/L		10/20/22 09:15	10/27/22 15:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	390		10	4.6	mg/L			10/18/22 10:31	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/18/22 10:31	1
Total Alkalinity as CaCO3 (SM 2320B)	390		10	4.6	mg/L			10/18/22 10:31	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-305

Date Collected: 10/12/22 12:35
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-6

Matrix: Water

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	160000		500	190	ug/L		10/19/22 09:00	10/21/22 23:58	1
Iron	91	J	100	36	ug/L		10/19/22 09:00	10/21/22 23:58	1
Magnesium	46000		500	150	ug/L		10/19/22 09:00	10/21/22 23:58	1
Manganese	1600		10	3.6	ug/L		10/19/22 09:00	10/21/22 23:58	1
Potassium	6200		500	150	ug/L		10/19/22 09:00	10/21/22 23:58	1
Sodium	72000		1000	610	ug/L		10/19/22 09:00	10/21/22 23:58	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13		2.0	0.75	ug/L		10/20/22 09:15	10/27/22 15:27	1
Iron	59	J	100	36	ug/L		10/20/22 09:15	10/27/22 15:27	1
Manganese	1500		10	3.6	ug/L		10/20/22 09:15	10/27/22 15:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	380		10	4.6	mg/L			10/18/22 10:31	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/18/22 10:31	1
Total Alkalinity as CaCO3 (SM 2320B)	380		10	4.6	mg/L			10/18/22 10:31	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-306

Date Collected: 10/12/22 13:55
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-7

Matrix: Water

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	60000		500	190	ug/L		10/19/22 09:00	10/22/22 00:05	1
Iron	1800		100	36	ug/L		10/19/22 09:00	10/22/22 00:05	1
Magnesium	13000		500	150	ug/L		10/19/22 09:00	10/22/22 00:05	1
Manganese	110		10	3.6	ug/L		10/19/22 09:00	10/22/22 00:05	1
Potassium	1000		500	150	ug/L		10/19/22 09:00	10/22/22 00:05	1
Sodium	55000		1000	610	ug/L		10/19/22 09:00	10/22/22 00:05	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1600		100	36	ug/L		10/20/22 09:15	10/28/22 20:19	1
Manganese	110		10	3.6	ug/L		10/20/22 09:15	10/28/22 20:19	1
Molybdenum	210		2.0	1.2	ug/L		10/20/22 09:15	10/28/22 20:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	190		10	4.6	mg/L			10/18/22 10:31	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/18/22 10:31	1
Total Alkalinity as CaCO3 (SM 2320B)	190		10	4.6	mg/L			10/18/22 10:31	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-306A

Date Collected: 10/12/22 13:45
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-8

Matrix: Water

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	160000		500	190	ug/L		10/19/22 09:00	10/22/22 00:09	1
Iron	1800		100	36	ug/L		10/19/22 09:00	10/22/22 00:09	1
Magnesium	47000		500	150	ug/L		10/19/22 09:00	10/22/22 00:09	1
Manganese	390		10	3.6	ug/L		10/19/22 09:00	10/22/22 00:09	1
Potassium	1800		500	150	ug/L		10/19/22 09:00	10/22/22 00:09	1
Sodium	39000		1000	610	ug/L		10/19/22 09:00	10/22/22 00:09	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1600		100	36	ug/L		10/20/22 09:15	10/28/22 20:23	1
Manganese	380		10	3.6	ug/L		10/20/22 09:15	10/28/22 20:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	220		10	4.6	mg/L			10/18/22 10:31	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/18/22 10:31	1
Total Alkalinity as CaCO3 (SM 2320B)	220		10	4.6	mg/L			10/18/22 10:31	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-307

Date Collected: 10/12/22 15:00
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-9

Matrix: Water

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**22000**		500	190	ug/L		10/19/22 09:00	10/22/22 00:13	1
Iron	<36		100	36	ug/L		10/19/22 09:00	10/22/22 00:13	1
Magnesium	**3300**		500	150	ug/L		10/19/22 09:00	10/22/22 00:13	1
Manganese	<3.6		10	3.6	ug/L		10/19/22 09:00	10/22/22 00:13	1
Potassium	**1900**		500	150	ug/L		10/19/22 09:00	10/22/22 00:13	1
Sodium	**8000**		1000	610	ug/L		10/19/22 09:00	10/22/22 00:13	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		10/20/22 09:15	10/28/22 20:26	1
Manganese	**3.6**	**J**	10	3.6	ug/L		10/20/22 09:15	10/28/22 20:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**96**		10	4.6	mg/L			10/22/22 08:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/22/22 08:43	1
Total Alkalinity as CaCO3 (SM 2320B)	**96**		10	4.6	mg/L			10/22/22 08:43	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-308

Date Collected: 10/12/22 14:00
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-10

Matrix: Water

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**57000**		500	190	ug/L		10/19/22 09:00	10/22/22 00:34	1
Iron	<36		100	36	ug/L		10/19/22 09:00	10/22/22 00:34	1
Magnesium	**3300**		500	150	ug/L		10/19/22 09:00	10/22/22 00:34	1
Manganese	**58**		10	3.6	ug/L		10/19/22 09:00	10/22/22 00:34	1
Potassium	**6700**		500	150	ug/L		10/19/22 09:00	10/22/22 00:34	1
Sodium	**37000**		1000	610	ug/L		10/19/22 09:00	10/22/22 00:34	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**41**		2.0	0.75	ug/L		10/20/22 09:15	10/28/22 20:30	1
Iron	<36		100	36	ug/L		10/20/22 09:15	10/28/22 20:30	1
Manganese	**58**		10	3.6	ug/L		10/20/22 09:15	10/28/22 20:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**130**		10	4.6	mg/L			10/22/22 08:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/22/22 08:43	1
Total Alkalinity as CaCO3 (SM 2320B)	**130**		10	4.6	mg/L			10/22/22 08:43	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-309

Date Collected: 10/12/22 09:20
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-11

Matrix: Water

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000		500	190	ug/L		10/19/22 09:00	10/22/22 00:38	1
Iron	1300		100	36	ug/L		10/19/22 09:00	10/22/22 00:38	1
Magnesium	33000		500	150	ug/L		10/19/22 09:00	10/22/22 00:38	1
Manganese	910		10	3.6	ug/L		10/19/22 09:00	10/22/22 00:38	1
Potassium	5200		500	150	ug/L		10/19/22 09:00	10/22/22 00:38	1
Sodium	38000		1000	610	ug/L		10/19/22 09:00	10/22/22 00:38	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	48		2.0	0.75	ug/L		10/20/22 09:15	10/28/22 20:33	1
Iron	860		100	36	ug/L		10/20/22 09:15	10/28/22 20:33	1
Manganese	890		10	3.6	ug/L		10/20/22 09:15	10/28/22 20:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	380		10	4.6	mg/L			10/22/22 08:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/22/22 08:43	1
Total Alkalinity as CaCO3 (SM 2320B)	380		10	4.6	mg/L			10/22/22 08:43	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-309A

Date Collected: 10/12/22 09:35
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-12

Matrix: Water

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000		500	190	ug/L		10/19/22 09:00	10/22/22 00:41	1
Iron	9500		100	36	ug/L		10/19/22 09:00	10/22/22 00:41	1
Magnesium	32000		500	150	ug/L		10/19/22 09:00	10/22/22 00:41	1
Manganese	770		10	3.6	ug/L		10/19/22 09:00	10/22/22 00:41	1
Potassium	2300		500	150	ug/L		10/19/22 09:00	10/22/22 00:41	1
Sodium	21000		1000	610	ug/L		10/19/22 09:00	10/22/22 00:41	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	9100		100	36	ug/L		10/20/22 09:15	10/28/22 20:41	1
Manganese	800		10	3.6	ug/L		10/20/22 09:15	10/28/22 20:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	290		10	4.6	mg/L			10/22/22 08:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/22/22 08:43	1
Total Alkalinity as CaCO3 (SM 2320B)	290		10	4.6	mg/L			10/22/22 08:43	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-310

Date Collected: 10/12/22 11:50
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-13

Matrix: Water

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	140000		500	190	ug/L		10/18/22 12:47	10/22/22 00:45	1
Iron	5800		100	36	ug/L		10/18/22 12:47	10/22/22 00:45	1
Magnesium	34000		500	150	ug/L		10/18/22 12:47	10/22/22 00:45	1
Manganese	1400		10	3.6	ug/L		10/18/22 12:47	10/22/22 00:45	1
Potassium	6400		500	150	ug/L		10/18/22 12:47	10/22/22 00:45	1
Sodium	56000		1000	610	ug/L		10/18/22 12:47	10/22/22 00:45	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	24		2.0	0.75	ug/L		10/20/22 09:15	10/28/22 21:02	1
Iron	4400		100	36	ug/L		10/20/22 09:15	10/28/22 21:02	1
Manganese	1300		10	3.6	ug/L		10/20/22 09:15	10/28/22 21:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	370		10	4.6	mg/L			10/22/22 08:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/22/22 08:43	1
Total Alkalinity as CaCO3 (SM 2320B)	370		10	4.6	mg/L			10/22/22 08:43	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-310A

Date Collected: 10/12/22 11:50
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-14

Matrix: Water

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	150000		500	190	ug/L		10/18/22 12:47	10/22/22 00:48	1
Iron	6800		100	36	ug/L		10/18/22 12:47	10/22/22 00:48	1
Magnesium	40000		500	150	ug/L		10/18/22 12:47	10/22/22 00:48	1
Manganese	370		10	3.6	ug/L		10/18/22 12:47	10/22/22 00:48	1
Potassium	1100		500	150	ug/L		10/18/22 12:47	10/22/22 00:48	1
Sodium	16000		1000	610	ug/L		10/18/22 12:47	10/22/22 00:48	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	6300		100	36	ug/L		10/20/22 09:15	10/28/22 21:06	1
Manganese	360		10	3.6	ug/L		10/20/22 09:15	10/28/22 21:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	340		10	4.6	mg/L			10/22/22 08:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/22/22 08:43	1
Total Alkalinity as CaCO3 (SM 2320B)	340		10	4.6	mg/L			10/22/22 08:43	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-312

Date Collected: 10/12/22 09:05
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-15

Matrix: Water

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100000		500	190	ug/L		10/18/22 12:47	10/22/22 00:52	1
Iron	7600		100	36	ug/L		10/18/22 12:47	10/22/22 00:52	1
Magnesium	22000		500	150	ug/L		10/18/22 12:47	10/22/22 00:52	1
Manganese	1500		10	3.6	ug/L		10/18/22 12:47	10/22/22 00:52	1
Potassium	2800		500	150	ug/L		10/18/22 12:47	10/22/22 00:52	1
Sodium	31000		1000	610	ug/L		10/18/22 12:47	10/22/22 00:52	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.7		2.0	0.75	ug/L		10/20/22 09:15	10/28/22 21:09	1
Iron	7100		100	36	ug/L		10/20/22 09:15	10/28/22 21:09	1
Lithium	6.3	J	10	2.5	ug/L		10/20/22 09:15	10/29/22 17:01	1
Manganese	1500		10	3.6	ug/L		10/20/22 09:15	10/28/22 21:09	1
Molybdenum	14		2.0	1.2	ug/L		10/20/22 09:15	10/28/22 21:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	320		10	4.6	mg/L			10/22/22 08:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/22/22 08:43	1
Total Alkalinity as CaCO3 (SM 2320B)	320		10	4.6	mg/L			10/22/22 08:43	1

Definitions/Glossary

Client: SCS Engineers
Job ID: 310-242479-1
Project/Site: Prairie Creek MNA 25222074

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-368978/1-A
Matrix: Water
Analysis Batch: 369554

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 368978

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<190		500	190	ug/L		10/19/22 09:00	10/21/22 15:56	1
Iron	<36		100	36	ug/L		10/19/22 09:00	10/21/22 15:56	1
Magnesium	<150		500	150	ug/L		10/19/22 09:00	10/21/22 15:56	1
Manganese	<3.6		10	3.6	ug/L		10/19/22 09:00	10/21/22 15:56	1
Potassium	<150		500	150	ug/L		10/19/22 09:00	10/21/22 15:56	1
Sodium	<610		1000	610	ug/L		10/19/22 09:00	10/21/22 15:56	1

Lab Sample ID: LCS 310-368978/2-A
Matrix: Water
Analysis Batch: 369554

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 368978

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	2000	2220		ug/L		111	80 - 120
Iron	200	233		ug/L		116	80 - 120
Magnesium	2000	2140		ug/L		107	80 - 120
Manganese	100	107		ug/L		107	80 - 120
Potassium	2000	2180		ug/L		109	80 - 120
Sodium	2000	2220		ug/L		111	80 - 120

Lab Sample ID: 310-242479-6 DU
Matrix: Water
Analysis Batch: 369554

Client Sample ID: MW-305
Prep Type: Total/NA
Prep Batch: 368978

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	160000		160000		ug/L		1	20
Iron	91	J	86.0	J	ug/L		6	20
Magnesium	46000		46700		ug/L		0.7	20
Manganese	1600		1580		ug/L		0.4	20
Potassium	6200		6260		ug/L		0.4	20
Sodium	72000		71000		ug/L		1	20

Lab Sample ID: MB 310-369153/1-A
Matrix: Water
Analysis Batch: 370076

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 369153

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.75		2.0	0.75	ug/L		10/20/22 09:15	10/27/22 14:55	1
Iron	<36		100	36	ug/L		10/20/22 09:15	10/27/22 14:55	1
Lithium	<2.5		10	2.5	ug/L		10/20/22 09:15	10/27/22 14:55	1
Manganese	<3.6		10	3.6	ug/L		10/20/22 09:15	10/27/22 14:55	1
Molybdenum	<1.2		2.0	1.2	ug/L		10/20/22 09:15	10/27/22 14:55	1

Lab Sample ID: LCS 310-369153/2-A
Matrix: Water
Analysis Batch: 370076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369153

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	200	210		ug/L		105	80 - 120
Iron	200	220		ug/L		110	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 310-369153/2-A
Matrix: Water
Analysis Batch: 370076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369153

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium			200	215		ug/L		108	80 - 120		
Manganese			100	107		ug/L		107	80 - 120		
Molybdenum			200	208		ug/L		104	80 - 120		

Lab Sample ID: 310-242479-1 MS
Matrix: Water
Analysis Batch: 370076

Client Sample ID: MW-301
Prep Type: Dissolved
Prep Batch: 369153

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic	1.0	J	200	215		ug/L		107	75 - 125		
Iron	<36		200	212		ug/L		106	75 - 125		
Lithium	16		200	228		ug/L		106	75 - 125		
Manganese	5.5	J	100	110		ug/L		105	75 - 125		
Molybdenum	1.5	J	200	208		ug/L		103	75 - 125		

Lab Sample ID: 310-242479-1 MSD
Matrix: Water
Analysis Batch: 370076

Client Sample ID: MW-301
Prep Type: Dissolved
Prep Batch: 369153

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	1.0	J	200	217		ug/L		108	75 - 125	1	20
Iron	<36		200	214		ug/L		107	75 - 125	1	20
Lithium	16		200	233		ug/L		108	75 - 125	2	20
Manganese	5.5	J	100	111		ug/L		105	75 - 125	1	20
Molybdenum	1.5	J	200	211		ug/L		105	75 - 125	2	20

Lab Sample ID: 310-242479-11 DU
Matrix: Water
Analysis Batch: 370247

Client Sample ID: MW-309
Prep Type: Dissolved
Prep Batch: 369153

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	48		46.7		ug/L		2	20
Iron	860		858		ug/L		0.6	20
Manganese	890		887		ug/L		0.8	20
Molybdenum	23		22.1		ug/L		2	20

Lab Sample ID: 310-242479-11 DU
Matrix: Water
Analysis Batch: 370295

Client Sample ID: MW-309
Prep Type: Dissolved
Prep Batch: 369153

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	18		17.8		ug/L		2	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 310-368944/1
Matrix: Water
Analysis Batch: 368944

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			10/18/22 10:31	1
Carbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			10/18/22 10:31	1
Total Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			10/18/22 10:31	1

Lab Sample ID: LCS 310-368944/2
Matrix: Water
Analysis Batch: 368944

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3	1000	1020		mg/L		102	90 - 110

Lab Sample ID: MB 310-369492/1
Matrix: Water
Analysis Batch: 369492

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			10/22/22 08:43	1
Carbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			10/22/22 08:43	1
Total Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			10/22/22 08:43	1

Lab Sample ID: LCS 310-369492/2
Matrix: Water
Analysis Batch: 369492

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3	1000	1000		mg/L		100	90 - 110

Lab Sample ID: MB 310-369498/1
Matrix: Water
Analysis Batch: 369498

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			10/22/22 10:51	1
Carbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			10/22/22 10:51	1
Total Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			10/22/22 10:51	1

Lab Sample ID: LCS 310-369498/2
Matrix: Water
Analysis Batch: 369498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3	1000	1030		mg/L		103	90 - 110

Metals

Prep Batch: 368978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242479-1	MW-301	Total/NA	Water	3005A	
310-242479-2	MW-301A	Total/NA	Water	3005A	
310-242479-3	MW-302	Total/NA	Water	3005A	
310-242479-4	MW-303	Total/NA	Water	3005A	
310-242479-5	MW-304	Total/NA	Water	3005A	
310-242479-6	MW-305	Total/NA	Water	3005A	
310-242479-7	MW-306	Total/NA	Water	3005A	
310-242479-8	MW-306A	Total/NA	Water	3005A	
310-242479-9	MW-307	Total/NA	Water	3005A	
310-242479-10	MW-308	Total/NA	Water	3005A	
310-242479-11	MW-309	Total/NA	Water	3005A	
310-242479-12	MW-309A	Total/NA	Water	3005A	
310-242479-13	MW-310	Total/NA	Water	3005A	
310-242479-14	MW-310A	Total/NA	Water	3005A	
310-242479-15	MW-312	Total/NA	Water	3005A	
MB 310-368978/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-368978/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-242479-6 DU	MW-305	Total/NA	Water	3005A	

Prep Batch: 369153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242479-1	MW-301	Dissolved	Water	3005A	
310-242479-2	MW-301A	Dissolved	Water	3005A	
310-242479-3	MW-302	Dissolved	Water	3005A	
310-242479-4	MW-303	Dissolved	Water	3005A	
310-242479-5	MW-304	Dissolved	Water	3005A	
310-242479-6	MW-305	Dissolved	Water	3005A	
310-242479-7	MW-306	Dissolved	Water	3005A	
310-242479-8	MW-306A	Dissolved	Water	3005A	
310-242479-9	MW-307	Dissolved	Water	3005A	
310-242479-10	MW-308	Dissolved	Water	3005A	
310-242479-11	MW-309	Dissolved	Water	3005A	
310-242479-12	MW-309A	Dissolved	Water	3005A	
310-242479-13	MW-310	Dissolved	Water	3005A	
310-242479-14	MW-310A	Dissolved	Water	3005A	
310-242479-15	MW-312	Dissolved	Water	3005A	
MB 310-369153/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-369153/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-242479-1 MS	MW-301	Dissolved	Water	3005A	
310-242479-1 MSD	MW-301	Dissolved	Water	3005A	
310-242479-11 DU	MW-309	Dissolved	Water	3005A	

Analysis Batch: 369554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242479-1	MW-301	Total/NA	Water	6020A	368978
310-242479-2	MW-301A	Total/NA	Water	6020A	368978
310-242479-3	MW-302	Total/NA	Water	6020A	368978
310-242479-4	MW-303	Total/NA	Water	6020A	368978
310-242479-5	MW-304	Total/NA	Water	6020A	368978
310-242479-6	MW-305	Total/NA	Water	6020A	368978
310-242479-7	MW-306	Total/NA	Water	6020A	368978

Metals (Continued)

Analysis Batch: 369554 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242479-8	MW-306A	Total/NA	Water	6020A	368978
310-242479-9	MW-307	Total/NA	Water	6020A	368978
310-242479-10	MW-308	Total/NA	Water	6020A	368978
310-242479-11	MW-309	Total/NA	Water	6020A	368978
310-242479-12	MW-309A	Total/NA	Water	6020A	368978
310-242479-13	MW-310	Total/NA	Water	6020A	368978
310-242479-14	MW-310A	Total/NA	Water	6020A	368978
310-242479-15	MW-312	Total/NA	Water	6020A	368978
MB 310-368978/1-A	Method Blank	Total/NA	Water	6020A	368978
LCS 310-368978/2-A	Lab Control Sample	Total/NA	Water	6020A	368978
310-242479-6 DU	MW-305	Total/NA	Water	6020A	368978

Analysis Batch: 370076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242479-1	MW-301	Dissolved	Water	6020A	369153
310-242479-2	MW-301A	Dissolved	Water	6020A	369153
310-242479-3	MW-302	Dissolved	Water	6020A	369153
310-242479-4	MW-303	Dissolved	Water	6020A	369153
310-242479-5	MW-304	Dissolved	Water	6020A	369153
310-242479-6	MW-305	Dissolved	Water	6020A	369153
MB 310-369153/1-A	Method Blank	Total/NA	Water	6020A	369153
LCS 310-369153/2-A	Lab Control Sample	Total/NA	Water	6020A	369153
310-242479-1 MS	MW-301	Dissolved	Water	6020A	369153
310-242479-1 MSD	MW-301	Dissolved	Water	6020A	369153

Analysis Batch: 370247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242479-7	MW-306	Dissolved	Water	6020A	369153
310-242479-8	MW-306A	Dissolved	Water	6020A	369153
310-242479-9	MW-307	Dissolved	Water	6020A	369153
310-242479-10	MW-308	Dissolved	Water	6020A	369153
310-242479-11	MW-309	Dissolved	Water	6020A	369153
310-242479-12	MW-309A	Dissolved	Water	6020A	369153
310-242479-13	MW-310	Dissolved	Water	6020A	369153
310-242479-14	MW-310A	Dissolved	Water	6020A	369153
310-242479-15	MW-312	Dissolved	Water	6020A	369153
310-242479-11 DU	MW-309	Dissolved	Water	6020A	369153

Analysis Batch: 370295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242479-15	MW-312	Dissolved	Water	6020A	369153
310-242479-11 DU	MW-309	Dissolved	Water	6020A	369153

General Chemistry

Analysis Batch: 368944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242479-1	MW-301	Total/NA	Water	SM 2320B	
310-242479-3	MW-302	Total/NA	Water	SM 2320B	
310-242479-4	MW-303	Total/NA	Water	SM 2320B	
310-242479-5	MW-304	Total/NA	Water	SM 2320B	

QC Association Summary

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

General Chemistry (Continued)

Analysis Batch: 368944 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242479-6	MW-305	Total/NA	Water	SM 2320B	
310-242479-7	MW-306	Total/NA	Water	SM 2320B	
310-242479-8	MW-306A	Total/NA	Water	SM 2320B	
MB 310-368944/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 310-368944/2	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 369492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242479-9	MW-307	Total/NA	Water	SM 2320B	
310-242479-10	MW-308	Total/NA	Water	SM 2320B	
310-242479-11	MW-309	Total/NA	Water	SM 2320B	
310-242479-12	MW-309A	Total/NA	Water	SM 2320B	
310-242479-13	MW-310	Total/NA	Water	SM 2320B	
310-242479-14	MW-310A	Total/NA	Water	SM 2320B	
310-242479-15	MW-312	Total/NA	Water	SM 2320B	
MB 310-369492/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 310-369492/2	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 369498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242479-2	MW-301A	Total/NA	Water	SM 2320B	
MB 310-369498/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 310-369498/2	Lab Control Sample	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-242479-1
Project/Site: Prairie Creek MNA 25222074

Client Sample ID: MW-301
Lab Sample ID: 310-242479-1
Date Collected: 10/12/22 15:50
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369153	QTZ5	EET CF	10/20/22 09:15
Dissolved	Analysis	6020A		1	370076	A6US	EET CF	10/27/22 15:03
Total/NA	Prep	3005A			368978	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	369554	DHM5	EET CF	10/21/22 23:41
Total/NA	Analysis	SM 2320B		1	368944	MAQ3	EET CF	10/18/22 10:31

Client Sample ID: MW-301A
Lab Sample ID: 310-242479-2
Date Collected: 10/13/22 12:00
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369153	QTZ5	EET CF	10/20/22 09:15
Dissolved	Analysis	6020A		1	370076	A6US	EET CF	10/27/22 15:13
Total/NA	Prep	3005A			368978	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	369554	DHM5	EET CF	10/21/22 23:44
Total/NA	Analysis	SM 2320B		1	369498	MAQ3	EET CF	10/22/22 10:51

Client Sample ID: MW-302
Lab Sample ID: 310-242479-3
Date Collected: 10/12/22 15:55
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369153	QTZ5	EET CF	10/20/22 09:15
Dissolved	Analysis	6020A		1	370076	A6US	EET CF	10/27/22 15:17
Total/NA	Prep	3005A			368978	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	369554	DHM5	EET CF	10/21/22 23:48
Total/NA	Analysis	SM 2320B		1	368944	MAQ3	EET CF	10/18/22 10:31

Client Sample ID: MW-303
Lab Sample ID: 310-242479-4
Date Collected: 10/12/22 10:40
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369153	QTZ5	EET CF	10/20/22 09:15
Dissolved	Analysis	6020A		1	370076	A6US	EET CF	10/27/22 15:20
Total/NA	Prep	3005A			368978	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	369554	DHM5	EET CF	10/21/22 23:51
Total/NA	Analysis	SM 2320B		1	368944	MAQ3	EET CF	10/18/22 10:31

Lab Chronicle

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Client Sample ID: MW-304
Date Collected: 10/12/22 11:40
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369153	QTZ5	EET CF	10/20/22 09:15
Dissolved	Analysis	6020A		1	370076	A6US	EET CF	10/27/22 15:24
Total/NA	Prep	3005A			368978	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	369554	DHM5	EET CF	10/21/22 23:55
Total/NA	Analysis	SM 2320B		1	368944	MAQ3	EET CF	10/18/22 10:31

Client Sample ID: MW-305
Date Collected: 10/12/22 12:35
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369153	QTZ5	EET CF	10/20/22 09:15
Dissolved	Analysis	6020A		1	370076	A6US	EET CF	10/27/22 15:27
Total/NA	Prep	3005A			368978	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	369554	DHM5	EET CF	10/21/22 23:58
Total/NA	Analysis	SM 2320B		1	368944	MAQ3	EET CF	10/18/22 10:31

Client Sample ID: MW-306
Date Collected: 10/12/22 13:55
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369153	QTZ5	EET CF	10/20/22 09:15
Dissolved	Analysis	6020A		1	370247	A6US	EET CF	10/28/22 20:19
Total/NA	Prep	3005A			368978	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	369554	DHM5	EET CF	10/22/22 00:05
Total/NA	Analysis	SM 2320B		1	368944	MAQ3	EET CF	10/18/22 10:31

Client Sample ID: MW-306A
Date Collected: 10/12/22 13:45
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242479-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369153	QTZ5	EET CF	10/20/22 09:15
Dissolved	Analysis	6020A		1	370247	A6US	EET CF	10/28/22 20:23
Total/NA	Prep	3005A			368978	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	369554	DHM5	EET CF	10/22/22 00:09
Total/NA	Analysis	SM 2320B		1	368944	MAQ3	EET CF	10/18/22 10:31

Lab Chronicle

Client: SCS Engineers
Job ID: 310-242479-1
Project/Site: Prairie Creek MNA 25222074

Client Sample ID: MW-307
Lab Sample ID: 310-242479-9
Date Collected: 10/12/22 15:00
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369153	QTZ5	EET CF	10/20/22 09:15
Dissolved	Analysis	6020A		1	370247	A6US	EET CF	10/28/22 20:26
Total/NA	Prep	3005A			368978	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	369554	DHM5	EET CF	10/22/22 00:13
Total/NA	Analysis	SM 2320B		1	369492	MAQ3	EET CF	10/22/22 08:43

Client Sample ID: MW-308
Lab Sample ID: 310-242479-10
Date Collected: 10/12/22 14:00
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369153	QTZ5	EET CF	10/20/22 09:15
Dissolved	Analysis	6020A		1	370247	A6US	EET CF	10/28/22 20:30
Total/NA	Prep	3005A			368978	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	369554	DHM5	EET CF	10/22/22 00:34
Total/NA	Analysis	SM 2320B		1	369492	MAQ3	EET CF	10/22/22 08:43

Client Sample ID: MW-309
Lab Sample ID: 310-242479-11
Date Collected: 10/12/22 09:20
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369153	QTZ5	EET CF	10/20/22 09:15
Dissolved	Analysis	6020A		1	370247	A6US	EET CF	10/28/22 20:33
Total/NA	Prep	3005A			368978	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	369554	DHM5	EET CF	10/22/22 00:38
Total/NA	Analysis	SM 2320B		1	369492	MAQ3	EET CF	10/22/22 08:43

Client Sample ID: MW-309A
Lab Sample ID: 310-242479-12
Date Collected: 10/12/22 09:35
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369153	QTZ5	EET CF	10/20/22 09:15
Dissolved	Analysis	6020A		1	370247	A6US	EET CF	10/28/22 20:41
Total/NA	Prep	3005A			368978	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	369554	DHM5	EET CF	10/22/22 00:41
Total/NA	Analysis	SM 2320B		1	369492	MAQ3	EET CF	10/22/22 08:43

Lab Chronicle

Client: SCS Engineers
Job ID: 310-242479-1
Project/Site: Prairie Creek MNA 25222074

Client Sample ID: MW-310
Lab Sample ID: 310-242479-13
Date Collected: 10/12/22 11:50
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369153	QTZ5	EET CF	10/20/22 09:15
Dissolved	Analysis	6020A		1	370247	A6US	EET CF	10/28/22 21:02
Total/NA	Prep	3005A			368978	QTZ5	EET CF	10/18/22 12:47
Total/NA	Analysis	6020A		1	369554	DHM5	EET CF	10/22/22 00:45
Total/NA	Analysis	SM 2320B		1	369492	MAQ3	EET CF	10/22/22 08:43

Client Sample ID: MW-310A
Lab Sample ID: 310-242479-14
Date Collected: 10/12/22 11:50
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369153	QTZ5	EET CF	10/20/22 09:15
Dissolved	Analysis	6020A		1	370247	A6US	EET CF	10/28/22 21:06
Total/NA	Prep	3005A			368978	QTZ5	EET CF	10/18/22 12:47
Total/NA	Analysis	6020A		1	369554	DHM5	EET CF	10/22/22 00:48
Total/NA	Analysis	SM 2320B		1	369492	MAQ3	EET CF	10/22/22 08:43

Client Sample ID: MW-312
Lab Sample ID: 310-242479-15
Date Collected: 10/12/22 09:05
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369153	QTZ5	EET CF	10/20/22 09:15
Dissolved	Analysis	6020A		1	370247	A6US	EET CF	10/28/22 21:09
Dissolved	Prep	3005A			369153	QTZ5	EET CF	10/20/22 09:15
Dissolved	Analysis	6020A		1	370295	A6US	EET CF	10/29/22 17:01
Total/NA	Prep	3005A			368978	QTZ5	EET CF	10/18/22 12:47
Total/NA	Analysis	6020A		1	369554	DHM5	EET CF	10/22/22 00:52
Total/NA	Analysis	SM 2320B		1	369492	MAQ3	EET CF	10/22/22 08:43

Laboratory References:
EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-242479-1
Project/Site: Prairie Creek MNA 25222074

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	11-02-22

Method Summary

Client: SCS Engineers
Project/Site: Prairie Creek MNA 25222074

Job ID: 310-242479-1

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	SW846	EET CF
SM 2320B	Alkalinity	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

eurofins | Environment Testing America

310-242479 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: SCS Engineers			
City/State: CITY Clive		STATE IA	Project:
Receipt Information			
Date/Time Received:	DATE 10-14-22	TIME 1715	Received By: RL

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers			
Sample(s) received in Cooler?	☑ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☐ Yes	☑ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present?	☑ Yes	☐ No	*If yes:* Cooler custody seals intact? ☑ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☑ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☑ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record			
Coolant:	☑ Wet ice	☐ Blue ice	☐ Dry ice ☐ Other:_____ ☐ NONE
Thermometer ID:	RL	Correction Factor (°C):	0
Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C):	0.8	Corrected Temp (°C):	0.8

Sample Container Temperature		
Container(s) used:	CONTAINER 1	CONTAINER 2
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

02/26/2024 - Classification: Internal - ECRM13238692

02/26/2024 - Classification: Internal - ECRM13238692

11/22/2022 (Rev. 1)

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613
Phone. 319-277-2401 Fax 319-277-2425

Chain of Custody Record

TestAmerica Des Moines SC

Client Information	Sampler: Adam Watson	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 310-74858-21400 1
Client Contact: ~~Ross Orth~~ Meghan Blodgett	Phone: 608-250-9985	E-Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin:	Page: Page 1 of 3
Company: SCS Engineers	PWSID:	Analysis Requested		Job #:
Address: 8450 Hickman Road Suite 27	Due Date Requested:			Preservation Codes: A - HCL; B NaOH; C Zn Acetate; D Nitric Acid; E NaHSO4; F MeOH; G Amchlor; H Ascorbic Acid; I Ice; J DI Water; K EDTA; L EDA; M Hexane; N None; O AsNaO2; P Na2O4S; Q Na2SO3; R Na2S2O3; S H2SO4; T - TSP Dodecahydrate; U Acetone; V MCAA; W pH 4-5; Y Trizma; Z other specify); Other:
City: Clive	TAT Requested (days):			
State, Zip: IA, 50325	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 25222074			
Email: ~~rorth@scsengineers.com~~ MBlodgett@scsengineers.com	WO #:			
Project Name: Prairie Creek CCR 25222074	Project #: 31011020			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020A Metals Hg (9) Preservation Code: D	2540C_Calcd 9056A_ORGFM_28D_SM4500 H+ Preservation Code: N	6020A D Metals (4) Preservation Code: D	Total Number of containers	Special Instructions/Note
MW-301	10/12/22	1550		Water			X	X	X		
MW-301A	10/13/22	1200		Water			X	X	X		
MW-302	10/12/22	1555		Water			X	X	X		
MW-303	10/12/22	1040		Water			X	X	X		
MW-304	10/12/22	1140		Water			X	X	X		
MW-305	10/12/22	1235		Water			X	X	X		
MW-306	10/12/22	1355		Water			X	X	X		
MW-306A	10/12/22	1345		Water			X	X	X		
MW-307	10/12/22	1500		Water			X	X	X		
MW-308	10/12/22	1400		Water			X	X	X		
MW-309	10/12/22	920		Water			X	X	X		

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: II III IV Other (specify)

Special Instructions/QC Requirements:

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Sean Marczewski	10/14/2022 800	SCS Eng			
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time:	Company	Received by	Date/Time:	Company
				10-14-22 1715	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

02/26/2024 - Classification: Internal - ECRM13238692

11/22/2022 (Rev. 1)

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613
Phone. 319-277-2401 Fax 319-277-2425

Chain of Custody Record

TestAmerica Des Moines SC
214

Client Information	Sampler	Lab PM: Fredrick Sandie	Carrier Tracking No(s)	COC No: 310-74858-21400 2
Client Contact: Rosa Cruz	Phone	E-Mail: Sandra.Fredrick@et eurofinsus com	State of Origin	Page: Page 2 of 3
Company: SCS Engineers	PWSID			Job #:
Address: 8450 Hickman Road Suite 27	Due Date Requested			
City: Clive	TAT Requested (days):			
State, Zip: .A, 50325	Compliance Project: Δ Yes Δ No			
Phone.	PO #: 25222074			
Email: rcruz@scsengineers com	WO #:			
Project Name: Prairie Creek CCR 25222074	Project #: 31011020			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020A Metals Hg (9)	2540C Calcd 9056A_ORGFM 28D, SM4500 H+	6020A D. Metals (4)	Total Number of containers	Special Instructions/Note
			Preservation Code:				D	N	D		
MW-309A	10/12/22	935		Water			X	X	X		
MW-310	10/12/22	1150		Water			X	X	X		
MW-3 0A	10/12/22	1150		Water			X	X	X		
Field Blank				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Wate							
				Water							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested II III IV Other (specify)

Special Instructions/QC Requirements.

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Sean Marczewski	10/14/2022 800	SCS Eng.			
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time	Company	Received by: RL	Date/Time 10-14-22 1715	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver 06/08/2021

Table 1. Sampling Points and Parameters - Groundwater Monitoring - Prairie Creek Genera

		Parameter	MW-301	MW-301A	MW-302	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307	MW-308
CCR Rule Parameters All unfiltered	Appendix III Parameters (Detection Monitoring)	Boron	X	X	X	X	X	X	X	X	X	X
		Calcium	X	X	X	X	X	X	X	X	X	X
		Chloride	X	X	X	X	X	X	X	X	X	X
		Fluoride	X	X	X	X	X	X	X	X	X	X
		pH	X	X	X	X	X	X	X	X	X	X
		Sulfate	X	X	X	X	X	X	X	X	X	X
		TDS	X	X	X	X	X	X	X	X	X	X
	Appendix IV Parameters (Assessment Monitoring)	Antimony	X	X	X	X	X	X	X	X	X	X
		Arsenic	X	X	X	X	X	X	X	X	X	X
		Barium	X	X	X	X	X	X	X	X	X	X
		Beryllium	X	X	X	X	X	X	X	X	X	X
		Cadmium	X	X	X	X	X	X	X	X	X	X
		Chromium	X	X	X	X	X	X	X	X	X	X
		Cobalt	X	X	X	X	X	X	X	X	X	X
		Fluoride	X	X	X	X	X	X	X	X	X	X
		Lead	X	X	X	X	X	X	X	X	X	X
		Lithium	X	X	X	X	X	X	X	X	X	X
		Mercury	X	X	X	X	X	X	X	X	X	X
		Molybdenum	X	X	X	X	X	X	X	X	X	X
		Selenium	X	X	X	X	X	X	X	X	X	X
		Thallium	X	X	X	X	X	X	X	X	X	X
		Radium	X	X	X	X	X	X	X	X	X	X
	Field Parameters	Groundwater Elevation	X	X	X	X	X	X	X	X	X	X
		pH	X	X	X	X	X	X	X	X	X	X
		Well Depth										
		Specific Conductance	X	X	X	X	X	X	X	X	X	X
		Dissolved Oxygen	X	X	X	X	X	X	X	X	X	X
		ORP	X	X	X	X	X	X	X	X	X	X
		Temperature	X	X	X	X	X	X	X	X	X	X
		Turbidity (NTU)	X	X	X	X	X	X	X	X	X	X
		Color	X	X	X	X	X	X	X	X	X	X
		Odor	X	X	X	X	X	X	X	X	X	X
MNA Parameters	Total (Unfiltered)	Alkalinity - Carbonate	X	X	X	X	X	X	X	X	X	X
		Alkalinity - Bicarbonate	X	X	X	X	X	X	X	X	X	X
		Calcium	X	X	X	X	X	X	X	X	X	X
		Iron	X	X	X	X	X	X	X	X	X	X
		Magnesium	X	X	X	X	X	X	X	X	X	X
		Manganese	X	X	X	X	X	X	X	X	X	X
		Potassium	X	X	X	X	X	X	X	X	X	X
		Sodium	X	X	X	X	X	X	X	X	X	X
	Dissolved (Filtered)	Arsenic				X	X	X				X
		Cobalt										
		Iron	X	X	X	X	X	X	X	X	X	X
		Lithium										
		Manganese	X	X	X	X	X	X	X	X	X	X
		Molybdenum							X			
	Field Parameters	Sulfide, Field	X	X	X	X	X	X	X	X	X	X
		Ferrous Iron, Field	X	X	X	X	X	X	X	X	X	X

July 2022 Sampling Event

R Rule Sampling Program , October 2022

g Station / SCS Engineers Project #25222074

MW-309	MW-309A	MW-310	MW-310A	MW-311	MW-312	Field Blank	TOTAL
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X		X	X	16
X	X	X	X	X	X		16
X	X	X	X		X		15
				X			1
X	X	X	X		X		15
X	X	X	X		X		15
X	X	X	X		X		15
X	X	X	X		X		15
X	X	X	X		X		15
X	X	X	X		X		15
X	X	X	X		X		15
X	X	X	X		X		15
X	X	X	X		X		15
X	X	X	X		X		15
X	X	X	X		X		15
X	X	X	X		X		15
X	X	X	X		X		15
X	X	X	X		X		15
X	X	X	X		X		15
X		X			X		7
							0
X	X	X	X		X		15
					X		1
X	X	X	X		X		15
					X		2
X	X	X	X		X		15
X	X	X	X		X		15

Table 1, page 1 of 1

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-242479-1

Login Number: 242479
List Number: 1
Creator: Kizer, Preston V

List Source: Eurofins Cedar Falls

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

Eurofins Cedar Falls

Job Notes

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

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

Authorization

Generated
11/22/2022 10:38:37 AM
Revision 1

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

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ANALYTICAL REPORT

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Tel: (319)277-2401

Laboratory Job ID: 310-242480-1
Client Project/Site: Prairie Creek CCR 25222074

For:
SCS Engineers
2830 Dairy Drive
Madison, Wisconsin 53718

Attn: Meghan Blodgett

Authorized for release by:
11/1/2022 10:38:31 AM

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

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Job ID: 310-242480-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-242480-1

Comments
No additional comments.

Receipt
The samples were received on 10/14/2022 5:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were -0.9º C, -0.8º C and 0.6º C.

Receipt Exceptions
The following container was received with only 750mL of volume in the container. MW-301A (310-242480-2),

HPLC/IC
Method 9056A: The following samples were diluted due to the nature of the sample matrix: MW-301 (310-242480-1), MW-301A (310-242480-2), MW-302 (310-242480-3), MW-303 (310-242480-4), MW-304 (310-242480-5), MW-305 (310-242480-6), MW-306 (310-242480-7), MW-306A (310-242480-8), MW-307 (310-242480-9), MW-308 (310-242480-10), MW-309 (310-242480-11), MW-309A (310-242480-12), MW-310 (310-242480-13), MW-310A (310-242480-14), MW-312 (310-242480-15) and Field Blank (310-242480-16). Elevated reporting limits (RLs) are provided.

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

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

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

Sample Summary

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-242480-1	MW-301	Water	10/12/22 15:50	10/14/22 17:15
310-242480-2	MW-301A	Water	10/13/22 12:00	10/14/22 17:15
310-242480-3	MW-302	Water	10/12/22 15:55	10/14/22 17:15
310-242480-4	MW-303	Water	10/12/22 10:40	10/14/22 17:15
310-242480-5	MW-304	Water	10/12/22 11:40	10/14/22 17:15
310-242480-6	MW-305	Water	10/12/22 12:35	10/14/22 17:15
310-242480-7	MW-306	Water	10/12/22 13:55	10/14/22 17:15
310-242480-8	MW-306A	Water	10/12/22 13:45	10/14/22 17:15
310-242480-9	MW-307	Water	10/12/22 15:00	10/14/22 17:15
310-242480-10	MW-308	Water	10/12/22 14:00	10/14/22 17:15
310-242480-11	MW-309	Water	10/12/22 09:20	10/14/22 17:15
310-242480-12	MW-309A	Water	10/12/22 09:35	10/14/22 17:15
310-242480-13	MW-310	Water	10/12/22 11:50	10/14/22 17:15
310-242480-14	MW-310A	Water	10/12/22 11:50	10/14/22 17:15
310-242480-15	MW-312	Water	10/12/22 09:05	10/14/22 17:15
310-242480-16	Field Blank	Water	10/12/22 08:00	10/14/22 17:15

Detection Summary

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-301 — Lab Sample ID: 310-242480-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	110		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	100		5.0	2.0	mg/L	5		9056A	Total/NA
Barium	290		2.0	0.88	ug/L	1		6020A	Total/NA
Cadmium	0.068	J	0.10	0.055	ug/L	1		6020A	Total/NA
Calcium	170		0.50	0.19	mg/L	1		6020A	Total/NA
Chromium	4.8	J	5.0	1.1	ug/L	1		6020A	Total/NA
Lithium	14		10	2.5	ug/L	1		6020A	Total/NA
Selenium	1.3	J	5.0	0.96	ug/L	1		6020A	Total/NA
Total Dissolved Solids	730		50	26	mg/L	1		SM 2540C	Total/NA
pH	7.0	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	722.08				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-41.3				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	4.18				mg/L	1		Field Sampling	Total/NA
pH, Field	7.03				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1184				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	13.0				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	3.18				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-301A — Lab Sample ID: 310-242480-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.7	J	5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	4.0	J	5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	1.3	J	2.0	0.75	ug/L	1		6020A	Total/NA
Barium	140		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	68	J	100	58	ug/L	1		6020A	Total/NA
Calcium	69		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	0.76		0.50	0.19	ug/L	1		6020A	Total/NA
Lead	0.41	J	0.50	0.24	ug/L	1		6020A	Total/NA
Molybdenum	3.4		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	250		50	26	mg/L	1		SM 2540C	Total/NA
pH	6.9	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	706.76				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	41.8				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	2.19				mg/L	1		Field Sampling	Total/NA
pH, Field	7.00				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	537.2				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	12.7				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	4.27				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-302 — Lab Sample ID: 310-242480-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	92		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	89		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	0.76	J	2.0	0.75	ug/L	1		6020A	Total/NA
Barium	210		2.0	0.88	ug/L	1		6020A	Total/NA
Cadmium	0.072	J	0.10	0.055	ug/L	1		6020A	Total/NA
Calcium	140		0.50	0.19	mg/L	1		6020A	Total/NA
Chromium	2.0	J	5.0	1.1	ug/L	1		6020A	Total/NA
Cobalt	0.21	J	0.50	0.19	ug/L	1		6020A	Total/NA
Lithium	7.8	J	10	2.5	ug/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample ID: MW-302 (Continued) — Lab Sample ID: 310-242480-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	1.2	J	5.0	0.96	ug/L	1		6020A	Total/NA
Total Dissolved Solids	620		50	26	mg/L	1		SM 2540C	Total/NA
pH	6.9	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	712.56				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	48.3				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	2.53				mg/L	1		Field Sampling	Total/NA
pH, Field	6.63				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1051				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	14.7				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	4.35				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-303 — Lab Sample ID: 310-242480-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13		5.0	2.3	mg/L	5		9056A	Total/NA
Fluoride	0.30	J	0.50	0.22	mg/L	5		9056A	Total/NA
Sulfate	160		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	42		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	130		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	1100		100	58	ug/L	1		6020A	Total/NA
Calcium	120		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	0.43	J	0.50	0.19	ug/L	1		6020A	Total/NA
Lead	0.58		0.50	0.24	ug/L	1		6020A	Total/NA
Lithium	18		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	15		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	660		50	26	mg/L	1		SM 2540C	Total/NA
pH	7.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	701.93				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-32.0				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.06				mg/L	1		Field Sampling	Total/NA
pH, Field	7.08				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1047				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	15.6				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	1.15				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-304 — Lab Sample ID: 310-242480-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12		5.0	2.3	mg/L	5		9056A	Total/NA
Fluoride	0.34	J	0.50	0.22	mg/L	5		9056A	Total/NA
Sulfate	220		5.0	2.0	mg/L	5		9056A	Total/NA
Antimony	1.1	J	2.0	0.69	ug/L	1		6020A	Total/NA
Arsenic	19		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	120		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	960		100	58	ug/L	1		6020A	Total/NA
Calcium	130		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	0.65		0.50	0.19	ug/L	1		6020A	Total/NA
Lithium	15		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	27		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	710		50	26	mg/L	1		SM 2540C	Total/NA
pH	7.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	701.86				ft	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-304 (Continued) — Lab Sample ID: 310-242480-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Oxidation Reduction Potential	7.5				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.05				mg/L	1		Field Sampling	Total/NA
pH, Field	7.04				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1081				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	15.6				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	1.65				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-305 — Lab Sample ID: 310-242480-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	19		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	330		5.0	2.0	mg/L	5		9056A	Total/NA
Antimony	0.72	J	2.0	0.69	ug/L	1		6020A	Total/NA
Arsenic	12		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	160		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	1200		100	58	ug/L	1		6020A	Total/NA
Calcium	140		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	0.63		0.50	0.19	ug/L	1		6020A	Total/NA
Lithium	19		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	78		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	850		50	26	mg/L	1		SM 2540C	Total/NA
pH	7.4	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	701.73				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	34.0				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.06				mg/L	1		Field Sampling	Total/NA
pH, Field	7.24				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1268				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	16.1				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	3.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-306 — Lab Sample ID: 310-242480-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	110		5.0	2.0	mg/L	5		9056A	Total/NA
Barium	60		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	2100		100	58	ug/L	1		6020A	Total/NA
Cadmium	0.065	J	0.10	0.055	ug/L	1		6020A	Total/NA
Calcium	57		0.50	0.19	mg/L	1		6020A	Total/NA
Molybdenum	210		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	380		50	26	mg/L	1		SM 2540C	Total/NA
pH	7.6	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	701.97				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-100.1				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.49				mg/L	1		Field Sampling	Total/NA
pH, Field	7.68				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	578.7				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	12.6				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	4.93				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

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Detection Summary

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-306A — Lab Sample ID: 310-242480-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	66		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	340		5.0	2.0	mg/L	5		9056A	Total/NA
Barium	140		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	2200		100	58	ug/L	1		6020A	Total/NA
Calcium	150		0.50	0.19	mg/L	1		6020A	Total/NA
Lithium	5.1	J	10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	19		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	790		50	26	mg/L	1		SM 2540C	Total/NA
pH	7.4	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	702.18				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-81.5				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.14				mg/L	1		Field Sampling	Total/NA
pH, Field	7.26				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1148				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	13.1				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	5.51				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-307 — Lab Sample ID: 310-242480-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.8	J	5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	50		5.0	2.0	mg/L	5		9056A	Total/NA
Antimony	0.70	J	2.0	0.69	ug/L	1		6020A	Total/NA
Arsenic	6.1		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	58		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	1200		100	58	ug/L	1		6020A	Total/NA
Calcium	21		0.50	0.19	mg/L	1		6020A	Total/NA
Lithium	13		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	7.2		2.0	1.2	ug/L	1		6020A	Total/NA
Selenium	2.4	J	5.0	0.96	ug/L	1		6020A	Total/NA
Total Dissolved Solids	110		50	26	mg/L	1		SM 2540C	Total/NA
pH	9.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	705.32				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	17.5				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.09				mg/L	1		Field Sampling	Total/NA
pH, Field	9.13				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	187.4				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	21.4				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	3.08				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-308 — Lab Sample ID: 310-242480-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.6		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	180		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	39		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	41		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	6000		1000	580	ug/L	10		6020A	Total/NA
Calcium	52		0.50	0.19	mg/L	1		6020A	Total/NA
Lithium	42		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	63		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	370		50	26	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample ID: MW-308 (Continued) — Lab Sample ID: 310-242480-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	9.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	702.60				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-19.1				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.07				mg/L	1		Field Sampling	Total/NA
pH, Field	9.14				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	577.7				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	15.1				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	3.57				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-309 — Lab Sample ID: 310-242480-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	14		5.0	2.3	mg/L	5		9056A	Total/NA
Fluoride	0.24	J	0.50	0.22	mg/L	5		9056A	Total/NA
Sulfate	140		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	47		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	110		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	1500		100	58	ug/L	1		6020A	Total/NA
Calcium	110		0.50	0.19	mg/L	1		6020A	Total/NA
Lithium	15		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	23		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	590		50	26	mg/L	1		SM 2540C	Total/NA
pH	7.6	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	702.08				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-134.7				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.21				mg/L	1		Field Sampling	Total/NA
pH, Field	7.46				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	902				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	18.2				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	4.59				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-309A — Lab Sample ID: 310-242480-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	30		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	130		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	0.77	J	2.0	0.75	ug/L	1		6020A	Total/NA
Barium	190		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	660		100	58	ug/L	1		6020A	Total/NA
Calcium	110		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	0.22	J	0.50	0.19	ug/L	1		6020A	Total/NA
Lithium	5.7	J	10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	9.0		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	520		50	26	mg/L	1		SM 2540C	Total/NA
pH	7.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	702.12				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-106.4				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.19				mg/L	1		Field Sampling	Total/NA
pH, Field	7.13				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	837				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	16.0				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	1.30				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-310 — Lab Sample ID: 310-242480-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	22		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	210		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	23		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	190		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	1100		100	58	ug/L	1		6020A	Total/NA
Calcium	130		0.50	0.19	mg/L	1		6020A	Total/NA
Lithium	15		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	58		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	690		50	26	mg/L	1		SM 2540C	Total/NA
pH	7.4	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	701.73				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-149.1				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.07				mg/L	1		Field Sampling	Total/NA
pH, Field	7.26				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1039				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	17.3				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.58				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-310A — Lab Sample ID: 310-242480-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	52		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	150		5.0	2.0	mg/L	5		9056A	Total/NA
Barium	180		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	190		100	58	ug/L	1		6020A	Total/NA
Calcium	140		0.50	0.19	mg/L	1		6020A	Total/NA
Cobalt	1.0		0.50	0.19	ug/L	1		6020A	Total/NA
Lithium	4.0	J	10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	18		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	620		50	26	mg/L	1		SM 2540C	Total/NA
pH	7.6	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	701.92				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-128.9				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.23				mg/L	1		Field Sampling	Total/NA
pH, Field	7.51				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	969				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	15.5				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-312 — Lab Sample ID: 310-242480-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	68		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	22		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	9.2		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	180		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	220		100	58	ug/L	1		6020A	Total/NA
Calcium	92		0.50	0.19	mg/L	1		6020A	Total/NA
Lithium	5.6	J	10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	14		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	420		50	26	mg/L	1		SM 2540C	Total/NA
pH	7.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-312 (Continued) — Lab Sample ID: 310-242480-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ground Water Elevation	702.85				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-85.4				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.05				mg/L	1		Field Sampling	Total/NA
pH, Field	6.97				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	795				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	24.8				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	3.27				NTU	1		Field Sampling	Total/NA

Client Sample ID: Field Blank — Lab Sample ID: 310-242480-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	6.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-301

Date Collected: 10/12/22 15:50
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-1

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		5.0	2.3	mg/L			10/31/22 10:04	5
Fluoride	<0.22		0.50	0.22	mg/L			10/31/22 10:04	5
Sulfate	**100**		5.0	2.0	mg/L			10/31/22 10:04	5

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		10/19/22 09:00	10/28/22 19:27	1
Arsenic	<0.75		2.0	0.75	ug/L		10/19/22 09:00	10/28/22 19:27	1
Barium	**290**		2.0	0.88	ug/L		10/19/22 09:00	10/28/22 19:27	1
Beryllium	<0.27		1.0	0.27	ug/L		10/19/22 09:00	10/28/22 19:27	1
Boron	<58		100	58	ug/L		10/19/22 09:00	10/28/22 19:27	1
Cadmium	**0.068**	**J**	0.10	0.055	ug/L		10/19/22 09:00	10/28/22 19:27	1
Calcium	**170**		0.50	0.19	mg/L		10/19/22 09:00	10/28/22 19:27	1
Chromium	**4.8**	**J**	5.0	1.1	ug/L		10/19/22 09:00	10/28/22 19:27	1
Cobalt	<0.19		0.50	0.19	ug/L		10/19/22 09:00	10/28/22 19:27	1
Lead	<0.24		0.50	0.24	ug/L		10/19/22 09:00	10/28/22 19:27	1
Lithium	**14**		10	2.5	ug/L		10/19/22 09:00	10/28/22 19:27	1
Molybdenum	<1.2		2.0	1.2	ug/L		10/19/22 09:00	10/28/22 19:27	1
Selenium	**1.3**	**J**	5.0	0.96	ug/L		10/19/22 09:00	10/28/22 19:27	1
Thallium	<0.26		1.0	0.26	ug/L		10/19/22 09:00	10/28/22 19:27	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:11	10/21/22 13:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**730**		50	26	mg/L			10/18/22 14:34	1
pH (SM 4500 H+ B)	**7.0**	**HF**	0.1	0.1	SU			10/14/22 19:39	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**722.08**				ft			10/12/22 15:50	1
Oxidation Reduction Potential	**-41.3**				millivolts			10/12/22 15:50	1
Oxygen, Dissolved, Client Supplied	**4.18**				mg/L			10/12/22 15:50	1
pH, Field	**7.03**				SU			10/12/22 15:50	1
Specific Conductance, Field	**1184**				umhos/cm			10/12/22 15:50	1
Temperature, Field	**13.0**				Degrees C			10/12/22 15:50	1
Turbidity, Field	**3.18**				NTU			10/12/22 15:50	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-301A

Date Collected: 10/13/22 12:00
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-2

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.7**	**J**	5.0	2.3	mg/L			10/31/22 10:40	5
Fluoride	<0.22		0.50	0.22	mg/L			10/31/22 10:40	5
Sulfate	**4.0**	**J**	5.0	2.0	mg/L			10/31/22 10:40	5

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		10/19/22 09:00	10/28/22 20:01	1
Arsenic	**1.3**	**J**	2.0	0.75	ug/L		10/19/22 09:00	10/28/22 20:01	1
Barium	**140**		2.0	0.88	ug/L		10/19/22 09:00	10/28/22 20:01	1
Beryllium	<0.27		1.0	0.27	ug/L		10/19/22 09:00	10/28/22 20:01	1
Boron	**68**	**J**	100	58	ug/L		10/19/22 09:00	10/28/22 20:01	1
Cadmium	<0.055		0.10	0.055	ug/L		10/19/22 09:00	10/28/22 20:01	1
Calcium	**69**		0.50	0.19	mg/L		10/19/22 09:00	10/28/22 20:01	1
Chromium	<1.1		5.0	1.1	ug/L		10/19/22 09:00	10/28/22 20:01	1
Cobalt	**0.76**		0.50	0.19	ug/L		10/19/22 09:00	10/28/22 20:01	1
Lead	**0.41**	**J**	0.50	0.24	ug/L		10/19/22 09:00	10/28/22 20:01	1
Lithium	<2.5		10	2.5	ug/L		10/19/22 09:00	10/28/22 20:01	1
Molybdenum	**3.4**		2.0	1.2	ug/L		10/19/22 09:00	10/28/22 20:01	1
Selenium	<0.96		5.0	0.96	ug/L		10/19/22 09:00	10/28/22 20:01	1
Thallium	<0.26		1.0	0.26	ug/L		10/19/22 09:00	10/28/22 20:01	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:11	10/21/22 14:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**250**		50	26	mg/L			10/19/22 15:53	1
pH (SM 4500 H+ B)	**6.9**	**HF**	0.1	0.1	SU			10/14/22 19:37	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**706.76**				ft			10/13/22 12:00	1
Oxidation Reduction Potential	**41.8**				millivolts			10/13/22 12:00	1
Oxygen, Dissolved, Client Supplied	**2.19**				mg/L			10/13/22 12:00	1
pH, Field	**7.00**				SU			10/13/22 12:00	1
Specific Conductance, Field	**537.2**				umhos/cm			10/13/22 12:00	1
Temperature, Field	**12.7**				Degrees C			10/13/22 12:00	1
Turbidity, Field	**4.27**				NTU			10/13/22 12:00	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-302

Date Collected: 10/12/22 15:55
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-3

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**92**		5.0	2.3	mg/L			10/31/22 10:53	5
Fluoride	<0.22		0.50	0.22	mg/L			10/31/22 10:53	5
Sulfate	**89**		5.0	2.0	mg/L			10/31/22 10:53	5

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		10/19/22 09:00	10/28/22 20:04	1
Arsenic	**0.76**	**J**	2.0	0.75	ug/L		10/19/22 09:00	10/28/22 20:04	1
Barium	**210**		2.0	0.88	ug/L		10/19/22 09:00	10/28/22 20:04	1
Beryllium	<0.27		1.0	0.27	ug/L		10/19/22 09:00	10/28/22 20:04	1
Boron	<58		100	58	ug/L		10/19/22 09:00	10/28/22 20:04	1
Cadmium	**0.072**	**J**	0.10	0.055	ug/L		10/19/22 09:00	10/28/22 20:04	1
Calcium	**140**		0.50	0.19	mg/L		10/19/22 09:00	10/28/22 20:04	1
Chromium	**2.0**	**J**	5.0	1.1	ug/L		10/19/22 09:00	10/28/22 20:04	1
Cobalt	**0.21**	**J**	0.50	0.19	ug/L		10/19/22 09:00	10/28/22 20:04	1
Lead	<0.24		0.50	0.24	ug/L		10/19/22 09:00	10/28/22 20:04	1
Lithium	**7.8**	**J**	10	2.5	ug/L		10/19/22 09:00	10/28/22 20:04	1
Molybdenum	<1.2		2.0	1.2	ug/L		10/19/22 09:00	10/28/22 20:04	1
Selenium	**1.2**	**J**	5.0	0.96	ug/L		10/19/22 09:00	10/28/22 20:04	1
Thallium	<0.26		1.0	0.26	ug/L		10/19/22 09:00	10/28/22 20:04	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:11	10/21/22 14:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**620**		50	26	mg/L			10/18/22 14:34	1
pH (SM 4500 H+ B)	**6.9**	**HF**	0.1	0.1	SU			10/14/22 19:32	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**712.56**				ft			10/12/22 15:55	1
Oxidation Reduction Potential	**48.3**				millivolts			10/12/22 15:55	1
Oxygen, Dissolved, Client Supplied	**2.53**				mg/L			10/12/22 15:55	1
pH, Field	**6.63**				SU			10/12/22 15:55	1
Specific Conductance, Field	**1051**				umhos/cm			10/12/22 15:55	1
Temperature, Field	**14.7**				Degrees C			10/12/22 15:55	1
Turbidity, Field	**4.35**				NTU			10/12/22 15:55	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-303

Date Collected: 10/12/22 10:40
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-4

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13**		5.0	2.3	mg/L			10/31/22 11:05	5
Fluoride	**0.30**	**J**	0.50	0.22	mg/L			10/31/22 11:05	5
Sulfate	**160**		5.0	2.0	mg/L			10/31/22 11:05	5

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		10/19/22 09:00	10/28/22 20:07	1
Arsenic	**42**		2.0	0.75	ug/L		10/19/22 09:00	10/28/22 20:07	1
Barium	**130**		2.0	0.88	ug/L		10/19/22 09:00	10/28/22 20:07	1
Beryllium	<0.27		1.0	0.27	ug/L		10/19/22 09:00	10/28/22 20:07	1
Boron	**1100**		100	58	ug/L		10/19/22 09:00	10/28/22 20:07	1
Cadmium	<0.055		0.10	0.055	ug/L		10/19/22 09:00	10/28/22 20:07	1
Calcium	**120**		0.50	0.19	mg/L		10/19/22 09:00	10/28/22 20:07	1
Chromium	<1.1		5.0	1.1	ug/L		10/19/22 09:00	10/28/22 20:07	1
Cobalt	**0.43**	**J**	0.50	0.19	ug/L		10/19/22 09:00	10/28/22 20:07	1
Lead	**0.58**		0.50	0.24	ug/L		10/19/22 09:00	10/28/22 20:07	1
Lithium	**18**		10	2.5	ug/L		10/19/22 09:00	10/28/22 20:07	1
Molybdenum	**15**		2.0	1.2	ug/L		10/19/22 09:00	10/28/22 20:07	1
Selenium	<0.96		5.0	0.96	ug/L		10/19/22 09:00	10/28/22 20:07	1
Thallium	<0.26		1.0	0.26	ug/L		10/19/22 09:00	10/28/22 20:07	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:11	10/21/22 14:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**660**		50	26	mg/L			10/18/22 14:34	1
pH (SM 4500 H+ B)	**7.2**	**HF**	0.1	0.1	SU			10/14/22 19:31	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**701.93**				ft			10/12/22 10:40	1
Oxidation Reduction Potential	**-32.0**				millivolts			10/12/22 10:40	1
Oxygen, Dissolved, Client Supplied	**0.06**				mg/L			10/12/22 10:40	1
pH, Field	**7.08**				SU			10/12/22 10:40	1
Specific Conductance, Field	**1047**				umhos/cm			10/12/22 10:40	1
Temperature, Field	**15.6**				Degrees C			10/12/22 10:40	1
Turbidity, Field	**1.15**				NTU			10/12/22 10:40	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-304

Date Collected: 10/12/22 11:40
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-5

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12**		5.0	2.3	mg/L			10/31/22 11:17	5
Fluoride	**0.34**	**J**	0.50	0.22	mg/L			10/31/22 11:17	5
Sulfate	**220**		5.0	2.0	mg/L			10/31/22 11:17	5

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**1.1**	**J**	2.0	0.69	ug/L		10/19/22 09:00	10/28/22 20:10	1
Arsenic	**19**		2.0	0.75	ug/L		10/19/22 09:00	10/28/22 20:10	1
Barium	**120**		2.0	0.88	ug/L		10/19/22 09:00	10/28/22 20:10	1
Beryllium	<0.27		1.0	0.27	ug/L		10/19/22 09:00	10/28/22 20:10	1
Boron	**960**		100	58	ug/L		10/19/22 09:00	10/28/22 20:10	1
Cadmium	<0.055		0.10	0.055	ug/L		10/19/22 09:00	10/28/22 20:10	1
Calcium	**130**		0.50	0.19	mg/L		10/19/22 09:00	10/28/22 20:10	1
Chromium	<1.1		5.0	1.1	ug/L		10/19/22 09:00	10/28/22 20:10	1
Cobalt	**0.65**		0.50	0.19	ug/L		10/19/22 09:00	10/28/22 20:10	1
Lead	<0.24		0.50	0.24	ug/L		10/19/22 09:00	10/28/22 20:10	1
Lithium	**15**		10	2.5	ug/L		10/19/22 09:00	10/28/22 20:10	1
Molybdenum	**27**		2.0	1.2	ug/L		10/19/22 09:00	10/28/22 20:10	1
Selenium	<0.96		5.0	0.96	ug/L		10/19/22 09:00	10/28/22 20:10	1
Thallium	<0.26		1.0	0.26	ug/L		10/19/22 09:00	10/28/22 20:10	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:11	10/21/22 14:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**710**		50	26	mg/L			10/18/22 14:34	1
pH (SM 4500 H+ B)	**7.2**	**HF**	0.1	0.1	SU			10/14/22 19:30	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**701.86**				ft			10/12/22 11:40	1
Oxidation Reduction Potential	**7.5**				millivolts			10/12/22 11:40	1
Oxygen, Dissolved, Client Supplied	**0.05**				mg/L			10/12/22 11:40	1
pH, Field	**7.04**				SU			10/12/22 11:40	1
Specific Conductance, Field	**1081**				umhos/cm			10/12/22 11:40	1
Temperature, Field	**15.6**				Degrees C			10/12/22 11:40	1
Turbidity, Field	**1.65**				NTU			10/12/22 11:40	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-305

Date Collected: 10/12/22 12:35
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-6

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19**		5.0	2.3	mg/L			10/31/22 11:53	5
Fluoride	<0.22		0.50	0.22	mg/L			10/31/22 11:53	5
Sulfate	**330**		5.0	2.0	mg/L			10/31/22 11:53	5

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.72**	**J**	2.0	0.69	ug/L		10/19/22 09:00	10/28/22 20:13	1
Arsenic	**12**		2.0	0.75	ug/L		10/19/22 09:00	10/28/22 20:13	1
Barium	**160**		2.0	0.88	ug/L		10/19/22 09:00	10/28/22 20:13	1
Beryllium	<0.27		1.0	0.27	ug/L		10/19/22 09:00	10/28/22 20:13	1
Boron	**1200**		100	58	ug/L		10/19/22 09:00	10/28/22 20:13	1
Cadmium	<0.055		0.10	0.055	ug/L		10/19/22 09:00	10/28/22 20:13	1
Calcium	**140**		0.50	0.19	mg/L		10/19/22 09:00	10/28/22 20:13	1
Chromium	<1.1		5.0	1.1	ug/L		10/19/22 09:00	10/28/22 20:13	1
Cobalt	**0.63**		0.50	0.19	ug/L		10/19/22 09:00	10/28/22 20:13	1
Lead	<0.24		0.50	0.24	ug/L		10/19/22 09:00	10/28/22 20:13	1
Lithium	**19**		10	2.5	ug/L		10/19/22 09:00	10/28/22 20:13	1
Molybdenum	**78**		2.0	1.2	ug/L		10/19/22 09:00	10/28/22 20:13	1
Selenium	<0.96		5.0	0.96	ug/L		10/19/22 09:00	10/28/22 20:13	1
Thallium	<0.26		1.0	0.26	ug/L		10/19/22 09:00	10/28/22 20:13	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:11	10/21/22 14:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**850**		50	26	mg/L			10/18/22 14:34	1
pH (SM 4500 H+ B)	**7.4**	**HF**	0.1	0.1	SU			10/14/22 19:28	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**701.73**				ft			10/12/22 12:35	1
Oxidation Reduction Potential	**34.0**				millivolts			10/12/22 12:35	1
Oxygen, Dissolved, Client Supplied	**0.06**				mg/L			10/12/22 12:35	1
pH, Field	**7.24**				SU			10/12/22 12:35	1
Specific Conductance, Field	**1268**				umhos/cm			10/12/22 12:35	1
Temperature, Field	**16.1**				Degrees C			10/12/22 12:35	1
Turbidity, Field	**3.00**				NTU			10/12/22 12:35	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-306

Date Collected: 10/12/22 13:55
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-7

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17**		5.0	2.3	mg/L			10/31/22 12:05	5
Fluoride	<0.22		0.50	0.22	mg/L			10/31/22 12:05	5
Sulfate	**110**		5.0	2.0	mg/L			10/31/22 12:05	5

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		10/19/22 09:00	10/28/22 20:16	1
Arsenic	<0.75		2.0	0.75	ug/L		10/19/22 09:00	10/28/22 20:16	1
Barium	**60**		2.0	0.88	ug/L		10/19/22 09:00	10/28/22 20:16	1
Beryllium	<0.27		1.0	0.27	ug/L		10/19/22 09:00	10/28/22 20:16	1
Boron	**2100**		100	58	ug/L		10/19/22 09:00	10/28/22 20:16	1
Cadmium	**0.065**	**J**	0.10	0.055	ug/L		10/19/22 09:00	10/28/22 20:16	1
Calcium	**57**		0.50	0.19	mg/L		10/19/22 09:00	10/28/22 20:16	1
Chromium	<1.1		5.0	1.1	ug/L		10/19/22 09:00	10/28/22 20:16	1
Cobalt	<0.19		0.50	0.19	ug/L		10/19/22 09:00	10/28/22 20:16	1
Lead	<0.24		0.50	0.24	ug/L		10/19/22 09:00	10/28/22 20:16	1
Lithium	<2.5		10	2.5	ug/L		10/19/22 09:00	10/28/22 20:16	1
Molybdenum	**210**		2.0	1.2	ug/L		10/19/22 09:00	10/28/22 20:16	1
Selenium	<0.96		5.0	0.96	ug/L		10/19/22 09:00	10/28/22 20:16	1
Thallium	<0.26		1.0	0.26	ug/L		10/19/22 09:00	10/28/22 20:16	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:11	10/21/22 14:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**380**		50	26	mg/L			10/18/22 14:34	1
pH (SM 4500 H+ B)	**7.6**	**HF**	0.1	0.1	SU			10/14/22 19:48	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**701.97**				ft			10/12/22 13:55	1
Oxidation Reduction Potential	**-100.1**				millivolts			10/12/22 13:55	1
Oxygen, Dissolved, Client Supplied	**0.49**				mg/L			10/12/22 13:55	1
pH, Field	**7.68**				SU			10/12/22 13:55	1
Specific Conductance, Field	**578.7**				umhos/cm			10/12/22 13:55	1
Temperature, Field	**12.6**				Degrees C			10/12/22 13:55	1
Turbidity, Field	**4.93**				NTU			10/12/22 13:55	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-306A

Date Collected: 10/12/22 13:45
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-8

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**66**		5.0	2.3	mg/L			10/31/22 12:18	5
Fluoride	<0.22		0.50	0.22	mg/L			10/31/22 12:18	5
Sulfate	**340**		5.0	2.0	mg/L			10/31/22 12:18	5

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		10/19/22 09:00	10/28/22 20:20	1
Arsenic	<0.75		2.0	0.75	ug/L		10/19/22 09:00	10/28/22 20:20	1
Barium	**140**		2.0	0.88	ug/L		10/19/22 09:00	10/28/22 20:20	1
Beryllium	<0.27		1.0	0.27	ug/L		10/19/22 09:00	10/28/22 20:20	1
Boron	**2200**		100	58	ug/L		10/19/22 09:00	10/28/22 20:20	1
Cadmium	<0.055		0.10	0.055	ug/L		10/19/22 09:00	10/28/22 20:20	1
Calcium	**150**		0.50	0.19	mg/L		10/19/22 09:00	10/28/22 20:20	1
Chromium	<1.1		5.0	1.1	ug/L		10/19/22 09:00	10/28/22 20:20	1
Cobalt	<0.19		0.50	0.19	ug/L		10/19/22 09:00	10/28/22 20:20	1
Lead	<0.24		0.50	0.24	ug/L		10/19/22 09:00	10/28/22 20:20	1
Lithium	**5.1**	**J**	10	2.5	ug/L		10/19/22 09:00	10/28/22 20:20	1
Molybdenum	**19**		2.0	1.2	ug/L		10/19/22 09:00	10/28/22 20:20	1
Selenium	<0.96		5.0	0.96	ug/L		10/19/22 09:00	10/28/22 20:20	1
Thallium	<0.26		1.0	0.26	ug/L		10/19/22 09:00	10/28/22 20:20	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:11	10/21/22 14:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**790**		50	26	mg/L			10/18/22 14:34	1
pH (SM 4500 H+ B)	**7.4**	**HF**	0.1	0.1	SU			10/14/22 19:46	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**702.18**				ft			10/12/22 13:45	1
Oxidation Reduction Potential	**-81.5**				millivolts			10/12/22 13:45	1
Oxygen, Dissolved, Client Supplied	**0.14**				mg/L			10/12/22 13:45	1
pH, Field	**7.26**				SU			10/12/22 13:45	1
Specific Conductance, Field	**1148**				umhos/cm			10/12/22 13:45	1
Temperature, Field	**13.1**				Degrees C			10/12/22 13:45	1
Turbidity, Field	**5.51**				NTU			10/12/22 13:45	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-307

Date Collected: 10/12/22 15:00
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-9

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.8**	**J**	5.0	2.3	mg/L			10/31/22 12:30	5
Fluoride	<0.22		0.50	0.22	mg/L			10/31/22 12:30	5
Sulfate	**50**		5.0	2.0	mg/L			10/31/22 12:30	5

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.70**	**J**	2.0	0.69	ug/L		10/19/22 09:00	10/28/22 20:23	1
Arsenic	**6.1**		2.0	0.75	ug/L		10/19/22 09:00	10/28/22 20:23	1
Barium	**58**		2.0	0.88	ug/L		10/19/22 09:00	10/28/22 20:23	1
Beryllium	<0.27		1.0	0.27	ug/L		10/19/22 09:00	10/28/22 20:23	1
Boron	**1200**		100	58	ug/L		10/19/22 09:00	10/28/22 20:23	1
Cadmium	<0.055		0.10	0.055	ug/L		10/19/22 09:00	10/28/22 20:23	1
Calcium	**21**		0.50	0.19	mg/L		10/19/22 09:00	10/28/22 20:23	1
Chromium	<1.1		5.0	1.1	ug/L		10/19/22 09:00	10/28/22 20:23	1
Cobalt	<0.19		0.50	0.19	ug/L		10/19/22 09:00	10/28/22 20:23	1
Lead	<0.24		0.50	0.24	ug/L		10/19/22 09:00	10/28/22 20:23	1
Lithium	**13**		10	2.5	ug/L		10/19/22 09:00	10/28/22 20:23	1
Molybdenum	**7.2**		2.0	1.2	ug/L		10/19/22 09:00	10/28/22 20:23	1
Selenium	**2.4**	**J**	5.0	0.96	ug/L		10/19/22 09:00	10/28/22 20:23	1
Thallium	<0.26		1.0	0.26	ug/L		10/19/22 09:00	10/28/22 20:23	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:11	10/21/22 14:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**110**		50	26	mg/L			10/18/22 14:34	1
pH (SM 4500 H+ B)	**9.1**	**HF**	0.1	0.1	SU			10/14/22 19:45	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**705.32**				ft			10/12/22 15:00	1
Oxidation Reduction Potential	**17.5**				millivolts			10/12/22 15:00	1
Oxygen, Dissolved, Client Supplied	**0.09**				mg/L			10/12/22 15:00	1
pH, Field	**9.13**				SU			10/12/22 15:00	1
Specific Conductance, Field	**187.4**				umhos/cm			10/12/22 15:00	1
Temperature, Field	**21.4**				Degrees C			10/12/22 15:00	1
Turbidity, Field	**3.08**				NTU			10/12/22 15:00	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-308

Date Collected: 10/12/22 14:00
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-10

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.6**		5.0	2.3	mg/L			10/31/22 12:42	5
Fluoride	<0.22		0.50	0.22	mg/L			10/31/22 12:42	5
Sulfate	**180**		5.0	2.0	mg/L			10/31/22 12:42	5

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		10/19/22 09:00	10/28/22 20:26	1
Arsenic	**39**		2.0	0.75	ug/L		10/19/22 09:00	10/28/22 20:26	1
Barium	**41**		2.0	0.88	ug/L		10/19/22 09:00	10/28/22 20:26	1
Beryllium	<0.27		1.0	0.27	ug/L		10/19/22 09:00	10/28/22 20:26	1
Boron	**6000**		1000	580	ug/L		10/19/22 09:00	10/29/22 14:41	10
Cadmium	<0.055		0.10	0.055	ug/L		10/19/22 09:00	10/28/22 20:26	1
Calcium	**52**		0.50	0.19	mg/L		10/19/22 09:00	10/28/22 20:26	1
Chromium	<1.1		5.0	1.1	ug/L		10/19/22 09:00	10/28/22 20:26	1
Cobalt	<0.19		0.50	0.19	ug/L		10/19/22 09:00	10/28/22 20:26	1
Lead	<0.24		0.50	0.24	ug/L		10/19/22 09:00	10/28/22 20:26	1
Lithium	**42**		10	2.5	ug/L		10/19/22 09:00	10/28/22 20:26	1
Molybdenum	**63**		2.0	1.2	ug/L		10/19/22 09:00	10/28/22 20:26	1
Selenium	<0.96		5.0	0.96	ug/L		10/19/22 09:00	10/28/22 20:26	1
Thallium	<0.26		1.0	0.26	ug/L		10/19/22 09:00	10/28/22 20:26	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:11	10/21/22 14:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**370**		50	26	mg/L			10/17/22 13:00	1
pH (SM 4500 H+ B)	**9.1**	**HF**	0.1	0.1	SU			10/14/22 19:44	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**702.60**				ft			10/12/22 14:00	1
Oxidation Reduction Potential	**-19.1**				millivolts			10/12/22 14:00	1
Oxygen, Dissolved, Client Supplied	**0.07**				mg/L			10/12/22 14:00	1
pH, Field	**9.14**				SU			10/12/22 14:00	1
Specific Conductance, Field	**577.7**				umhos/cm			10/12/22 14:00	1
Temperature, Field	**15.1**				Degrees C			10/12/22 14:00	1
Turbidity, Field	**3.57**				NTU			10/12/22 14:00	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-309

Date Collected: 10/12/22 09:20
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-11

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14**		5.0	2.3	mg/L			10/31/22 12:54	5
Fluoride	**0.24**	**J**	0.50	0.22	mg/L			10/31/22 12:54	5
Sulfate	**140**		5.0	2.0	mg/L			10/31/22 12:54	5

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		10/19/22 09:00	10/28/22 20:51	1
Arsenic	**47**		2.0	0.75	ug/L		10/19/22 09:00	10/28/22 20:51	1
Barium	**110**		2.0	0.88	ug/L		10/19/22 09:00	10/28/22 20:51	1
Beryllium	<0.27		1.0	0.27	ug/L		10/19/22 09:00	10/28/22 20:51	1
Boron	**1500**		100	58	ug/L		10/19/22 09:00	10/28/22 20:51	1
Cadmium	<0.055		0.10	0.055	ug/L		10/19/22 09:00	10/28/22 20:51	1
Calcium	**110**		0.50	0.19	mg/L		10/19/22 09:00	10/28/22 20:51	1
Chromium	<1.1		5.0	1.1	ug/L		10/19/22 09:00	10/28/22 20:51	1
Cobalt	<0.19		0.50	0.19	ug/L		10/19/22 09:00	10/28/22 20:51	1
Lead	<0.24		0.50	0.24	ug/L		10/19/22 09:00	10/28/22 20:51	1
Lithium	**15**		10	2.5	ug/L		10/19/22 09:00	10/28/22 20:51	1
Molybdenum	**23**		2.0	1.2	ug/L		10/19/22 09:00	10/28/22 20:51	1
Selenium	<0.96		5.0	0.96	ug/L		10/19/22 09:00	10/28/22 20:51	1
Thallium	<0.26		1.0	0.26	ug/L		10/19/22 09:00	10/28/22 20:51	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:11	10/21/22 14:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**590**		50	26	mg/L			10/17/22 13:00	1
pH (SM 4500 H+ B)	**7.6**	**HF**	0.1	0.1	SU			10/14/22 19:42	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**702.08**				ft			10/12/22 09:20	1
Oxidation Reduction Potential	**-134.7**				millivolts			10/12/22 09:20	1
Oxygen, Dissolved, Client Supplied	**0.21**				mg/L			10/12/22 09:20	1
pH, Field	**7.46**				SU			10/12/22 09:20	1
Specific Conductance, Field	**902**				umhos/cm			10/12/22 09:20	1
Temperature, Field	**18.2**				Degrees C			10/12/22 09:20	1
Turbidity, Field	**4.59**				NTU			10/12/22 09:20	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-309A

Date Collected: 10/12/22 09:35
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-12

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**30**		5.0	2.3	mg/L			10/31/22 13:07	5
Fluoride	<0.22		0.50	0.22	mg/L			10/31/22 13:07	5
Sulfate	**130**		5.0	2.0	mg/L			10/31/22 13:07	5

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		10/19/22 09:00	10/28/22 20:57	1
Arsenic	**0.77**	**J**	2.0	0.75	ug/L		10/19/22 09:00	10/28/22 20:57	1
Barium	**190**		2.0	0.88	ug/L		10/19/22 09:00	10/28/22 20:57	1
Beryllium	<0.27		1.0	0.27	ug/L		10/19/22 09:00	10/28/22 20:57	1
Boron	**660**		100	58	ug/L		10/19/22 09:00	10/28/22 20:57	1
Cadmium	<0.055		0.10	0.055	ug/L		10/19/22 09:00	10/28/22 20:57	1
Calcium	**110**		0.50	0.19	mg/L		10/19/22 09:00	10/28/22 20:57	1
Chromium	<1.1		5.0	1.1	ug/L		10/19/22 09:00	10/28/22 20:57	1
Cobalt	**0.22**	**J**	0.50	0.19	ug/L		10/19/22 09:00	10/28/22 20:57	1
Lead	<0.24		0.50	0.24	ug/L		10/19/22 09:00	10/28/22 20:57	1
Lithium	**5.7**	**J**	10	2.5	ug/L		10/19/22 09:00	10/28/22 20:57	1
Molybdenum	**9.0**		2.0	1.2	ug/L		10/19/22 09:00	10/28/22 20:57	1
Selenium	<0.96		5.0	0.96	ug/L		10/19/22 09:00	10/28/22 20:57	1
Thallium	<0.26		1.0	0.26	ug/L		10/19/22 09:00	10/28/22 20:57	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:14	10/21/22 14:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**520**		50	26	mg/L			10/17/22 13:00	1
pH (SM 4500 H+ B)	**7.1**	**HF**	0.1	0.1	SU			10/14/22 19:41	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**702.12**				ft			10/12/22 09:35	1
Oxidation Reduction Potential	**-106.4**				millivolts			10/12/22 09:35	1
Oxygen, Dissolved, Client Supplied	**0.19**				mg/L			10/12/22 09:35	1
pH, Field	**7.13**				SU			10/12/22 09:35	1
Specific Conductance, Field	**837**				umhos/cm			10/12/22 09:35	1
Temperature, Field	**16.0**				Degrees C			10/12/22 09:35	1
Turbidity, Field	**1.30**				NTU			10/12/22 09:35	1

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-310

Date Collected: 10/12/22 11:50
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-13

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**22**		5.0	2.3	mg/L			10/31/22 13:19	5
Fluoride	<0.22		0.50	0.22	mg/L			10/31/22 13:19	5
Sulfate	**210**		5.0	2.0	mg/L			10/31/22 13:19	5

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		10/19/22 09:00	10/28/22 21:00	1
Arsenic	**23**		2.0	0.75	ug/L		10/19/22 09:00	10/28/22 21:00	1
Barium	**190**		2.0	0.88	ug/L		10/19/22 09:00	10/28/22 21:00	1
Beryllium	<0.27		1.0	0.27	ug/L		10/19/22 09:00	10/28/22 21:00	1
Boron	**1100**		100	58	ug/L		10/19/22 09:00	10/28/22 21:00	1
Cadmium	<0.055		0.10	0.055	ug/L		10/19/22 09:00	10/28/22 21:00	1
Calcium	**130**		0.50	0.19	mg/L		10/19/22 09:00	10/28/22 21:00	1
Chromium	<1.1		5.0	1.1	ug/L		10/19/22 09:00	10/28/22 21:00	1
Cobalt	<0.19		0.50	0.19	ug/L		10/19/22 09:00	10/28/22 21:00	1
Lead	<0.24		0.50	0.24	ug/L		10/19/22 09:00	10/28/22 21:00	1
Lithium	**15**		10	2.5	ug/L		10/19/22 09:00	10/28/22 21:00	1
Molybdenum	**58**		2.0	1.2	ug/L		10/19/22 09:00	10/28/22 21:00	1
Selenium	<0.96		5.0	0.96	ug/L		10/19/22 09:00	10/28/22 21:00	1
Thallium	<0.26		1.0	0.26	ug/L		10/19/22 09:00	10/28/22 21:00	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:14	10/21/22 14:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**690**		50	26	mg/L			10/17/22 13:00	1
pH (SM 4500 H+ B)	**7.4**	**HF**	0.1	0.1	SU			10/14/22 20:02	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**701.73**				ft			10/12/22 11:50	1
Oxidation Reduction Potential	**-149.1**				millivolts			10/12/22 11:50	1
Oxygen, Dissolved, Client Supplied	**0.07**				mg/L			10/12/22 11:50	1
pH, Field	**7.26**				SU			10/12/22 11:50	1
Specific Conductance, Field	**1039**				umhos/cm			10/12/22 11:50	1
Temperature, Field	**17.3**				Degrees C			10/12/22 11:50	1
Turbidity, Field	**0.58**				NTU			10/12/22 11:50	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-310A

Date Collected: 10/12/22 11:50
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-14

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**52**		5.0	2.3	mg/L			10/31/22 13:31	5
Fluoride	<0.22		0.50	0.22	mg/L			10/31/22 13:31	5
Sulfate	**150**		5.0	2.0	mg/L			10/31/22 13:31	5

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		10/19/22 09:00	10/28/22 21:03	1
Arsenic	<0.75		2.0	0.75	ug/L		10/19/22 09:00	10/28/22 21:03	1
Barium	**180**		2.0	0.88	ug/L		10/19/22 09:00	10/28/22 21:03	1
Beryllium	<0.27		1.0	0.27	ug/L		10/19/22 09:00	10/28/22 21:03	1
Boron	**190**		100	58	ug/L		10/19/22 09:00	10/28/22 21:03	1
Cadmium	<0.055		0.10	0.055	ug/L		10/19/22 09:00	10/28/22 21:03	1
Calcium	**140**		0.50	0.19	mg/L		10/19/22 09:00	10/28/22 21:03	1
Chromium	<1.1		5.0	1.1	ug/L		10/19/22 09:00	10/28/22 21:03	1
Cobalt	**1.0**		0.50	0.19	ug/L		10/19/22 09:00	10/28/22 21:03	1
Lead	<0.24		0.50	0.24	ug/L		10/19/22 09:00	10/28/22 21:03	1
Lithium	**4.0**	**J**	10	2.5	ug/L		10/19/22 09:00	10/28/22 21:03	1
Molybdenum	**18**		2.0	1.2	ug/L		10/19/22 09:00	10/28/22 21:03	1
Selenium	<0.96		5.0	0.96	ug/L		10/19/22 09:00	10/28/22 21:03	1
Thallium	<0.26		1.0	0.26	ug/L		10/19/22 09:00	10/28/22 21:03	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:14	10/21/22 14:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**620**		50	26	mg/L			10/17/22 13:00	1
pH (SM 4500 H+ B)	**7.6**	**HF**	0.1	0.1	SU			10/14/22 20:00	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**701.92**				ft			10/12/22 11:50	1
Oxidation Reduction Potential	**-128.9**				millivolts			10/12/22 11:50	1
Oxygen, Dissolved, Client Supplied	**0.23**				mg/L			10/12/22 11:50	1
pH, Field	**7.51**				SU			10/12/22 11:50	1
Specific Conductance, Field	**969**				umhos/cm			10/12/22 11:50	1
Temperature, Field	**15.5**				Degrees C			10/12/22 11:50	1
Turbidity, Field	**0.00**				NTU			10/12/22 11:50	1

Client Sample Results

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: MW-312

Date Collected: 10/12/22 09:05
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-15

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**68**		5.0	2.3	mg/L			10/31/22 13:43	5
Fluoride	<0.22		0.50	0.22	mg/L			10/31/22 13:43	5
Sulfate	**22**		5.0	2.0	mg/L			10/31/22 13:43	5

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		10/19/22 09:00	10/28/22 21:06	1
Arsenic	**9.2**		2.0	0.75	ug/L		10/19/22 09:00	10/28/22 21:06	1
Barium	**180**		2.0	0.88	ug/L		10/19/22 09:00	10/28/22 21:06	1
Beryllium	<0.27		1.0	0.27	ug/L		10/19/22 09:00	10/28/22 21:06	1
Boron	**220**		100	58	ug/L		10/19/22 09:00	10/28/22 21:06	1
Cadmium	<0.055		0.10	0.055	ug/L		10/19/22 09:00	10/28/22 21:06	1
Calcium	**92**		0.50	0.19	mg/L		10/19/22 09:00	10/28/22 21:06	1
Chromium	<1.1		5.0	1.1	ug/L		10/19/22 09:00	10/28/22 21:06	1
Cobalt	<0.19		0.50	0.19	ug/L		10/19/22 09:00	10/28/22 21:06	1
Lead	<0.24		0.50	0.24	ug/L		10/19/22 09:00	10/28/22 21:06	1
Lithium	**5.6**	**J**	10	2.5	ug/L		10/19/22 09:00	10/28/22 21:06	1
Molybdenum	**14**		2.0	1.2	ug/L		10/19/22 09:00	10/28/22 21:06	1
Selenium	<0.96		5.0	0.96	ug/L		10/19/22 09:00	10/28/22 21:06	1
Thallium	<0.26		1.0	0.26	ug/L		10/19/22 09:00	10/28/22 21:06	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:14	10/21/22 14:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**420**		50	26	mg/L			10/18/22 14:34	1
pH (SM 4500 H+ B)	**7.1**	**HF**	0.1	0.1	SU			10/14/22 19:59	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**702.85**				ft			10/12/22 09:05	1
Oxidation Reduction Potential	**-85.4**				millivolts			10/12/22 09:05	1
Oxygen, Dissolved, Client Supplied	**0.05**				mg/L			10/12/22 09:05	1
pH, Field	**6.97**				SU			10/12/22 09:05	1
Specific Conductance, Field	**795**				umhos/cm			10/12/22 09:05	1
Temperature, Field	**24.8**				Degrees C			10/12/22 09:05	1
Turbidity, Field	**3.27**				NTU			10/12/22 09:05	1

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Client Sample ID: Field Blank

Date Collected: 10/12/22 08:00
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-16

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.45		1.0	0.45	mg/L			10/31/22 14:20	1
Fluoride	<0.044		0.10	0.044	mg/L			10/31/22 14:20	1
Sulfate	<0.40		1.0	0.40	mg/L			10/31/22 14:20	1

Method: SW846 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		10/19/22 09:00	10/28/22 21:09	1
Arsenic	<0.75		2.0	0.75	ug/L		10/19/22 09:00	10/28/22 21:09	1
Barium	<0.88		2.0	0.88	ug/L		10/19/22 09:00	10/28/22 21:09	1
Beryllium	<0.27		1.0	0.27	ug/L		10/19/22 09:00	10/28/22 21:09	1
Boron	<58		100	58	ug/L		10/19/22 09:00	10/28/22 21:09	1
Cadmium	<0.055		0.10	0.055	ug/L		10/19/22 09:00	10/28/22 21:09	1
Calcium	<0.19		0.50	0.19	mg/L		10/19/22 09:00	10/28/22 21:09	1
Chromium	<1.1		5.0	1.1	ug/L		10/19/22 09:00	10/28/22 21:09	1
Cobalt	<0.19		0.50	0.19	ug/L		10/19/22 09:00	10/28/22 21:09	1
Lead	<0.24		0.50	0.24	ug/L		10/19/22 09:00	10/28/22 21:09	1
Lithium	<2.5		10	2.5	ug/L		10/19/22 09:00	10/28/22 21:09	1
Molybdenum	<1.2		2.0	1.2	ug/L		10/19/22 09:00	10/28/22 21:09	1
Selenium	<0.96		5.0	0.96	ug/L		10/19/22 09:00	10/28/22 21:09	1
Thallium	<0.26		1.0	0.26	ug/L		10/19/22 09:00	10/28/22 21:09	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:14	10/21/22 14:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	<26		50	26	mg/L			10/18/22 14:34	1
pH (SM 4500 H+ B)	**6.2**	**HF**	0.1	0.1	SU			10/14/22 19:58	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

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

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-370396/3
Matrix: Water
Analysis Batch: 370396

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.45		1.0	0.45	mg/L			10/31/22 09:40	1
Fluoride	<0.044		0.10	0.044	mg/L			10/31/22 09:40	1
Sulfate	<0.40		1.0	0.40	mg/L			10/31/22 09:40	1

Lab Sample ID: LCS 310-370396/4
Matrix: Water
Analysis Batch: 370396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.93		mg/L		99	90 - 110
Fluoride	2.00	2.13		mg/L		107	90 - 110
Sulfate	10.0	10.4		mg/L		104	90 - 110

Lab Sample ID: 310-242480-1 MS
Matrix: Water
Analysis Batch: 370396

Client Sample ID: MW-301
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	110		25.0	129	4	mg/L		94	80 - 120
Fluoride	<0.22		5.00	4.59		mg/L		92	80 - 120
Sulfate	100		25.0	124		mg/L		96	80 - 120

Lab Sample ID: 310-242480-1 MSD
Matrix: Water
Analysis Batch: 370396

Client Sample ID: MW-301
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	110		25.0	128	4	mg/L		92	80 - 120	0	15
Fluoride	<0.22		5.00	5.23		mg/L		105	80 - 120	13	15
Sulfate	100		25.0	123		mg/L		94	80 - 120	1	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-368985/1-A
Matrix: Water
Analysis Batch: 370250

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 368985

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		10/19/22 09:00	10/28/22 19:20	1
Arsenic	<0.75		2.0	0.75	ug/L		10/19/22 09:00	10/28/22 19:20	1
Barium	<0.88		2.0	0.88	ug/L		10/19/22 09:00	10/28/22 19:20	1
Beryllium	<0.27		1.0	0.27	ug/L		10/19/22 09:00	10/28/22 19:20	1
Boron	<58		100	58	ug/L		10/19/22 09:00	10/28/22 19:20	1
Cadmium	<0.055		0.10	0.055	ug/L		10/19/22 09:00	10/28/22 19:20	1
Calcium	<0.19		0.50	0.19	mg/L		10/19/22 09:00	10/28/22 19:20	1
Chromium	<1.1		5.0	1.1	ug/L		10/19/22 09:00	10/28/22 19:20	1
Cobalt	<0.19		0.50	0.19	ug/L		10/19/22 09:00	10/28/22 19:20	1
Lead	<0.24		0.50	0.24	ug/L		10/19/22 09:00	10/28/22 19:20	1
Lithium	<2.5		10	2.5	ug/L		10/19/22 09:00	10/28/22 19:20	1
Molybdenum	<1.2		2.0	1.2	ug/L		10/19/22 09:00	10/28/22 19:20	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 310-368985/1-A
Matrix: Water
Analysis Batch: 370250

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 368985

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.96		5.0	0.96	ug/L		10/19/22 09:00	10/28/22 19:20	1
Thallium	<0.26		1.0	0.26	ug/L		10/19/22 09:00	10/28/22 19:20	1

Lab Sample ID: LCS 310-368985/2-A
Matrix: Water
Analysis Batch: 370250

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 368985

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	200	213		ug/L		106	80 - 120
Arsenic	200	195		ug/L		98	80 - 120
Barium	100	107		ug/L		107	80 - 120
Beryllium	100	100		ug/L		100	80 - 120
Boron	200	183		ug/L		92	80 - 120
Cadmium	100	100		ug/L		100	80 - 120
Calcium	2.00	1.88		mg/L		94	80 - 120
Chromium	100	94.6		ug/L		95	80 - 120
Cobalt	100	95.5		ug/L		95	80 - 120
Lead	200	206		ug/L		103	80 - 120
Lithium	200	201		ug/L		101	80 - 120
Molybdenum	200	212		ug/L		106	80 - 120
Selenium	400	387		ug/L		97	80 - 120
Thallium	200	218		ug/L		109	80 - 120

Lab Sample ID: 310-242480-1 MS
Matrix: Water
Analysis Batch: 370250

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 368985

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.69		200	225		ug/L		112	75 - 125
Arsenic	<0.75		200	205		ug/L		102	75 - 125
Barium	290		100	403		ug/L		118	75 - 125
Beryllium	<0.27		100	102		ug/L		102	75 - 125
Boron	<58		200	218		ug/L		109	75 - 125
Cadmium	0.068	J	100	99.3		ug/L		99	75 - 125
Calcium	170		2.00	171	4	mg/L		246	75 - 125
Chromium	4.8	J	100	99.2		ug/L		94	75 - 125
Cobalt	<0.19		100	91.8		ug/L		92	75 - 125
Lead	<0.24		200	210		ug/L		105	75 - 125
Lithium	14		200	214		ug/L		100	75 - 125
Molybdenum	<1.2		200	214		ug/L		107	75 - 125
Selenium	1.3	J	400	417		ug/L		104	75 - 125
Thallium	<0.26		200	215		ug/L		107	75 - 125

Lab Sample ID: 310-242480-1 MSD
Matrix: Water
Analysis Batch: 370250

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 368985

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.69		200	210		ug/L		105	75 - 125	7	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-242480-1 MSD
Matrix: Water
Analysis Batch: 370250

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 368985

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	<0.75		200	197		ug/L		99	75 - 125	4	20
Barium	290		100	387		ug/L		102	75 - 125	4	20
Beryllium	<0.27		100	98.4		ug/L		98	75 - 125	4	20
Boron	<58		200	213		ug/L		107	75 - 125	2	20
Cadmium	0.068	J	100	97.4		ug/L		97	75 - 125	2	20
Calcium	170		2.00	166	4	mg/L		-15	75 - 125	3	20
Chromium	4.8	J	100	96.1		ug/L		91	75 - 125	3	20
Cobalt	<0.19		100	89.7		ug/L		90	75 - 125	2	20
Lead	<0.24		200	207		ug/L		104	75 - 125	1	20
Lithium	14		200	205		ug/L		96	75 - 125	4	20
Molybdenum	<1.2		200	206		ug/L		103	75 - 125	4	20
Selenium	1.3	J	400	398		ug/L		99	75 - 125	5	20
Thallium	<0.26		200	209		ug/L		105	75 - 125	3	20

Lab Sample ID: 310-242480-11 DU
Matrix: Water
Analysis Batch: 370250

Client Sample ID: MW-309
Prep Type: Total/NA
Prep Batch: 368985

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Antimony	<0.69		<0.69		ug/L				NC	20
Arsenic	47		47.5		ug/L				0.4	20
Barium	110		108		ug/L				1	20
Beryllium	<0.27		<0.27		ug/L				NC	20
Boron	1500		1470		ug/L				0.3	20
Cadmium	<0.055		<0.055		ug/L				NC	20
Calcium	110		109		mg/L				0.07	20
Chromium	<1.1		<1.1		ug/L				NC	20
Cobalt	<0.19		<0.19		ug/L				NC	20
Lead	<0.24		<0.24		ug/L				NC	20
Lithium	15		15.1		ug/L				0.6	20
Molybdenum	23		23.0		ug/L				1	20
Selenium	<0.96		<0.96		ug/L				NC	20
Thallium	<0.26		<0.26		ug/L				NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-369287/1-A
Matrix: Water
Analysis Batch: 369482

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 369287

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:11	10/21/22 13:17	1

Lab Sample ID: LCS 310-369287/2-A
Matrix: Water
Analysis Batch: 369482

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369287

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			1.67	1.63		ug/L		98	80 - 120		

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: MB 310-369289/1-A
Matrix: Water
Analysis Batch: 369482

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 369289

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/20/22 14:14	10/21/22 14:27	1

Lab Sample ID: LCS 310-369289/2-A
Matrix: Water
Analysis Batch: 369482

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369289

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.67	1.59		ug/L		95	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-368843/1
Matrix: Water
Analysis Batch: 368843

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<26		50	26	mg/L			10/17/22 13:00	1

Lab Sample ID: LCS 310-368843/2
Matrix: Water
Analysis Batch: 368843

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	972		mg/L		97	90 - 110

Lab Sample ID: MB 310-369001/1
Matrix: Water
Analysis Batch: 369001

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<26		50	26	mg/L			10/18/22 14:34	1

Lab Sample ID: LCS 310-369001/2
Matrix: Water
Analysis Batch: 369001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	978		mg/L		98	90 - 110

Lab Sample ID: 310-242480-16 DU
Matrix: Water
Analysis Batch: 369001

Client Sample ID: Field Blank
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	<26		<26		mg/L		NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 310-369148/1
Matrix: Water
Analysis Batch: 369148

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<26		50	26	mg/L			10/19/22 15:53	1

Lab Sample ID: LCS 310-369148/2
Matrix: Water
Analysis Batch: 369148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	976		mg/L		98	90 - 110		

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-368730/25
Matrix: Water
Analysis Batch: 368730

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		101	98 - 102		

Lab Sample ID: LCS 310-368730/50
Matrix: Water
Analysis Batch: 368730

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		101	98 - 102		

Lab Sample ID: 310-242480-2 DU
Matrix: Water
Analysis Batch: 368730

Client Sample ID: MW-301A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	6.9	HF		6.9		SU				0.4	20

QC Association Summary

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

HPLC/IC

Analysis Batch: 370396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242480-1	MW-301	Total/NA	Water	9056A	
310-242480-2	MW-301A	Total/NA	Water	9056A	
310-242480-3	MW-302	Total/NA	Water	9056A	
310-242480-4	MW-303	Total/NA	Water	9056A	
310-242480-5	MW-304	Total/NA	Water	9056A	
310-242480-6	MW-305	Total/NA	Water	9056A	
310-242480-7	MW-306	Total/NA	Water	9056A	
310-242480-8	MW-306A	Total/NA	Water	9056A	
310-242480-9	MW-307	Total/NA	Water	9056A	
310-242480-10	MW-308	Total/NA	Water	9056A	
310-242480-11	MW-309	Total/NA	Water	9056A	
310-242480-12	MW-309A	Total/NA	Water	9056A	
310-242480-13	MW-310	Total/NA	Water	9056A	
310-242480-14	MW-310A	Total/NA	Water	9056A	
310-242480-15	MW-312	Total/NA	Water	9056A	
310-242480-16	Field Blank	Total/NA	Water	9056A	
MB 310-370396/3	Method Blank	Total/NA	Water	9056A	
LCS 310-370396/4	Lab Control Sample	Total/NA	Water	9056A	
310-242480-1 MS	MW-301	Total/NA	Water	9056A	
310-242480-1 MSD	MW-301	Total/NA	Water	9056A	

Metals

Prep Batch: 368985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242480-1	MW-301	Total/NA	Water	3005A	
310-242480-2	MW-301A	Total/NA	Water	3005A	
310-242480-3	MW-302	Total/NA	Water	3005A	
310-242480-4	MW-303	Total/NA	Water	3005A	
310-242480-5	MW-304	Total/NA	Water	3005A	
310-242480-6	MW-305	Total/NA	Water	3005A	
310-242480-7	MW-306	Total/NA	Water	3005A	
310-242480-8	MW-306A	Total/NA	Water	3005A	
310-242480-9	MW-307	Total/NA	Water	3005A	
310-242480-10	MW-308	Total/NA	Water	3005A	
310-242480-11	MW-309	Total/NA	Water	3005A	
310-242480-12	MW-309A	Total/NA	Water	3005A	
310-242480-13	MW-310	Total/NA	Water	3005A	
310-242480-14	MW-310A	Total/NA	Water	3005A	
310-242480-15	MW-312	Total/NA	Water	3005A	
310-242480-16	Field Blank	Total/NA	Water	3005A	
MB 310-368985/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-368985/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-242480-1 MS	MW-301	Total/NA	Water	3005A	
310-242480-1 MSD	MW-301	Total/NA	Water	3005A	
310-242480-11 DU	MW-309	Total/NA	Water	3005A	

Prep Batch: 369287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242480-1	MW-301	Total/NA	Water	7470A	
310-242480-2	MW-301A	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 369287 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242480-3	MW-302	Total/NA	Water	7470A	
310-242480-4	MW-303	Total/NA	Water	7470A	
310-242480-5	MW-304	Total/NA	Water	7470A	
310-242480-6	MW-305	Total/NA	Water	7470A	
310-242480-7	MW-306	Total/NA	Water	7470A	
310-242480-8	MW-306A	Total/NA	Water	7470A	
310-242480-9	MW-307	Total/NA	Water	7470A	
310-242480-10	MW-308	Total/NA	Water	7470A	
310-242480-11	MW-309	Total/NA	Water	7470A	
MB 310-369287/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-369287/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 369289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242480-12	MW-309A	Total/NA	Water	7470A	
310-242480-13	MW-310	Total/NA	Water	7470A	
310-242480-14	MW-310A	Total/NA	Water	7470A	
310-242480-15	MW-312	Total/NA	Water	7470A	
310-242480-16	Field Blank	Total/NA	Water	7470A	
MB 310-369289/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-369289/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 369482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242480-1	MW-301	Total/NA	Water	7470A	369287
310-242480-2	MW-301A	Total/NA	Water	7470A	369287
310-242480-3	MW-302	Total/NA	Water	7470A	369287
310-242480-4	MW-303	Total/NA	Water	7470A	369287
310-242480-5	MW-304	Total/NA	Water	7470A	369287
310-242480-6	MW-305	Total/NA	Water	7470A	369287
310-242480-7	MW-306	Total/NA	Water	7470A	369287
310-242480-8	MW-306A	Total/NA	Water	7470A	369287
310-242480-9	MW-307	Total/NA	Water	7470A	369287
310-242480-10	MW-308	Total/NA	Water	7470A	369287
310-242480-11	MW-309	Total/NA	Water	7470A	369287
310-242480-12	MW-309A	Total/NA	Water	7470A	369289
310-242480-13	MW-310	Total/NA	Water	7470A	369289
310-242480-14	MW-310A	Total/NA	Water	7470A	369289
310-242480-15	MW-312	Total/NA	Water	7470A	369289
310-242480-16	Field Blank	Total/NA	Water	7470A	369289
MB 310-369287/1-A	Method Blank	Total/NA	Water	7470A	369287
MB 310-369289/1-A	Method Blank	Total/NA	Water	7470A	369289
LCS 310-369287/2-A	Lab Control Sample	Total/NA	Water	7470A	369287
LCS 310-369289/2-A	Lab Control Sample	Total/NA	Water	7470A	369289

Analysis Batch: 370250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242480-1	MW-301	Total/NA	Water	6020A	368985
310-242480-2	MW-301A	Total/NA	Water	6020A	368985
310-242480-3	MW-302	Total/NA	Water	6020A	368985
310-242480-4	MW-303	Total/NA	Water	6020A	368985

Metals (Continued)

Analysis Batch: 370250 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242480-5	MW-304	Total/NA	Water	6020A	368985
310-242480-6	MW-305	Total/NA	Water	6020A	368985
310-242480-7	MW-306	Total/NA	Water	6020A	368985
310-242480-8	MW-306A	Total/NA	Water	6020A	368985
310-242480-9	MW-307	Total/NA	Water	6020A	368985
310-242480-10	MW-308	Total/NA	Water	6020A	368985
310-242480-11	MW-309	Total/NA	Water	6020A	368985
310-242480-12	MW-309A	Total/NA	Water	6020A	368985
310-242480-13	MW-310	Total/NA	Water	6020A	368985
310-242480-14	MW-310A	Total/NA	Water	6020A	368985
310-242480-15	MW-312	Total/NA	Water	6020A	368985
310-242480-16	Field Blank	Total/NA	Water	6020A	368985
MB 310-368985/1-A	Method Blank	Total/NA	Water	6020A	368985
LCS 310-368985/2-A	Lab Control Sample	Total/NA	Water	6020A	368985
310-242480-1 MS	MW-301	Total/NA	Water	6020A	368985
310-242480-1 MSD	MW-301	Total/NA	Water	6020A	368985
310-242480-11 DU	MW-309	Total/NA	Water	6020A	368985

Analysis Batch: 370295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242480-10	MW-308	Total/NA	Water	6020A	368985

General Chemistry

Analysis Batch: 368730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242480-1	MW-301	Total/NA	Water	SM 4500 H+ B	
310-242480-2	MW-301A	Total/NA	Water	SM 4500 H+ B	
310-242480-3	MW-302	Total/NA	Water	SM 4500 H+ B	
310-242480-4	MW-303	Total/NA	Water	SM 4500 H+ B	
310-242480-5	MW-304	Total/NA	Water	SM 4500 H+ B	
310-242480-6	MW-305	Total/NA	Water	SM 4500 H+ B	
310-242480-7	MW-306	Total/NA	Water	SM 4500 H+ B	
310-242480-8	MW-306A	Total/NA	Water	SM 4500 H+ B	
310-242480-9	MW-307	Total/NA	Water	SM 4500 H+ B	
310-242480-10	MW-308	Total/NA	Water	SM 4500 H+ B	
310-242480-11	MW-309	Total/NA	Water	SM 4500 H+ B	
310-242480-12	MW-309A	Total/NA	Water	SM 4500 H+ B	
310-242480-13	MW-310	Total/NA	Water	SM 4500 H+ B	
310-242480-14	MW-310A	Total/NA	Water	SM 4500 H+ B	
310-242480-15	MW-312	Total/NA	Water	SM 4500 H+ B	
310-242480-16	Field Blank	Total/NA	Water	SM 4500 H+ B	
LCS 310-368730/25	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCS 310-368730/50	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-242480-2 DU	MW-301A	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 368843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242480-10	MW-308	Total/NA	Water	SM 2540C	
310-242480-11	MW-309	Total/NA	Water	SM 2540C	
310-242480-12	MW-309A	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 368843 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242480-13	MW-310	Total/NA	Water	SM 2540C	
310-242480-14	MW-310A	Total/NA	Water	SM 2540C	
MB 310-368843/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-368843/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 369001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242480-1	MW-301	Total/NA	Water	SM 2540C	
310-242480-3	MW-302	Total/NA	Water	SM 2540C	
310-242480-4	MW-303	Total/NA	Water	SM 2540C	
310-242480-5	MW-304	Total/NA	Water	SM 2540C	
310-242480-6	MW-305	Total/NA	Water	SM 2540C	
310-242480-7	MW-306	Total/NA	Water	SM 2540C	
310-242480-8	MW-306A	Total/NA	Water	SM 2540C	
310-242480-9	MW-307	Total/NA	Water	SM 2540C	
310-242480-15	MW-312	Total/NA	Water	SM 2540C	
310-242480-16	Field Blank	Total/NA	Water	SM 2540C	
MB 310-369001/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-369001/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-242480-16 DU	Field Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 369148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242480-2	MW-301A	Total/NA	Water	SM 2540C	
MB 310-369148/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-369148/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 369576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242480-1	MW-301	Total/NA	Water	Field Sampling	
310-242480-2	MW-301A	Total/NA	Water	Field Sampling	
310-242480-3	MW-302	Total/NA	Water	Field Sampling	
310-242480-4	MW-303	Total/NA	Water	Field Sampling	
310-242480-5	MW-304	Total/NA	Water	Field Sampling	
310-242480-6	MW-305	Total/NA	Water	Field Sampling	
310-242480-7	MW-306	Total/NA	Water	Field Sampling	
310-242480-8	MW-306A	Total/NA	Water	Field Sampling	
310-242480-9	MW-307	Total/NA	Water	Field Sampling	
310-242480-10	MW-308	Total/NA	Water	Field Sampling	
310-242480-11	MW-309	Total/NA	Water	Field Sampling	
310-242480-12	MW-309A	Total/NA	Water	Field Sampling	
310-242480-13	MW-310	Total/NA	Water	Field Sampling	
310-242480-14	MW-310A	Total/NA	Water	Field Sampling	
310-242480-15	MW-312	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-242480-1
Project/Site: Prairie Creek CCR 25222074

Client Sample ID: MW-301
Lab Sample ID: 310-242480-1
Date Collected: 10/12/22 15:50
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	370396	J7CK	EET CF	10/31/22 10:04
Total/NA	Prep	3005A			368985	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	370250	A6US	EET CF	10/28/22 19:27
Total/NA	Prep	7470A			369287	XXW3	EET CF	10/20/22 14:11
Total/NA	Analysis	7470A		1	369482	XXW3	EET CF	10/21/22 13:55
Total/NA	Analysis	SM 2540C		1	369001	ENB7	EET CF	10/18/22 14:34
Total/NA	Analysis	SM 4500 H+ B		1	368730	DN3P	EET CF	10/14/22 19:39
Total/NA	Analysis	Field Sampling		1	369576	BJ0R	EET CF	10/12/22 15:50

Client Sample ID: MW-301A
Lab Sample ID: 310-242480-2
Date Collected: 10/13/22 12:00
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	370396	J7CK	EET CF	10/31/22 10:40
Total/NA	Prep	3005A			368985	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	370250	A6US	EET CF	10/28/22 20:01
Total/NA	Prep	7470A			369287	XXW3	EET CF	10/20/22 14:11
Total/NA	Analysis	7470A		1	369482	XXW3	EET CF	10/21/22 14:01
Total/NA	Analysis	SM 2540C		1	369148	WZC8	EET CF	10/19/22 15:53
Total/NA	Analysis	SM 4500 H+ B		1	368730	DN3P	EET CF	10/14/22 19:37
Total/NA	Analysis	Field Sampling		1	369576	BJ0R	EET CF	10/13/22 12:00

Client Sample ID: MW-302
Lab Sample ID: 310-242480-3
Date Collected: 10/12/22 15:55
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	370396	J7CK	EET CF	10/31/22 10:53
Total/NA	Prep	3005A			368985	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	370250	A6US	EET CF	10/28/22 20:04
Total/NA	Prep	7470A			369287	XXW3	EET CF	10/20/22 14:11
Total/NA	Analysis	7470A		1	369482	XXW3	EET CF	10/21/22 14:03
Total/NA	Analysis	SM 2540C		1	369001	ENB7	EET CF	10/18/22 14:34
Total/NA	Analysis	SM 4500 H+ B		1	368730	DN3P	EET CF	10/14/22 19:32
Total/NA	Analysis	Field Sampling		1	369576	BJ0R	EET CF	10/12/22 15:55

Client Sample ID: MW-303
Lab Sample ID: 310-242480-4
Date Collected: 10/12/22 10:40
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	370396	J7CK	EET CF	10/31/22 11:05

Lab Chronicle

Client: SCS Engineers
Job ID: 310-242480-1
Project/Site: Prairie Creek CCR 25222074

Client Sample ID: MW-303
Lab Sample ID: 310-242480-4
Date Collected: 10/12/22 10:40
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			368985	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	370250	A6US	EET CF	10/28/22 20:07
Total/NA	Prep	7470A			369287	XXW3	EET CF	10/20/22 14:11
Total/NA	Analysis	7470A		1	369482	XXW3	EET CF	10/21/22 14:05
Total/NA	Analysis	SM 2540C		1	369001	ENB7	EET CF	10/18/22 14:34
Total/NA	Analysis	SM 4500 H+ B		1	368730	DN3P	EET CF	10/14/22 19:31
Total/NA	Analysis	Field Sampling		1	369576	BJ0R	EET CF	10/12/22 10:40

Client Sample ID: MW-304
Lab Sample ID: 310-242480-5
Date Collected: 10/12/22 11:40
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	370396	J7CK	EET CF	10/31/22 11:17
Total/NA	Prep	3005A			368985	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	370250	A6US	EET CF	10/28/22 20:10
Total/NA	Prep	7470A			369287	XXW3	EET CF	10/20/22 14:11
Total/NA	Analysis	7470A		1	369482	XXW3	EET CF	10/21/22 14:08
Total/NA	Analysis	SM 2540C		1	369001	ENB7	EET CF	10/18/22 14:34
Total/NA	Analysis	SM 4500 H+ B		1	368730	DN3P	EET CF	10/14/22 19:30
Total/NA	Analysis	Field Sampling		1	369576	BJ0R	EET CF	10/12/22 11:40

Client Sample ID: MW-305
Lab Sample ID: 310-242480-6
Date Collected: 10/12/22 12:35
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	370396	J7CK	EET CF	10/31/22 11:53
Total/NA	Prep	3005A			368985	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	370250	A6US	EET CF	10/28/22 20:13
Total/NA	Prep	7470A			369287	XXW3	EET CF	10/20/22 14:11
Total/NA	Analysis	7470A		1	369482	XXW3	EET CF	10/21/22 14:10
Total/NA	Analysis	SM 2540C		1	369001	ENB7	EET CF	10/18/22 14:34
Total/NA	Analysis	SM 4500 H+ B		1	368730	DN3P	EET CF	10/14/22 19:28
Total/NA	Analysis	Field Sampling		1	369576	BJ0R	EET CF	10/12/22 12:35

Client Sample ID: MW-306
Lab Sample ID: 310-242480-7
Date Collected: 10/12/22 13:55
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	370396	J7CK	EET CF	10/31/22 12:05
Total/NA	Prep	3005A			368985	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	370250	A6US	EET CF	10/28/22 20:16

Lab Chronicle

Client: SCS Engineers
Job ID: 310-242480-1
Project/Site: Prairie Creek CCR 25222074

Client Sample ID: MW-306
Lab Sample ID: 310-242480-7
Date Collected: 10/12/22 13:55
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			369287	XXW3	EET CF	10/20/22 14:11
Total/NA	Analysis	7470A		1	369482	XXW3	EET CF	10/21/22 14:12
Total/NA	Analysis	SM 2540C		1	369001	ENB7	EET CF	10/18/22 14:34
Total/NA	Analysis	SM 4500 H+ B		1	368730	DN3P	EET CF	10/14/22 19:48
Total/NA	Analysis	Field Sampling		1	369576	BJ0R	EET CF	10/12/22 13:55

Client Sample ID: MW-306A
Lab Sample ID: 310-242480-8
Date Collected: 10/12/22 13:45
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	370396	J7CK	EET CF	10/31/22 12:18
Total/NA	Prep	3005A			368985	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	370250	A6US	EET CF	10/28/22 20:20
Total/NA	Prep	7470A			369287	XXW3	EET CF	10/20/22 14:11
Total/NA	Analysis	7470A		1	369482	XXW3	EET CF	10/21/22 14:14
Total/NA	Analysis	SM 2540C		1	369001	ENB7	EET CF	10/18/22 14:34
Total/NA	Analysis	SM 4500 H+ B		1	368730	DN3P	EET CF	10/14/22 19:46
Total/NA	Analysis	Field Sampling		1	369576	BJ0R	EET CF	10/12/22 13:45

Client Sample ID: MW-307
Lab Sample ID: 310-242480-9
Date Collected: 10/12/22 15:00
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	370396	J7CK	EET CF	10/31/22 12:30
Total/NA	Prep	3005A			368985	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	370250	A6US	EET CF	10/28/22 20:23
Total/NA	Prep	7470A			369287	XXW3	EET CF	10/20/22 14:11
Total/NA	Analysis	7470A		1	369482	XXW3	EET CF	10/21/22 14:16
Total/NA	Analysis	SM 2540C		1	369001	ENB7	EET CF	10/18/22 14:34
Total/NA	Analysis	SM 4500 H+ B		1	368730	DN3P	EET CF	10/14/22 19:45
Total/NA	Analysis	Field Sampling		1	369576	BJ0R	EET CF	10/12/22 15:00

Client Sample ID: MW-308
Lab Sample ID: 310-242480-10
Date Collected: 10/12/22 14:00
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	370396	J7CK	EET CF	10/31/22 12:42
Total/NA	Prep	3005A			368985	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	370250	A6US	EET CF	10/28/22 20:26
Total/NA	Prep	3005A			368985	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		10	370295	A6US	EET CF	10/29/22 14:41

Lab Chronicle

Client: SCS Engineers
Job ID: 310-242480-1
Project/Site: Prairie Creek CCR 25222074

Client Sample ID: MW-308
Lab Sample ID: 310-242480-10
Date Collected: 10/12/22 14:00
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			369287	XXW3	EET CF	10/20/22 14:11
Total/NA	Analysis	7470A		1	369482	XXW3	EET CF	10/21/22 14:18
Total/NA	Analysis	SM 2540C		1	368843	ENB7	EET CF	10/17/22 13:00
Total/NA	Analysis	SM 4500 H+ B		1	368730	DN3P	EET CF	10/14/22 19:44
Total/NA	Analysis	Field Sampling		1	369576	BJ0R	EET CF	10/12/22 14:00

Client Sample ID: MW-309
Lab Sample ID: 310-242480-11
Date Collected: 10/12/22 09:20
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	370396	J7CK	EET CF	10/31/22 12:54
Total/NA	Prep	3005A			368985	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	370250	A6US	EET CF	10/28/22 20:51
Total/NA	Prep	7470A			369287	XXW3	EET CF	10/20/22 14:11
Total/NA	Analysis	7470A		1	369482	XXW3	EET CF	10/21/22 14:20
Total/NA	Analysis	SM 2540C		1	368843	ENB7	EET CF	10/17/22 13:00
Total/NA	Analysis	SM 4500 H+ B		1	368730	DN3P	EET CF	10/14/22 19:42
Total/NA	Analysis	Field Sampling		1	369576	BJ0R	EET CF	10/12/22 09:20

Client Sample ID: MW-309A
Lab Sample ID: 310-242480-12
Date Collected: 10/12/22 09:35
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	370396	J7CK	EET CF	10/31/22 13:07
Total/NA	Prep	3005A			368985	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	370250	A6US	EET CF	10/28/22 20:57
Total/NA	Prep	7470A			369289	XXW3	EET CF	10/20/22 14:14
Total/NA	Analysis	7470A		1	369482	XXW3	EET CF	10/21/22 14:46
Total/NA	Analysis	SM 2540C		1	368843	ENB7	EET CF	10/17/22 13:00
Total/NA	Analysis	SM 4500 H+ B		1	368730	DN3P	EET CF	10/14/22 19:41
Total/NA	Analysis	Field Sampling		1	369576	BJ0R	EET CF	10/12/22 09:35

Client Sample ID: MW-310
Lab Sample ID: 310-242480-13
Date Collected: 10/12/22 11:50
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	370396	J7CK	EET CF	10/31/22 13:19
Total/NA	Prep	3005A			368985	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	370250	A6US	EET CF	10/28/22 21:00
Total/NA	Prep	7470A			369289	XXW3	EET CF	10/20/22 14:14
Total/NA	Analysis	7470A		1	369482	XXW3	EET CF	10/21/22 14:52

Lab Chronicle

Client: SCS Engineers
Job ID: 310-242480-1
Project/Site: Prairie Creek CCR 25222074

Client Sample ID: MW-310
Lab Sample ID: 310-242480-13
Date Collected: 10/12/22 11:50
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	368843	ENB7	EET CF	10/17/22 13:00
Total/NA	Analysis	SM 4500 H+ B		1	368730	DN3P	EET CF	10/14/22 20:02
Total/NA	Analysis	Field Sampling		1	369576	BJ0R	EET CF	10/12/22 11:50

Client Sample ID: MW-310A
Lab Sample ID: 310-242480-14
Date Collected: 10/12/22 11:50
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	370396	J7CK	EET CF	10/31/22 13:31
Total/NA	Prep	3005A			368985	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	370250	A6US	EET CF	10/28/22 21:03
Total/NA	Prep	7470A			369289	XXW3	EET CF	10/20/22 14:14
Total/NA	Analysis	7470A		1	369482	XXW3	EET CF	10/21/22 14:55
Total/NA	Analysis	SM 2540C		1	368843	ENB7	EET CF	10/17/22 13:00
Total/NA	Analysis	SM 4500 H+ B		1	368730	DN3P	EET CF	10/14/22 20:00
Total/NA	Analysis	Field Sampling		1	369576	BJ0R	EET CF	10/12/22 11:50

Client Sample ID: MW-312
Lab Sample ID: 310-242480-15
Date Collected: 10/12/22 09:05
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	370396	J7CK	EET CF	10/31/22 13:43
Total/NA	Prep	3005A			368985	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	370250	A6US	EET CF	10/28/22 21:06
Total/NA	Prep	7470A			369289	XXW3	EET CF	10/20/22 14:14
Total/NA	Analysis	7470A		1	369482	XXW3	EET CF	10/21/22 14:57
Total/NA	Analysis	SM 2540C		1	369001	ENB7	EET CF	10/18/22 14:34
Total/NA	Analysis	SM 4500 H+ B		1	368730	DN3P	EET CF	10/14/22 19:59
Total/NA	Analysis	Field Sampling		1	369576	BJ0R	EET CF	10/12/22 09:05

Client Sample ID: Field Blank
Lab Sample ID: 310-242480-16
Date Collected: 10/12/22 08:00
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	370396	J7CK	EET CF	10/31/22 14:20
Total/NA	Prep	3005A			368985	QTZ5	EET CF	10/19/22 09:00
Total/NA	Analysis	6020A		1	370250	A6US	EET CF	10/28/22 21:09
Total/NA	Prep	7470A			369289	XXW3	EET CF	10/20/22 14:14
Total/NA	Analysis	7470A		1	369482	XXW3	EET CF	10/21/22 14:59
Total/NA	Analysis	SM 2540C		1	369001	ENB7	EET CF	10/18/22 14:34
Total/NA	Analysis	SM 4500 H+ B		1	368730	DN3P	EET CF	10/14/22 19:58

Lab Chronicle

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-242480-1
Project/Site: Prairie Creek CCR 25222074

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-23

Method Summary

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020A	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
SM 4500 H+ B	pH	SM	EET CF
Field Sampling	Field Sampling	EPA	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

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310-242480 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: SCS Engineers			
City/State: CITY: Clive		STATE: IA	Project:
Receipt Information			
Date/Time Received:	DATE: 10-14-22	TIME: 1715	Received By: AL

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☑ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☑ Yes	☐ No	*If yes:* Cooler # 1 of 3
Cooler Custody Seals Present?	☑ Yes	☐ No	*If yes:* Cooler custody seals intact? ☑ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☑ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☑ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: AL	Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 0.6	Corrected Temp (°C): 0.6

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY Clive | STATE IA | Project:

Receipt Information

Date/Time Received: DATE 10-14-22 | TIME 1715 | Received By: AL

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☑ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☑ Yes ☐ No *If yes:* Cooler # 2 of 3

Cooler Custody Seals Present? ☑ Yes ☐ No *If yes:* Cooler custody seals intact? ☑ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☑ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☑ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: AL | Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): -0.9 | Corrected Temp (°C): -0.9

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

02/26/2024 - Classification: Internal - ECRM13238692

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Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY Clive STATE IA Project:

Receipt Information

Date/Time Received: DATE 10-14-22 TIME 1715 Received By: RL

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☑ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☑ Yes ☐ No *If yes:* Cooler # 3 of 3

Cooler Custody Seals Present? ☑ Yes ☐ No *If yes:* Cooler custody seals intact? ☑ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☑ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☑ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: R Correction Factor (°C): 0

Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): -0.8 Corrected Temp (°C): -0.8

Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

02/26/2024 - Classification: Internal - ECRM13238692

11/1/2022

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

TestAmerica Des Moines SC
214

Client Information	Sampler: Adam Watson	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 310-74867-14561 1
Client Contact: ~~Shipping~~ Meghan Blodgett	Phone: 608-250-9985	E-Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: SCS Engineers	PWSID:	Analysis Requested		Job #:
Address: 8450 Hickman Road Suite 27	Due Date Requested:			Preservation Codes: A HCL; B NaOH; C Zn Acetate; D Nitric Acid; E NaHSO4; F MeOH; G Amchlor; H Ascorbic Acid; I Ice; J DI Water; K EDTA; L EDA; M Hexane; N None; O AsNaO2; P Na2O4S; Q Na2SO3; R Na2S2O3; S H2SO4; T TSP Dodecahydrate; U Acetone; V MCAA; W pH 4-5; Y Trizma; Z other (specify); Other:
City: Clive	TAT Requested (days):			
State, Zip: IA, 50325	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 25222074			
Email: ~~rorlz@scsengineers.com~~ MBladgett@scseng.com	WO #:			
Project Name: Prairie Creek CCR 25222074	Project #: 31011020			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020A Metals Hg	2540C Calcd 9056A, ORGFM 28D, SM4500 H+	903.0 Radium 226	904.0 Radium 228	Total Number of containers	Special Instructions/Note
			Preservation Code:				D	N	D	D		
MW-301	10/12/22	1550		Water			X	X	X	X		
MW-301A	10/13/22	1200		Water			X	X	X	X		
MW-302	10/12/22	1555		Water			X	X	X	X		
MW-303		1040		Water			X	X	X	X		
MW-304		1140		Water			X	X	X	X		
MW-305		1235		Water			X	X	X	X		
MW-306		1355		Water			X	X	X	X		
MW-306A		1345		Water			X	X	X	X		
MW-307		1500		Water			X	X	X	X		
MW-308		1400		Water			X	X	X	X		
MW-309		920		Water			X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I II III IV Other (specify)

Special Instructions/QC Requirements:

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Sean Marczewski	10/14/2022 800	SCS Eng			
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time: 10-14-22 1715	Company:

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

ver 06 08/2021

02/26/2024 - Classification: Internal - ECRM13238692

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613
Phone. 319-277-2401 Fax 319-277-2425

Chain of Custody Record

TestAmerica Des Moines SC
214

Client Information	Sampler	Lab PM: Fredrick, Sandie	Carrier Tracking No(s)	COC No: 310-74867-14561 2
Client Contact: Rosa Cruz	Phone	E-Mail: Sandra.Fredrick@et.eurofinsus com	State of Origin	Page: Page 2 of 2
Company: SCS Eng neers	PWSID:	Analysis Requested		Job #:
Address: 8450 Hickman Road Suite 27	Due Date Requested			Preservation Codes: A HCL; B NaOH; C Zn Acetate; D Nitric Acid; E NaHSO4; F MeOH; G Amchlor; H Ascorbic Acid; I Ice; J DI Water; K - EDTA; L EDA; M Hexane; N - None; O AsNaO2; P Na2O4S; Q Na2SO3; R Na2S2O3; S H2SO4; T TSP Dodecahydrate; U Acetone; V MCAA; W pH 4-5; Y Trizma; Z other (specify); Other:
City: Clive	TAT Requested (days)			
State Zip: IA 50325	Compliance Project: Δ Yes Δ No			
Phone	PO #: 25222074			
Email: rcruz@scsengineers com	WO #:			
Project Name: Prairie Creek CCR 25222074	Project #: 31011020			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020A Metals Hg	2540C Calcd, 9056A, ORGFM_28D, SM4500 H+	9030 Radium 226	9040 Radium 228	Total Number of containers	Special Instructions/Note
			Preservation Code:				D	N	D	D		
MW-309A	10/12/22	935		Water			X	X	X	X		
MW-310		1150		Water			X	X	X	X		
MW-3 0A		1150		Water			X	X	X	X		
MW-312		905		Water			X	X	X	X		
FIELD BLANK		800		Water			X	X	X	X		
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by	Date	Time	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Sean Marczewski	10/14/2022 800	SCS Eng			
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
				10-14-22 1715	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver 06/08/2021

11/1/2022

Table 1. Sampling Points and Parameters - C

Groundwater Monitoring - Prairie Creek Generati

		Parameter	MW-301	MW-301A	MW-302	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307	MW-308
CCR Rule Parameters All unfiltered	Appendix III Parameters (Detection Monitoring)	Boron	X	X	X	X	X	X	X	X	X	X
		Calcium	X	X	X	X	X	X	X	X	X	X
		Chloride	X	X	X	X	X	X	X	X	X	X
		Fluoride	X	X	X	X	X	X	X	X	X	X
		pH	X	X	X	X	X	X	X	X	X	X
		Sulfate	X	X	X	X	X	X	X	X	X	X
		TDS	X	X	X	X	X	X	X	X	X	X
	Appendix IV Parameters (Assessment Monitoring)	Antimony	X	X	X	X	X	X	X	X	X	X
		Arsenic	X	X	X	X	X	X	X	X	X	X
		Barium	X	X	X	X	X	X	X	X	X	X
		Beryllium	X	X	X	X	X	X	X	X	X	X
		Cadmium	X	X	X	X	X	X	X	X	X	X
		Chromium	X	X	X	X	X	X	X	X	X	X
		Cobalt	X	X	X	X	X	X	X	X	X	X
		Fluoride	X	X	X	X	X	X	X	X	X	X
		Lead	X	X	X	X	X	X	X	X	X	X
		Lithium	X	X	X	X	X	X	X	X	X	X
		Mercury	X	X	X	X	X	X	X	X	X	X
		Molybdenum	X	X	X	X	X	X	X	X	X	X
		Selenium	X	X	X	X	X	X	X	X	X	X
		Thallium	X	X	X	X	X	X	X	X	X	X
		Radium	X	X	X	X	X	X	X	X	X	X
	Field Parameters	Groundwater Elevation	X	X	X	X	X	X	X	X	X	X
		pH	X	X	X	X	X	X	X	X	X	X
		Well Depth										
		Specific Conductance	X	X	X	X	X	X	X	X	X	X
		Dissolved Oxygen	X	X	X	X	X	X	X	X	X	X
		ORP	X	X	X	X	X	X	X	X	X	X
		Temperature	X	X	X	X	X	X	X	X	X	X
		Turbidity (NTU)	X	X	X	X	X	X	X	X	X	X
		Color	X	X	X	X	X	X	X	X	X	X
		Odor	X	X	X	X	X	X	X	X	X	X
MNA Parameters	Total (Unfiltered)	Alkalinity - Carbonate	X	X	X	X	X	X	X	X	X	X
		Alkalinity - Bicarbonate	X	X	X	X	X	X	X	X	X	X
		Calcium	X	X	X	X	X	X	X	X	X	X
		Iron	X	X	X	X	X	X	X	X	X	X
		Magnesium	X	X	X	X	X	X	X	X	X	X
		Manganese	X	X	X	X	X	X	X	X	X	X
		Potassium	X	X	X	X	X	X	X	X	X	X
		Sodium	X	X	X	X	X	X	X	X	X	X
	Dissolved (Filtered)	Arsenic				X	X	X				X
		Cobalt										
		Iron	X	X	X	X	X	X	X	X	X	X
		Lithium										
		Manganese	X	X	X	X	X	X	X	X	X	X
		Molybdenum							X			
	Field Parameters	Sulfide, Field	X	X	X	X	X	X	X	X	X	X
		Ferrous Iron, Field	X	X	X	X	X	X	X	X	X	X

July 2022 Sampling Event

ʇule Sampling Program , October 2022

ˌtation / SCS Engineers Project #25222074

W-)9	MW-309A	MW-310	MW-310A	MW-311	MW-312	Field Blank	TOTAL
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X	X	X		16
(	X	X	X		X		15
				X			1
:	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
		X			X		7
							0
	X	X	X		X		15
					X		1
	X	X	X		X		15
					X		2
	X	X	X		X		15
	X	X	X		X		15

Table 1, page 1 of 1

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-242480-1

Login Number: 242480
List Number: 1
Creator: Kizer, Preston V

List Source: Eurofins Cedar Falls

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

Groundwater Monitoring Results - Field Parameters
Prairie Creek Generating Station / SCS Engineers Project #25222074.00
October 2022

Sample	Sample Date/Time	GW Elevation (ft amsl)	Temperature (Deg. C)	pH (Std. Units)	Dissolved Oxygen (mg/L)	Specific Conductivity µmhos/cm	ORP (mV)	Turbidity
MW-301	10/12/2022 1550	722.08	13.0	7.03	4.18	1184	-41.3	3.18
MW-301A	10/13/2022 1200	706.76	12.7	7.00	2.19	537.2	41.8	4.27
MW-302	10/12/2022 1555	712.56	14.7	6.63	2.53	1051	48.3	4.35
MW-303	10/12/2022 1040	701.93	15.6	7.08	0.06	1047	-32.0	1.15
MW-304	10/12/2022 1140	701.86	15.6	7.04	0.05	1081	7.5	1.65
MW-305	10/12/2022 1235	701.73	16.1	7.24	0.06	1268	34.0	3.00
MW-306	10/12/2022 1355	701.97	12.6	7.68	0.49	578.7	-100.1	4.93
MW-306A	10/12/2022 1345	702.18	13.1	7.26	0.14	1148	-81.5	5.51
MW-307	10/12/2022 1500	705.32	21.4	9.13	0.09	187.4	17.5	3.08
MW-308	10/12/2022 1400	702.60	15.1	9.14	0.07	577.7	-19.1	3.57
MW-309	10/12/2022 0905	702.08	18.2	7.46	0.21	902	-134.7	4.59
MW-309A	10/12/2022 0935	702.12	16.0	7.13	0.19	837	-106.4	1.30
MW-310	10/12/2022 1150	701.73	17.3	7.26	0.07	1039	-149.1	0.58
MW-310A	10/12/2022 1150	701.92	15.5	7.51	0.23	969	-128.9	0.00
MW-311	10/12/2022 1325	707.83	GW Elevation only					
MW-312	10/12/2022 0905	702.85	24.8	6.97	0.05	795	-85.4	3.27

Abbreviations:
mg/L = milligrams per liter
mV = millivolts
amsl = above mean sea level
NA = Not Analyzed
NM = Not measured

Notes:

Created by: NAS Date: 10/19/2022
Last revision by: NAS Date: 10/19/2022
Checked by: MDB Date: 10/21/2022

C:\Users\hld0\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\USG3GGGC\[2210_PCS_CCR_Field.xlsx]Sheet1

NOTE: Please don't type in to the Checked By cells above, enter your info. on the Revision History tab instead. The cells above will automatically fill in.
REMEMBER TO UPDATE THE REVISION HISTORY TAB!!

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

ANALYTICAL REPORT

PREPARED FOR

Attn: Meghan Blodgett
SCS Engineers
2830 Dairy Drive
Madison Wisconsin 53718

Generated 11/16/2022 4:13:42 PM

JOB DESCRIPTION

Prairie Creek CCR 25222074

JOB NUMBER

310-242480-2

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA50613

Classification: Eurofins Internal - ECRM13238692

myEOL

Table of Contents

Case Narrative

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-2

Job ID: 310-242480-2

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-242480-2

Comments
No additional comments.

Receipt
The samples were received on 10/14/2022 5:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were -0.9º C, -0.8º C and 0.6º C.

Receipt Exceptions
The following container was received with only 750mL of volume in the container. MW-301 (310-242480-1), MW-301A (310-242480-2), MW-302 (310-242480-3), MW-303 (310-242480-4), MW-304 (310-242480-5), MW-305 (310-242480-6), MW-306 (310-242480-7), MW-306A (310-242480-8), MW-307 (310-242480-9), MW-308 (310-242480-10), MW-309 (310-242480-11), MW-309A (310-242480-12), MW-310 (310-242480-13), MW-310A (310-242480-14), MW-312 (310-242480-15) and Field Blank (310-242480-16)

RAD
Method 903.0: Radium 226 batch 586666
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date
MW-301 (310-242480-1), MW-301A (310-242480-2), MW-302 (310-242480-3), MW-303 (310-242480-4), MW-304 (310-242480-5), MW-305 (310-242480-6), MW-306 (310-242480-7), MW-306A (310-242480-8), MW-307 (310-242480-9), MW-308 (310-242480-10), MW-309 (310-242480-11), MW-309A (310-242480-12), MW-310 (310-242480-13), MW-310A (310-242480-14), MW-312 (310-242480-15), Field Blank (310-242480-16), (LCS 160-586666/2-A), (MB 160-586666/1-A) and (310-242480-D-1-A DU)

Method 904.0: Radium-228 batch 586668
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
MW-301 (310-242480-1), MW-301A (310-242480-2), MW-302 (310-242480-3), MW-303 (310-242480-4), MW-304 (310-242480-5), MW-305 (310-242480-6), MW-306 (310-242480-7), MW-306A (310-242480-8), MW-307 (310-242480-9), MW-308 (310-242480-10), MW-309 (310-242480-11), MW-309A (310-242480-12), MW-310 (310-242480-13), MW-310A (310-242480-14), MW-312 (310-242480-15), Field Blank (310-242480-16), (LCS 160-586668/2-A), (MB 160-586668/1-A) and (310-242480-D-1-B DU)

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

Sample Summary

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-242480-1	MW-301	Water	10/12/22 15:50	10/14/22 17:15
310-242480-2	MW-301A	Water	10/13/22 12:00	10/14/22 17:15
310-242480-3	MW-302	Water	10/12/22 15:55	10/14/22 17:15
310-242480-4	MW-303	Water	10/12/22 10:40	10/14/22 17:15
310-242480-5	MW-304	Water	10/12/22 11:40	10/14/22 17:15
310-242480-6	MW-305	Water	10/12/22 12:35	10/14/22 17:15
310-242480-7	MW-306	Water	10/12/22 13:55	10/14/22 17:15
310-242480-8	MW-306A	Water	10/12/22 13:45	10/14/22 17:15
310-242480-9	MW-307	Water	10/12/22 15:00	10/14/22 17:15
310-242480-10	MW-308	Water	10/12/22 14:00	10/14/22 17:15
310-242480-11	MW-309	Water	10/12/22 09:20	10/14/22 17:15
310-242480-12	MW-309A	Water	10/12/22 09:35	10/14/22 17:15
310-242480-13	MW-310	Water	10/12/22 11:50	10/14/22 17:15
310-242480-14	MW-310A	Water	10/12/22 11:50	10/14/22 17:15
310-242480-15	MW-312	Water	10/12/22 09:05	10/14/22 17:15
310-242480-16	Field Blank	Water	10/12/22 08:00	10/14/22 17:15

Detection Summary

Client: SCS Engineers
Job ID: 310-242480-2
Project/Site: Prairie Creek CCR 25222074

Client Sample ID: MW-301 — Lab Sample ID: 310-242480-1

No Detections.

Client Sample ID: MW-301A — Lab Sample ID: 310-242480-2

No Detections.

Client Sample ID: MW-302 — Lab Sample ID: 310-242480-3

No Detections.

Client Sample ID: MW-303 — Lab Sample ID: 310-242480-4

No Detections.

Client Sample ID: MW-304 — Lab Sample ID: 310-242480-5

No Detections.

Client Sample ID: MW-305 — Lab Sample ID: 310-242480-6

No Detections.

Client Sample ID: MW-306 — Lab Sample ID: 310-242480-7

No Detections.

Client Sample ID: MW-306A — Lab Sample ID: 310-242480-8

No Detections.

Client Sample ID: MW-307 — Lab Sample ID: 310-242480-9

No Detections.

Client Sample ID: MW-308 — Lab Sample ID: 310-242480-10

No Detections.

Client Sample ID: MW-309 — Lab Sample ID: 310-242480-11

No Detections.

Client Sample ID: MW-309A — Lab Sample ID: 310-242480-12

No Detections.

Client Sample ID: MW-310 — Lab Sample ID: 310-242480-13

No Detections.

Client Sample ID: MW-310A — Lab Sample ID: 310-242480-14

No Detections.

Client Sample ID: MW-312 — Lab Sample ID: 310-242480-15

No Detections.

Client Sample ID: Field Blank — Lab Sample ID: 310-242480-16

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-301
Date Collected: 10/12/22 15:50
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-1
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.365		0.168	0.172	1.00	0.183	pCi/L	10/20/22 15:20	11/15/22 18:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*98.5*		*40 - 110*	*10/20/22 15:20*	*11/15/22 18:49*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.612		0.342	0.347	1.00	0.494	pCi/L	10/20/22 15:46	11/14/22 12:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*98.5*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:21*	*1*
Y Carrier	*86.7*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:21*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.977		0.381	0.387	5.00	0.494	pCi/L		11/16/22 15:49	1

Client Sample ID: MW-301A
Date Collected: 10/13/22 12:00
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-2
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	**0.500**		0.261	0.265	1.00	0.304	pCi/L	10/20/22 15:20	11/15/22 18:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*80.6*		*40 - 110*	*10/20/22 15:20*	*11/15/22 18:50*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.376	U	0.502	0.504	1.00	0.840	pCi/L	10/20/22 15:46	11/14/22 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*80.6*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:22*	*1*
Y Carrier	*85.2*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:22*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.876**		0.566	0.569	5.00	0.840	pCi/L		11/16/22 15:49	1

Client Sample ID: MW-302
Date Collected: 10/12/22 15:55
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-3
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	**0.378**		0.191	0.194	1.00	0.228	pCi/L	10/20/22 15:20	11/15/22 18:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*86.8*		*40 - 110*	*10/20/22 15:20*	*11/15/22 18:50*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.302	U	0.348	0.349	1.00	0.572	pCi/L	10/20/22 15:46	11/14/22 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*86.8*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:22*	*1*
Y Carrier	*88.2*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:22*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.681**		0.397	0.399	5.00	0.572	pCi/L		11/16/22 15:49	1

Client Sample ID: MW-303
Date Collected: 10/12/22 10:40
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-4
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	**0.514**		0.243	0.247	1.00	0.251	pCi/L	10/20/22 15:20	11/15/22 18:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*83.8*		*40 - 110*	*10/20/22 15:20*	*11/15/22 18:50*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.269	U	0.391	0.391	1.00	0.661	pCi/L	10/20/22 15:46	11/14/22 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*83.8*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:22*	*1*
Y Carrier	*83.7*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:22*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.783**		0.460	0.462	5.00	0.661	pCi/L		11/16/22 15:49	1

Client Sample ID: MW-304
Lab Sample ID: 310-242480-5

Date Collected: 10/12/22 11:40
Matrix: Water
Date Received: 10/14/22 17:15

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.265		0.164	0.165	1.00	0.210	pCi/L	10/20/22 15:20	11/15/22 18:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*87.5*		*40 - 110*	*10/20/22 15:20*	*11/15/22 18:50*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.545		0.340	0.343	1.00	0.493	pCi/L	10/20/22 15:46	11/14/22 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*87.5*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:22*	*1*
Y Carrier	*87.5*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:22*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.811		0.377	0.381	5.00	0.493	pCi/L		11/16/22 15:49	1

Client Sample ID: MW-305
Lab Sample ID: 310-242480-6

Date Collected: 10/12/22 12:35
Matrix: Water
Date Received: 10/14/22 17:15

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.317		0.178	0.180	1.00	0.217	pCi/L	10/20/22 15:20	11/15/22 18:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*84.1*		*40 - 110*	*10/20/22 15:20*	*11/15/22 18:50*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.221	U	0.356	0.357	1.00	0.606	pCi/L	10/20/22 15:46	11/14/22 12:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*84.1*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:25*	*1*
Y Carrier	*85.2*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:25*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.539	U	0.398	0.400	5.00	0.606	pCi/L		11/16/22 15:49	1

Client Sample ID: MW-306
Date Collected: 10/12/22 13:55
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-7
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0719	U	0.144	0.144	1.00	0.257	pCi/L	10/20/22 15:20	11/15/22 18:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*87.0*		*40 - 110*	*10/20/22 15:20*	*11/15/22 18:47*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.284	U	0.307	0.308	1.00	0.498	pCi/L	10/20/22 15:46	11/14/22 12:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*87.0*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:25*	*1*
Y Carrier	*86.0*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:25*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.356	U	0.339	0.340	5.00	0.498	pCi/L		11/16/22 15:49	1

Client Sample ID: MW-306A
Lab Sample ID: 310-242480-8

Date Collected: 10/12/22 13:45
Matrix: Water
Date Received: 10/14/22 17:15

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.268		0.174	0.176	1.00	0.236	pCi/L	10/20/22 15:20	11/15/22 18:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*90.0*		*40 - 110*	*10/20/22 15:20*	*11/15/22 18:47*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.593		0.379	0.383	1.00	0.567	pCi/L	10/20/22 15:46	11/14/22 12:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*90.0*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:25*	*1*
Y Carrier	*87.5*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:25*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.861		0.417	0.422	5.00	0.567	pCi/L		11/16/22 15:49	1

Client Sample ID: MW-307
Date Collected: 10/12/22 15:00
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-9
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.160	U	0.159	0.159	1.00	0.249	pCi/L	10/20/22 15:20	11/15/22 18:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*94.4*		*40 - 110*	*10/20/22 15:20*	*11/15/22 18:47*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.202	U	0.293	0.294	1.00	0.495	pCi/L	10/20/22 15:46	11/14/22 12:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*94.4*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:25*	*1*
Y Carrier	*84.9*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:25*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.362	U	0.333	0.334	5.00	0.495	pCi/L		11/16/22 15:49	1

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-2

Client Sample ID: MW-308

Date Collected: 10/12/22 14:00
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-10

Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.186	U	0.248	0.249	1.00	0.416	pCi/L	10/20/22 15:20	11/15/22 18:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*78.7*		*40 - 110*	*10/20/22 15:20*	*11/15/22 18:47*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.328	U	0.477	0.478	1.00	0.805	pCi/L	10/20/22 15:46	11/14/22 12:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*78.7*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:26*	*1*
Y Carrier	*90.5*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:26*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.514	U	0.538	0.539	5.00	0.805	pCi/L		11/16/22 15:49	1

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-2

Client Sample ID: MW-309

Date Collected: 10/12/22 09:20
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-11

Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.205	U	0.164	0.165	1.00	0.243	pCi/L	10/20/22 15:20	11/15/22 18:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*97.1*		*40 - 110*	*10/20/22 15:20*	*11/15/22 18:47*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	**0.863**		0.351	0.360	1.00	0.445	pCi/L	10/20/22 15:46	11/14/22 12:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*97.1*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:26*	*1*
Y Carrier	*86.7*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:26*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**1.07**		0.387	0.396	5.00	0.445	pCi/L		11/16/22 15:49	1

Client Sample ID: MW-309A
Lab Sample ID: 310-242480-12

Date Collected: 10/12/22 09:35
Matrix: Water
Date Received: 10/14/22 17:15

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.411		0.211	0.214	1.00	0.269	pCi/L	10/20/22 15:20	11/15/22 18:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*90.9*		*40 - 110*	*10/20/22 15:20*	*11/15/22 18:47*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.802		0.358	0.365	1.00	0.476	pCi/L	10/20/22 15:46	11/14/22 12:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*90.9*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:18*	*1*
Y Carrier	*87.9*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:18*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.21		0.416	0.423	5.00	0.476	pCi/L		11/16/22 15:49	1

Client Sample ID: MW-310
Date Collected: 10/12/22 11:50
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-13
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	**0.438**		0.235	0.238	1.00	0.308	pCi/L	10/20/22 15:20	11/15/22 18:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*80.4*		*40 - 110*	*10/20/22 15:20*	*11/15/22 18:47*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.375	U	0.311	0.313	1.00	0.479	pCi/L	10/20/22 15:46	11/14/22 12:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*80.4*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:18*	*1*
Y Carrier	*87.5*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:18*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.813**		0.390	0.393	5.00	0.479	pCi/L		11/16/22 15:49	1

Client Sample ID: MW-310A

Date Collected: 10/12/22 11:50
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-14

Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	**0.572**		0.209	0.215	1.00	0.200	pCi/L	10/20/22 15:20	11/15/22 18:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*96.1*		*40 - 110*	*10/20/22 15:20*	*11/15/22 18:47*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.246	U	0.252	0.253	1.00	0.405	pCi/L	10/20/22 15:46	11/14/22 12:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*96.1*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:19*	*1*
Y Carrier	*87.1*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:19*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.818**		0.327	0.332	5.00	0.405	pCi/L		11/16/22 15:49	1

Client Sample ID: MW-312
Lab Sample ID: 310-242480-15
Date Collected: 10/12/22 09:05
Matrix: Water
Date Received: 10/14/22 17:15

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	**0.257**		0.164	0.165	1.00	0.217	pCi/L	10/20/22 15:20	11/15/22 18:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*93.6*		*40 - 110*	*10/20/22 15:20*	*11/15/22 18:47*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.433	U	0.328	0.330	1.00	0.505	pCi/L	10/20/22 15:46	11/14/22 12:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*93.6*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:19*	*1*
Y Carrier	*88.6*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:19*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.690**		0.367	0.369	5.00	0.505	pCi/L		11/16/22 15:49	1

Client Sample ID: Field Blank

Date Collected: 10/12/22 08:00
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-16

Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0401	U	0.102	0.102	1.00	0.192	pCi/L	10/20/22 15:20	11/15/22 18:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*98.3*		*40 - 110*	*10/20/22 15:20*	*11/15/22 18:47*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	**1.61**		0.425	0.450	1.00	0.452	pCi/L	10/20/22 15:46	11/14/22 12:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*98.3*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:19*	*1*
Y Carrier	*86.7*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:19*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**1.65**		0.437	0.461	5.00	0.452	pCi/L		11/16/22 15:49	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

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

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-586666/1-A
Matrix: Water
Analysis Batch: 590172

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 586666

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.005949	U	0.0985	0.0985	1.00	0.204	pCi/L	10/20/22 15:20	11/15/22 18:49	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*96.6*		*40 - 110*	*10/20/22 15:20*	*11/15/22 18:49*	*1*

Lab Sample ID: LCS 160-586666/2-A
Matrix: Water
Analysis Batch: 590172

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 586666

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium 226			11.3	9.748		1.18	1.00	0.291	pCi/L	86	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba	*94.1*		*40 - 110*

Lab Sample ID: 310-242480-1 DU
Matrix: Water
Analysis Batch: 590172

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 586666

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium 226	0.365			0.4708		0.189	1.00	0.173	pCi/L			0.29	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba	*94.1*		*40 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-586668/1-A
Matrix: Water
Analysis Batch: 590053

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 586668

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.2164	U	0.300	0.301	1.00	0.504	pCi/L	10/20/22 15:46	11/14/22 12:20	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba	*96.6*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:20*	*1*
Y Carrier	*85.2*		*40 - 110*	*10/20/22 15:46*	*11/14/22 12:20*	*1*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-586668/2-A
Matrix: Water
Analysis Batch: 590053

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 586668

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium 228			8.45	10.08		1.32	1.00	0.528	pCi/L	119	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba	*94.1*		*40 - 110*
Y Carrier	*86.0*		*40 - 110*

Lab Sample ID: 310-242480-1 DU
Matrix: Water
Analysis Batch: 590051

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 586668

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium 228	0.612			0.1445	U	0.306	1.00	0.532	pCi/L			0.72	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba	*94.1*		*40 - 110*
Y Carrier	*81.9*		*40 - 110*

QC Association Summary

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-2

Rad

Prep Batch: 586666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242480-1	MW-301	Total/NA	Water	PrecSep-21	
310-242480-2	MW-301A	Total/NA	Water	PrecSep-21	
310-242480-3	MW-302	Total/NA	Water	PrecSep-21	
310-242480-4	MW-303	Total/NA	Water	PrecSep-21	
310-242480-5	MW-304	Total/NA	Water	PrecSep-21	
310-242480-6	MW-305	Total/NA	Water	PrecSep-21	
310-242480-7	MW-306	Total/NA	Water	PrecSep-21	
310-242480-8	MW-306A	Total/NA	Water	PrecSep-21	
310-242480-9	MW-307	Total/NA	Water	PrecSep-21	
310-242480-10	MW-308	Total/NA	Water	PrecSep-21	
310-242480-11	MW-309	Total/NA	Water	PrecSep-21	
310-242480-12	MW-309A	Total/NA	Water	PrecSep-21	
310-242480-13	MW-310	Total/NA	Water	PrecSep-21	
310-242480-14	MW-310A	Total/NA	Water	PrecSep-21	
310-242480-15	MW-312	Total/NA	Water	PrecSep-21	
310-242480-16	Field Blank	Total/NA	Water	PrecSep-21	
MB 160-586666/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-586666/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
310-242480-1 DU	MW-301	Total/NA	Water	PrecSep-21	

Prep Batch: 586668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-242480-1	MW-301	Total/NA	Water	PrecSep_0	
310-242480-2	MW-301A	Total/NA	Water	PrecSep_0	
310-242480-3	MW-302	Total/NA	Water	PrecSep_0	
310-242480-4	MW-303	Total/NA	Water	PrecSep_0	
310-242480-5	MW-304	Total/NA	Water	PrecSep_0	
310-242480-6	MW-305	Total/NA	Water	PrecSep_0	
310-242480-7	MW-306	Total/NA	Water	PrecSep_0	
310-242480-8	MW-306A	Total/NA	Water	PrecSep_0	
310-242480-9	MW-307	Total/NA	Water	PrecSep_0	
310-242480-10	MW-308	Total/NA	Water	PrecSep_0	
310-242480-11	MW-309	Total/NA	Water	PrecSep_0	
310-242480-12	MW-309A	Total/NA	Water	PrecSep_0	
310-242480-13	MW-310	Total/NA	Water	PrecSep_0	
310-242480-14	MW-310A	Total/NA	Water	PrecSep_0	
310-242480-15	MW-312	Total/NA	Water	PrecSep_0	
310-242480-16	Field Blank	Total/NA	Water	PrecSep_0	
MB 160-586668/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-586668/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
310-242480-1 DU	MW-301	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-242480-2
Project/Site: Prairie Creek CCR 25222074

Client Sample ID: MW-301
Lab Sample ID: 310-242480-1
Date Collected: 10/12/22 15:50
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			586666	ZR	EET SL	10/20/22 15:20
Total/NA	Analysis	903.0		1	590172	FLC	EET SL	11/15/22 18:49
Total/NA	Prep	PrecSep_0			586668	ZR	EET SL	10/20/22 15:46
Total/NA	Analysis	904.0		1	590053	FLC	EET SL	11/14/22 12:21
Total/NA	Analysis	Ra226_Ra228 Pos		1	590380	CAH	EET SL	11/16/22 15:49

Client Sample ID: MW-301A
Lab Sample ID: 310-242480-2
Date Collected: 10/13/22 12:00
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			586666	ZR	EET SL	10/20/22 15:20
Total/NA	Analysis	903.0		1	590172	FLC	EET SL	11/15/22 18:50
Total/NA	Prep	PrecSep_0			586668	ZR	EET SL	10/20/22 15:46
Total/NA	Analysis	904.0		1	590051	FLC	EET SL	11/14/22 12:22
Total/NA	Analysis	Ra226_Ra228 Pos		1	590380	CAH	EET SL	11/16/22 15:49

Client Sample ID: MW-302
Lab Sample ID: 310-242480-3
Date Collected: 10/12/22 15:55
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			586666	ZR	EET SL	10/20/22 15:20
Total/NA	Analysis	903.0		1	590172	FLC	EET SL	11/15/22 18:50
Total/NA	Prep	PrecSep_0			586668	ZR	EET SL	10/20/22 15:46
Total/NA	Analysis	904.0		1	590051	FLC	EET SL	11/14/22 12:22
Total/NA	Analysis	Ra226_Ra228 Pos		1	590380	CAH	EET SL	11/16/22 15:49

Client Sample ID: MW-303
Lab Sample ID: 310-242480-4
Date Collected: 10/12/22 10:40
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			586666	ZR	EET SL	10/20/22 15:20
Total/NA	Analysis	903.0		1	590172	FLC	EET SL	11/15/22 18:50
Total/NA	Prep	PrecSep_0			586668	ZR	EET SL	10/20/22 15:46
Total/NA	Analysis	904.0		1	590051	FLC	EET SL	11/14/22 12:22
Total/NA	Analysis	Ra226_Ra228 Pos		1	590380	CAH	EET SL	11/16/22 15:49

Lab Chronicle

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-2

Client Sample ID: MW-304
Date Collected: 10/12/22 11:40
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			586666	ZR	EET SL	10/20/22 15:20
Total/NA	Analysis	903.0		1	590172	FLC	EET SL	11/15/22 18:50
Total/NA	Prep	PrecSep_0			586668	ZR	EET SL	10/20/22 15:46
Total/NA	Analysis	904.0		1	590051	FLC	EET SL	11/14/22 12:22
Total/NA	Analysis	Ra226_Ra228 Pos		1	590380	CAH	EET SL	11/16/22 15:49

Client Sample ID: MW-305
Date Collected: 10/12/22 12:35
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			586666	ZR	EET SL	10/20/22 15:20
Total/NA	Analysis	903.0		1	590172	FLC	EET SL	11/15/22 18:50
Total/NA	Prep	PrecSep_0			586668	ZR	EET SL	10/20/22 15:46
Total/NA	Analysis	904.0		1	590049	FLC	EET SL	11/14/22 12:25
Total/NA	Analysis	Ra226_Ra228 Pos		1	590380	CAH	EET SL	11/16/22 15:49

Client Sample ID: MW-306
Date Collected: 10/12/22 13:55
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			586666	ZR	EET SL	10/20/22 15:20
Total/NA	Analysis	903.0		1	590173	FLC	EET SL	11/15/22 18:47
Total/NA	Prep	PrecSep_0			586668	ZR	EET SL	10/20/22 15:46
Total/NA	Analysis	904.0		1	590049	FLC	EET SL	11/14/22 12:25
Total/NA	Analysis	Ra226_Ra228 Pos		1	590380	CAH	EET SL	11/16/22 15:49

Client Sample ID: MW-306A
Date Collected: 10/12/22 13:45
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			586666	ZR	EET SL	10/20/22 15:20
Total/NA	Analysis	903.0		1	590173	FLC	EET SL	11/15/22 18:47
Total/NA	Prep	PrecSep_0			586668	ZR	EET SL	10/20/22 15:46
Total/NA	Analysis	904.0		1	590049	FLC	EET SL	11/14/22 12:25
Total/NA	Analysis	Ra226_Ra228 Pos		1	590380	CAH	EET SL	11/16/22 15:49

Lab Chronicle

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-2

Client Sample ID: MW-307
Date Collected: 10/12/22 15:00
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			586666	ZR	EET SL	10/20/22 15:20
Total/NA	Analysis	903.0		1	590173	FLC	EET SL	11/15/22 18:47
Total/NA	Prep	PrecSep_0			586668	ZR	EET SL	10/20/22 15:46
Total/NA	Analysis	904.0		1	590049	FLC	EET SL	11/14/22 12:25
Total/NA	Analysis	Ra226_Ra228 Pos		1	590380	CAH	EET SL	11/16/22 15:49

Client Sample ID: MW-308
Date Collected: 10/12/22 14:00
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			586666	ZR	EET SL	10/20/22 15:20
Total/NA	Analysis	903.0		1	590173	FLC	EET SL	11/15/22 18:47
Total/NA	Prep	PrecSep_0			586668	ZR	EET SL	10/20/22 15:46
Total/NA	Analysis	904.0		1	590049	FLC	EET SL	11/14/22 12:26
Total/NA	Analysis	Ra226_Ra228 Pos		1	590380	CAH	EET SL	11/16/22 15:49

Client Sample ID: MW-309
Date Collected: 10/12/22 09:20
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			586666	ZR	EET SL	10/20/22 15:20
Total/NA	Analysis	903.0		1	590173	FLC	EET SL	11/15/22 18:47
Total/NA	Prep	PrecSep_0			586668	ZR	EET SL	10/20/22 15:46
Total/NA	Analysis	904.0		1	590049	FLC	EET SL	11/14/22 12:26
Total/NA	Analysis	Ra226_Ra228 Pos		1	590380	CAH	EET SL	11/16/22 15:49

Client Sample ID: MW-309A
Date Collected: 10/12/22 09:35
Date Received: 10/14/22 17:15

Lab Sample ID: 310-242480-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			586666	ZR	EET SL	10/20/22 15:20
Total/NA	Analysis	903.0		1	590173	FLC	EET SL	11/15/22 18:47
Total/NA	Prep	PrecSep_0			586668	ZR	EET SL	10/20/22 15:46
Total/NA	Analysis	904.0		1	590052	MLK	EET SL	11/14/22 12:18
Total/NA	Analysis	Ra226_Ra228 Pos		1	590380	CAH	EET SL	11/16/22 15:49

Lab Chronicle

Client: SCS Engineers
Job ID: 310-242480-2
Project/Site: Prairie Creek CCR 25222074

Client Sample ID: MW-310
Lab Sample ID: 310-242480-13
Date Collected: 10/12/22 11:50
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			586666	ZR	EET SL	10/20/22 15:20
Total/NA	Analysis	903.0		1	590173	FLC	EET SL	11/15/22 18:47
Total/NA	Prep	PrecSep_0			586668	ZR	EET SL	10/20/22 15:46
Total/NA	Analysis	904.0		1	590052	MLK	EET SL	11/14/22 12:18
Total/NA	Analysis	Ra226_Ra228 Pos		1	590380	CAH	EET SL	11/16/22 15:49

Client Sample ID: MW-310A
Lab Sample ID: 310-242480-14
Date Collected: 10/12/22 11:50
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			586666	ZR	EET SL	10/20/22 15:20
Total/NA	Analysis	903.0		1	590173	FLC	EET SL	11/15/22 18:47
Total/NA	Prep	PrecSep_0			586668	ZR	EET SL	10/20/22 15:46
Total/NA	Analysis	904.0		1	590052	MLK	EET SL	11/14/22 12:19
Total/NA	Analysis	Ra226_Ra228 Pos		1	590380	CAH	EET SL	11/16/22 15:49

Client Sample ID: MW-312
Lab Sample ID: 310-242480-15
Date Collected: 10/12/22 09:05
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			586666	ZR	EET SL	10/20/22 15:20
Total/NA	Analysis	903.0		1	590173	FLC	EET SL	11/15/22 18:47
Total/NA	Prep	PrecSep_0			586668	ZR	EET SL	10/20/22 15:46
Total/NA	Analysis	904.0		1	590052	MLK	EET SL	11/14/22 12:19
Total/NA	Analysis	Ra226_Ra228 Pos		1	590380	CAH	EET SL	11/16/22 15:49

Client Sample ID: Field Blank
Lab Sample ID: 310-242480-16
Date Collected: 10/12/22 08:00
Matrix: Water
Date Received: 10/14/22 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			586666	ZR	EET SL	10/20/22 15:20
Total/NA	Analysis	903.0		1	590173	FLC	EET SL	11/15/22 18:47
Total/NA	Prep	PrecSep_0			586668	ZR	EET SL	10/20/22 15:46
Total/NA	Analysis	904.0		1	590052	MLK	EET SL	11/14/22 12:19
Total/NA	Analysis	Ra226_Ra228 Pos		1	590380	CAH	EET SL	11/16/22 15:49

Laboratory References:
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-242480-2
Project/Site: Prairie Creek CCR 25222074

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-22
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-23
Connecticut	State	PH-0241	03-31-23
Florida	NELAP	E87689	06-30-23
HI - RadChem Recognition	State	n/a	06-30-23
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-22 *
Kentucky (DW)	State	KY90125	12-31-22
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-22
Louisiana (All)	NELAP	04080	06-30-23
Louisiana (DW)	State	LA011	12-31-22
Maryland	State	310	09-30-23
MI - RadChem Recognition	State	9005	06-30-23
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-23
New Jersey	NELAP	MO002	06-30-23
New York	NELAP	11616	04-01-23
North Dakota	State	R-207	06-30-23
NRC	NRC	24-24817-01	12-31-22
Oklahoma	NELAP	9997	08-31-23
Oregon	NELAP	4157	09-01-23
Pennsylvania	NELAP	68-00540	02-28-23
South Carolina	State	85002001	06-30-23
Texas	NELAP	T104704193	07-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542021-14	07-31-23
Virginia	NELAP	10310	06-14-24
Washington	State	C592	08-30-23
West Virginia DEP	State	381	12-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
Ra226_Ra228 Pos	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

eurofins | Environment Testing America

310-242480 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY Clive | STATE IA | Project:

Receipt Information

Date/Time Received: DATE 10-14-22 | TIME 1715 | Received By: AL

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☑ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☑ Yes ☐ No *If yes:* Cooler # 1 of 3

Cooler Custody Seals Present? ☑ Yes ☐ No *If yes:* Cooler custody seals intact? ☑ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☑ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☑ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: AL | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 0.6 | Corrected Temp (°C): 0.6

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY Clive | STATE IA | Project:

Receipt Information

Date/Time Received: DATE 10-14-22 | TIME 1715 | Received By: AL

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☑ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☑ Yes ☐ No *If yes:* Cooler # 2 of 3

Cooler Custody Seals Present? ☑ Yes ☐ No *If yes:* Cooler custody seals intact? ☑ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☑ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☑ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: AL | Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): -0.9 | Corrected Temp (°C): -0.9

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY Clive STATE IA Project:

Receipt Information

Date/Time Received: DATE 10-14-22 TIME 1715 Received By: RL

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☑ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☑ Yes	☐ No	*If yes:* Cooler # 3 of 3
Cooler Custody Seals Present?	☑ Yes	☐ No	*If yes:* Cooler custody seals intact? ☑ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☑ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☑ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: R Correction Factor (°C): 0

Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): -0.8 Corrected Temp (°C): -0.8

Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

02/26/2024 - Classification: Internal - ECRM13238692

11/16/2022

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

TestAmerica Des Moines SC
214

Client Information	Sampler: Adam Watson	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 310-74867-14561 1
Client Contact: ~~Shipping~~ Meghan Blodgett	Phone: 608-250-9985	E-Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: SCS Engineers	PWSID:	Analysis Requested		Job #:
Address: 8450 Hickman Road Suite 27	Due Date Requested:			Preservation Codes: A HCL; B NaOH; C Zn Acetate; D Nitric Acid; E NaHSO4; F MeOH; G Amchlor; H Ascorbic Acid; I Ice; J DI Water; K EDTA; L EDA; M Hexane; N None; O AsNaO2; P Na2O4S; Q Na2SO3; R Na2S2O3; S H2SO4; T TSP Dodecahydrate; U Acetone; V MCAA; W pH 4-5; Y Trizma; Z other (specify); Other:
City: Clive	TAT Requested (days):			
State, Zip: IA, 50325	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 25222074			
Email: ~~rorluz@scsengineers.com~~ MBladgett@scseng.com	WO #:			
Project Name: Prairie Creek CCR 25222074	Project #: 31011020			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020A Metals Hg	2540C Calcd 9056A, ORGFM 28D, SM4500 H+	903.0 Radium 226	904.0 Radium 228	Total Number of containers	Special Instructions/Note
			Preservation Code:				D	N	D	D		
MW-301	10/12/22	1550		Water			X	X	X	X		
MW-301A	10/13/22	1200		Water			X	X	X	X		
MW-302	10/12/22	1555		Water			X	X	X	X		
MW-303		1040		Water			X	X	X	X		
MW-304		1140		Water			X	X	X	X		
MW-305		1235		Water			X	X	X	X		
MW-306		1355		Water			X	X	X	X		
MW-306A		1345		Water			X	X	X	X		
MW-307		1500		Water			X	X	X	X		
MW-308		1400		Water			X	X	X	X		
MW-309		920		Water			X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I II III IV Other (specify)

Special Instructions/QC Requirements:

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Sean Marczewski	10/14/2022 800	SCS Eng			
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time: 10-14-22 1715	Company:

Custody Seals Intact: Δ Yes Δ No | Custody Seal No: | Cooler Temperature(s) °C and Other Remarks:

ver 06/08/2021

02/26/2024 - Classification: Internal - ECRM13238692

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613
Phone. 319-277-2401 Fax 319-277-2425

Chain of Custody Record

TestAmerica Des Moines SC
214

Client Information	Sampler	Lab PM: Fredrick, Sandie	Carrier Tracking No(s)	COC No: 310-74867-14561 2
Client Contact: Rosa Cruz	Phone	E-Mail: Sandra.Fredrick@et.eurofinsus com	State of Origin	Page: Page 2 of 2
Company: SCS Eng neers	PWSID:	Analysis Requested		Job #:
Address: 8450 Hickman Road Suite 27	Due Date Requested			Preservation Codes: A HCL; B NaOH; C Zn Acetate; D Nitric Acid; E NaHSO4; F MeOH; G Amchlor; H Ascorbic Acid; I Ice; J DI Water; K - EDTA; L EDA; M Hexane; N - None; O AsNaO2; P Na2O4S; Q Na2SO3; R Na2S2O3; S H2SO4; T TSP Dodecahydrate; U Acetone; V MCAA; W pH 4-5; Y Trizma; Z other (specify); Other:
City: Clive	TAT Requested (days)			
State, Zip: IA 50325	Compliance Project: Δ Yes Δ No			
Phone	PO #: 25222074			
Email: rcruz@scsengineers com	WO #:			
Project Name: Prairie Creek CCR 25222074	Project #: 31011020			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020A Metals Hg	2540C Calcd, 9056A, ORGFM_28D, SM4500 H+	903.0 Radium 226	904.0 Radium 228	Total Number of containers	Special Instructions/Note
			Preservation Code:				D	N	D	D		
MW-309A	10/12/22	935		Water			X	X	X	X		
MW-310		1150		Water			X	X	X	X		
MW-3 0A		1150		Water			X	X	X	X		
MW-312		905		Water			X	X	X	X		
FIELD BLANK		800		Water			X	X	X	X		
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested II III IV Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by	Date	Time	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Sean Marczewski	10/14/2022 800	SCS Eng			
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
				10-14-22 1715	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver 06/08/2021

11/16/2022

Table 1. Sampling Points and Parameters - C
Groundwater Monitoring - Prairie Creek Generati

		Parameter	MW-301	MW-301A	MW-302	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307	MW-308
CCR Rule Parameters All unfiltered	Appendix III Parameters (Detection Monitoring)	Boron	X	X	X	X	X	X	X	X	X	X
		Calcium	X	X	X	X	X	X	X	X	X	X
		Chloride	X	X	X	X	X	X	X	X	X	X
		Fluoride	X	X	X	X	X	X	X	X	X	X
		pH	X	X	X	X	X	X	X	X	X	X
		Sulfate	X	X	X	X	X	X	X	X	X	X
		TDS	X	X	X	X	X	X	X	X	X	X
	Appendix IV Parameters (Assessment Monitoring)	Antimony	X	X	X	X	X	X	X	X	X	X
		Arsenic	X	X	X	X	X	X	X	X	X	X
		Barium	X	X	X	X	X	X	X	X	X	X
		Beryllium	X	X	X	X	X	X	X	X	X	X
		Cadmium	X	X	X	X	X	X	X	X	X	X
		Chromium	X	X	X	X	X	X	X	X	X	X
		Cobalt	X	X	X	X	X	X	X	X	X	X
		Fluoride	X	X	X	X	X	X	X	X	X	X
		Lead	X	X	X	X	X	X	X	X	X	X
		Lithium	X	X	X	X	X	X	X	X	X	X
		Mercury	X	X	X	X	X	X	X	X	X	X
		Molybdenum	X	X	X	X	X	X	X	X	X	X
		Selenium	X	X	X	X	X	X	X	X	X	X
		Thallium	X	X	X	X	X	X	X	X	X	X
		Radium	X	X	X	X	X	X	X	X	X	X
	Field Parameters	Groundwater Elevation	X	X	X	X	X	X	X	X	X	X
		pH	X	X	X	X	X	X	X	X	X	X
		Well Depth										
		Specific Conductance	X	X	X	X	X	X	X	X	X	X
		Dissolved Oxygen	X	X	X	X	X	X	X	X	X	X
		ORP	X	X	X	X	X	X	X	X	X	X
		Temperature	X	X	X	X	X	X	X	X	X	X
		Turbidity (NTU)	X	X	X	X	X	X	X	X	X	X
		Color	X	X	X	X	X	X	X	X	X	X
		Odor	X	X	X	X	X	X	X	X	X	X
MNA Parameters	Total (Unfiltered)	Alkalinity - Carbonate	X	X	X	X	X	X	X	X	X	X
		Alkalinity - Bicarbonate	X	X	X	X	X	X	X	X	X	X
		Calcium	X	X	X	X	X	X	X	X	X	X
		Iron	X	X	X	X	X	X	X	X	X	X
		Magnesium	X	X	X	X	X	X	X	X	X	X
		Manganese	X	X	X	X	X	X	X	X	X	X
		Potassium	X	X	X	X	X	X	X	X	X	X
		Sodium	X	X	X	X	X	X	X	X	X	X
	Dissolved (Filtered)	Arsenic				X	X	X				X
		Cobalt										
		Iron	X	X	X	X	X	X	X	X	X	X
		Lithium										
		Manganese	X	X	X	X	X	X	X	X	X	X
		Molybdenum							X			
	Field Parameters	Sulfide, Field	X	X	X	X	X	X	X	X	X	X
		Ferrous Iron, Field	X	X	X	X	X	X	X	X	X	X

July 2022 Sampling Event

Rule Sampling Program , October 2022

tation / SCS Engineers Project #25222074

W-09	MW-309A	MW-310	MW-310A	MW-311	MW-312	Field Blank	TOTAL
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X		X	X	16
(	X	X	X	X	X		16
(	X	X	X		X		15
				X			1
:	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
	X	X	X		X		15
		X			X		7
							0
	X	X	X		X		15
					X		1
	X	X	X		X		15
					X		2
	X	X	X		X		15
	X	X	X		X		15

Table 1, page 1 of 1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 310-54840.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Iowa		Job #: 310-242480-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/14/2022			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Prairie Creek CCR 25222074	Project #: 31011020			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Radium-226 (GFPC)	904.0/PrecSep_0 Radium-228 (GFPC)	Ra226_228GFPC_P/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW-301 (310-242480-1)	10/12/22	15:50 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-301A (310-242480-2)	10/13/22	12:00 Central		Water			X	X	X	1	DO NOT SHIP ON ICE TO ST. LOUIS
MW-302 (310-242480-3)	10/12/22	15:55 Central		Water			X	X	X	3	DO NOT SHIP ON ICE TO ST. LOUIS
MW-303 (310-242480-4)	10/12/22	10:40 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-304 (310-242480-5)	10/12/22	11:40 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-305 (310-242480-6)	10/12/22	12:35 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-306 (310-242480-7)	10/12/22	13:55 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-306A (310-242480-8)	10/12/22	13:45 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-307 (310-242480-9)	10/12/22	15:00 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	10/7/22 1130		FED EX		
Relinquished by: FED EX	Date/Time:	Company	Received by: Sierra Worthington	Date/Time: OCT 18 2022 1000	Company: GFNSR
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 310-54840.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin: Iowa	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Iowa		Job #: 310-242480-2
Address: 13715 Rider Trail North,	Due Date Requested: 11/14/2022			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Prairie Creek CCR 25222074	Project #: 31011020			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Radium-226 (GFPC)	904.0/PrecSep_0 Radium-228 (GFPC)	Ra226_228GFPC_P/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW-308 (310-242480-10)	10/12/22	14:00 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-309 (310-242480-11)	10/12/22	09:20 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-309A (310-242480-12)	10/12/22	09:35 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-310 (310-242480-13)	10/12/22	11:50 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-310A (310-242480-14)	10/12/22	11:50 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-312 (310-242480-15)	10/12/22	09:05 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
Field Blank (310-242480-16)	10/12/22	08:00 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	10/12/22 1130		FED EX		
2	FED EX			Sierra Worthington	OCT 18 2022 1000	EAS
3						

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-242480-2

Login Number: 242480
List Number: 1
Creator: Kizer, Preston V

List Source: Eurofins Cedar Falls

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

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-242480-2

Login Number: 242480
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 10/18/22 12:31 PM

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

Tracer/Carrier Summary

Client: SCS Engineers
Project/Site: Prairie Creek CCR 25222074

Job ID: 310-242480-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(40-110)
310-242480-1	MW-301	98.5
310-242480-1 DU	MW-301	94.1
310-242480-2	MW-301A	80.6
310-242480-3	MW-302	86.8
310-242480-4	MW-303	83.8
310-242480-5	MW-304	87.5
310-242480-6	MW-305	84.1
310-242480-7	MW-306	87.0
310-242480-8	MW-306A	90.0
310-242480-9	MW-307	94.4
310-242480-10	MW-308	78.7
310-242480-11	MW-309	97.1
310-242480-12	MW-309A	90.9
310-242480-13	MW-310	80.4
310-242480-14	MW-310A	96.1
310-242480-15	MW-312	93.6
310-242480-16	Field Blank	98.3
LCS 160-586666/2-A	Lab Control Sample	94.1
MB 160-586666/1-A	Method Blank	96.6

Tracer/Carrier Legend

Ba = Ba

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(40-110)	(40-110)
310-242480-1	MW-301	98.5	86.7
310-242480-1 DU	MW-301	94.1	81.9
310-242480-2	MW-301A	80.6	85.2
310-242480-3	MW-302	86.8	88.2
310-242480-4	MW-303	83.8	83.7
310-242480-5	MW-304	87.5	87.5
310-242480-6	MW-305	84.1	85.2
310-242480-7	MW-306	87.0	86.0
310-242480-8	MW-306A	90.0	87.5
310-242480-9	MW-307	94.4	84.9
310-242480-10	MW-308	78.7	90.5
310-242480-11	MW-309	97.1	86.7
310-242480-12	MW-309A	90.9	87.9
310-242480-13	MW-310	80.4	87.5
310-242480-14	MW-310A	96.1	87.1
310-242480-15	MW-312	93.6	88.6
310-242480-16	Field Blank	98.3	86.7
LCS 160-586668/2-A	Lab Control Sample	94.1	86.0
MB 160-586668/1-A	Method Blank	96.6	85.2

Tracer/Carrier Legend

Ba = Ba

Tracer/Carrier Summary

Client: SCS Engineers
Job ID: 310-242480-2
Project/Site: Prairie Creek CCR 25222074

Y = Y Carrier

Eurofins Cedar Falls

Job Notes

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

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

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

C2 April 2023 Assessment Monitoring

02/26/2024 - Classification: Internal - ECRM13238692

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Meghan Blodgett
SCS Engineers
2830 Dairy Drive
Madison, Wisconsin 53718

Generated 8/16/2023 4:30:21 PM Revision 1

JOB DESCRIPTION

Prairie Creek Generating Station 25223074

JOB NUMBER

310-254197-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization

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Revision 1

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

Table of Contents

Job ID: 310-254197-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-254197-1

Comments
No additional comments.

Revision
The report being provided is a revision of the original report sent on 5/30/2023. The report (revision 1) is being revised due to: Updated Metals QAQC info for reporting.

Receipt
The samples were received on 4/21/2023 4:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.0º C, 2.0º C, 2.1º C and 3.1º C.

HPLC/IC
Method 9056A: The following samples were diluted due to the nature of the sample matrix: MW-301 (310-254197-1), MW-301A (310-254197-2), MW-302 (310-254197-3), MW-305 (310-254197-6) and MW-312 (310-254197-15). Elevated reporting limits (RLs) are provided.

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

RAD
Methods 903.0, 9315: Radium-226 prep batch 160-609838: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-301 (310-254197-1), MW-301A (310-254197-2), MW-302 (310-254197-3), MW-303 (310-254197-4), MW-304 (310-254197-5), MW-305 (310-254197-6), MW-306 (310-254197-7), MW-307 (310-254197-9), (LCS 160-609838/2-A), (LCSD 160-609838/3-A) and (MB 160-609838/1-A)

Methods 903.0, 9315: Radium-226 prep batch 160-610041: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.MW-308 (310-254197-10), MW-312 (310-254197-15), Field Blank (310-254197-16), (LCS 160-610041/2-A), (LCSD 160-610041/3-A) and (MB 160-610041/1-A)

Methods 904.0, 9320: Radium-228 batch 609841 The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: MW-303 (310-254197-4). Analytical results are reported with the detection limit achieved.

Methods 904.0, 9320: Radium-228 batch 609841 Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-301 (310-254197-1), MW-301A (310-254197-2), MW-302 (310-254197-3), MW-303 (310-254197-4), MW-304 (310-254197-5), MW-305 (310-254197-6), MW-306 (310-254197-7), MW-307 (310-254197-9), (LCS 160-609841/2-A), (LCSD 160-609841/3-A) and (MB 160-609841/1-A)

Method 904.0: Radium-228 prep batch 160-609841: The following sample(s) did not meet the requested limit (RL) due to the reduced sample volume attributed to limited volume available for analysis. The data have been reported with this narrative. MW-301A (310-254197-2)

Methods 904.0, 9320: Radium-228 prep batch 160-610048: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-308 (310-254197-10), MW-312 (310-254197-15), Field Blank (310-254197-16), (LCS 160-610048/2-A), (LCSD 160-610048/3-A) and (MB 160-610048/1-A)

Method PrecSep_0: Radium-228 Prep Batch 160-609841 Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-301 (310-254197-1), MW-302 (310-254197-3), MW-303 (310-254197-4), MW-304 (310-254197-5), MW-305 (310-254197-6), MW-306 (310-254197-7) and MW-307 (310-254197-9). A laboratory control sample/ laboratory control sample duplicate

Job ID: 310-254197-1 (Continued)

Laboratory: Eurofins Cedar Falls (Continued)

(LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep_0: Radium-228 Prep Batch 160-610048 Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-308 (310-254197-10), MW-312 (310-254197-15) and Field Blank (310-254197-16). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium-226 Prep Batch 160-609838 Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-301 (310-254197-1), MW-302 (310-254197-3), MW-303 (310-254197-4), MW-304 (310-254197-5), MW-305 (310-254197-6), MW-306 (310-254197-7) and MW-307 (310-254197-9). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium-226 Prep Batch 160-610041 Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-308 (310-254197-10), MW-312 (310-254197-15) and Field Blank (310-254197-16). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

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

Metals

Method 6020B: The continuing calibration verification (CCV) associated with batch 310-385898 recovered above the upper control limit for Boron. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

General Chemistry

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

Sample Summary

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-254197-1	MW-301	Water	04/20/23 10:35	04/21/23 16:20
310-254197-2	MW-301A	Water	04/20/23 08:35	04/21/23 16:20
310-254197-3	MW-302	Water	04/20/23 09:40	04/21/23 16:20
310-254197-4	MW-303	Water	04/19/23 16:25	04/21/23 16:20
310-254197-5	MW-304	Water	04/19/23 13:35	04/21/23 16:20
310-254197-6	MW-305	Water	04/19/23 10:15	04/21/23 16:20
310-254197-7	MW-306	Water	04/19/23 08:47	04/21/23 16:20
310-254197-8	MW-306A	Water	04/19/23 09:10	04/21/23 16:20
310-254197-9	MW-307	Water	04/20/23 11:35	04/21/23 16:20
310-254197-10	MW-308	Water	04/20/23 13:15	04/21/23 16:20
310-254197-11	MW-309	Water	04/19/23 15:40	04/21/23 16:20
310-254197-12	MW-309A	Water	04/19/23 14:30	04/21/23 16:20
310-254197-13	MW-310	Water	04/19/23 12:15	04/21/23 16:20
310-254197-14	MW-310A	Water	04/19/23 11:15	04/21/23 16:20
310-254197-15	MW-312	Water	04/19/23 17:15	04/21/23 16:20
310-254197-16	Field Blank	Water	04/19/23 00:00	04/21/23 16:20

Detection Summary

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-301 — Lab Sample ID: 310-254197-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	100		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	100		5.0	2.1	mg/L	5		9056A	Total/NA
Barium	270		10	3.2	ug/L	5		6020B	Total/NA
Calcium	200		2.5	0.95	mg/L	5		6020B	Total/NA
Lithium	16	J	50	13	ug/L	5		6020B	Total/NA
Total Dissolved Solids	700		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.0	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	714.10				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	110.7				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	4.66				mg/L	1		Field Sampling	Total/NA
pH, Field	6.92				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1231				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	10.9				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.02				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-301A — Lab Sample ID: 310-254197-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.1	J	5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	3.6	J	5.0	2.1	mg/L	5		9056A	Total/NA
Barium	120		10	3.2	ug/L	5		6020B	Total/NA
Calcium	73		2.5	0.95	mg/L	5		6020B	Total/NA
Iron	1900		500	180	ug/L	5		6020B	Total/NA
Total Dissolved Solids	260		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	708.02				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	177.2				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	3.84				mg/L	1		Field Sampling	Total/NA
pH, Field	6.89				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	568.2				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	10.1				Degrees C	1		Field Sampling	Total/NA

Client Sample ID: MW-302 — Lab Sample ID: 310-254197-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	120		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	80		5.0	2.1	mg/L	5		9056A	Total/NA
Barium	170		10	3.2	ug/L	5		6020B	Total/NA
Calcium	170		2.5	0.95	mg/L	5		6020B	Total/NA
Cobalt	1.5	J	2.5	0.85	ug/L	5		6020B	Total/NA
Iron	1600		500	180	ug/L	5		6020B	Total/NA
Total Dissolved Solids	590		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	713.90				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	113.3				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	2.49				mg/L	1		Field Sampling	Total/NA
pH, Field	6.80				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1095				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	7.2				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.02				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-303
Lab Sample ID: 310-254197-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	18		5.0	2.3	mg/L	5		9056A	Total/NA
Fluoride	0.49	J	1.0	0.38	mg/L	5		9056A	Total/NA
Sulfate	120		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	34		10	2.7	ug/L	5		6020B	Total/NA
Barium	100		10	3.2	ug/L	5		6020B	Total/NA
Boron	1000		500	380	ug/L	5		6020B	Total/NA
Calcium	130		2.5	0.95	mg/L	5		6020B	Total/NA
Iron	2400		500	180	ug/L	5		6020B	Total/NA
Lithium	16	J	50	13	ug/L	5		6020B	Total/NA
Molybdenum	12		10	4.6	ug/L	5		6020B	Total/NA
Total Dissolved Solids	520		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.3	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	702.37				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-76.1				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.13				mg/L	1		Field Sampling	Total/NA
pH, Field	7.20				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	940				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	8.1				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.99				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-304
Lab Sample ID: 310-254197-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.5		5.0	2.3	mg/L	5		9056A	Total/NA
Fluoride	0.51	J	1.0	0.38	mg/L	5		9056A	Total/NA
Sulfate	220		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	14		10	2.7	ug/L	5		6020B	Total/NA
Barium	100		10	3.2	ug/L	5		6020B	Total/NA
Boron	770		500	380	ug/L	5		6020B	Total/NA
Calcium	130		2.5	0.95	mg/L	5		6020B	Total/NA
Cobalt	0.89	J	2.5	0.85	ug/L	5		6020B	Total/NA
Iron	2300		500	180	ug/L	5		6020B	Total/NA
Lithium	15	J	50	13	ug/L	5		6020B	Total/NA
Molybdenum	20		10	4.6	ug/L	5		6020B	Total/NA
Total Dissolved Solids	610		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	702.43				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-40.7				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.11				mg/L	1		Field Sampling	Total/NA
pH, Field	7.00				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1014				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	9.2				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.02				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-305
Lab Sample ID: 310-254197-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	15		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	370		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	9.9	J	10	2.7	ug/L	5		6020B	Total/NA
Barium	150		10	3.2	ug/L	5		6020B	Total/NA
Boron	1200		500	380	ug/L	5		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample ID: MW-305 (Continued) — Lab Sample ID: 310-254197-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	170		2.5	0.95	mg/L	5		6020B	Total/NA
Lithium	20	J	50	13	ug/L	5		6020B	Total/NA
Molybdenum	35		10	4.6	ug/L	5		6020B	Total/NA
Total Dissolved Solids	800		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.3	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	702.36				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	42.0				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.80				mg/L	1		Field Sampling	Total/NA
pH, Field	7.07				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1192				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	7.3				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.10				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-306 — Lab Sample ID: 310-254197-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	18		5.0	2.3	mg/L	5		9056A	Total/NA
Fluoride	0.49	J	1.0	0.38	mg/L	5		9056A	Total/NA
Sulfate	130		5.0	2.1	mg/L	5		9056A	Total/NA
Barium	62		10	3.2	ug/L	5		6020B	Total/NA
Boron	2300		500	380	ug/L	5		6020B	Total/NA
Calcium	66		2.5	0.95	mg/L	5		6020B	Total/NA
Iron	2000		500	180	ug/L	5		6020B	Total/NA
Molybdenum	200		10	4.6	ug/L	5		6020B	Total/NA
Total Dissolved Solids	360		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	702.74				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-124.0				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.35				mg/L	1		Field Sampling	Total/NA
pH, Field	7.60				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	632				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	12.0				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.02				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-306A — Lab Sample ID: 310-254197-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1800		500	180	ug/L	5		6020B	Total/NA
Molybdenum	21		10	4.6	ug/L	5		6020B	Total/NA
Ground Water Elevation	703.03				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-84.6				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.19				mg/L	1		Field Sampling	Total/NA
pH, Field	7.32				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1163				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	12.1				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.02				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-307 — Lab Sample ID: 310-254197-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17		5.0	2.3	mg/L	5		9056A	Total/NA
Fluoride	0.53	J	1.0	0.38	mg/L	5		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-307 (Continued) — Lab Sample ID: 310-254197-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	29		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	6.2	J	10	2.7	ug/L	5		6020B	Total/NA
Barium	50		10	3.2	ug/L	5		6020B	Total/NA
Boron	600		500	380	ug/L	5		6020B	Total/NA
Calcium	26		2.5	0.95	mg/L	5		6020B	Total/NA
Lead	2.9		2.5	1.2	ug/L	5		6020B	Total/NA
Molybdenum	21		10	4.6	ug/L	5		6020B	Total/NA
Total Dissolved Solids	66		50	34	mg/L	1		SM 2540C	Total/NA
pH	9.3	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	707.21				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	102.7				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.23				mg/L	1		Field Sampling	Total/NA
pH, Field	9.17				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	214.8				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	11.5				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.02				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-308 — Lab Sample ID: 310-254197-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.2		5.0	2.3	mg/L	5		9056A	Total/NA
Fluoride	0.52	J	1.0	0.38	mg/L	5		9056A	Total/NA
Sulfate	240		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	46		10	2.7	ug/L	5		6020B	Total/NA
Barium	71		10	3.2	ug/L	5		6020B	Total/NA
Boron	5500		500	380	ug/L	5		6020B	Total/NA
Calcium	96		2.5	0.95	mg/L	5		6020B	Total/NA
Lithium	53		50	13	ug/L	5		6020B	Total/NA
Molybdenum	88		10	4.6	ug/L	5		6020B	Total/NA
Total Dissolved Solids	450		50	34	mg/L	1		SM 2540C	Total/NA
pH	9.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	703.97				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-116.4				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.15				mg/L	1		Field Sampling	Total/NA
pH, Field	9.20				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	689				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	12.4				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.02				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-309 — Lab Sample ID: 310-254197-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	28		10	2.7	ug/L	5		6020B	Total/NA
Iron	2000		500	180	ug/L	5		6020B	Total/NA
Lithium	16	J	50	13	ug/L	5		6020B	Total/NA
Molybdenum	21		10	4.6	ug/L	5		6020B	Total/NA
Ground Water Elevation	702.30				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-88.6				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.19				mg/L	1		Field Sampling	Total/NA
pH, Field	7.37				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1066				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	12.6				Degrees C	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-309 (Continued) — Lab Sample ID: 310-254197-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Turbidity, Field	5.19				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-309A — Lab Sample ID: 310-254197-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	9800		500	180	ug/L	5		6020B	Total/NA
Molybdenum	10		10	4.6	ug/L	5		6020B	Total/NA
Ground Water Elevation	702.61				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-119.6				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.18				mg/L	1		Field Sampling	Total/NA
pH, Field	7.32				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	893				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	14.7				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.02				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-310 — Lab Sample ID: 310-254197-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	24		10	2.7	ug/L	5		6020B	Total/NA
Iron	6800		500	180	ug/L	5		6020B	Total/NA
Lithium	15	J	50	13	ug/L	5		6020B	Total/NA
Molybdenum	33		10	4.6	ug/L	5		6020B	Total/NA
Ground Water Elevation	702.04				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-128.4				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.19				mg/L	1		Field Sampling	Total/NA
pH, Field	7.39				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1060				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	12.2				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	4.61				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-310A — Lab Sample ID: 310-254197-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	6000		500	180	ug/L	5		6020B	Total/NA
Molybdenum	16		10	4.6	ug/L	5		6020B	Total/NA
Ground Water Elevation	704.44				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-124.4				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.26				mg/L	1		Field Sampling	Total/NA
pH, Field	7.41				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1015				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	14.4				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.02				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-312 — Lab Sample ID: 310-254197-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	69		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	41		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	9.0	J	10	2.7	ug/L	5		6020B	Total/NA
Barium	150		10	3.2	ug/L	5		6020B	Total/NA
Calcium	99		2.5	0.95	mg/L	5		6020B	Total/NA
Iron	6400		500	180	ug/L	5		6020B	Total/NA
Molybdenum	7.7	J	10	4.6	ug/L	5		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-312 (Continued) — Lab Sample ID: 310-254197-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	400		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	701.96				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-82.3				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.11				mg/L	1		Field Sampling	Total/NA
pH, Field	7.04				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	799				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	17.8				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	1.36				NTU	1		Field Sampling	Total/NA

Client Sample ID: Field Blank — Lab Sample ID: 310-254197-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	5.8	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-301
Date Collected: 04/20/23 10:35
Date Received: 04/21/23 16:20

Lab Sample ID: 310-254197-1
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**100**		5.0	2.3	mg/L			05/06/23 15:05	5
Fluoride	<0.38		1.0	0.38	mg/L			05/06/23 15:05	5
Sulfate	**100**		5.0	2.1	mg/L			05/06/23 15:05	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<5.0		10	5.0	ug/L		04/26/23 08:45	04/28/23 23:36	5
Arsenic	<2.7		10	2.7	ug/L		04/26/23 08:45	04/28/23 23:36	5
Barium	**270**		10	3.2	ug/L		04/26/23 08:45	04/28/23 23:36	5
Beryllium	<1.7		5.0	1.7	ug/L		04/26/23 08:45	04/28/23 23:36	5
Boron	<380		500	380	ug/L		04/26/23 08:45	04/28/23 23:36	5
Cadmium	<0.50		1.0	0.50	ug/L		04/26/23 08:45	04/28/23 23:36	5
Calcium	**200**		2.5	0.95	mg/L		04/26/23 08:45	04/28/23 23:36	5
Chromium	<5.5		25	5.5	ug/L		04/26/23 08:45	04/28/23 23:36	5
Cobalt	<0.85		2.5	0.85	ug/L		04/26/23 08:45	04/28/23 23:36	5
Iron	<180		500	180	ug/L		04/26/23 08:45	04/28/23 23:36	5
Lead	<1.2		2.5	1.2	ug/L		04/26/23 08:45	04/28/23 23:36	5
Lithium	**16**	**J**	50	13	ug/L		04/26/23 08:45	04/28/23 23:36	5
Molybdenum	<4.6		10	4.6	ug/L		04/26/23 08:45	04/28/23 23:36	5
Selenium	<7.0		25	7.0	ug/L		04/26/23 08:45	04/28/23 23:36	5
Thallium	<1.3	F1	5.0	1.3	ug/L		04/26/23 08:45	04/28/23 23:36	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		04/26/23 13:19	04/27/23 13:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**700**		50	34	mg/L			04/25/23 14:22	1
pH (SM 4500 H+ B)	**7.0**	**HF**	0.1	0.1	SU			04/21/23 18:59	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	**0.252**		0.117	0.119	1.00	0.125	pCi/L	05/03/23 10:47	05/26/23 08:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*89.5*		*30 - 110*	*05/03/23 10:47*	*05/26/23 08:28*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.140	U	0.312	0.312	1.00	0.545	pCi/L	05/03/23 11:18	05/22/23 16:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*89.5*		*30 - 110*	*05/03/23 11:18*	*05/22/23 16:19*	*1*
Y Carrier	*83.0*		*30 - 110*	*05/03/23 11:18*	*05/22/23 16:19*	*1*

Client Sample Results

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-301
Lab Sample ID: 310-254197-1
Date Collected: 04/20/23 10:35
Matrix: Water
Date Received: 04/21/23 16:20

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.391	U	0.333	0.334	5.00	0.545	pCi/L		05/30/23 14:13	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	714.10				ft			04/20/23 10:35	1
Oxidation Reduction Potential	110.7				millivolts			04/20/23 10:35	1
Oxygen, Dissolved, Client Supplied	4.66				mg/L			04/20/23 10:35	1
pH, Field	6.92				SU			04/20/23 10:35	1
Specific Conductance, Field	1231				umhos/cm			04/20/23 10:35	1
Temperature, Field	10.9				Degrees C			04/20/23 10:35	1
Turbidity, Field	0.02				NTU			04/20/23 10:35	1

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-301A
Lab Sample ID: 310-254197-2
Date Collected: 04/20/23 08:35
Matrix: Water
Date Received: 04/21/23 16:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.1**	**J**	5.0	2.3	mg/L			05/06/23 15:20	5
Fluoride	<0.38		1.0	0.38	mg/L			05/06/23 15:20	5
Sulfate	**3.6**	**J**	5.0	2.1	mg/L			05/06/23 15:20	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<5.0		10	5.0	ug/L		04/26/23 08:45	04/28/23 23:51	5
Arsenic	<2.7		10	2.7	ug/L		04/26/23 08:45	04/28/23 23:51	5
Barium	**120**		10	3.2	ug/L		04/26/23 08:45	04/28/23 23:51	5
Beryllium	<1.7		5.0	1.7	ug/L		04/26/23 08:45	04/28/23 23:51	5
Boron	<380		500	380	ug/L		04/26/23 08:45	04/28/23 23:51	5
Cadmium	<0.50		1.0	0.50	ug/L		04/26/23 08:45	04/28/23 23:51	5
Calcium	**73**		2.5	0.95	mg/L		04/26/23 08:45	04/28/23 23:51	5
Chromium	<5.5		25	5.5	ug/L		04/26/23 08:45	04/28/23 23:51	5
Cobalt	<0.85		2.5	0.85	ug/L		04/26/23 08:45	04/28/23 23:51	5
Iron	**1900**		500	180	ug/L		04/26/23 08:45	04/28/23 23:51	5
Lead	<1.2		2.5	1.2	ug/L		04/26/23 08:45	04/28/23 23:51	5
Lithium	<13		50	13	ug/L		04/26/23 08:45	04/28/23 23:51	5
Molybdenum	<4.6		10	4.6	ug/L		04/26/23 08:45	04/28/23 23:51	5
Selenium	<7.0		25	7.0	ug/L		04/26/23 08:45	04/28/23 23:51	5
Thallium	<1.3		5.0	1.3	ug/L		04/26/23 08:45	04/28/23 23:51	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		04/26/23 13:19	04/27/23 13:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**260**		50	34	mg/L			04/25/23 14:22	1
pH (SM 4500 H+ B)	**7.1**	**HF**	0.1	0.1	SU			04/24/23 09:52	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.497	U	0.395	0.397	1.00	0.556	pCi/L	05/03/23 10:47	05/26/23 08:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*86.9*		*30 - 110*	*05/03/23 10:47*	*05/26/23 08:28*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	1.35	U G	1.40	1.40	1.00	2.26	pCi/L	05/03/23 11:18	05/22/23 16:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*86.9*		*30 - 110*	*05/03/23 11:18*	*05/22/23 16:19*	*1*
Y Carrier	*81.5*		*30 - 110*	*05/03/23 11:18*	*05/22/23 16:19*	*1*

Client Sample Results

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-301A
Lab Sample ID: 310-254197-2
Date Collected: 04/20/23 08:35
Matrix: Water
Date Received: 04/21/23 16:20

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.85	U	1.45	1.46	5.00	2.26	pCi/L		05/30/23 14:13	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**708.02**				ft			04/20/23 08:35	1
Oxidation Reduction Potential	**177.2**				millivolts			04/20/23 08:35	1
Oxygen, Dissolved, Client Supplied	**3.84**				mg/L			04/20/23 08:35	1
pH, Field	**6.89**				SU			04/20/23 08:35	1
Specific Conductance, Field	**568.2**				umhos/cm			04/20/23 08:35	1
Temperature, Field	**10.1**				Degrees C			04/20/23 08:35	1
Turbidity, Field	ND				NTU			04/20/23 08:35	1

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-302
Lab Sample ID: 310-254197-3
Date Collected: 04/20/23 09:40
Matrix: Water
Date Received: 04/21/23 16:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		5.0	2.3	mg/L			05/06/23 15:36	5
Fluoride	<0.38		1.0	0.38	mg/L			05/06/23 15:36	5
Sulfate	**80**		5.0	2.1	mg/L			05/06/23 15:36	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<5.0		10	5.0	ug/L		04/26/23 08:45	04/29/23 00:08	5
Arsenic	<2.7		10	2.7	ug/L		04/26/23 08:45	04/29/23 00:08	5
Barium	**170**		10	3.2	ug/L		04/26/23 08:45	04/29/23 00:08	5
Beryllium	<1.7		5.0	1.7	ug/L		04/26/23 08:45	04/29/23 00:08	5
Boron	<380		500	380	ug/L		04/26/23 08:45	04/29/23 00:08	5
Cadmium	<0.50		1.0	0.50	ug/L		04/26/23 08:45	04/29/23 00:08	5
Calcium	**170**		2.5	0.95	mg/L		04/26/23 08:45	04/29/23 00:08	5
Chromium	<5.5		25	5.5	ug/L		04/26/23 08:45	04/29/23 00:08	5
Cobalt	**1.5**	**J**	2.5	0.85	ug/L		04/26/23 08:45	04/29/23 00:08	5
Iron	**1600**		500	180	ug/L		04/26/23 08:45	04/29/23 00:08	5
Lead	<1.2		2.5	1.2	ug/L		04/26/23 08:45	04/29/23 00:08	5
Lithium	<13		50	13	ug/L		04/26/23 08:45	04/29/23 00:08	5
Molybdenum	<4.6		10	4.6	ug/L		04/26/23 08:45	04/29/23 00:08	5
Selenium	<7.0		25	7.0	ug/L		04/26/23 08:45	04/29/23 00:08	5
Thallium	<1.3		5.0	1.3	ug/L		04/26/23 08:45	04/29/23 00:08	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		04/26/23 13:19	04/27/23 14:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**590**		50	34	mg/L			04/25/23 14:22	1
pH (SM 4500 H+ B)	**7.1**	**HF**	0.1	0.1	SU			04/21/23 18:59	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0892	U	0.0801	0.0805	1.00	0.116	pCi/L	05/03/23 10:47	05/26/23 08:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*88.8*		*30 - 110*	*05/03/23 10:47*	*05/26/23 08:29*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	**0.850**		0.420	0.427	1.00	0.578	pCi/L	05/03/23 11:18	05/22/23 16:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*88.8*		*30 - 110*	*05/03/23 11:18*	*05/22/23 16:19*	*1*
Y Carrier	*77.0*		*30 - 110*	*05/03/23 11:18*	*05/22/23 16:19*	*1*

Client Sample Results

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-302
Lab Sample ID: 310-254197-3
Date Collected: 04/20/23 09:40
Matrix: Water
Date Received: 04/21/23 16:20

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.940		0.428	0.435	5.00	0.578	pCi/L		05/30/23 14:13	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	713.90				ft			04/20/23 09:40	1
Oxidation Reduction Potential	113.3				millivolts			04/20/23 09:40	1
Oxygen, Dissolved, Client Supplied	2.49				mg/L			04/20/23 09:40	1
pH, Field	6.80				SU			04/20/23 09:40	1
Specific Conductance, Field	1095				umhos/cm			04/20/23 09:40	1
Temperature, Field	7.2				Degrees C			04/20/23 09:40	1
Turbidity, Field	0.02				NTU			04/20/23 09:40	1

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-303
Date Collected: 04/19/23 16:25
Date Received: 04/21/23 16:20

Lab Sample ID: 310-254197-4
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18		5.0	2.3	mg/L			05/06/23 15:52	5
Fluoride	0.49	J	1.0	0.38	mg/L			05/06/23 15:52	5
Sulfate	120		5.0	2.1	mg/L			05/06/23 15:52	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<5.0		10	5.0	ug/L		04/26/23 08:45	04/29/23 00:11	5
Arsenic	34		10	2.7	ug/L		04/26/23 08:45	04/29/23 00:11	5
Barium	100		10	3.2	ug/L		04/26/23 08:45	04/29/23 00:11	5
Beryllium	<1.7		5.0	1.7	ug/L		04/26/23 08:45	04/29/23 00:11	5
Boron	1000		500	380	ug/L		04/26/23 08:45	04/29/23 00:11	5
Cadmium	<0.50		1.0	0.50	ug/L		04/26/23 08:45	04/29/23 00:11	5
Calcium	130		2.5	0.95	mg/L		04/26/23 08:45	04/29/23 00:11	5
Chromium	<5.5		25	5.5	ug/L		04/26/23 08:45	04/29/23 00:11	5
Cobalt	<0.85		2.5	0.85	ug/L		04/26/23 08:45	04/29/23 00:11	5
Iron	2400		500	180	ug/L		04/26/23 08:45	04/29/23 00:11	5
Lead	<1.2		2.5	1.2	ug/L		04/26/23 08:45	04/29/23 00:11	5
Lithium	16	J	50	13	ug/L		04/26/23 08:45	04/29/23 00:11	5
Molybdenum	12		10	4.6	ug/L		04/26/23 08:45	04/29/23 00:11	5
Selenium	<7.0		25	7.0	ug/L		04/26/23 08:45	04/29/23 00:11	5
Thallium	<1.3		5.0	1.3	ug/L		04/26/23 08:45	04/29/23 00:11	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		04/26/23 13:19	04/27/23 14:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	520		50	34	mg/L			04/25/23 14:22	1
pH (SM 4500 H+ B)	7.3	HF	0.1	0.1	SU			04/21/23 18:59	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0477	U	0.209	0.209	1.00	0.415	pCi/L	05/03/23 10:47	05/26/23 08:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*35.0*		*30 - 110*	*05/03/23 10:47*	*05/26/23 08:29*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.327	U G	1.03	1.03	1.00	1.84	pCi/L	05/03/23 11:18	05/22/23 16:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*35.0*		*30 - 110*	*05/03/23 11:18*	*05/22/23 16:19*	*1*
Y Carrier	*81.9*		*30 - 110*	*05/03/23 11:18*	*05/22/23 16:19*	*1*

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-303
Lab Sample ID: 310-254197-4
Date Collected: 04/19/23 16:25
Matrix: Water
Date Received: 04/21/23 16:20

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.375	U	1.05	1.05	5.00	1.84	pCi/L		05/30/23 14:13	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	702.37				ft			04/19/23 16:25	1
Oxidation Reduction Potential	-76.1				millivolts			04/19/23 16:25	1
Oxygen, Dissolved, Client Supplied	0.13				mg/L			04/19/23 16:25	1
pH, Field	7.20				SU			04/19/23 16:25	1
Specific Conductance, Field	940				umhos/cm			04/19/23 16:25	1
Temperature, Field	8.1				Degrees C			04/19/23 16:25	1
Turbidity, Field	0.99				NTU			04/19/23 16:25	1

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-304
Date Collected: 04/19/23 13:35
Date Received: 04/21/23 16:20

Lab Sample ID: 310-254197-5
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.5		5.0	2.3	mg/L			05/06/23 16:07	5
Fluoride	0.51	J	1.0	0.38	mg/L			05/06/23 16:07	5
Sulfate	220		5.0	2.1	mg/L			05/06/23 16:07	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<5.0		10	5.0	ug/L		04/26/23 08:45	04/29/23 00:14	5
Arsenic	14		10	2.7	ug/L		04/26/23 08:45	04/29/23 00:14	5
Barium	100		10	3.2	ug/L		04/26/23 08:45	04/29/23 00:14	5
Beryllium	<1.7		5.0	1.7	ug/L		04/26/23 08:45	04/29/23 00:14	5
Boron	770		500	380	ug/L		04/26/23 08:45	04/29/23 00:14	5
Cadmium	<0.50		1.0	0.50	ug/L		04/26/23 08:45	04/29/23 00:14	5
Calcium	130		2.5	0.95	mg/L		04/26/23 08:45	04/29/23 00:14	5
Chromium	<5.5		25	5.5	ug/L		04/26/23 08:45	04/29/23 00:14	5
Cobalt	0.89	J	2.5	0.85	ug/L		04/26/23 08:45	04/29/23 00:14	5
Iron	2300		500	180	ug/L		04/26/23 08:45	04/29/23 00:14	5
Lead	<1.2		2.5	1.2	ug/L		04/26/23 08:45	04/29/23 00:14	5
Lithium	15	J	50	13	ug/L		04/26/23 08:45	04/29/23 00:14	5
Molybdenum	20		10	4.6	ug/L		04/26/23 08:45	04/29/23 00:14	5
Selenium	<7.0		25	7.0	ug/L		04/26/23 08:45	04/29/23 00:14	5
Thallium	<1.3		5.0	1.3	ug/L		04/26/23 08:45	04/29/23 00:14	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		04/26/23 13:19	04/27/23 14:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	610		50	34	mg/L			04/25/23 14:22	1
pH (SM 4500 H+ B)	7.2	HF	0.1	0.1	SU			04/21/23 18:59	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0991	U	0.0929	0.0933	1.00	0.140	pCi/L	05/03/23 10:47	05/26/23 08:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*85.2*		*30 - 110*	*05/03/23 10:47*	*05/26/23 08:29*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.201	U	0.326	0.326	1.00	0.557	pCi/L	05/03/23 11:18	05/22/23 16:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*85.2*		*30 - 110*	*05/03/23 11:18*	*05/22/23 16:19*	*1*
Y Carrier	*80.0*		*30 - 110*	*05/03/23 11:18*	*05/22/23 16:19*	*1*

Client Sample ID: MW-304
Lab Sample ID: 310-254197-5

Date Collected: 04/19/23 13:35
Matrix: Water

Date Received: 04/21/23 16:20

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.300	U	0.339	0.339	5.00	0.557	pCi/L		05/30/23 14:13	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	702.43				ft			04/19/23 13:35	1
Oxidation Reduction Potential	-40.7				millivolts			04/19/23 13:35	1
Oxygen, Dissolved, Client Supplied	0.11				mg/L			04/19/23 13:35	1
pH, Field	7.00				SU			04/19/23 13:35	1
Specific Conductance, Field	1014				umhos/cm			04/19/23 13:35	1
Temperature, Field	9.2				Degrees C			04/19/23 13:35	1
Turbidity, Field	0.02				NTU			04/19/23 13:35	1

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-305
Date Collected: 04/19/23 10:15
Date Received: 04/21/23 16:20

Lab Sample ID: 310-254197-6
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15		5.0	2.3	mg/L			05/06/23 16:23	5
Fluoride	<0.38		1.0	0.38	mg/L			05/06/23 16:23	5
Sulfate	370		5.0	2.1	mg/L			05/06/23 16:23	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<5.0		10	5.0	ug/L		04/26/23 08:45	04/29/23 00:17	5
Arsenic	9.9	J	10	2.7	ug/L		04/26/23 08:45	04/29/23 00:17	5
Barium	150		10	3.2	ug/L		04/26/23 08:45	04/29/23 00:17	5
Beryllium	<1.7		5.0	1.7	ug/L		04/26/23 08:45	04/29/23 00:17	5
Boron	1200		500	380	ug/L		04/26/23 08:45	04/29/23 00:17	5
Cadmium	<0.50		1.0	0.50	ug/L		04/26/23 08:45	04/29/23 00:17	5
Calcium	170		2.5	0.95	mg/L		04/26/23 08:45	04/29/23 00:17	5
Chromium	<5.5		25	5.5	ug/L		04/26/23 08:45	04/29/23 00:17	5
Cobalt	<0.85		2.5	0.85	ug/L		04/26/23 08:45	04/29/23 00:17	5
Iron	<180		500	180	ug/L		04/26/23 08:45	04/29/23 00:17	5
Lead	<1.2		2.5	1.2	ug/L		04/26/23 08:45	04/29/23 00:17	5
Lithium	20	J	50	13	ug/L		04/26/23 08:45	04/29/23 00:17	5
Molybdenum	35		10	4.6	ug/L		04/26/23 08:45	04/29/23 00:17	5
Selenium	<7.0		25	7.0	ug/L		04/26/23 08:45	04/29/23 00:17	5
Thallium	<1.3		5.0	1.3	ug/L		04/26/23 08:45	04/29/23 00:17	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		04/26/23 13:19	04/27/23 14:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	800		50	34	mg/L			04/25/23 14:22	1
pH (SM 4500 H+ B)	7.3	HF	0.1	0.1	SU			04/21/23 18:59	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.252		0.126	0.128	1.00	0.152	pCi/L	05/03/23 10:47	05/26/23 08:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*89.5*		*30 - 110*	*05/03/23 10:47*	*05/26/23 08:33*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.992		0.395	0.405	1.00	0.503	pCi/L	05/03/23 11:18	05/22/23 16:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*89.5*		*30 - 110*	*05/03/23 11:18*	*05/22/23 16:19*	*1*
Y Carrier	*84.9*		*30 - 110*	*05/03/23 11:18*	*05/22/23 16:19*	*1*

Client Sample Results

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-305
Lab Sample ID: 310-254197-6
Date Collected: 04/19/23 10:15
Matrix: Water
Date Received: 04/21/23 16:20

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.24		0.415	0.425	5.00	0.503	pCi/L		05/30/23 14:13	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	702.36				ft			04/19/23 10:15	1
Oxidation Reduction Potential	42.0				millivolts			04/19/23 10:15	1
Oxygen, Dissolved, Client Supplied	0.80				mg/L			04/19/23 10:15	1
pH, Field	7.07				SU			04/19/23 10:15	1
Specific Conductance, Field	1192				umhos/cm			04/19/23 10:15	1
Temperature, Field	7.3				Degrees C			04/19/23 10:15	1
Turbidity, Field	0.10				NTU			04/19/23 10:15	1

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-306
Date Collected: 04/19/23 08:47
Date Received: 04/21/23 16:20

Lab Sample ID: 310-254197-7
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18**		5.0	2.3	mg/L			05/15/23 17:29	5
Fluoride	**0.49**	**J**	1.0	0.38	mg/L			05/15/23 17:29	5
Sulfate	**130**		5.0	2.1	mg/L			05/15/23 17:29	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<5.0		10	5.0	ug/L		04/26/23 08:45	04/29/23 00:20	5
Arsenic	<2.7		10	2.7	ug/L		04/26/23 08:45	04/29/23 00:20	5
Barium	**62**		10	3.2	ug/L		04/26/23 08:45	04/29/23 00:20	5
Beryllium	<1.7		5.0	1.7	ug/L		04/26/23 08:45	04/29/23 00:20	5
Boron	**2300**		500	380	ug/L		04/26/23 08:45	04/29/23 00:20	5
Cadmium	<0.50		1.0	0.50	ug/L		04/26/23 08:45	04/29/23 00:20	5
Calcium	**66**		2.5	0.95	mg/L		04/26/23 08:45	04/29/23 00:20	5
Chromium	<5.5		25	5.5	ug/L		04/26/23 08:45	04/29/23 00:20	5
Cobalt	<0.85		2.5	0.85	ug/L		04/26/23 08:45	04/29/23 00:20	5
Iron	**2000**		500	180	ug/L		04/26/23 08:45	04/29/23 00:20	5
Lead	<1.2		2.5	1.2	ug/L		04/26/23 08:45	04/29/23 00:20	5
Lithium	<13		50	13	ug/L		04/26/23 08:45	04/29/23 00:20	5
Molybdenum	**200**		10	4.6	ug/L		04/26/23 08:45	04/29/23 00:20	5
Selenium	<7.0		25	7.0	ug/L		04/26/23 08:45	04/29/23 00:20	5
Thallium	<1.3		5.0	1.3	ug/L		04/26/23 08:45	04/29/23 00:20	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		04/26/23 13:19	04/27/23 14:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**360**		50	34	mg/L			04/25/23 14:22	1
pH (SM 4500 H+ B)	**7.7**	**HF**	0.1	0.1	SU			04/21/23 18:59	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0792	U	0.171	0.172	1.00	0.307	pCi/L	05/03/23 10:47	05/26/23 08:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*48.2*		*30 - 110*	*05/03/23 10:47*	*05/26/23 08:33*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.729	U	0.587	0.590	1.00	0.906	pCi/L	05/03/23 11:18	05/22/23 16:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*48.2*		*30 - 110*	*05/03/23 11:18*	*05/22/23 16:20*	*1*
Y Carrier	*86.0*		*30 - 110*	*05/03/23 11:18*	*05/22/23 16:20*	*1*

Client Sample Results

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-306
Lab Sample ID: 310-254197-7
Date Collected: 04/19/23 08:47
Matrix: Water
Date Received: 04/21/23 16:20

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.809	U	0.611	0.615	5.00	0.906	pCi/L		05/30/23 14:13	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	702.74				ft			04/19/23 08:47	1
Oxidation Reduction Potential	-124.0				millivolts			04/19/23 08:47	1
Oxygen, Dissolved, Client Supplied	0.35				mg/L			04/19/23 08:47	1
pH, Field	7.60				SU			04/19/23 08:47	1
Specific Conductance, Field	632				umhos/cm			04/19/23 08:47	1
Temperature, Field	12.0				Degrees C			04/19/23 08:47	1
Turbidity, Field	0.02				NTU			04/19/23 08:47	1

Client Sample Results

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-306A
Lab Sample ID: 310-254197-8
Date Collected: 04/19/23 09:10
Matrix: Water
Date Received: 04/21/23 16:20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<2.7		10	2.7	ug/L		04/26/23 08:45	04/29/23 00:23	5
Iron	**1800**		500	180	ug/L		04/26/23 08:45	04/29/23 00:23	5
Lithium	<13		50	13	ug/L		04/26/23 08:45	04/29/23 00:23	5
Molybdenum	**21**		10	4.6	ug/L		04/26/23 08:45	04/29/23 00:23	5

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**703.03**				ft			04/19/23 09:10	1
Oxidation Reduction Potential	**-84.6**				millivolts			04/19/23 09:10	1
Oxygen, Dissolved, Client Supplied	**0.19**				mg/L			04/19/23 09:10	1
pH, Field	**7.32**				SU			04/19/23 09:10	1
Specific Conductance, Field	**1163**				umhos/cm			04/19/23 09:10	1
Temperature, Field	**12.1**				Degrees C			04/19/23 09:10	1
Turbidity, Field	**0.02**				NTU			04/19/23 09:10	1

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-307
Lab Sample ID: 310-254197-9
Date Collected: 04/20/23 11:35
Matrix: Water
Date Received: 04/21/23 16:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17**		5.0	2.3	mg/L			05/15/23 18:08	5
Fluoride	**0.53**	**J**	1.0	0.38	mg/L			05/15/23 18:08	5
Sulfate	**29**		5.0	2.1	mg/L			05/15/23 18:08	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<5.0		10	5.0	ug/L		04/26/23 08:45	04/29/23 00:25	5
Arsenic	**6.2**	**J**	10	2.7	ug/L		04/26/23 08:45	04/29/23 00:25	5
Barium	**50**		10	3.2	ug/L		04/26/23 08:45	04/29/23 00:25	5
Beryllium	<1.7		5.0	1.7	ug/L		04/26/23 08:45	04/29/23 00:25	5
Boron	**600**		500	380	ug/L		04/26/23 08:45	04/29/23 00:25	5
Cadmium	<0.50		1.0	0.50	ug/L		04/26/23 08:45	04/29/23 00:25	5
Calcium	**26**		2.5	0.95	mg/L		04/26/23 08:45	04/29/23 00:25	5
Chromium	<5.5		25	5.5	ug/L		04/26/23 08:45	04/29/23 00:25	5
Cobalt	<0.85		2.5	0.85	ug/L		04/26/23 08:45	04/29/23 00:25	5
Iron	<180		500	180	ug/L		04/26/23 08:45	04/29/23 00:25	5
Lead	**2.9**		2.5	1.2	ug/L		04/26/23 08:45	04/29/23 00:25	5
Lithium	<13		50	13	ug/L		04/26/23 08:45	04/29/23 00:25	5
Molybdenum	**21**		10	4.6	ug/L		04/26/23 08:45	04/29/23 00:25	5
Selenium	<7.0		25	7.0	ug/L		04/26/23 08:45	04/29/23 00:25	5
Thallium	<1.3		5.0	1.3	ug/L		04/26/23 08:45	04/29/23 00:25	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		04/26/23 13:19	04/27/23 14:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**66**		50	34	mg/L			04/25/23 14:22	1
pH (SM 4500 H+ B)	**9.3**	**HF**	0.1	0.1	SU			04/21/23 18:59	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0723	U	0.106	0.106	1.00	0.181	pCi/L	05/03/23 10:47	05/26/23 08:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*89.1*		*30 - 110*	*05/03/23 10:47*	*05/26/23 08:34*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	-0.0878	U	0.242	0.242	1.00	0.485	pCi/L	05/03/23 11:18	05/22/23 16:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*89.1*		*30 - 110*	*05/03/23 11:18*	*05/22/23 16:20*	*1*
Y Carrier	*87.5*		*30 - 110*	*05/03/23 11:18*	*05/22/23 16:20*	*1*

Client Sample Results

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-307
Lab Sample ID: 310-254197-9
Date Collected: 04/20/23 11:35
Matrix: Water
Date Received: 04/21/23 16:20

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.0723	U	0.264	0.264	5.00	0.485	pCi/L		05/30/23 14:13	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	707.21				ft			04/20/23 11:35	1
Oxidation Reduction Potential	102.7				millivolts			04/20/23 11:35	1
Oxygen, Dissolved, Client Supplied	0.23				mg/L			04/20/23 11:35	1
pH, Field	9.17				SU			04/20/23 11:35	1
Specific Conductance, Field	214.8				umhos/cm			04/20/23 11:35	1
Temperature, Field	11.5				Degrees C			04/20/23 11:35	1
Turbidity, Field	0.02				NTU			04/20/23 11:35	1

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-308
Date Collected: 04/20/23 13:15
Date Received: 04/21/23 16:20

Lab Sample ID: 310-254197-10
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.2**		5.0	2.3	mg/L			05/15/23 18:21	5
Fluoride	**0.52**	**J**	1.0	0.38	mg/L			05/15/23 18:21	5
Sulfate	**240**		5.0	2.1	mg/L			05/15/23 18:21	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<5.0		10	5.0	ug/L		04/26/23 08:45	04/29/23 00:28	5
Arsenic	**46**		10	2.7	ug/L		04/26/23 08:45	04/29/23 00:28	5
Barium	**71**		10	3.2	ug/L		04/26/23 08:45	04/29/23 00:28	5
Beryllium	<1.7		5.0	1.7	ug/L		04/26/23 08:45	04/29/23 00:28	5
Boron	**5500**		500	380	ug/L		04/26/23 08:45	04/29/23 00:28	5
Cadmium	<0.50		1.0	0.50	ug/L		04/26/23 08:45	04/29/23 00:28	5
Calcium	**96**		2.5	0.95	mg/L		04/26/23 08:45	04/29/23 00:28	5
Chromium	<5.5		25	5.5	ug/L		04/26/23 08:45	04/29/23 00:28	5
Cobalt	<0.85		2.5	0.85	ug/L		04/26/23 08:45	04/29/23 00:28	5
Iron	<180		500	180	ug/L		04/26/23 08:45	04/29/23 00:28	5
Lead	<1.2		2.5	1.2	ug/L		04/26/23 08:45	04/29/23 00:28	5
Lithium	**53**		50	13	ug/L		04/26/23 08:45	04/29/23 00:28	5
Molybdenum	**88**		10	4.6	ug/L		04/26/23 08:45	04/29/23 00:28	5
Selenium	<7.0		25	7.0	ug/L		04/26/23 08:45	04/29/23 00:28	5
Thallium	<1.3		5.0	1.3	ug/L		04/26/23 08:45	04/29/23 00:28	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		04/26/23 13:19	04/27/23 14:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**450**		50	34	mg/L			04/25/23 14:22	1
pH (SM 4500 H+ B)	**9.1**	**HF**	0.1	0.1	SU			04/21/23 18:59	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.0514	U	0.0720	0.0722	1.00	0.122	pCi/L	05/03/23 18:56	05/29/23 18:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*90.3*		*30 - 110*	*05/03/23 18:56*	*05/29/23 18:48*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.0183	U	0.343	0.343	1.00	0.638	pCi/L	05/04/23 08:29	05/24/23 12:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*90.3*		*30 - 110*	*05/04/23 08:29*	*05/24/23 12:23*	*1*
Y Carrier	*75.1*		*30 - 110*	*05/04/23 08:29*	*05/24/23 12:23*	*1*

Client Sample Results

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-308
Lab Sample ID: 310-254197-10
Date Collected: 04/20/23 13:15
Matrix: Water
Date Received: 04/21/23 16:20

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.0698	U	0.350	0.351	5.00	0.638	pCi/L		05/30/23 14:58	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	703.97				ft			04/20/23 13:15	1
Oxidation Reduction Potential	-116.4				millivolts			04/20/23 13:15	1
Oxygen, Dissolved, Client Supplied	0.15				mg/L			04/20/23 13:15	1
pH, Field	9.20				SU			04/20/23 13:15	1
Specific Conductance, Field	689				umhos/cm			04/20/23 13:15	1
Temperature, Field	12.4				Degrees C			04/20/23 13:15	1
Turbidity, Field	0.02				NTU			04/20/23 13:15	1

Client Sample Results

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-309
Lab Sample ID: 310-254197-11
Date Collected: 04/19/23 15:40
Matrix: Water
Date Received: 04/21/23 16:20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	28		10	2.7	ug/L		04/26/23 08:45	04/29/23 00:34	5
Iron	2000		500	180	ug/L		04/26/23 08:45	04/29/23 00:34	5
Lithium	16	J	50	13	ug/L		04/26/23 08:45	04/29/23 00:34	5
Molybdenum	21		10	4.6	ug/L		04/26/23 08:45	04/29/23 00:34	5

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	702.30				ft			04/19/23 15:40	1
Oxidation Reduction Potential	-88.6				millivolts			04/19/23 15:40	1
Oxygen, Dissolved, Client Supplied	0.19				mg/L			04/19/23 15:40	1
pH, Field	7.37				SU			04/19/23 15:40	1
Specific Conductance, Field	1066				umhos/cm			04/19/23 15:40	1
Temperature, Field	12.6				Degrees C			04/19/23 15:40	1
Turbidity, Field	5.19				NTU			04/19/23 15:40	1

Client Sample Results

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-309A
Lab Sample ID: 310-254197-12
Date Collected: 04/19/23 14:30
Matrix: Water
Date Received: 04/21/23 16:20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<2.7		10	2.7	ug/L		04/26/23 08:45	04/29/23 00:52	5
Iron	**9800**		500	180	ug/L		04/26/23 08:45	04/29/23 00:52	5
Lithium	<13		50	13	ug/L		04/26/23 08:45	04/29/23 00:52	5
Molybdenum	**10**		10	4.6	ug/L		04/26/23 08:45	04/29/23 00:52	5

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**702.61**				ft			04/19/23 14:30	1
Oxidation Reduction Potential	**-119.6**				millivolts			04/19/23 14:30	1
Oxygen, Dissolved, Client Supplied	**0.18**				mg/L			04/19/23 14:30	1
pH, Field	**7.32**				SU			04/19/23 14:30	1
Specific Conductance, Field	**893**				umhos/cm			04/19/23 14:30	1
Temperature, Field	**14.7**				Degrees C			04/19/23 14:30	1
Turbidity, Field	**0.02**				NTU			04/19/23 14:30	1

Client Sample Results

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-310
Date Collected: 04/19/23 12:15
Date Received: 04/21/23 16:20

Lab Sample ID: 310-254197-13
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	24		10	2.7	ug/L		04/26/23 08:45	04/29/23 00:55	5
Iron	6800		500	180	ug/L		04/26/23 08:45	04/29/23 00:55	5
Lithium	15	J	50	13	ug/L		04/26/23 08:45	04/29/23 00:55	5
Molybdenum	33		10	4.6	ug/L		04/26/23 08:45	04/29/23 00:55	5

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	702.04				ft			04/19/23 12:15	1
Oxidation Reduction Potential	-128.4				millivolts			04/19/23 12:15	1
Oxygen, Dissolved, Client Supplied	0.19				mg/L			04/19/23 12:15	1
pH, Field	7.39				SU			04/19/23 12:15	1
Specific Conductance, Field	1060				umhos/cm			04/19/23 12:15	1
Temperature, Field	12.2				Degrees C			04/19/23 12:15	1
Turbidity, Field	4.61				NTU			04/19/23 12:15	1

Client Sample Results

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-310A
Lab Sample ID: 310-254197-14
Date Collected: 04/19/23 11:15
Matrix: Water
Date Received: 04/21/23 16:20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<2.7		10	2.7	ug/L		04/26/23 08:45	04/29/23 00:57	5
Iron	**6000**		500	180	ug/L		04/26/23 08:45	04/29/23 00:57	5
Lithium	<13		50	13	ug/L		04/26/23 08:45	04/29/23 00:57	5
Molybdenum	**16**		10	4.6	ug/L		04/26/23 08:45	04/29/23 00:57	5

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	**704.44**				ft			04/19/23 11:15	1
Oxidation Reduction Potential	**-124.4**				millivolts			04/19/23 11:15	1
Oxygen, Dissolved, Client Supplied	**0.26**				mg/L			04/19/23 11:15	1
pH, Field	**7.41**				SU			04/19/23 11:15	1
Specific Conductance, Field	**1015**				umhos/cm			04/19/23 11:15	1
Temperature, Field	**14.4**				Degrees C			04/19/23 11:15	1
Turbidity, Field	**0.02**				NTU			04/19/23 11:15	1

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-312
Date Collected: 04/19/23 17:15
Date Received: 04/21/23 16:20

Lab Sample ID: 310-254197-15
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**69**		5.0	2.3	mg/L			05/15/23 18:34	5
Fluoride	<0.38		1.0	0.38	mg/L			05/15/23 18:34	5
Sulfate	**41**		5.0	2.1	mg/L			05/15/23 18:34	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<5.0		10	5.0	ug/L		04/26/23 08:45	04/29/23 01:00	5
Arsenic	**9.0**	**J**	10	2.7	ug/L		04/26/23 08:45	04/29/23 01:00	5
Barium	**150**		10	3.2	ug/L		04/26/23 08:45	04/29/23 01:00	5
Beryllium	<1.7		5.0	1.7	ug/L		04/26/23 08:45	04/29/23 01:00	5
Boron	<380		500	380	ug/L		04/26/23 08:45	04/29/23 01:00	5
Cadmium	<0.50		1.0	0.50	ug/L		04/26/23 08:45	04/29/23 01:00	5
Calcium	**99**		2.5	0.95	mg/L		04/26/23 08:45	04/29/23 01:00	5
Chromium	<5.5		25	5.5	ug/L		04/26/23 08:45	04/29/23 01:00	5
Cobalt	<0.85		2.5	0.85	ug/L		04/26/23 08:45	04/29/23 01:00	5
Iron	**6400**		500	180	ug/L		04/26/23 08:45	04/29/23 01:00	5
Lead	<1.2		2.5	1.2	ug/L		04/26/23 08:45	04/29/23 01:00	5
Lithium	<13		50	13	ug/L		04/26/23 08:45	04/29/23 01:00	5
Molybdenum	**7.7**	**J**	10	4.6	ug/L		04/26/23 08:45	04/29/23 01:00	5
Selenium	<7.0		25	7.0	ug/L		04/26/23 08:45	04/29/23 01:00	5
Thallium	<1.3		5.0	1.3	ug/L		04/26/23 08:45	04/29/23 01:00	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		04/26/23 13:19	04/27/23 14:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**400**		50	34	mg/L			04/25/23 14:22	1
pH (SM 4500 H+ B)	**7.2**	**HF**	0.1	0.1	SU			04/21/23 18:59	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.143	U	0.107	0.108	1.00	0.152	pCi/L	05/03/23 18:56	05/29/23 16:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*68.6*		*30 - 110*	*05/03/23 18:56*	*05/29/23 16:51*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	**0.999**		0.564	0.572	1.00	0.820	pCi/L	05/04/23 08:29	05/24/23 12:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*68.6*		*30 - 110*	*05/04/23 08:29*	*05/24/23 12:23*	*1*
Y Carrier	*83.0*		*30 - 110*	*05/04/23 08:29*	*05/24/23 12:23*	*1*

Client Sample Results

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-312
Lab Sample ID: 310-254197-15
Date Collected: 04/19/23 17:15
Matrix: Water
Date Received: 04/21/23 16:20

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.14		0.574	0.582	5.00	0.820	pCi/L		05/30/23 14:58	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	701.96				ft			04/19/23 17:15	1
Oxidation Reduction Potential	-82.3				millivolts			04/19/23 17:15	1
Oxygen, Dissolved, Client Supplied	0.11				mg/L			04/19/23 17:15	1
pH, Field	7.04				SU			04/19/23 17:15	1
Specific Conductance, Field	799				umhos/cm			04/19/23 17:15	1
Temperature, Field	17.8				Degrees C			04/19/23 17:15	1
Turbidity, Field	1.36				NTU			04/19/23 17:15	1

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: Field Blank
Lab Sample ID: 310-254197-16
Date Collected: 04/19/23 00:00
Matrix: Water
Date Received: 04/21/23 16:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.45		1.0	0.45	mg/L			05/15/23 18:48	1
Fluoride	<0.075		0.20	0.075	mg/L			05/15/23 18:48	1
Sulfate	<0.42		1.0	0.42	mg/L			05/15/23 18:48	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<5.0		10	5.0	ug/L		04/26/23 08:45	04/29/23 01:03	5
Arsenic	<2.7		10	2.7	ug/L		04/26/23 08:45	04/29/23 01:03	5
Barium	<3.2		10	3.2	ug/L		04/26/23 08:45	04/29/23 01:03	5
Beryllium	<1.7		5.0	1.7	ug/L		04/26/23 08:45	04/29/23 01:03	5
Boron	<380		500	380	ug/L		04/26/23 08:45	04/29/23 01:03	5
Cadmium	<0.50		1.0	0.50	ug/L		04/26/23 08:45	04/29/23 01:03	5
Calcium	<0.95		2.5	0.95	mg/L		04/26/23 08:45	04/29/23 01:03	5
Chromium	<5.5		25	5.5	ug/L		04/26/23 08:45	04/29/23 01:03	5
Cobalt	<0.85		2.5	0.85	ug/L		04/26/23 08:45	04/29/23 01:03	5
Iron	<180		500	180	ug/L		04/26/23 08:45	04/29/23 01:03	5
Lead	<1.2		2.5	1.2	ug/L		04/26/23 08:45	04/29/23 01:03	5
Lithium	<13		50	13	ug/L		04/26/23 08:45	04/29/23 01:03	5
Molybdenum	<4.6		10	4.6	ug/L		04/26/23 08:45	04/29/23 01:03	5
Selenium	<7.0		25	7.0	ug/L		04/26/23 08:45	04/29/23 01:03	5
Thallium	<1.3		5.0	1.3	ug/L		04/26/23 08:45	04/29/23 01:03	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		04/26/23 13:19	04/27/23 14:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	<34		50	34	mg/L			04/25/23 14:22	1
pH (SM 4500 H+ B)	**5.8**	**HF**	0.1	0.1	SU			04/21/23 18:59	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	-0.0221	U	0.0562	0.0562	1.00	0.130	pCi/L	05/03/23 18:56	05/29/23 16:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*91.5*		*30 - 110*	*05/03/23 18:56*	*05/29/23 16:51*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	**0.856**		0.385	0.393	1.00	0.502	pCi/L	05/04/23 08:29	05/24/23 12:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*91.5*		*30 - 110*	*05/04/23 08:29*	*05/24/23 12:23*	*1*
Y Carrier	*82.2*		*30 - 110*	*05/04/23 08:29*	*05/24/23 12:23*	*1*

Client Sample Results

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: Field Blank
Lab Sample ID: 310-254197-16
Date Collected: 04/19/23 00:00
Matrix: Water
Date Received: 04/21/23 16:20

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.856		0.389	0.397	5.00	0.502	pCi/L		05/30/23 14:58	1

Definitions/Glossary

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

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

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-386940/3
Matrix: Water
Analysis Batch: 386940

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.45		1.0	0.45	mg/L			05/06/23 11:28	1
Fluoride	<0.075		0.20	0.075	mg/L			05/06/23 11:28	1
Sulfate	<0.42		1.0	0.42	mg/L			05/06/23 11:28	1

Lab Sample ID: LCS 310-386940/4
Matrix: Water
Analysis Batch: 386940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.57		mg/L		96	90 - 110
Fluoride	2.00	2.05		mg/L		102	90 - 110
Sulfate	10.0	10.5		mg/L		105	90 - 110

Lab Sample ID: MB 310-388279/3
Matrix: Water
Analysis Batch: 388279

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.45		1.0	0.45	mg/L			05/15/23 17:03	1
Fluoride	<0.075		0.20	0.075	mg/L			05/15/23 17:03	1
Sulfate	<0.42		1.0	0.42	mg/L			05/15/23 17:03	1

Lab Sample ID: LCS 310-388279/4
Matrix: Water
Analysis Batch: 388279

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.75		mg/L		98	90 - 110
Fluoride	2.00	2.10		mg/L		105	90 - 110
Sulfate	10.0	10.3		mg/L		103	90 - 110

Lab Sample ID: 310-254197-7 MS
Matrix: Water
Analysis Batch: 388279

Client Sample ID: MW-306
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	18		25.0	40.8		mg/L		91	80 - 120
Fluoride	0.49	J	5.00	5.18		mg/L		94	80 - 120
Sulfate	130		25.0	154	4	mg/L		81	80 - 120

Lab Sample ID: 310-254197-7 MSD
Matrix: Water
Analysis Batch: 388279

Client Sample ID: MW-306
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	18		25.0	41.0		mg/L		92	80 - 120	1	15
Fluoride	0.49	J	5.00	5.21		mg/L		94	80 - 120	1	15
Sulfate	130		25.0	153	4	mg/L		78	80 - 120	0	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-385482/1-A ^5
Matrix: Water
Analysis Batch: 385898

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 385482

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<5.0		10	5.0	ug/L		04/26/23 08:45	04/28/23 23:30	5
Arsenic	<2.7		10	2.7	ug/L		04/26/23 08:45	04/28/23 23:30	5
Barium	<3.2		10	3.2	ug/L		04/26/23 08:45	04/28/23 23:30	5
Beryllium	<1.7		5.0	1.7	ug/L		04/26/23 08:45	04/28/23 23:30	5
Boron	<380		500	380	ug/L		04/26/23 08:45	04/28/23 23:30	5
Cadmium	<0.50		1.0	0.50	ug/L		04/26/23 08:45	04/28/23 23:30	5
Calcium	<0.95		2.5	0.95	mg/L		04/26/23 08:45	04/28/23 23:30	5
Chromium	<5.5		25	5.5	ug/L		04/26/23 08:45	04/28/23 23:30	5
Cobalt	<0.85		2.5	0.85	ug/L		04/26/23 08:45	04/28/23 23:30	5
Iron	<180		500	180	ug/L		04/26/23 08:45	04/28/23 23:30	5
Lead	<1.2		2.5	1.2	ug/L		04/26/23 08:45	04/28/23 23:30	5
Lithium	<13		50	13	ug/L		04/26/23 08:45	04/28/23 23:30	5
Molybdenum	<4.6		10	4.6	ug/L		04/26/23 08:45	04/28/23 23:30	5
Selenium	<7.0		25	7.0	ug/L		04/26/23 08:45	04/28/23 23:30	5
Thallium	<1.3		5.0	1.3	ug/L		04/26/23 08:45	04/28/23 23:30	5

Lab Sample ID: LCS 310-385482/2-A
Matrix: Water
Analysis Batch: 386090

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 385482

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	200	171		ug/L		85	80 - 120

Lab Sample ID: LCS 310-385482/2-A ^20
Matrix: Water
Analysis Batch: 385898

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 385482

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	200	201		ug/L		100	80 - 120
Arsenic	200	194		ug/L		97	80 - 120
Barium	100	94.1		ug/L		94	80 - 120
Beryllium	100	102		ug/L		102	80 - 120
Boron	200	<1500		ug/L		115	80 - 120
Cadmium	100	91.3		ug/L		91	80 - 120
Calcium	2.00	<3.8		mg/L		97	80 - 120
Chromium	100	92.4	J	ug/L		92	80 - 120
Cobalt	100	96.1		ug/L		96	80 - 120
Iron	200	<720		ug/L		88	80 - 120
Lead	200	179		ug/L		89	80 - 120
Lithium	200	204		ug/L		102	80 - 120
Molybdenum	200	196		ug/L		98	80 - 120
Selenium	400	397		ug/L		99	80 - 120

Lab Sample ID: 310-254197-1 MS
Matrix: Water
Analysis Batch: 385898

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 385482

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<5.0		200	210		ug/L		105	75 - 125

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-254197-1 MS
Matrix: Water
Analysis Batch: 385898

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 385482

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	<2.7		200	201		ug/L		101	75 - 125
Barium	270		100	358		ug/L		83	75 - 125
Beryllium	<1.7		100	105		ug/L		105	75 - 125
Boron	<380		200	<1500		ug/L		NC	75 - 125
Cadmium	<0.50		100	97.8		ug/L		98	75 - 125
Calcium	200		2.00	172	4	mg/L		-1193	75 - 125
Chromium	<5.5		100	99.5	J	ug/L		100	75 - 125
Cobalt	<0.85		100	98.5		ug/L		99	75 - 125
Iron	<180		200	<720		ug/L		NC	75 - 125
Lead	<1.2		200	191		ug/L		96	75 - 125
Lithium	16	J	200	224		ug/L		104	75 - 125
Molybdenum	<4.6		200	209		ug/L		104	75 - 125
Selenium	<7.0		400	410		ug/L		103	75 - 125
Thallium	<1.3	F1	200	145	F1	ug/L		72	75 - 125

Lab Sample ID: 310-254197-1 MSD
Matrix: Water
Analysis Batch: 385898

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 385482

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<5.0		200	208		ug/L		104	75 - 125	1	20
Arsenic	<2.7		200	200		ug/L		100	75 - 125	1	20
Barium	270		100	357		ug/L		83	75 - 125	0	20
Beryllium	<1.7		100	107		ug/L		107	75 - 125	2	20
Boron	<380		200	<1500		ug/L		NC	75 - 125	NC	20
Cadmium	<0.50		100	96.8		ug/L		97	75 - 125	1	20
Calcium	200		2.00	172	4	mg/L		-1221	75 - 125	0	20
Chromium	<5.5		100	99.7	J	ug/L		100	75 - 125	0	20
Cobalt	<0.85		100	98.3		ug/L		98	75 - 125	0	20
Iron	<180		200	<720		ug/L		NC	75 - 125	NC	20
Lead	<1.2		200	190		ug/L		95	75 - 125	1	20
Lithium	16	J	200	234		ug/L		109	75 - 125	4	20
Molybdenum	<4.6		200	207		ug/L		104	75 - 125	1	20
Selenium	<7.0		400	422		ug/L		106	75 - 125	3	20
Thallium	<1.3	F1	200	145	F1	ug/L		72	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-385587/1-A
Matrix: Water
Analysis Batch: 385740

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 385587

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		04/26/23 13:19	04/27/23 13:21	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 310-385587/2-A
Matrix: Water
Analysis Batch: 385740

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 385587

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			1.67	1.63		ug/L		98	80 - 120		

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-385440/1
Matrix: Water
Analysis Batch: 385440

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<34		50	34	mg/L			04/25/23 14:22	1

Lab Sample ID: LCS 310-385440/2
Matrix: Water
Analysis Batch: 385440

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	920		mg/L		92	90 - 110		

Lab Sample ID: 310-254197-1 DU
Matrix: Water
Analysis Batch: 385440

Client Sample ID: MW-301
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	700			692		mg/L				0.9	20

Lab Sample ID: 310-254197-15 DU
Matrix: Water
Analysis Batch: 385440

Client Sample ID: MW-312
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	400			396		mg/L				0.5	20

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-385184/1
Matrix: Water
Analysis Batch: 385184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100	98 - 102		

Lab Sample ID: 310-254197-1 DU
Matrix: Water
Analysis Batch: 385184

Client Sample ID: MW-301
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.0	HF		7.0		SU				0.3	20

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: 310-254197-15 DU
Matrix: Water
Analysis Batch: 385184

Client Sample ID: MW-312
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.2	HF		7.2		SU				0	20

Lab Sample ID: LCS 310-385265/1
Matrix: Water
Analysis Batch: 385265

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.1		SU		101	98 - 102		

Lab Sample ID: 310-254197-2 DU
Matrix: Water
Analysis Batch: 385265

Client Sample ID: MW-301A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.1	HF		7.1		SU				0.1	20

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-609838/1-A
Matrix: Water
Analysis Batch: 613103

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 609838

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	-0.005343	U	0.0504	0.0504	1.00	0.119	pCi/L	05/03/23 10:47	05/25/23 22:26	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*92.5*		*30 - 110*	*05/03/23 10:47*	*05/25/23 22:26*	*1*

Lab Sample ID: LCS 160-609838/2-A
Matrix: Water
Analysis Batch: 613103

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 609838

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium 226			11.3	10.78		1.19	1.00	0.162	pCi/L	95	75 - 113		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Barium	*91.7*		*30 - 110*

Lab Sample ID: LCSD 160-609838/3-A
Matrix: Water
Analysis Batch: 613103

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 609838

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium 226			11.3	11.15		1.22	1.00	0.137	pCi/L	98	75 - 113	0.15	1

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCSD 160-609838/3-A
Matrix: Water
Analysis Batch: 613103

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 609838

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Barium	93.4		30 - 110

Lab Sample ID: MB 160-610041/1-A
Matrix: Water
Analysis Batch: 613624

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 610041

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.03514	U	0.0572	0.0573	1.00	0.100	pCi/L	05/03/23 18:56	05/29/23 16:49	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Barium	99.3		30 - 110	05/03/23 18:56	05/29/23 16:49	1

Lab Sample ID: LCS 160-610041/2-A
Matrix: Water
Analysis Batch: 613624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 610041

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium 226			11.3	10.54		1.13	1.00	0.103	pCi/L	93	75 - 113		

Carrier	LCS %Yield	LCS Qualifier	Limits
Barium	92.9		30 - 110

Lab Sample ID: LCSD 160-610041/3-A
Matrix: Water
Analysis Batch: 613624

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 610041

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium 226			11.3	10.35		1.12	1.00	0.116	pCi/L	91	75 - 113	0.09	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Barium	89.8		30 - 110

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-609841/1-A
Matrix: Water
Analysis Batch: 612651

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 609841

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.3125	U	0.365	0.366	1.00	0.601	pCi/L	05/03/23 11:18	05/22/23 16:10	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Barium	92.5		30 - 110	05/03/23 11:18	05/22/23 16:10	1

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-609841/1-A
Matrix: Water
Analysis Batch: 612651

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 609841

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	85.2		30 - 110	05/03/23 11:18	05/22/23 16:10	1

Lab Sample ID: LCS 160-609841/2-A
Matrix: Water
Analysis Batch: 612650

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 609841

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium 228			8.18	8.074		1.12	1.00	0.516	pCi/L	99	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Barium	91.7		30 - 110
Y Carrier	89.3		30 - 110

Lab Sample ID: LCSD 160-609841/3-A
Matrix: Water
Analysis Batch: 612650

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 609841

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium 228			8.18	8.154		1.13	1.00	0.509	pCi/L	100	75 - 125	0.04	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Barium	93.4		30 - 110
Y Carrier	85.6		30 - 110

Lab Sample ID: MB 160-610048/1-A
Matrix: Water
Analysis Batch: 613058

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 610048

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 228	0.4148	U	0.344	0.346	1.00	0.538	pCi/L	05/04/23 08:29	05/24/23 12:18	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Barium	99.3		30 - 110	05/04/23 08:29	05/24/23 12:18	1
Y Carrier	83.4		30 - 110	05/04/23 08:29	05/24/23 12:18	1

Lab Sample ID: LCS 160-610048/2-A
Matrix: Water
Analysis Batch: 613058

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 610048

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium 228			8.18	8.197		1.20	1.00	0.614	pCi/L	100	75 - 125		

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-610048/2-A
Matrix: Water
Analysis Batch: 613058

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 610048

Carrier	LCS %Yield	LCS Qualifier	Limits
Barium	92.9		30 - 110
Y Carrier	80.4		30 - 110

Lab Sample ID: LCSD 160-610048/3-A
Matrix: Water
Analysis Batch: 613058

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 610048

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium 228			8.18	9.193		1.29	1.00	0.564	pCi/L	112	75 - 125	0.40	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Barium	89.8		30 - 110
Y Carrier	81.9		30 - 110

QC Association Summary

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

HPLC/IC

Analysis Batch: 386940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254197-1	MW-301	Total/NA	Water	9056A	
310-254197-2	MW-301A	Total/NA	Water	9056A	
310-254197-3	MW-302	Total/NA	Water	9056A	
310-254197-4	MW-303	Total/NA	Water	9056A	
310-254197-5	MW-304	Total/NA	Water	9056A	
310-254197-6	MW-305	Total/NA	Water	9056A	
MB 310-386940/3	Method Blank	Total/NA	Water	9056A	
LCS 310-386940/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 388279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254197-7	MW-306	Total/NA	Water	9056A	
310-254197-9	MW-307	Total/NA	Water	9056A	
310-254197-10	MW-308	Total/NA	Water	9056A	
310-254197-15	MW-312	Total/NA	Water	9056A	
310-254197-16	Field Blank	Total/NA	Water	9056A	
MB 310-388279/3	Method Blank	Total/NA	Water	9056A	
LCS 310-388279/4	Lab Control Sample	Total/NA	Water	9056A	
310-254197-7 MS	MW-306	Total/NA	Water	9056A	
310-254197-7 MSD	MW-306	Total/NA	Water	9056A	

Metals

Prep Batch: 385482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254197-1	MW-301	Total/NA	Water	3005A	
310-254197-2	MW-301A	Total/NA	Water	3005A	
310-254197-3	MW-302	Total/NA	Water	3005A	
310-254197-4	MW-303	Total/NA	Water	3005A	
310-254197-5	MW-304	Total/NA	Water	3005A	
310-254197-6	MW-305	Total/NA	Water	3005A	
310-254197-7	MW-306	Total/NA	Water	3005A	
310-254197-8	MW-306A	Total/NA	Water	3005A	
310-254197-9	MW-307	Total/NA	Water	3005A	
310-254197-10	MW-308	Total/NA	Water	3005A	
310-254197-11	MW-309	Total/NA	Water	3005A	
310-254197-12	MW-309A	Total/NA	Water	3005A	
310-254197-13	MW-310	Total/NA	Water	3005A	
310-254197-14	MW-310A	Total/NA	Water	3005A	
310-254197-15	MW-312	Total/NA	Water	3005A	
310-254197-16	Field Blank	Total/NA	Water	3005A	
MB 310-385482/1-A ^5	Method Blank	Total/NA	Water	3005A	
LCS 310-385482/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCS 310-385482/2-A ^20	Lab Control Sample	Total/NA	Water	3005A	
310-254197-1 MS	MW-301	Total/NA	Water	3005A	
310-254197-1 MSD	MW-301	Total/NA	Water	3005A	

Prep Batch: 385587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254197-1	MW-301	Total/NA	Water	7470A	
310-254197-2	MW-301A	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 385587 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254197-3	MW-302	Total/NA	Water	7470A	
310-254197-4	MW-303	Total/NA	Water	7470A	
310-254197-5	MW-304	Total/NA	Water	7470A	
310-254197-6	MW-305	Total/NA	Water	7470A	
310-254197-7	MW-306	Total/NA	Water	7470A	
310-254197-9	MW-307	Total/NA	Water	7470A	
310-254197-10	MW-308	Total/NA	Water	7470A	
310-254197-15	MW-312	Total/NA	Water	7470A	
310-254197-16	Field Blank	Total/NA	Water	7470A	
MB 310-385587/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-385587/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 385740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254197-1	MW-301	Total/NA	Water	7470A	385587
310-254197-2	MW-301A	Total/NA	Water	7470A	385587
310-254197-3	MW-302	Total/NA	Water	7470A	385587
310-254197-4	MW-303	Total/NA	Water	7470A	385587
310-254197-5	MW-304	Total/NA	Water	7470A	385587
310-254197-6	MW-305	Total/NA	Water	7470A	385587
310-254197-7	MW-306	Total/NA	Water	7470A	385587
310-254197-9	MW-307	Total/NA	Water	7470A	385587
310-254197-10	MW-308	Total/NA	Water	7470A	385587
310-254197-15	MW-312	Total/NA	Water	7470A	385587
310-254197-16	Field Blank	Total/NA	Water	7470A	385587
MB 310-385587/1-A	Method Blank	Total/NA	Water	7470A	385587
LCS 310-385587/2-A	Lab Control Sample	Total/NA	Water	7470A	385587

Analysis Batch: 385898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254197-1	MW-301	Total/NA	Water	6020B	385482
310-254197-2	MW-301A	Total/NA	Water	6020B	385482
310-254197-3	MW-302	Total/NA	Water	6020B	385482
310-254197-4	MW-303	Total/NA	Water	6020B	385482
310-254197-5	MW-304	Total/NA	Water	6020B	385482
310-254197-6	MW-305	Total/NA	Water	6020B	385482
310-254197-7	MW-306	Total/NA	Water	6020B	385482
310-254197-8	MW-306A	Total/NA	Water	6020B	385482
310-254197-9	MW-307	Total/NA	Water	6020B	385482
310-254197-10	MW-308	Total/NA	Water	6020B	385482
310-254197-11	MW-309	Total/NA	Water	6020B	385482
310-254197-12	MW-309A	Total/NA	Water	6020B	385482
310-254197-13	MW-310	Total/NA	Water	6020B	385482
310-254197-14	MW-310A	Total/NA	Water	6020B	385482
310-254197-15	MW-312	Total/NA	Water	6020B	385482
310-254197-16	Field Blank	Total/NA	Water	6020B	385482
MB 310-385482/1-A ^5	Method Blank	Total/NA	Water	6020B	385482
LCS 310-385482/2-A ^20	Lab Control Sample	Total/NA	Water	6020B	385482
310-254197-1 MS	MW-301	Total/NA	Water	6020B	385482
310-254197-1 MSD	MW-301	Total/NA	Water	6020B	385482

QC Association Summary

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Metals

Analysis Batch: 386090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-385482/2-A	Lab Control Sample	Total/NA	Water	6020B	385482

General Chemistry

Analysis Batch: 385184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254197-1	MW-301	Total/NA	Water	SM 4500 H+ B	
310-254197-3	MW-302	Total/NA	Water	SM 4500 H+ B	
310-254197-4	MW-303	Total/NA	Water	SM 4500 H+ B	
310-254197-5	MW-304	Total/NA	Water	SM 4500 H+ B	
310-254197-6	MW-305	Total/NA	Water	SM 4500 H+ B	
310-254197-7	MW-306	Total/NA	Water	SM 4500 H+ B	
310-254197-9	MW-307	Total/NA	Water	SM 4500 H+ B	
310-254197-10	MW-308	Total/NA	Water	SM 4500 H+ B	
310-254197-15	MW-312	Total/NA	Water	SM 4500 H+ B	
310-254197-16	Field Blank	Total/NA	Water	SM 4500 H+ B	
LCS 310-385184/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-254197-1 DU	MW-301	Total/NA	Water	SM 4500 H+ B	
310-254197-15 DU	MW-312	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 385265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254197-2	MW-301A	Total/NA	Water	SM 4500 H+ B	
LCS 310-385265/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-254197-2 DU	MW-301A	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 385440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254197-1	MW-301	Total/NA	Water	SM 2540C	
310-254197-2	MW-301A	Total/NA	Water	SM 2540C	
310-254197-3	MW-302	Total/NA	Water	SM 2540C	
310-254197-4	MW-303	Total/NA	Water	SM 2540C	
310-254197-5	MW-304	Total/NA	Water	SM 2540C	
310-254197-6	MW-305	Total/NA	Water	SM 2540C	
310-254197-7	MW-306	Total/NA	Water	SM 2540C	
310-254197-9	MW-307	Total/NA	Water	SM 2540C	
310-254197-10	MW-308	Total/NA	Water	SM 2540C	
310-254197-15	MW-312	Total/NA	Water	SM 2540C	
310-254197-16	Field Blank	Total/NA	Water	SM 2540C	
MB 310-385440/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-385440/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-254197-1 DU	MW-301	Total/NA	Water	SM 2540C	
310-254197-15 DU	MW-312	Total/NA	Water	SM 2540C	

Rad

Prep Batch: 609838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254197-1	MW-301	Total/NA	Water	PrecSep-21	
310-254197-2	MW-301A	Total/NA	Water	PrecSep-21	
310-254197-3	MW-302	Total/NA	Water	PrecSep-21	
310-254197-4	MW-303	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 609838 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254197-5	MW-304	Total/NA	Water	PrecSep-21	
310-254197-6	MW-305	Total/NA	Water	PrecSep-21	
310-254197-7	MW-306	Total/NA	Water	PrecSep-21	
310-254197-9	MW-307	Total/NA	Water	PrecSep-21	
MB 160-609838/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-609838/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-609838/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 609841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254197-1	MW-301	Total/NA	Water	PrecSep_0	
310-254197-2	MW-301A	Total/NA	Water	PrecSep_0	
310-254197-3	MW-302	Total/NA	Water	PrecSep_0	
310-254197-4	MW-303	Total/NA	Water	PrecSep_0	
310-254197-5	MW-304	Total/NA	Water	PrecSep_0	
310-254197-6	MW-305	Total/NA	Water	PrecSep_0	
310-254197-7	MW-306	Total/NA	Water	PrecSep_0	
310-254197-9	MW-307	Total/NA	Water	PrecSep_0	
MB 160-609841/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-609841/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-609841/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 610041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254197-10	MW-308	Total/NA	Water	PrecSep-21	
310-254197-15	MW-312	Total/NA	Water	PrecSep-21	
310-254197-16	Field Blank	Total/NA	Water	PrecSep-21	
MB 160-610041/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-610041/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-610041/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 610048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254197-10	MW-308	Total/NA	Water	PrecSep_0	
310-254197-15	MW-312	Total/NA	Water	PrecSep_0	
310-254197-16	Field Blank	Total/NA	Water	PrecSep_0	
MB 160-610048/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-610048/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-610048/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 385992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254197-1	MW-301	Total/NA	Water	Field Sampling	
310-254197-2	MW-301A	Total/NA	Water	Field Sampling	
310-254197-3	MW-302	Total/NA	Water	Field Sampling	
310-254197-4	MW-303	Total/NA	Water	Field Sampling	
310-254197-5	MW-304	Total/NA	Water	Field Sampling	
310-254197-6	MW-305	Total/NA	Water	Field Sampling	
310-254197-7	MW-306	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 385992 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254197-8	MW-306A	Total/NA	Water	Field Sampling	
310-254197-9	MW-307	Total/NA	Water	Field Sampling	
310-254197-10	MW-308	Total/NA	Water	Field Sampling	
310-254197-11	MW-309	Total/NA	Water	Field Sampling	
310-254197-12	MW-309A	Total/NA	Water	Field Sampling	
310-254197-13	MW-310	Total/NA	Water	Field Sampling	
310-254197-14	MW-310A	Total/NA	Water	Field Sampling	
310-254197-15	MW-312	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-301
Lab Sample ID: 310-254197-1
Date Collected: 04/20/23 10:35
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	386940	QTZ5	EET CF	05/06/23 15:05
Total/NA	Prep	3005A			385482	DHM5	EET CF	04/26/23 08:45
Total/NA	Analysis	6020B		5	385898	ZRI4	EET CF	04/28/23 23:36
Total/NA	Prep	7470A			385587	XXW3	EET CF	04/26/23 13:19
Total/NA	Analysis	7470A		1	385740	XXW3	EET CF	04/27/23 13:53
Total/NA	Analysis	SM 2540C		1	385440	ENB7	EET CF	04/25/23 14:22
Total/NA	Analysis	SM 4500 H+ B		1	385184	DN3P	EET CF	04/21/23 18:59
Total/NA	Prep	PrecSep-21			609838	KAC	EET SL	05/03/23 10:47
Total/NA	Analysis	903.0		1	613344	SCB	EET SL	05/26/23 08:28
Total/NA	Prep	PrecSep_0			609841	KAC	EET SL	05/03/23 11:18
Total/NA	Analysis	904.0		1	612649	FLC	EET SL	05/22/23 16:19
Total/NA	Analysis	Ra226_Ra228 Pos		1	613789	SCB	EET SL	05/30/23 14:13
Total/NA	Analysis	Field Sampling		1	385992	BJ0R	EET CF	04/20/23 10:35

Client Sample ID: MW-301A
Lab Sample ID: 310-254197-2
Date Collected: 04/20/23 08:35
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	386940	QTZ5	EET CF	05/06/23 15:20
Total/NA	Prep	3005A			385482	DHM5	EET CF	04/26/23 08:45
Total/NA	Analysis	6020B		5	385898	ZRI4	EET CF	04/28/23 23:51
Total/NA	Prep	7470A			385587	XXW3	EET CF	04/26/23 13:19
Total/NA	Analysis	7470A		1	385740	XXW3	EET CF	04/27/23 13:59
Total/NA	Analysis	SM 2540C		1	385440	ENB7	EET CF	04/25/23 14:22
Total/NA	Analysis	SM 4500 H+ B		1	385265	W9YR	EET CF	04/24/23 09:52
Total/NA	Prep	PrecSep-21			609838	KAC	EET SL	05/03/23 10:47
Total/NA	Analysis	903.0		1	613344	SCB	EET SL	05/26/23 08:28
Total/NA	Prep	PrecSep_0			609841	KAC	EET SL	05/03/23 11:18
Total/NA	Analysis	904.0		1	612649	FLC	EET SL	05/22/23 16:19
Total/NA	Analysis	Ra226_Ra228 Pos		1	613789	SCB	EET SL	05/30/23 14:13
Total/NA	Analysis	Field Sampling		1	385992	BJ0R	EET CF	04/20/23 08:35

Client Sample ID: MW-302
Lab Sample ID: 310-254197-3
Date Collected: 04/20/23 09:40
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	386940	QTZ5	EET CF	05/06/23 15:36
Total/NA	Prep	3005A			385482	DHM5	EET CF	04/26/23 08:45
Total/NA	Analysis	6020B		5	385898	ZRI4	EET CF	04/29/23 00:08
Total/NA	Prep	7470A			385587	XXW3	EET CF	04/26/23 13:19
Total/NA	Analysis	7470A		1	385740	XXW3	EET CF	04/27/23 14:01
Total/NA	Analysis	SM 2540C		1	385440	ENB7	EET CF	04/25/23 14:22

Lab Chronicle

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-302
Lab Sample ID: 310-254197-3
Date Collected: 04/20/23 09:40
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	385184	DN3P	EET CF	04/21/23 18:59
Total/NA	Prep	PrecSep-21			609838	KAC	EET SL	05/03/23 10:47
Total/NA	Analysis	903.0		1	613344	SCB	EET SL	05/26/23 08:29
Total/NA	Prep	PrecSep_0			609841	KAC	EET SL	05/03/23 11:18
Total/NA	Analysis	904.0		1	612649	FLC	EET SL	05/22/23 16:19
Total/NA	Analysis	Ra226_Ra228 Pos		1	613789	SCB	EET SL	05/30/23 14:13
Total/NA	Analysis	Field Sampling		1	385992	BJ0R	EET CF	04/20/23 09:40

Client Sample ID: MW-303
Lab Sample ID: 310-254197-4
Date Collected: 04/19/23 16:25
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	386940	QTZ5	EET CF	05/06/23 15:52
Total/NA	Prep	3005A			385482	DHM5	EET CF	04/26/23 08:45
Total/NA	Analysis	6020B		5	385898	ZRI4	EET CF	04/29/23 00:11
Total/NA	Prep	7470A			385587	XXW3	EET CF	04/26/23 13:19
Total/NA	Analysis	7470A		1	385740	XXW3	EET CF	04/27/23 14:03
Total/NA	Analysis	SM 2540C		1	385440	ENB7	EET CF	04/25/23 14:22
Total/NA	Analysis	SM 4500 H+ B		1	385184	DN3P	EET CF	04/21/23 18:59
Total/NA	Prep	PrecSep-21			609838	KAC	EET SL	05/03/23 10:47
Total/NA	Analysis	903.0		1	613344	SCB	EET SL	05/26/23 08:29
Total/NA	Prep	PrecSep_0			609841	KAC	EET SL	05/03/23 11:18
Total/NA	Analysis	904.0		1	612649	FLC	EET SL	05/22/23 16:19
Total/NA	Analysis	Ra226_Ra228 Pos		1	613789	SCB	EET SL	05/30/23 14:13
Total/NA	Analysis	Field Sampling		1	385992	BJ0R	EET CF	04/19/23 16:25

Client Sample ID: MW-304
Lab Sample ID: 310-254197-5
Date Collected: 04/19/23 13:35
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	386940	QTZ5	EET CF	05/06/23 16:07
Total/NA	Prep	3005A			385482	DHM5	EET CF	04/26/23 08:45
Total/NA	Analysis	6020B		5	385898	ZRI4	EET CF	04/29/23 00:14
Total/NA	Prep	7470A			385587	XXW3	EET CF	04/26/23 13:19
Total/NA	Analysis	7470A		1	385740	XXW3	EET CF	04/27/23 14:05
Total/NA	Analysis	SM 2540C		1	385440	ENB7	EET CF	04/25/23 14:22
Total/NA	Analysis	SM 4500 H+ B		1	385184	DN3P	EET CF	04/21/23 18:59
Total/NA	Prep	PrecSep-21			609838	KAC	EET SL	05/03/23 10:47
Total/NA	Analysis	903.0		1	613344	SCB	EET SL	05/26/23 08:29
Total/NA	Prep	PrecSep_0			609841	KAC	EET SL	05/03/23 11:18
Total/NA	Analysis	904.0		1	612649	FLC	EET SL	05/22/23 16:19
Total/NA	Analysis	Ra226_Ra228 Pos		1	613789	SCB	EET SL	05/30/23 14:13

Lab Chronicle

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-304
Lab Sample ID: 310-254197-5
Date Collected: 04/19/23 13:35
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Field Sampling		1	385992	BJ0R	EET CF	04/19/23 13:35

Client Sample ID: MW-305
Lab Sample ID: 310-254197-6
Date Collected: 04/19/23 10:15
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	386940	QTZ5	EET CF	05/06/23 16:23
Total/NA	Prep	3005A			385482	DHM5	EET CF	04/26/23 08:45
Total/NA	Analysis	6020B		5	385898	ZRI4	EET CF	04/29/23 00:17
Total/NA	Prep	7470A			385587	XXW3	EET CF	04/26/23 13:19
Total/NA	Analysis	7470A		1	385740	XXW3	EET CF	04/27/23 14:08
Total/NA	Analysis	SM 2540C		1	385440	ENB7	EET CF	04/25/23 14:22
Total/NA	Analysis	SM 4500 H+ B		1	385184	DN3P	EET CF	04/21/23 18:59
Total/NA	Prep	PrecSep-21			609838	KAC	EET SL	05/03/23 10:47
Total/NA	Analysis	903.0		1	613346	SCB	EET SL	05/26/23 08:33
Total/NA	Prep	PrecSep_0			609841	KAC	EET SL	05/03/23 11:18
Total/NA	Analysis	904.0		1	612649	FLC	EET SL	05/22/23 16:19
Total/NA	Analysis	Ra226_Ra228 Pos		1	613789	SCB	EET SL	05/30/23 14:13
Total/NA	Analysis	Field Sampling		1	385992	BJ0R	EET CF	04/19/23 10:15

Client Sample ID: MW-306
Lab Sample ID: 310-254197-7
Date Collected: 04/19/23 08:47
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	388279	QTZ5	EET CF	05/15/23 17:29
Total/NA	Prep	3005A			385482	DHM5	EET CF	04/26/23 08:45
Total/NA	Analysis	6020B		5	385898	ZRI4	EET CF	04/29/23 00:20
Total/NA	Prep	7470A			385587	XXW3	EET CF	04/26/23 13:19
Total/NA	Analysis	7470A		1	385740	XXW3	EET CF	04/27/23 14:10
Total/NA	Analysis	SM 2540C		1	385440	ENB7	EET CF	04/25/23 14:22
Total/NA	Analysis	SM 4500 H+ B		1	385184	DN3P	EET CF	04/21/23 18:59
Total/NA	Prep	PrecSep-21			609838	KAC	EET SL	05/03/23 10:47
Total/NA	Analysis	903.0		1	613346	SCB	EET SL	05/26/23 08:33
Total/NA	Prep	PrecSep_0			609841	KAC	EET SL	05/03/23 11:18
Total/NA	Analysis	904.0		1	612649	FLC	EET SL	05/22/23 16:20
Total/NA	Analysis	Ra226_Ra228 Pos		1	613789	SCB	EET SL	05/30/23 14:13
Total/NA	Analysis	Field Sampling		1	385992	BJ0R	EET CF	04/19/23 08:47

Lab Chronicle

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-306A
Lab Sample ID: 310-254197-8
Date Collected: 04/19/23 09:10
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			385482	DHM5	EET CF	04/26/23 08:45
Total/NA	Analysis	6020B		5	385898	ZRI4	EET CF	04/29/23 00:23
Total/NA	Analysis	Field Sampling		1	385992	BJ0R	EET CF	04/19/23 09:10

Client Sample ID: MW-307
Lab Sample ID: 310-254197-9
Date Collected: 04/20/23 11:35
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	388279	QTZ5	EET CF	05/15/23 18:08
Total/NA	Prep	3005A			385482	DHM5	EET CF	04/26/23 08:45
Total/NA	Analysis	6020B		5	385898	ZRI4	EET CF	04/29/23 00:25
Total/NA	Prep	7470A			385587	XXW3	EET CF	04/26/23 13:19
Total/NA	Analysis	7470A		1	385740	XXW3	EET CF	04/27/23 14:12
Total/NA	Analysis	SM 2540C		1	385440	ENB7	EET CF	04/25/23 14:22
Total/NA	Analysis	SM 4500 H+ B		1	385184	DN3P	EET CF	04/21/23 18:59
Total/NA	Prep	PrecSep-21			609838	KAC	EET SL	05/03/23 10:47
Total/NA	Analysis	903.0		1	613346	SCB	EET SL	05/26/23 08:34
Total/NA	Prep	PrecSep_0			609841	KAC	EET SL	05/03/23 11:18
Total/NA	Analysis	904.0		1	612649	FLC	EET SL	05/22/23 16:20
Total/NA	Analysis	Ra226_Ra228 Pos		1	613789	SCB	EET SL	05/30/23 14:13
Total/NA	Analysis	Field Sampling		1	385992	BJ0R	EET CF	04/20/23 11:35

Client Sample ID: MW-308
Lab Sample ID: 310-254197-10
Date Collected: 04/20/23 13:15
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	388279	QTZ5	EET CF	05/15/23 18:21
Total/NA	Prep	3005A			385482	DHM5	EET CF	04/26/23 08:45
Total/NA	Analysis	6020B		5	385898	ZRI4	EET CF	04/29/23 00:28
Total/NA	Prep	7470A			385587	XXW3	EET CF	04/26/23 13:19
Total/NA	Analysis	7470A		1	385740	XXW3	EET CF	04/27/23 14:14
Total/NA	Analysis	SM 2540C		1	385440	ENB7	EET CF	04/25/23 14:22
Total/NA	Analysis	SM 4500 H+ B		1	385184	DN3P	EET CF	04/21/23 18:59
Total/NA	Prep	PrecSep-21			610041	REV	EET SL	05/03/23 18:56
Total/NA	Analysis	903.0		1	613624	SCB	EET SL	05/29/23 18:48
Total/NA	Prep	PrecSep_0			610048	BMP	EET SL	05/04/23 08:29
Total/NA	Analysis	904.0		1	613058	SCB	EET SL	05/24/23 12:23
Total/NA	Analysis	Ra226_Ra228 Pos		1	613809	SCB	EET SL	05/30/23 14:58
Total/NA	Analysis	Field Sampling		1	385992	BJ0R	EET CF	04/20/23 13:15

Lab Chronicle

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-309
Lab Sample ID: 310-254197-11
Date Collected: 04/19/23 15:40
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			385482	DHM5	EET CF	04/26/23 08:45
Total/NA	Analysis	6020B		5	385898	ZRI4	EET CF	04/29/23 00:34
Total/NA	Analysis	Field Sampling		1	385992	BJ0R	EET CF	04/19/23 15:40

Client Sample ID: MW-309A
Lab Sample ID: 310-254197-12
Date Collected: 04/19/23 14:30
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			385482	DHM5	EET CF	04/26/23 08:45
Total/NA	Analysis	6020B		5	385898	ZRI4	EET CF	04/29/23 00:52
Total/NA	Analysis	Field Sampling		1	385992	BJ0R	EET CF	04/19/23 14:30

Client Sample ID: MW-310
Lab Sample ID: 310-254197-13
Date Collected: 04/19/23 12:15
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			385482	DHM5	EET CF	04/26/23 08:45
Total/NA	Analysis	6020B		5	385898	ZRI4	EET CF	04/29/23 00:55
Total/NA	Analysis	Field Sampling		1	385992	BJ0R	EET CF	04/19/23 12:15

Client Sample ID: MW-310A
Lab Sample ID: 310-254197-14
Date Collected: 04/19/23 11:15
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			385482	DHM5	EET CF	04/26/23 08:45
Total/NA	Analysis	6020B		5	385898	ZRI4	EET CF	04/29/23 00:57
Total/NA	Analysis	Field Sampling		1	385992	BJ0R	EET CF	04/19/23 11:15

Client Sample ID: MW-312
Lab Sample ID: 310-254197-15
Date Collected: 04/19/23 17:15
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	388279	QTZ5	EET CF	05/15/23 18:34
Total/NA	Prep	3005A			385482	DHM5	EET CF	04/26/23 08:45
Total/NA	Analysis	6020B		5	385898	ZRI4	EET CF	04/29/23 01:00
Total/NA	Prep	7470A			385587	XXW3	EET CF	04/26/23 13:19
Total/NA	Analysis	7470A		1	385740	XXW3	EET CF	04/27/23 14:16
Total/NA	Analysis	SM 2540C		1	385440	ENB7	EET CF	04/25/23 14:22
Total/NA	Analysis	SM 4500 H+ B		1	385184	DN3P	EET CF	04/21/23 18:59
Total/NA	Prep	PrecSep-21			610041	REV	EET SL	05/03/23 18:56
Total/NA	Analysis	903.0		1	613624	SCB	EET SL	05/29/23 16:51

Lab Chronicle

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Client Sample ID: MW-312
Lab Sample ID: 310-254197-15
Date Collected: 04/19/23 17:15
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep_0			610048	BMP	EET SL	05/04/23 08:29
Total/NA	Analysis	904.0		1	613058	SCB	EET SL	05/24/23 12:23
Total/NA	Analysis	Ra226_Ra228 Pos		1	613809	SCB	EET SL	05/30/23 14:58
Total/NA	Analysis	Field Sampling		1	385992	BJ0R	EET CF	04/19/23 17:15

Client Sample ID: Field Blank
Lab Sample ID: 310-254197-16
Date Collected: 04/19/23 00:00
Matrix: Water
Date Received: 04/21/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	388279	QTZ5	EET CF	05/15/23 18:48
Total/NA	Prep	3005A			385482	DHM5	EET CF	04/26/23 08:45
Total/NA	Analysis	6020B		5	385898	ZRI4	EET CF	04/29/23 01:03
Total/NA	Prep	7470A			385587	XXW3	EET CF	04/26/23 13:19
Total/NA	Analysis	7470A		1	385740	XXW3	EET CF	04/27/23 14:18
Total/NA	Analysis	SM 2540C		1	385440	ENB7	EET CF	04/25/23 14:22
Total/NA	Analysis	SM 4500 H+ B		1	385184	DN3P	EET CF	04/21/23 18:59
Total/NA	Prep	PrecSep-21			610041	REV	EET SL	05/03/23 18:56
Total/NA	Analysis	903.0		1	613624	SCB	EET SL	05/29/23 16:51
Total/NA	Prep	PrecSep_0			610048	BMP	EET SL	05/04/23 08:29
Total/NA	Analysis	904.0		1	613058	SCB	EET SL	05/24/23 12:23
Total/NA	Analysis	Ra226_Ra228 Pos		1	613809	SCB	EET SL	05/30/23 14:58

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-23

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-23
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-11-23
HI - RadChem Recognition	State	n/a	06-30-23
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-23
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	08-08-23
MI - RadChem Recognition	State	9005	06-30-23
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-23
New Jersey	NELAP	MO002	06-30-23
New Mexico	State	MO00054	06-30-23
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	06-30-23
North Dakota	State	R-207	06-30-23
Oklahoma	NELAP	9997	08-31-23
Oregon	NELAP	4157	09-01-23
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23
Texas	NELAP	T104704193	07-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-23
Virginia	NELAP	10310	06-14-23
Washington	State	C592	08-30-23
West Virginia DEP	State	381	10-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
SM 4500 H+ B	pH	SM	EET CF
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
Pos Field Sampling	Field Sampling	EPA	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency
None = None
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

eurofins | Environment Testing America

310-254197 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS ENGINEERS

City/State: CITY Madison | STATE WI | Project:

Receipt Information

Date/Time Received: DATE 4/21/2023 | TIME 16.20 | Received By: MV

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☒ Yes ☐ No *If yes:* Cooler # 1 of 4

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: R | Correction Factor (°C): +0.2

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): ✓ | Corrected Temp (°C): ✓

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:	250 mL PLSTIC nitric	
Uncorrected Temp (°C):	1.9	
Corrected Temp (°C):	2.1	

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY Madison | STATE WI | Project:

Receipt Information

Date/Time Received: DATE 4/21/2023 | TIME 16 20 | Received By: MV

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☒ Yes	☐ No	*If yes:* Cooler # 2 of 4
Cooler Custody Seals Present?	☐ Yes	☒ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: R | Correction Factor (°C): +0.2

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 2.9 | Corrected Temp (°C): 3.1

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE. If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

received 2 1L labeled "Millipore Water" + not on COC

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Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY Madison | STATE WI | Project:

Receipt Information

Date/Time Received: DATE 4/21/2023 | TIME 16 20 | Received By: MV

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☒ Yes ☐ No *If yes:* Cooler # 3 of 4

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: ☐ NONE

Thermometer ID: R | Correction Factor (°C): +0.2

• **Temp Blank Temperature** – *If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature*

Uncorrected Temp (°C): 1.8 | Corrected Temp (°C): 2.0

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

MW301A → received 1 500mL unpreserved empty, only 1 1 Liter as well for MW301A was received

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY Madison | STATE WI | Project:

Receipt Information

Date/Time Received: DATE 4/21/2023 | TIME 16.20 | Received By: MV

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☒ Yes ☐ No *If yes:* Cooler # 4 of 4

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: R | Correction Factor (°C): +0.2

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 1.8 | Corrected Temp (°C): 2.0

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

02/26/2024 - Classification: Internal - ECRM13238692

Eurofins TestAmerica, Cedar Falls
3019 Venture Way
Cedar Falls IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

eurofins

Client Information	Sampler: Tyler Stirling 515-505-2716	Lab PM: Sandie Fredrick	Carrier Tracking No(s):	COC No:
Client Contact: Meghan Blodgett	Phone:	E-Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: SCS Engineers	PWSID:	Analysis Requested		Job #: 25223074
Address: 2830 Dairy Drive	Due Date Requested:			Preservation Codes: A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G - Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M - Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V - MCAA, W pH 4-5, Z other (specify); Other:
City: Madison	TAT Requested (days):			
State, Zip: WI 53718	Compliance Project: Δ Yes Δ No			
Phone: 608-224-2830	PO #: 25223074			
Email: mblodgett@scsengineers.com	WO #:			
Project Name: Prairie Creek Generating Station 25223074	Project #: 25223074			
Site: Cedar Rapids IA	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020 Metals (15) total (Sb As Ba Be B Ca Cd Cr Co Fe Pb Li Mo Se Tl)	7470 Mercury total	6020 Metals (3) total (As Li Mo)	TDS and pH	Chloride Fluoride Sulfate	EPA 903/904 Radium 226 + 228	Total Number of containers	Special Instructions/Note
			Preservation Code				D	D	D	I	I	D		
MW-301	4/20/23	10:35	G	W	N		X	X		X	X	X		
MW-301A	4/20/23	8:35	G	W	N		X	X		X	X	X		
MW-302	4/20/23	9:40	G	W	N		X	X		X	X	X		
MW-303	4/19/23	4:25	G	W	N		X	X		X	X	X		
MW-304	4/19/23	1:35	G	W	N		X	X		X	X	X		
MW-305	4/19/23	10:15	G	W	N		X	X		X	X	X		
MW-306	4/19/23	8:47	G	W	N		X	X		X	X	X		
MW-306A	4/19/23	9:10	G	W	N				X					
MW-307	4/20/23	11:35	G	W	N		X	X		X	X	X		
MW-308	4/20/23	1:15	G	W	N		X	X		X	X	X		
MW-309	4/19/23	3:40	G	W	N				X					

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Tyler S	4/21/23/10:00	SCS	MV	4/21/2023 16:20	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 01/16/2019

8/16/2023 (Rev. 1)

02/26/2024 - Classification: Internal - ECRM13238692

Eurofins TestAmerica, Cedar Falls
3019 Venture Way
Cedar Falls IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

eurofins

Client Information	Sampler: Tyler Stirling	Lab PM: Sandie Fredrick	Carrier Tracking No(s):	COC No:
Client Contact: Meghan Blodgett	Phone: 515-505-2716	E-Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: SCS Engineers	PWSID:			Job #: 25223074
Address: 2630 Dairy Drive	Due Date Requested:			
City: Madison	TAT Requested (days):			
State, Zip: WI 53718	Compliance Project: ∆ Yes ∆ No			
Phone: 608-224-2830	PO #: 25223074			
Email: mblodgett@scsengineers.com	WO #:			
Project Name: Prairie Creek Generating Station 25223074	Project #: 25223074			
Site: Cedar Rapids IA	SSOW#:			

Analysis Requested

Preservation Codes

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020 Metals (15) total (Sb As Ba Be B Ca Cd Cr Co Fe Pb Li Mo Se Tl)	7470 Mercury total	6020 Metals (3) total (As Li Mo)	TDS and pH	Chloride Fluoride Sulfate										Total Number of containers	Special Instructions/Note
			Preservation Code				D	D	D	I	I											
MW-309A	4/19/23	2:30	G	W	N				X													
MW-310	4/19/23	12:15	G	W	N				X													
MW-310A	4/19/23	11 15	G	W	N				X													
MW-312	4/19/23	5:15	G	W	N		X	X		X	X	X										
Field Blank	4/19/23		G	W	N		X	X		X	X	X										

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Tyler S	4/21/23 / 10:00	SCS	MV	4/21/2023 16:20	
2						
3						

Custody Seals Intact ∆ Yes ∆ No | Custody Seal No | Cooler Temperature(s) °C and Other Remarks:

8/16/2023 (Rev. 1)

02/26/2024 - Classification: Internal - ECRM13238692

Table 1 Sampling Points and Parameters - CCR Rule Sampling Program , April 2023
Groundwater Monitoring - Prairie Creek Generating Station / SCS Engineers Project #25223074

		Parameter	MW-301	MW 301A	MW-302	MW 303	MW 304	MW 305	MW-306	MW-306A	MW-307	MW 308	MW 309	MW 309A	MW-310	MW 310A	MW 311	MW 312	Field Blank	TOTAL
CCR Rule Parameters All unfiltered	Appendix III Parameters (Detection Monitoring)	Boron	x	x	x	x	x	x	x		x	x						x	x	11
		Calcium	x	x	x	x	x	x	x		x	x						x	x	11
		Chloride	x	x	x	x	x	x	x		x	x						x	x	11
		Fluoride	x	x	x	x	x	x	x		x	x						x	x	11
		pH	x	x	x	x	x	x	x		x	x						x	x	11
		Sulfate	x	x	x	x	x	x	x		x	x						x	x	11
		TDS	x	x	x	x	x	x	x		x	x						x	x	11
	Appendix IV Parameters (Assessment Monitoring)	Antimony	x	x	x	x	x	x	x		x	x						x	x	11
		Arsenic	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	16
		Barium	x	x	x	x	x	x	x		x	x						x	x	11
		Beryllium	x	x	x	x	x	x	x		x	x						x	x	11
		Cadmium	x	x	x	x	x	x	x		x	x						x	x	11
		Chromium	x	x	x	x	x	x	x		x	x						x	x	11
		Cobalt	x	x	x	x	x	x	x		x	x						x	x	11
		Fluoride	x	x	x	x	x	x	x		x	x						x	x	11
		Lead	x	x	x	x	x	x	x		x	x						x	x	11
		Lithium	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	16
		Mercury	x	x	x	x	x	x	x		x	x						x	x	11
		Molybdenum	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	16
		Selenium	x	x	x	x	x	x	x		x	x						x	x	11
		Thallium	x	x	x	x	x	x	x		x	x						x	x	11
		Radium	x	x	x	x	x	x	x		x	x						x	x	11
	Field Parameters	Groundwater Elevation	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		16
		pH	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		15
		Well Depth															x			1
		Specific Conductance	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		15
		Dissolved Oxygen	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		15
		ORP	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		15
		Temperature	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		15
		Turbidity (NTU)	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		15
		Color	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		15
		Odor	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		15
Additional Parameters	Total (Unfiltered)	Alkalinity - Carbonate																		0
		Alkalinity - Bicarbonate																		0
		Calcium																		0
		Iron	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		15
		Magnesium																		0
		Manganese																		0
		Potassium																		0
		Sodium																		0

8/16/2023 (Rev. 1)

02/26/2024 - Classification: Internal - ECRM13238692

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 310-60627.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Iowa		Job #: 310-254197-1
Address: 13715 Rider Trail North,	Due Date Requested: 5/23/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Prairie Creek Generating Station 25223074	Project #: 31011020			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Radium-226 (GFPC)	904.0/PrecSep_0 Radium-228 (GFPC)	Ra226_228GFPC_P/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW-301 (310-254197-1)	4/20/23	10:35 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-301A (310-254197-2)	4/20/23	08:35 Central		Water			X	X	X	1	DO NOT SHIP ON ICE TO ST. LOUIS
MW-302 (310-254197-3)	4/20/23	09:40 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-303 (310-254197-4)	4/19/23	16:25 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-304 (310-254197-5)	4/19/23	13:35 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-305 (310-254197-6)	4/19/23	10:15 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-306 (310-254197-7)	4/19/23	08:47 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-307 (310-254197-9)	4/20/23	11:35 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-308 (310-254197-10)	4/20/23	13:15 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by:	Date/Time: 4/24/23 1145	Company	Received by: FED EX	Date/Time:	Company
Relinquished by: FED EX	Date/Time:	Company	Received by:	Date/Time: 0900 APR 26 2023	Company ETA STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

8/16/2023 (Rev. 1)

02/26/2024 - Classification: Internal - ECRM13238692

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 310-60627.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin: Iowa	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Iowa		Job #: 310-254197-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/23/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Prairie Creek Generating Station 25223074	Project #: 31011020			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Radium-226 (GFPC)	904.0/PrecSep_0 Radium-228 (GFPC)	Ra226_228GFPC_P/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW-312 (310-254197-15)	4/19/23	17:15 Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS
Field Blank (310-254197-16)	4/19/23	Central		Water			X	X	X	2	DO NOT SHIP ON ICE TO ST. LOUIS

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	4/17/23 1145		FED EX		
Relinquished by: FED EX	Date/Time:	Company	Received by:	Date/Time: APR 26 2023 0900	Company ETA STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

8/16/2023 (Rev. 1)

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-254197-1

Login Number: 254197
List Number: 1
Creator: Richardson, Lydia E

List Source: Eurofins Cedar Falls

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

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-254197-1

Login Number: 254197
List Number: 2
Creator: Farrell, Conor P

List Source: Eurofins St. Louis
List Creation: 04/25/23 02:05 PM

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

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-254197-1

Login Number: 254197
List Number: 3
Creator: Farrell, Conor P

List Source: Eurofins St. Louis
List Creation: 04/26/23 02:50 PM

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

Tracer/Carrier Summary

Client: SCS Engineers
Job ID: 310-254197-1
Project/Site: Prairie Creek Generating Station 25223074

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba (30-110)
310-254197-1	MW-301	89.5
310-254197-2	MW-301A	86.9
310-254197-3	MW-302	88.8
310-254197-4	MW-303	35.0
310-254197-5	MW-304	85.2
310-254197-6	MW-305	89.5
310-254197-7	MW-306	48.2
310-254197-9	MW-307	89.1
310-254197-10	MW-308	90.3
310-254197-15	MW-312	68.6
310-254197-16	Field Blank	91.5
LCS 160-609838/2-A	Lab Control Sample	91.7
LCS 160-610041/2-A	Lab Control Sample	92.9
LCSD 160-609838/3-A	Lab Control Sample Dup	93.4
LCSD 160-610041/3-A	Lab Control Sample Dup	89.8
MB 160-609838/1-A	Method Blank	92.5
MB 160-610041/1-A	Method Blank	99.3

Tracer/Carrier Legend

Ba = Barium

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
310-254197-1	MW-301	89.5	83.0
310-254197-2	MW-301A	86.9	81.5
310-254197-3	MW-302	88.8	77.0
310-254197-4	MW-303	35.0	81.9
310-254197-5	MW-304	85.2	80.0
310-254197-6	MW-305	89.5	84.9
310-254197-7	MW-306	48.2	86.0
310-254197-9	MW-307	89.1	87.5
310-254197-10	MW-308	90.3	75.1
310-254197-15	MW-312	68.6	83.0
310-254197-16	Field Blank	91.5	82.2
LCS 160-609841/2-A	Lab Control Sample	91.7	89.3
LCS 160-610048/2-A	Lab Control Sample	92.9	80.4
LCSD 160-609841/3-A	Lab Control Sample Dup	93.4	85.6
LCSD 160-610048/3-A	Lab Control Sample Dup	89.8	81.9
MB 160-609841/1-A	Method Blank	92.5	85.2
MB 160-610048/1-A	Method Blank	99.3	83.4

Tracer/Carrier Legend

Ba = Barium
Y = Y Carrier

Groundwater Monitoring Results - Field Parameters
Prairie Creek Generating Station / SCS Engineers Project #25222074.00
April 2023

Sample	Sample Date/Time	GW Elevation (ft amsl)	Temperature (Deg. C)	pH (Std. Units)	Dissolved Oxygen (mg/L)	Specific Conductivity µmhos/cm	ORP (mV)	Turbidity
MW-301	4/20/2023 10:30	714.10	10.9	6.92	4.66	1231	110.7	0.02
MW-301A	4/20/2023 8:35	708.02	10.1	6.89	3.84	568.2	177.2	NA
MW-302	4/20/2023 9:40	713.90	7.2	6.80	2.49	1095	113.3	0.02
MW-303	4/19/2023 4:25	702.37	8.1	7.20	0.13	940	-76.1	0.99
MW-304	4/19/2023 1:35	702.43	9.2	7.00	0.11	1014	-40.7	0.02
MW-305	4/19/2023 10:15	702.36	7.3	7.07	0.80	1192	42.0	0.10
MW-306	4/19/2023 8:47	702.74	12.0	7.60	0.35	632	-124.0	0.02
MW-306A	4/19/2023 9:10	703.03	12.1	7.32	0.19	1163	-84.6	0.02
MW-307	4/20/2023 11:35	707.21	11.5	9.17	0.23	214.8	102.7	0.02
MW-308	4/20/2023 1:15	703.97	12.4	9.20	0.15	689	-116.4	0.02
MW-309	4/19/2023 3:40	702.30	12.6	7.37	0.19	1066	-88.6	5.19
MW-309A	4/19/2023 2:30	702.61	14.7	7.32	0.18	893	-119.6	0.02
MW-310	4/19/2023 12:15	702.04	12.2	7.39	0.19	1060	-128.4	4.61
MW-310A	4/19/2023 11:15	704.44	14.4	7.41	0.26	1,015	-124.4	0.02
MW-312	4/19/2023	701.96	17.8	7.04	0.11	799	-82.3	1.36

Abbreviations:
mg/L = milligrams per liter
mV = millivolts
amsl = above mean sea level
NA = Not Analyzed
NM = Not measured

Notes:

Created by: DK Date: 4/26/2023
Last revision by: DK Date: 4/26/2023
Checked by: MDB Date: 4/27/2023

C:\Users\hld0\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\USG3GGGC\[2304_PCS_CCR_Field.xlsx]Sheet1

NOTE: Please don't type in to the Checked By cells above, enter your info. on the Revision History tab instead. The cells above will automatically fill in.
REMEMBER TO UPDATE THE REVISION HISTORY TAB!!

Appendix D

Historical Results

02/26/2024 - Classification: Internal - ECRM13238692

Single Location

Name: IPL - Prairie Creek Generating Station

Location ID: MW-301
Number of Sampling Dates: 21

Parameter Name	Units	12/20/2016	1/23/2017	2/23/2017	3/28/2017	4/26/2017	5/25/2017	6/28/2017	8/17/2017	10/17/2017	5/8/2018	8/6/2018	10/9/2018	4/22/2019	10/28/2019	4/27/2020	10/19/2020	4/27/2021	10/21/2021	4/25/2022	10/12/2022	4/20/2023
Boron	ug/L	<50	<50	25.2	23.8	37.3	40.8	24.6	28.9	26.8	22.8	30.9	30.6	<110	<110	<73	<80	<58	<58	<58	<58	<380
Calcium	mg/L	137	140	148	144	112	106	136	142	139	155	154	163	130	160	140	150	130	160	180	170	200
Chloride	mg/L	19.5	24.1	24.4	23.3	19.2	19.1	26.2	30.4	33.6	51.4	57.4	62	43	46	40	67	58	98	85	110	100
Fluoride	mg/L	0.13	0.079	0.13	0.1	0.1	<0.1	0.15	0.21	0.17	0.2	0.16	0.22	<0.23	<0.23	<0.23	<0.23	<0.28	<0.28	<0.22	<0.22	<0.38
Field pH	Std. Units	6.78	6.8	6.57	6.9	6.41	6.41	7	6.97	7.46	7.51	6.81	7.63	6.99	6.69	7.09	6.89	6.81	6.9	6.92	7.03	6.92
Sulfate	mg/L	108	101	99.2	107	82.5	74.7	108	101	95.5	117	113	131	100	110	110	98	93	100	89	100	100
Total Dissolved Solids	mg/L	556	587	611	615	495	479	642	640	621	784	747	743	610	680	640	660	550	690	680	730	700
Antimony	ug/L	0.28	0.2	0.057	0.06	0.034	0.065	0.088	0.18	--	0.041	<0.15	<0.078	<0.53	<0.53	<0.58	<0.51	<1.1	<1.1	<0.69	<0.69	<5
Arsenic	ug/L	0.7	0.69	0.55	0.54	0.55	0.5	0.62	1.8	--	0.54	1.1	0.67	<0.75	<0.75	<0.88	<0.88	<0.75	0.88	0.8	<0.75	<2.7
Barium	ug/L	250	257	264	264	211	205	265	291	--	282	281	261	230	270	260	270	250	270	280	290	270
Beryllium	ug/L	<0.08	<0.08	0.075	0.012	0.023	0.016	<0.012	0.14	--	<0.012	--	<0.089	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<1.7
Cadmium	ug/L	<0.029	0.059	0.066	0.072	0.063	0.061	0.073	0.12	--	0.069	0.096	0.075	<0.077	0.064	0.066	0.073	0.062	0.11	0.072	0.068	<0.5
Chromium	ug/L	3.9	4.3	4.5	4.4	4.7	3.4	3.9	9.9	--	4.1	5.8	5.2	3.6	5.4	4.7	4.9	4.2	5.2	5.3	4.8	<5.5
Cobalt	ug/L	<0.5	<0.5	0.25	0.11	0.28	0.18	0.057	2.1	--	0.028	0.52	0.084	0.12	0.12	0.23	<0.091	0.15	<0.19	<0.19	<0.19	<0.85
Lead	ug/L	<0.19	0.23	0.16	0.086	0.4	0.25	0.058	1.9	--	<0.033	0.66	0.17	<0.27	<0.27	0.27	<0.11	<0.21	0.37	<0.24	<0.24	<1.2
Lithium	ug/L	14.9	13.4	11.1	12.6	8.6	6.1	8.9	16.8	--	13.6	5.4	13.3	8.5	12	11	15	13	13	17	14	16
Mercury	ug/L	<0.039	<0.039	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	--	<0.09	--	<0.09	<0.1	<0.1	<0.1	--	<0.15	<0.15	<0.11	<0.11	<0.14
Molybdenum	ug/L	0.61	0.34	0.38	0.45	0.23	0.26	0.33	0.44	--	0.35	0.44	<0.57	<1.1	<1.1	<1.1	<1.1	<1.3	<1.3	<1.2	<1.2	<4.6
Selenium	ug/L	0.97	1.2	0.98	1	0.72	0.69	1.1	1.2	--	1.3	1.3	0.95	1.1	1.7	<1	--	<0.96	1.1	2.9	1.3	<7
Thallium	ug/L	<0.5	<0.5	<0.036	<0.036	0.12	0.043	0.081	0.3	--	<0.036	--	<0.099	<0.27	<0.27	<0.26	--	<0.26	<0.26	0.27	<0.26	<1.3
Total Radium	pCi/L	1.06	0.957	1.42	1.42	1.14	0.877	2.53	1.52	--	1	1.07	1.09	--	0.708	0.477	0.975	0.844	0.606	0.845	0.977	0.391
Radium-226	pCi/L	0	0.404	0.438	0.665	0.479	0.379	0.793	0.576	--	0.484	0.429	0.478	--	0.259	0.283	0.656	0.287	0.256	0.379	0.365	0.252
Radium-228	pCi/L	1.06	0.553	0.981	0.75	0.662	0.498	1.74	0.946	--	0.516	0.643	0.612	--	<0.512	<0.311	0.319	0.557	0.35	0.466	0.612	0.14
pH at 25 Degrees C	Std. Units	7	8	7.2	6.8	6.8	7.1	7.3	7.2	7.4	7	7.1	7.1	6.9	6.9	6.9	7	6.9	7	7.1	7	7
Field Oxidation Potential	mV	91.3	54.7	175.5	120.8	141.5	155	143.1	90.3	191	32.7	237	60	38.2	-7.3	208.3	67.9	168.4	180.3	120	-41.3	110.7
Field Specific Conductance	umhos/cm	1370	895	918	1350	1400	694	901	1326	949	1060	1105	1052	987	1036	954	983	931	1205	1155	1184	1231
Field Temperature	deg C	11.7	11.2	10.7	10.2	9.9	10.45	11.1	12.2	12.6	10.5	12.3	14.9	10.53	11.34	11.1	11.8	10.4	12.3	10.4	13	10.9
Groundwater Elevation	feet	716.05	716.05	715.87	715.8	716.7	717.08	716.1	715.35	714.36	713.95	714.3	715.74	716.44	715.86	715.8	714.77	715.84	713.44	714.5	722.08	714.1
Oxygen, Dissolved	mg/L	2.54	2.75	2.42	3.22	3.88	4.19	2.46	3.21	2.4	38.3	3.6	4.03	6.68	4.63	3.5	3.69	3.76	4.67	4.14	4.18	4.66
Turbidity	NTU	3.57	6.66	4.57	11.36	1.61	0.78	0.61	95.83	124.2	0.72	17.05	9.97	6.92	2.8	6.52	6.01	2.04	9.7	20.6	3.18	0.02
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	470	340	420	430	490	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<3.8	<2.3	<4.6	<4.6	<4.6	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	470	340	420	430	490	--
Calcium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	150000	--	--	--	180000	--
Iron, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	73	82	52	<36	<36	<180
Magnesium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	44000	41000	48000	52000	54000	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<4	<4.4	<4.4	<3.6	<3.6	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<50	<36	<36	<36	<36	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<4	<4.4	<4.4	<3.6	5.5	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	930	1300	930	930	1100	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14000	14000	15000	17000	17000	--

Single Location

Name: IPL - Prairie Creek Generating Station

Location ID: MW-301A
Number of Sampling Dates: 7

Parameter Name	Units	9/15/2020	10/21/2020	4/28/2021	10/22/2021	4/29/2022	10/13/2022	4/20/2023
Boron	ug/L	<80	<80	71	61	74	68	<380
Calcium	mg/L	72	76	68	59	68	69	73
Chloride	mg/L	4.1	2.6	<2.2	<2.2	<2.3	2.7	4.1
Fluoride	mg/L	<0.23	<0.23	<0.28	<0.28	<0.22	<0.22	<0.38
Field pH	Std. Units	7.5	6.85	7.17	7.15	6.94	7	6.89
Sulfate	mg/L	6.4	7.8	5.3	7	4.8	4	3.6
Total Dissolved Solids	mg/L	440	310	250	200	230	250	260
Antimony	ug/L	<0.51	<0.51	<1.1	<1.1	<0.69	<0.69	<5
Arsenic	ug/L	3.7	1.9	0.87	1.4	3.3	1.3	<2.7
Barium	ug/L	290	190	160	130	150	140	120
Beryllium	ug/L	0.98	<0.27	<0.27	<0.27	<0.27	<0.27	<1.7
Cadmium	ug/L	0.49	0.054	<0.051	0.075	<0.055	<0.055	<0.5
Chromium	ug/L	5.1	1.1	<1.1	<1.1	<1.1	<1.1	<5.5
Cobalt	ug/L	9.4	2	1.2	0.96	0.91	0.76	<0.85
Lead	ug/L	5.6	1	0.21	0.49	<0.24	0.41	<1.2
Lithium	ug/L	4.2	4.1	<2.5	<2.5	<2.5	<2.5	<13
Mercury	ug/L	<0.1	--	<0.15	<0.15	<0.11	<0.11	<0.14
Molybdenum	ug/L	2.1	3.1	3.1	3.1	2.5	3.4	<4.6
Selenium	ug/L	<1	--	<0.96	<0.96	<0.96	<0.96	<7
Thallium	ug/L	<0.26	--	<0.26	<0.26	<0.26	<0.26	<1.3
Total Radium	pCi/L	8.3	1.47	0.823	1.27	0.698	0.876	1.85
Radium-226	pCi/L	3.93	0.441	0.35	0.323	0.283	0.5	0.497
Radium-228	pCi/L	4.37	1.03	0.473	0.948	0.414	0.376	1.35
pH at 25 Degrees C	Std. Units	6.9	7	7.1	7.2	7	6.9	7.1
Field Oxidation Potential	mV	131.6	-92.6	11.7	37.5	116	41.8	177.2
Field Specific Conductance	umhos/cm	470.5	551.4	930	537.9	583.3	537.2	568.2
Field Temperature	deg C	16	11.6	9.7	13.3	12.9	12.7	10.1
Groundwater Elevation	feet	--	--	716.76	707.07	707.77	706.76	708.02
Oxygen, Dissolved	mg/L	7.77	1.77	1.68	2.39	--	2.19	3.84
Turbidity	NTU	284.7	--	2.04	32.2	20.3	4.27	--
Bicarbonate Alkalinity as CaCO3	mg/L	--	330	310	320	290	300	--
Carbonate Alkalinity as CaCO3	mg/L	--	<3.8	<4.6	<4.6	<4.6	<4.6	--
Total Alkalinity as CaCO3	mg/L	--	330	310	320	290	300	--
Calcium, total	ug/L	--	75000	--	--	--	76000	--
Iron, total	ug/L	--	1000	200	790	2500	6700	1900
Magnesium, total	ug/L	--	23000	21000	16000	19000	23000	--
Manganese, total	ug/L	--	700	300	420	380	460	--
Iron, dissolved	ug/L	--	97	130	<36	2300	4600	--
Manganese, dissolved	ug/L	--	690	290	320	380	380	--
Potassium, total	ug/L	--	2100	1700	1300	1300	1600	--
Sodium, total	ug/L	--	14000	12000	9400	11000	12000	--

Single Location

Name: IPL - Prairie Creek Generating Station

Location ID: MW-302
Number of Sampling Dates: 21

Parameter Name	Units	12/20/2016	1/23/2017	2/23/2017	3/28/2017	4/26/2017	5/25/2017	6/28/2017	8/17/2017	10/17/2017	5/8/2018	8/6/2018	10/9/2018	4/22/2019	10/28/2019	4/27/2020	10/19/2020	4/27/2021	10/21/2021	4/25/2022	10/12/2022	4/20/2023
Boron	ug/L	<50	<50	30.1	33.7	36.5	51.6	51.8	45.1	36.5	22.4	38.1	65	<110	<110	<73	<80	<58	<58	100	<58	<380
Calcium	mg/L	107	106	95	95	102	41.4	66.7	93.1	109	125	106	63.3	67	81	86	110	76	130	65	140	170
Chloride	mg/L	22.6	21.4	19.2	21.6	19.9	8.1	9.6	20.7	36.4	69.4	33.6	20.2	19	23	28	49	23	82	7.2	92	120
Fluoride	mg/L	0.16	0.079	0.1	<0.1	0.12	<0.1	0.15	0.2	0.19	0.23	0.17	0.21	<0.23	<0.23	<0.23	<0.23	<0.28	<0.28	<0.22	<0.22	<0.38
Field pH	Std. Units	6.36	6.72	6.38	6.66	6.44	6.27	6.6	6.23	7.71	6.98	6.55	6.5	6.64	6.37	6.27	6.67	6.96	7.15	5.35	6.63	6.8
Sulfate	mg/L	77.7	75.6	69.7	72.9	66.4	28.9	49.5	70	82.9	69.6	72.2	55.1	56	72	66	78	57	89	140	89	80
Total Dissolved Solids	mg/L	465	463	416	432	445	203	341	432	505	718	503	314	320	420	400	480	330	500	340	620	590
Antimony	ug/L	0.32	0.14	0.049	0.067	0.028	0.077	0.067	0.11	--	0.048	0.17	0.092	<0.53	<0.53	<0.58	<0.51	<1.1	<1.1	<0.69	<0.69	<5
Arsenic	ug/L	2.3	1.7	1.6	2.7	2.4	3.2	1.6	1.9	--	0.79	9	4.5	2.1	7	4.4	2	3.4	0.9	1.2	0.76	<2.7
Barium	ug/L	200	194	166	187	176	109	133	175	--	213	254	141	130	220	210	200	160	220	110	210	170
Beryllium	ug/L	<0.08	<0.08	0.078	0.023	<0.012	0.019	<0.012	<0.012	--	<0.012	--	<0.089	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<1.7
Cadmium	ug/L	<0.029	<0.029	0.04	0.036	0.042	0.021	0.035	0.03	--	0.041	0.084	<0.033	<0.077	0.053	0.098	0.062	0.065	0.08	0.38	0.072	<0.5
Chromium	ug/L	3.3	2.1	1.7	1.4	1.5	0.8	0.91	1.5	--	1.2	4.4	0.78	<0.98	2.1	2.8	2.2	1.4	2	<1.1	2	<5.5
Cobalt	ug/L	2.7	2.2	3	4.7	2.1	2.1	1.2	1.4	--	3.2	1.6	3.2	2.1	1.2	0.56	0.33	0.37	<0.19	31	0.21	1.5
Lead	ug/L	0.55	<0.19	0.14	0.2	0.083	0.16	0.034	<0.033	--	0.035	1.2	0.13	<0.27	<0.27	<0.27	<0.11	<0.21	<0.21	0.26	<0.24	<1.2
Lithium	ug/L	8.7	7.7	3.4	5.3	4.9	<2.9	<2.9	11.9	--	5.4	<4.6	4.6	4.7	5.3	3.8	8.2	6.3	6.9	5	7.8	<13
Mercury	ug/L	<0.039	<0.039	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	--	<0.09	--	<0.09	<0.1	<0.1	<0.1	--	<0.15	<0.15	<0.11	<0.11	<0.14
Molybdenum	ug/L	0.76	0.43	0.45	0.38	0.52	0.28	0.38	0.38	--	0.99	0.78	0.67	<1.1	<1.1	<1.1	<1.1	<1.3	<1.3	<1.2	<1.2	<4.6
Selenium	ug/L	0.55	0.36	0.37	0.43	0.44	0.28	0.44	0.46	--	0.54	1.4	0.37	<1	1.1	<1	--	0.96	<0.96	3.7	1.2	<7
Thallium	ug/L	<0.5	<0.5	0.05	0.044	0.058	<0.036	<0.036	0.18	--	0.039	--	<0.099	<0.27	<0.27	<0.26	--	<0.26	<0.26	0.37	<0.26	<1.3
Total Radium	pCi/L	0.597	0.138	0.655	0.447	0.713	1.3	1.12	1.21	--	0.699	3.61	1.09	--	0.562	0.392	1.22	1.31	0.77	0.489	0.681	0.94
Radium-226	pCi/L	0	0.138	0.267	0.239	0.311	0.49	0.265	0.211	--	0.507	2.15	0.54	--	0.228	0.113	0.54	0.778	0.195	0.145	0.378	0.0892
Radium-228	pCi/L	0.597	-0.321	0.388	0.208	0.402	0.809	0.852	0.997	--	0.192	1.46	0.554	--	<0.385	<0.307	0.684	0.533	0.575	0.344	0.302	0.85
pH at 25 Degrees C	Std. Units	6.8	7.2	6.6	6.4	6.8	6.9	7.3	6.6	6.8	6.9	6.9	7	6.8	6.6	6.7	6.8	6.8	6.7	5.5	6.9	7.1
Field Oxidation Potential	mV	-9.4	-12.1	40.7	-44.7	54.5	29.2	53.3	90.2	181	-10.9	61	-32	-0.2	-5.8	30	21.5	24.1	122.3	160.1	48.3	113.3
Field Specific Conductance	umhos/cm	1182	712.2	624.9	1053	1283	317	481.6	876	824	708.6	786	515	533	587	587.9	761	889	969	534.2	1051	1095
Field Temperature	deg C	10.6	7.8	6.5	6.4	8.1	10.59	12.8	15.3	15	7.5	16	16.7	7.86	13.74	8.1	13.6	9	14.1	6.8	14.7	7.2
Groundwater Elevation	feet	715.39	715.77	715.55	715.45	716.07	716.27	715.22	714.47	713.92	713.53	713.83	716.72	715.69	715.27	715.17	713.75	715.36	713.09	715.27	712.56	713.9
Oxygen, Dissolved	mg/L	2.57	2.78	1.73	2.22	2.43	0.9	1.23	1.69	1.4	3.1	1.7	0.5	3.34	1.8	1.39	2.22	0.12	3.47	0.25	2.53	2.49
Turbidity	NTU	19.02	0.95	0.8	4.89	0.82	1.52	0.5	0.61	4.75	1.75	8.95	10.52	90.3	6.92	27.5	8.15	2.7	15.3	24.2	4.35	0.02
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	310	210	340	88	360	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<3.8	<2.3	<4.6	<4.6	<4.6	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	310	210	340	88	360	--
Calcium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	110000	--	--	--	150000	--
Iron, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2200	3400	400	810	170	1600
Magnesium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	33000	24000	39000	13000	47000	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	89	82	5	4400	20	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	430	500	<36	140	<36	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	77	81	<4.4	3800	18	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	640	480	690	3900	820	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16000	12000	16000	18000	21000	--

Single Location

Name: IPL - Prairie Creek Generating Station

Location ID: MW-303
Number of Sampling Dates: 21

Parameter Name	Units	12/20/2016	1/23/2017	2/23/2017	3/28/2017	4/26/2017	5/25/2017	6/28/2017	8/17/2017	10/17/2017	5/8/2018	8/6/2018	10/9/2018	4/22/2019	10/29/2019	4/27/2020	10/20/2020	4/27/2021	10/21/2021	4/26/2022	10/12/2022	4/19/2023
Boron	ug/L	767	773	851	852	705	644	603	650	598	772	753	932	800	940	790	1300	920	1100	850	1100	1000
Calcium	mg/L	68.7	71.4	85.4	82.7	71.5	67.8	63.5	66.2	59.9	102	85.4	99.9	130	120	110	110	89	110	110	120	130
Chloride	mg/L	17.6	18.7	19.6	18.9	20.2	21	19.7	19.4	19.9	26.1	20.2	23.9	33	20	18	13	12	13	11	13	18
Fluoride	mg/L	0.55	0.55	0.44	0.48	0.54	0.45	0.53	0.7	0.8	0.5	0.6	0.71	0.35	0.51	0.69	0.67	0.42	0.4	<0.22	0.3	0.49
Field pH	Std. Units	7.37	7.55	7.09	7.57	7.18	7.11	7.2	7.22	7.94	7.23	7.2	7.13	7.31	7.12	6.78	7.08	6.96	7.16	7.07	7.08	7.2
Sulfate	mg/L	72.6	72.7	82.4	80.4	65.1	56	76.2	83.5	60	146	83.3	74.7	88	95	120	130	110	130	100	160	120
Total Dissolved Solids	mg/L	346	375	413	414	372	367	365	397	329	580	475	515	650	580	630	580	440	480	490	660	520
Antimony	ug/L	2	1.7	1.2	1	1	0.86	0.84	1.6	--	0.61	1.1	0.72	<0.53	<0.53	<0.58	<0.51	<1.1	<1.1	<0.69	<0.69	<5
Arsenic	ug/L	20.8	23.1	23.4	25	22.9	23.6	24.2	30	--	26.9	35.1	44.5	26	52	48	56	39	46	36	42	34
Barium	ug/L	68.8	66	75.4	74.6	67.6	66.6	65.8	62.5	--	87.5	82.7	94.3	150	120	130	120	90	110	96	130	100
Beryllium	ug/L	<0.08	<0.08	0.072	0.013	<0.012	<0.012	<0.012	<0.012	--	<0.012	--	<0.089	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<1.7
Cadmium	ug/L	<0.029	<0.029	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	--	<0.018	0.24	<0.033	<0.077	<0.039	0.066	<0.049	<0.051	<0.051	<0.055	<0.055	<0.5
Chromium	ug/L	1.1	0.6	0.28	<0.054	0.14	0.21	0.18	0.29	--	0.19	0.62	0.55	<0.98	<0.98	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<5.5
Cobalt	ug/L	<0.5	<0.5	0.4	0.3	0.3	0.3	0.35	0.3	--	0.31	0.66	0.43	1.3	0.87	1.1	0.43	0.48	0.43	0.42	0.43	<0.85
Lead	ug/L	0.36	<0.19	0.037	<0.033	0.095	0.12	0.12	0.057	--	0.078	0.48	0.31	0.3	0.43	1.7	0.18	<0.21	<0.21	<0.24	0.58	<1.2
Lithium	ug/L	19	20.5	17.7	19.8	14.6	15.4	13.1	18.8	--	19	15.4	19.9	17	17	14	21	16	17	18	18	16
Mercury	ug/L	<0.039	<0.039	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	--	<0.09	--	<0.09	<0.1	<0.1	<0.1	--	<0.15	<0.15	<0.11	<0.11	<0.14
Molybdenum	ug/L	37.8	30.5	26.7	26.7	23.2	20.6	25.6	35.2	--	23.1	20.7	21.7	12	20	8.4	17	12	14	11	15	12
Selenium	ug/L	<0.18	<0.18	<0.086	0.14	0.15	0.11	0.11	0.33	--	0.24	0.46	0.21	<1	<1	<1	--	<0.96	<0.96	1.3	<0.96	<7
Thallium	ug/L	<0.5	<0.5	<0.036	<0.036	<0.036	0.089	<0.036	0.18	--	<0.036	--	<0.099	<0.27	<0.27	<0.26	--	<0.26	<0.26	<0.26	<0.26	<1.3
Total Radium	pCi/L	0.925	0.647	0.375	0.53	0.71	0.977	1.55	0.995	--	1.26	0.847	1.08	--	<0.522	1.41	0.56	0.519	0.963	0.276	0.783	0.375
Radium-226	pCi/L	0.545	0.535	0	0.192	0.0625	0.112	0.383	0.537	--	0.242	-0.126	0.62	--	0.164	<0.324	0.508	0.0943	0.231	0.16	0.514	0.0477
Radium-228	pCi/L	0.38	0.112	0.375	0.338	0.647	0.865	1.17	0.458	--	1.02	0.847	0.457	--	<0.522	1.11	0.0517	0.425	0.732	0.115	0.269	0.327
pH at 25 Degrees C	Std. Units	7	8	7.4	7.2	7.3	7.4	7.8	7.5	7.5	7.4	7.4	7.5	7.4	7.2	7.2	7.2	7.3	7.2	7.3	7.2	7.3
Field Oxidation Potential	mV	-58.2	-58.1	4.1	-118.3	-6.4	-12.2	192.3	79.8	-85	-92.8	-126	-87	-110.3	-139.1	-143.2	-147.8	11.7	-89.8	-70.1	-32	-76.1
Field Specific Conductance	umhos/cm	916	602.3	663.2	1024	1107	549	941	834	564	836	764	881	1084	981	922	853	734	911	756	1047	940
Field Temperature	deg C	13	11.7	10.9	11.3	11.7	13.26	13.9	15.1	16.4	9.5	16	17.4	9.59	14.47	9.3	15.1	9	16.2	8.7	15.6	8.1
Groundwater Elevation	feet	703.36	704.64	704.46	703.81	705.07	705.37	703.96	702.83	702.95	705.36	702.62	707.86	703.83	704.1	703.1	702.16	702.75	701.84	703.85	701.93	702.37
Oxygen, Dissolved	mg/L	0.18	0.17	0.13	0.12	0.13	0.26	0.27	0.05	0	1.7	0.1	0.2	1.14	0.35	0.14	0.08	0.19	0.24	0.1	0.06	0.13
Turbidity	NTU	9.52	0.5	0.3	0.01	0.19	0.34	2.72	0.11	3.58	1.08	4.99	17.2	18.4	3.02	25.9	0.8	2.1	10.4	9.97	1.15	0.99
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	370	290	430	360	410	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<3.8	<2.3	<4.6	<4.6	<4.6	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	370	290	430	360	410	--
Calcium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	100000	--	--	--	140000	--
Iron, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3400	3100	3600	3500	3200	2400
Magnesium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	35000	31000	35000	35000	44000	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1400	1400	1500	1600	1700	--
Arsenic, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	53	39	44	32	48	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3100	3100	2900	3000	2800	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1400	1400	1400	1400	1700	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4800	3900	4700	4100	5500	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	34000	30000	34000	34000	40000	--

Single Location

Name: IPL - Prairie Creek Generating Station

Location ID: MW-304
Number of Sampling Dates: 22

Parameter Name	Units	12/21/2016	1/24/2017	2/23/2017	3/28/2017	4/26/2017	5/25/2017	6/28/2017	8/17/2017	10/17/2017	5/8/2018	8/6/2018	10/9/2018	3/11/2019	4/22/2019	10/29/2019	4/27/2020	10/20/2020	4/27/2021	10/21/2021	4/26/2022	10/12/2022	4/19/2023
Boron	ug/L	372	323	277	224	218	212	310	412	386	384	841	661	--	770	610	770	860	790	810	740	960	770
Calcium	mg/L	71	68.2	73.6	63.6	66.6	63.5	62.9	55.4	49.3	73.5	93	89	--	130	96	110	98	120	130	140	130	130
Chloride	mg/L	20.2	20.6	21.4	23.7	21.7	22.1	20.1	22.9	23.4	24.6	36.6	33.6	--	27	20	15	12	12	15	10	12	9.5
Fluoride	mg/L	0.84	0.8	0.72	0.78	0.87	0.79	0.86	0.84	0.78	0.58	0.55	0.61	--	0.41	0.51	0.67	0.56	0.41	0.53	<0.22	0.34	0.51
Field pH	Std. Units	7.09	7.25	7.01	7.58	7.23	7.23	7.4	7.34	8.16	7.31	6.92	7.5	5.82	7.08	6.9	6.84	6.84	6.9	7.07	7	7.04	7
Sulfate	mg/L	93.8	96.1	107	109	111	115	132	85.9	55.1	77.3	193	167	--	140	110	110	110	140	220	160	220	220
Total Dissolved Solids	mg/L	396	399	402	411	406	418	468	359	298	423	630	541	--	680	490	590	500	610	620	660	710	610
Antimony	ug/L	2.4	2.1	1.9	1.9	1.9	2.1	2.2	2.6	--	1.3	1.3	1.4	--	1.2	1.5	1	1	<1.1	1.1	1.4	1.1	<5
Arsenic	ug/L	11.4	11.7	12	10.1	9.4	16.6	10.2	8.6	--	15	12.3	14.4	12.9	11	14	11	14	13	16	14	19	14
Barium	ug/L	65.3	59.8	56.4	51.6	46.6	95	51.1	48.7	--	95	121	110	--	140	110	120	110	120	120	120	120	100
Beryllium	ug/L	<0.08	<0.08	0.064	<0.012	<0.012	<0.012	<0.012	<0.012	--	<0.012	--	<0.089	--	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<1.7
Cadmium	ug/L	<0.029	<0.029	<0.018	<0.018	<0.018	0.018	0.023	<0.018	--	<0.018	<0.07	<0.033	--	<0.077	0.074	<0.039	<0.049	<0.051	<0.051	<0.055	<0.055	<0.5
Chromium	ug/L	0.58	0.5	0.41	<0.054	0.99	0.2	0.16	0.32	--	0.15	0.34	0.31	--	<0.98	<0.98	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<5.5
Cobalt	ug/L	0.75	0.72	0.79	0.83	0.63	0.74	0.83	0.55	--	0.57	1.1	0.75	--	1.4	1.2	1.1	1.1	0.91	0.9	0.73	0.65	0.89
Lead	ug/L	<0.19	<0.19	0.11	0.043	0.061	0.1	0.042	0.034	--	0.045	0.24	<0.13	--	<0.27	0.27	<0.27	<0.11	<0.21	0.24	<0.24	<0.24	<1.2
Lithium	ug/L	12.1	12	10.6	8.2	9.6	8.6	9.9	14.4	--	10.8	6.9	13.4	--	17	13	11	17	14	14	16	15	15
Mercury	ug/L	<0.039	<0.039	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	--	<0.09	--	<0.09	--	<0.1	<0.1	<0.1	--	<0.15	<0.15	<0.11	<0.11	<0.14
Molybdenum	ug/L	33.5	29.3	27.5	28.4	28.3	28.5	32.6	33.8	--	19.8	25.4	27.6	--	23	31	26	28	25	31	24	27	20
Selenium	ug/L	1.1	1	1.4	1.2	1.5	1.8	1.7	0.85	--	0.12	0.23	0.16	--	<1	<1	<1	--	<0.96	<0.96	1	<0.96	<7
Thallium	ug/L	<0.5	<0.5	<0.036	<0.036	0.12	0.037	0.068	<0.036	--	<0.036	--	<0.099	--	<0.27	<0.27	<0.26	--	<0.26	<0.26	<0.26	<0.26	<1.3
Total Radium	pCi/L	1.74	0.439	0.162	0.311	0.632	0.964	1.15	0.384	--	1.26	0.768	1.31	--	--	<0.513	0.707	0.958	0.726	0.407	0.439	0.811	0.3
Radium-226	pCi/L	0.522	0.131	0.162	0.261	0.497	0.412	0.0708	0.355	--	0.589	0.271	0.175	--	--	<0.141	0.232	0.152	0.219	0.523	0.239	0.265	0.0991
Radium-228	pCi/L	1.22	0.308	-0.0742	0.0497	0.135	0.552	1.08	0.0285	--	0.666	0.497	1.13	--	--	<0.513	0.475	0.807	0.507	-0.116	0.2	0.545	0.201
pH at 25 Degrees C	Std. Units	6.9	7.9	7.4	7.2	7.3	7.6	8	7.3	7.6	7.2	7.2	7.2	--	7.2	7	7	7	7.2	7.1	7.2	7.2	7.2
Field Oxidation Potential	mV	-72.9	-66.6	-80	-111.7	-15.1	-17.7	79.1	-40.9	-123	-151	-89	-18.1	-84.2	-62	-74.3	-85	-99.3	-15.8	-60.7	-54	7.5	-40.7
Field Specific Conductance	umhos/cm	993	622.8	621.3	1028	1144	602	1124	856	532	514	934	812	537	1125	816	841	771	968	1053	954	1081	1014
Field Temperature	deg C	16.1	12.6	10.8	9.9	10.3	11.9	14.4	18.7	20.6	11.8	18.1	18.8	8.8	9.64	15.67	10.1	15.7	9.1	16.1	8.3	15.6	9.2
Groundwater Elevation	feet	703.42	704.56	704.65	703.99	705.08	705.37	704.16	702.96	703.17	705.54	702.62	707.81	704.24	703.93	704.15	702.84	702.13	702.8	701.8	703.82	701.86	702.43
Oxygen, Dissolved	mg/L	0.07	0.12	0.14	0.15	0.13	0.2	0.23	0.18	0	0.1	0.2	0.21	0.86	0.93	0.28	0.14	0.08	0.21	0.25	0.1	0.05	0.11
Turbidity	NTU	3.65	0.91	0.43	1.13	2.23	1.4	1.76	3.9	12.65	3.98	10.26	9.07	8.73	4.99	2.96	1.63	0.02	1.2	8.5	21.8	1.65	0.02
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	350	380	380	430	390	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<3.8	<4.6	<4.6	<4.6	<4.6	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	350	380	380	430	390	--
Calcium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	92000	--	--	--	140000	--
Iron, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2000	3100	1600	3600	1200	2300
Magnesium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	29000	40000	39000	47000	45000	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1200	1400	1300	1800	1300	--
Arsenic, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14	13	15	13	20	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2000	3100	1500	2900	1100	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1200	1400	1200	1500	1300	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5200	5000	5600	5300	6000	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	40000	50000	39000	49000	46000	--

Single Location

Name: IPL - Prairie Creek Generating Station

Location ID: MW-305
Number of Sampling Dates: 22

Parameter Name	Units	12/21/2016	1/24/2017	2/23/2017	3/28/2017	4/27/2017	5/25/2017	6/28/2017	8/17/2017	10/17/2017	5/8/2018	8/6/2018	10/9/2018	3/11/2019	4/22/2019	10/29/2019	4/27/2020	10/20/2020	4/27/2021	10/20/2021	4/26/2022	10/12/2022	4/19/2023
Boron	ug/L	363	353	316	274	229	243	342	537	462	437	589	634	--	790	890	1000	1300	1100	1100	890	1200	1200
Calcium	mg/L	65.1	67.8	71.3	58.4	65	68.5	61.4	58.7	51.4	61	71.1	82.7	--	94	130	120	130	120	140	140	140	170
Chloride	mg/L	18	18.6	19.2	21	19.5	19.8	19.3	18	18.6	18.9	18.9	18.3	--	17	18	16	15	13	21	13	19	15
Fluoride	mg/L	0.63	0.56	0.53	0.55	0.66	0.57	0.68	0.65	0.63	0.61	0.62	0.61	--	0.45	0.31	0.51	0.37	<0.28	<0.28	<0.22	<0.22	<0.38
Field pH	Std. Units	7.32	7.51	7.13	7.65	7.42	7.42	7.49	7.58	8.08	7.65	7.12	7.05	6.92	7.12	6.89	6.82	7.07	7.07	7.21	7.1	7.24	7.07
Sulfate	mg/L	72.1	79.8	79	88.7	104	104	112	59.4	44	61.9	98.2	98.9	--	150	210	240	230	260	330	280	330	370
Total Dissolved Solids	mg/L	370	359	389	383	383	400	416	347	307	348	434	424	--	520	650	710	660	650	730	740	850	800
Antimony	ug/L	2.7	2.7	2	2	2.1	2.5	2.4	2.6	--	1.6	1.6	1.1	--	0.92	1	0.74	0.79	<1.1	<1.1	1.2	0.72	<5
Arsenic	ug/L	15.4	15.4	16	15.2	13.9	14.7	14.9	16.7	--	14.3	13	6.6	11.6	5.9	7.3	6.2	9.8	7.9	12	7.3	12	9.9
Barium	ug/L	71.4	67.4	65.3	60.1	56.5	60.7	61.9	59	--	63.7	90.3	95.6	--	110	130	110	140	120	150	120	160	150
Beryllium	ug/L	<0.08	<0.08	0.064	0.016	<0.012	<0.012	<0.012	<0.012	--	<0.012	--	<0.089	--	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<1.7
Cadmium	ug/L	<0.029	<0.029	<0.018	<0.018	0.034	0.038	0.03	0.024	--	0.032	<0.07	0.04	--	0.081	0.053	0.072	<0.049	0.064	0.067	<0.055	<0.055	<0.5
Chromium	ug/L	0.55	0.49	0.44	<0.054	1.9	0.2	0.2	0.5	--	0.18	0.28	0.14	--	<0.98	<0.98	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<5.5
Cobalt	ug/L	<0.5	<0.5	0.56	0.6	0.43	0.34	0.53	0.36	--	0.42	0.64	0.6	--	0.63	0.77	1.1	0.73	0.67	0.61	0.29	0.63	<0.85
Lead	ug/L	<0.19	<0.19	0.07	<0.033	0.058	0.08	0.061	0.048	--	<0.033	0.42	<0.13	--	<0.27	0.56	<0.27	<0.11	<0.21	<0.21	<0.24	<0.24	<1.2
Lithium	ug/L	15.5	13.5	9.7	8.6	9.6	7.1	8.1	16.4	--	10.7	9.5	13.3	--	15	14	12	20	17	17	19	19	20
Mercury	ug/L	<0.039	<0.039	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	--	<0.09	--	<0.09	--	<0.1	<0.1	<0.1	--	<0.15	<0.15	<0.11	<0.11	<0.14
Molybdenum	ug/L	30.7	31	29	28.3	28.3	28.2	32.2	33.2	--	27.9	29	32	--	26	32	38	58	54	84	47	78	35
Selenium	ug/L	1.3	1.2	0.92	1	1.5	2	2.4	1.4	--	0.22	0.24	0.23	--	<1	<1	<1	--	<0.96	<0.96	1.8	<0.96	<7
Thallium	ug/L	<0.5	<0.5	<0.036	<0.036	0.051	<0.036	<0.036	0.38	--	<0.036	--	<0.099	--	<0.27	<0.27	<0.26	--	<0.26	<0.26	<0.26	<0.26	<1.3
Total Radium	pCi/L	0.665	0.567	0.209	0.396	0.463	0.339	2.59	0.492	--	2.07	1.38	1.38	--	--	<0.484	<0.333	0.525	0.461	0.586	0.478	0.539	1.24
Radium-226	pCi/L	0	0.374	0	0.192	0	0.215	0.431	-0.062	--	0.108	0.172	0.512	--	--	0.16	0.148	0.297	0.182	0.314	0.184	0.317	0.252
Radium-228	pCi/L	0.665	0.193	0.209	0.204	0.463	0.124	2.16	0.492	--	1.96	1.21	0.864	--	--	<0.484	<0.333	0.228	0.279	0.271	0.294	0.221	0.992
pH at 25 Degrees C	Std. Units	7.1	8	7.6	7.3	7.5	7.7	7.8	7.5	7.6	7.6	7.4	7.4	--	7.3	7.1	7.1	7.2	7.4	7.4	7.3	7.4	7.3
Field Oxidation Potential	mV	-22.4	-40.4	17.2	-52.8	-31.4	3.9	110.2	-6.8	-11	-31.9	-80	168	-78.9	4.7	-11.9	20.5	-86.4	87.1	6.5	32.4	34	42
Field Specific Conductance	umhos/cm	938	599.5	602.3	938	1107	605	1063	831	537	423.7	679	719	526	810	980	971	930	977	1117	1004	1268	1192
Field Temperature	deg C	14.4	12	11	10.8	11.2	12.23	14.6	18	19.9	10.9	18.5	18.3	7.54	9.48	15.87	9.6	15.5	9.3	16	7.6	16.1	7.3
Groundwater Elevation	feet	703.46	704.59	704.67	704.09	705.04	705.29	704.11	702.91	703.21	705.61	702.56	707.73	704.05	703.93	704.17	703.02	702.02	702.66	701.75	703.76	701.73	702.36
Oxygen, Dissolved	mg/L	0.16	0.16	0.1	0.19	0.16	0.17	0.2	0.16	0	0.08	0.19	0.2	1.58	1.1	0.3	0.7	0.1	0.1	0.22	0.9	0.06	0.8
Turbidity	NTU	0.65	1.14	0.4	0.46	0.66	0.22	1.16	0.29	2.29	0.65	3.43	9.54	3.61	4.58	1.79	3.97	0.02	1.1	11.5	21.7	3	0.1
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	340	290	350	230	380	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.9	<4.2	<4.6	<4.6	<4.6	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	340	290	350	230	380	--
Calcium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	120000	--	--	--	160000	--
Iron, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	220	59	150	<36	91	<180
Magnesium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	36000	38000	43000	42000	46000	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1200	1200	1200	750	1600	--
Arsenic, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8	7.4	11	7	13	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	180	47	97	<36	59	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1100	1300	1100	660	1500	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5400	4400	5400	4000	6200	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	46000	53000	55000	64000	72000	--

Single Location

Name: IPL - Prairie Creek Generating Station

Location ID: MW-306
Number of Sampling Dates: 21

Parameter Name	Units	12/21/2016	1/24/2017	2/23/2017	3/28/2017	4/27/2017	5/25/2017	6/28/2017	8/17/2017	10/17/2017	5/8/2018	8/6/2018	10/9/2018	4/22/2019	10/29/2019	4/27/2020	10/20/2020	4/27/2021	10/20/2021	4/26/2022	10/12/2022	4/19/2023
Boron	ug/L	2990	3050	3160	3060	3080	2890	3080	2850	2910	2930	2770	2890	3000	2400	2800	2800	2500	2200	2100	2100	2300
Calcium	mg/L	52.4	48.4	51.2	48.8	52.8	49.1	47.5	47.7	48.1	56.2	58.7	65.1	59	61	54	54	57	57	55	57	66
Chloride	mg/L	45.4	40.3	36.8	38.1	32.4	34.5	32.6	31.7	28.7	28.6	28.9	30.3	25	23	22	19	17	19	17	17	18
Fluoride	mg/L	0.26	0.23	0.26	0.25	0.29	0.24	0.28	0.33	0.3	0.3	0.26	0.32	<0.23	<0.23	0.38	0.29	<0.28	<0.28	<0.22	<0.22	0.49
Field pH	Std. Units	7.53	7.71	7.31	7.84	7.5	7.53	7.77	7.36	8.45	7.47	7.45	7.4	7.58	7.63	6.94	7.66	7.47	7.4	7.55	7.68	7.6
Sulfate	mg/L	142	128	130	133	137	136	144	132	139	151	195	233	160	140	110	120	140	120	110	110	130
Total Dissolved Solids	mg/L	444	398	423	421	426	430	421	402	403	454	506	494	440	400	420	360	360	320	330	380	360
Antimony	ug/L	0.25	0.091	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	--	<0.026	<0.15	<0.078	<0.53	<0.53	<0.58	<0.51	<1.1	<1.1	<0.69	<0.69	<5
Arsenic	ug/L	0.82	0.58	0.5	0.61	0.55	0.6	0.59	0.57	--	0.58	0.7	0.72	1.9	1.6	1.3	1.1	1	0.87	<0.75	<0.75	<2.7
Barium	ug/L	53	47.4	47.7	47.2	47.8	50.1	48.8	46.1	--	54.4	59.3	62.1	110	82	73	67	72	56	54	60	62
Beryllium	ug/L	<0.08	<0.08	0.068	0.021	<0.012	<0.012	<0.012	<0.012	--	<0.012	--	<0.089	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<1.7
Cadmium	ug/L	<0.029	<0.029	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	--	0.043	0.085	0.075	<0.077	0.095	0.09	0.1	0.11	0.099	<0.055	0.065	<0.5
Chromium	ug/L	0.65	<0.34	0.34	<0.054	0.14	0.16	0.18	0.46	--	0.21	0.55	0.11	<0.98	<0.98	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<5.5
Cobalt	ug/L	<0.5	<0.5	0.16	0.11	0.077	0.068	0.078	0.065	--	0.071	0.43	0.079	0.49	0.26	0.2	0.17	0.28	<0.19	<0.19	<0.19	<0.85
Lead	ug/L	<0.19	<0.19	0.075	0.13	0.15	0.3	0.068	0.037	--	0.075	1	<0.13	0.4	0.31	0.48	0.42	0.87	0.23	<0.24	<0.24	<1.2
Lithium	ug/L	<4.9	<4.9	<2.9	<2.9	3.5	<2.9	<2.9	4	--	<4.6	<4.6	<4.6	3	<2.7	<2.3	<2.5	<2.5	<2.5	3.3	<2.5	<13
Mercury	ug/L	<0.039	<0.039	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	--	<0.09	--	<0.09	<0.1	<0.1	<0.1	--	<0.15	<0.15	<0.11	<0.11	<0.14
Molybdenum	ug/L	272	277	282	287	278	275	272	278	--	271	234	235	200	230	250	260	240	220	220	210	200
Selenium	ug/L	<0.18	<0.18	<0.086	<0.086	<0.086	0.091	<0.086	<0.086	--	<0.086	<0.16	<0.085	<1	<1	<1	--	<0.96	<0.96	<0.96	<0.96	<7
Thallium	ug/L	<0.5	<0.5	<0.036	<0.036	<0.036	<0.036	<0.036	0.22	--	<0.036	--	<0.099	<0.27	<0.27	<0.26	--	<0.26	<0.26	<0.26	<0.26	<1.3
Total Radium	pCi/L	0.843	0.481	0.391	1.07	0.785	0.831	1.14	1.05	--	0.645	1.21	1.42	--	<0.476	0.578	0.387	0.205	0.899	1.21	0.356	0.809
Radium-226	pCi/L	0	0	-0.245	0.493	0.525	0.452	0.37	0.652	--	0.394	0.541	0.157	--	<0.134	<0.14	0.135	0.205	0.257	0.081	0.0719	0.0792
Radium-228	pCi/L	0.843	0.481	0.391	0.575	0.26	0.379	0.774	0.398	--	0.251	0.669	1.26	--	<0.476	<0.46	0.252	-0.062	0.642	1.13	0.284	0.729
pH at 25 Degrees C	Std. Units	7.2	7.8	7.7	7.2	7.4	7.7	7.8	7.6	7.6	7.6	7.7	7.6	7.6	7.6	7.6	7.7	7.7	7.7	7.7	7.6	7.7
Field Oxidation Potential	mV	-80.4	-88.9	-48.1	-140.5	-64.3	-111.6	36.6	-31.2	-128	-94	-81	-41.1	-97.6	-145.7	-142	-199.7	-104.7	-124.2	-119.8	-100.1	-124
Field Specific Conductance	umhos/cm	1079	644	629	1023	1165	624	1067	828	636	663	731	736	703	633	539.7	538.5	580	562.5	513.8	578.7	632
Field Temperature	deg C	13.2	13.4	13.4	13.6	13.1	13.49	13.5	13.6	14.7	13.6	16.4	15.6	12.87	12.56	13.2	12.5	13.4	12.9	12.3	12.6	12
Groundwater Elevation	feet	703.32	704.49	704.59	703.99	704.98	705.34	703.94	702.74	703.16	705.51	702.68	707.88	704.23	704.4	703.35	702.26	702.75	702.02	704.02	701.97	702.74
Oxygen, Dissolved	mg/L	0.11	0.23	0.13	0.12	0.17	0.15	0.21	0.04	0.8	3	1.4	0.45	0.99	0.29	0.18	0.13	0.34	0.24	0.16	0.49	0.35
Turbidity	NTU	1.97	2.25	0.79	0.77	0.43	0.3	0.59	1.04	3.45	0.62	14.59	1.74	21.3	8.16	3.92	19.93	1.2	12.7	18.9	4.93	0.02
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	160	130	200	130	190	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.9	<3.1	<4.6	<4.6	<4.6	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	160	130	200	130	190	--
Calcium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	54000	--	--	--	60000	--
Iron, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1800	1700	1800	1700	1800	2000
Magnesium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12000	12000	12000	13000	13000	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	110	100	110	100	110	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1500	1500	1600	1400	1600	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	100	100	96	93	110	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	250	240	210	230	210	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	860	880	820	900	1000	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	54000	52000	47000	55000	55000	--

Single Location

Name: IPL - Prairie Creek Generating Station

Location ID: MW-306A
Number of Sampling Dates: 7

Parameter Name	Units	9/15/2020	10/20/2020	4/27/2021	10/20/2021	4/26/2022	10/12/2022	4/19/2023
Boron	ug/L	2100	2400	2400	2100	2200	2200	--
Calcium	mg/L	150	150	150	150	150	150	--
Chloride	mg/L	63	65	66	70	62	66	--
Fluoride	mg/L	<0.23	<0.23	<0.28	<0.28	<0.22	<0.22	--
Field pH	Std. Units	7.87	7.29	7.24	7.21	7.21	7.26	7.32
Sulfate	mg/L	330	350	350	360	320	340	--
Total Dissolved Solids	mg/L	840	800	790	760	780	790	--
Antimony	ug/L	<0.51	0.64	<1.1	<1.1	<0.69	<0.69	--
Arsenic	ug/L	<0.88	<0.88	<0.75	<0.75	<0.75	<0.75	<2.7
Barium	ug/L	180	170	160	130	130	140	--
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	--
Cadmium	ug/L	0.073	<0.049	<0.051	<0.051	<0.055	<0.055	--
Chromium	ug/L	1.9	<1.1	<1.1	<1.1	<1.1	<1.1	--
Cobalt	ug/L	1.3	0.49	0.15	<0.19	<0.19	<0.19	--
Lead	ug/L	1.8	0.79	<0.21	<0.21	<0.24	<0.24	--
Lithium	ug/L	4.1	6.3	5.8	5.3	7.8	5.1	<13
Mercury	ug/L	<0.1	--	<0.15	<0.15	<0.11	<0.11	--
Molybdenum	ug/L	8.6	13	16	15	17	19	21
Selenium	ug/L	<1	--	<0.96	<0.96	<0.96	<0.96	--
Thallium	ug/L	<0.26	--	<0.26	<0.26	<0.26	<0.26	--
Total Radium	pCi/L	0.427	0.898	0.642	0.368	0.859	0.861	--
Radium-226	pCi/L	0.453	0.413	0.257	0.253	0.375	0.268	--
Radium-228	pCi/L	-0.0262	0.485	0.385	0.115	0.484	0.593	--
pH at 25 Degrees C	Std. Units	7.3	7.4	7.5	7.3	7.4	7.4	--
Field Oxidation Potential	mV	-100.3	-139.7	-17.8	-66.1	-77.6	-81.5	-84.6
Field Specific Conductance	umhos/cm	1180	1054	873	1109	1036	1148	1163
Field Temperature	deg C	14.1	12.7	13.6	13.1	12.1	13.1	12.1
Groundwater Elevation	feet	--	--	703.63	702.31	704.16	702.18	703.03
Oxygen, Dissolved	mg/L	0.13	0.13	0.11	0.26	0.14	0.14	0.19
Turbidity	NTU	118.1	20.8	2.4	10.4	21.5	5.51	0.02
Bicarbonate Alkalinity as CaCO3	mg/L	--	200	200	320	230	220	--
Carbonate Alkalinity as CaCO3	mg/L	--	<3.8	<4.6	<4.6	<4.6	<4.6	--
Total Alkalinity as CaCO3	mg/L	--	200	200	320	230	220	--
Calcium, total	ug/L	--	140000	--	--	--	160000	--
Iron, total	ug/L	--	2800	1800	1700	1900	1800	1800
Magnesium, total	ug/L	--	45000	46000	45000	49000	47000	--
Manganese, total	ug/L	--	410	360	380	390	390	--
Iron, dissolved	ug/L	--	1700	1700	1600	1600	1600	--
Manganese, dissolved	ug/L	--	360	380	340	350	380	--
Potassium, total	ug/L	--	1600	1600	1700	1700	1800	--
Sodium, total	ug/L	--	33000	34000	33000	40000	39000	--

Single Location

Name: IPL - Prairie Creek Generating Station

Location ID: MW-307
Number of Sampling Dates: 9

Parameter Name	Units	4/23/2019	10/28/2019	5/27/2020	10/19/2020	4/26/2021	10/21/2021	4/25/2022	10/12/2022	4/20/2023
Boron	ug/L	840	730	630	890	1000	960	650	1200	600
Calcium	mg/L	22	18	16	21	21	16	27	21	26
Chloride	mg/L	15	3.5	4.2	<2	10	2.5	31	2.8	17
Fluoride	mg/L	0.54	0.67	0.49	0.29	0.31	0.4	<0.22	<0.22	0.53
Field pH	Std. Units	10.05	9.58	8.28	9.26	7.2	8.84	9.47	9.13	9.17
Sulfate	mg/L	52	32	32	30	42	36	36	50	29
Total Dissolved Solids	mg/L	150	140	38	80	82	26	100	110	66
Antimony	ug/L	0.92	1.2	0.83	1	<1.1	<1.1	0.72	0.7	<5
Arsenic	ug/L	3.8	7.4	6.1	6.7	6.5	6.2	4.2	6.1	6.2
Barium	ug/L	30	34	26	45	36	35	52	58	50
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<1.7
Cadmium	ug/L	<0.077	<0.039	<0.039	<0.049	<0.051	<0.051	<0.055	<0.055	<0.5
Chromium	ug/L	<0.98	<0.98	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<5.5
Cobalt	ug/L	0.091	<0.091	<0.091	<0.091	<0.091	<0.19	<0.19	<0.19	<0.85
Lead	ug/L	<0.27	<0.27	<0.27	<0.11	<0.21	<0.21	<0.24	<0.24	2.9
Lithium	ug/L	10	15	8.3	16	9.4	10	12	13	<13
Mercury	ug/L	<0.1	<0.1	<0.1	--	<0.15	<0.15	<0.11	<0.11	<0.14
Molybdenum	ug/L	5.8	5.2	7	5.2	8.5	6.6	8.4	7.2	21
Selenium	ug/L	<1	<1	<1	--	2.5	<0.96	2.5	2.4	<7
Thallium	ug/L	<0.27	<0.27	<0.26	--	<0.26	<0.26	<0.26	<0.26	<1.3
Total Radium	pCi/L	--	<0.377	<0.458	0.233	0.043	0.242	0.331	0.362	0.0723
Radium-226	pCi/L	--	<0.135	<0.139	-0.043	0.043	0.141	0.0224	0.16	0.0723
Radium-228	pCi/L	--	<0.377	<0.458	0.233	-0.0204	0.101	0.309	0.202	-0.0878
pH at 25 Degrees C	Std. Units	9.8	9.6	9.2	9.4	9.6	9.2	9.2	9.1	9.3
Field Oxidation Potential	mV	-53.1	-29.9	109.8	-123.4	11.6	130.8	8	17.5	102.7
Field Specific Conductance	umhos/cm	225	157	243.5	145.2	857	142.5	235.3	187.4	214.8
Field Temperature	deg C	11.72	18.43	12.6	18.7	9	17.4	10.2	21.4	11.5
Groundwater Elevation	feet	709.86	708.57	708.14	706.56	706.38	706.29	708.27	705.32	707.21
Oxygen, Dissolved	mg/L	1.54	0.27	0.19	0.09	0.11	0.24	0.09	0.09	0.23
Turbidity	NTU	15.6	2.16	2.98	2.09	2.8	10.7	14.8	3.08	0.02
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	41	9.9	82	39	96	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	<1.9	9.9	<4.6	<4.6	<4.6	--
Total Alkalinity as CaCO3	mg/L	--	--	--	41	20	82	39	96	--
Calcium, total	ug/L	--	--	--	19000	--	--	--	22000	--
Iron, total	ug/L	--	--	--	<50	<36	<36	<36	<36	<180
Magnesium, total	ug/L	--	--	--	2300	1300	1400	2300	3300	--
Manganese, total	ug/L	--	--	--	<4	<4.4	<4.4	<3.6	<3.6	--
Iron, dissolved	ug/L	--	--	--	<50	<36	<36	<36	<36	--
Manganese, dissolved	ug/L	--	--	--	<4	<4.4	<4.4	<3.6	3.6	--
Potassium, total	ug/L	--	--	--	1600	1400	1300	1700	1900	--
Sodium, total	ug/L	--	--	--	4600	9500	5500	10000	8000	--

Single Location

Name: IPL - Prairie Creek Generating Station

Location ID: MW-308
Number of Sampling Dates: 11

Parameter Name	Units	4/23/2019	10/28/2019	5/27/2020	10/19/2020	4/26/2021	7/14/2021	10/21/2021	2/22/2022	4/25/2022	10/12/2022	4/20/2023
Boron	ug/L	5700	6100	6100	6400	5900	--	6100	--	4300	6000	5500
Calcium	mg/L	59	60	68	54	65	--	53	--	76	52	96
Chloride	mg/L	15	13	11	8.4	7.9	--	8.1	--	8.3	6.6	6.2
Fluoride	mg/L	0.77	0.26	0.54	<0.23	<0.28	--	<0.28	--	<0.22	<0.22	0.52
Field pH	Std. Units	9.24	9.19	7.86	9.23	7.15	9.65	9.17	8.99	9.22	9.14	9.2
Sulfate	mg/L	190	190	180	150	200	--	140	--	170	180	240
Total Dissolved Solids	mg/L	450	460	390	370	430	--	270	--	400	370	450
Antimony	ug/L	1.4	1.7	0.7	1.4	<1.1	--	3	--	0.84	<0.69	<5
Arsenic	ug/L	45	63	58	50	53	--	48	--	44	39	46
Barium	ug/L	39	38	38	53	50	--	36	--	54	41	71
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.27	<0.27	--	<0.27	--	<0.27	<0.27	<1.7
Cadmium	ug/L	<0.077	0.077	0.04	0.071	0.055	--	<0.051	--	<0.055	<0.055	<0.5
Chromium	ug/L	<0.98	<0.98	<1.1	<4.4	<1.1	--	<1.1	--	<1.1	<1.1	<5.5
Cobalt	ug/L	<0.091	<0.091	<0.091	<0.36	<0.091	--	<0.19	--	<0.19	<0.19	<0.85
Lead	ug/L	<0.27	<0.27	<0.27	<0.11	<0.21	--	0.29	--	<0.24	<0.24	<1.2
Lithium	ug/L	29	31	35	47	39	47	39	37	50	42	53
Mercury	ug/L	<0.1	<0.1	<0.1	--	<0.15	--	<0.15	--	<0.11	<0.11	<0.14
Molybdenum	ug/L	58	58	64	58	53	--	58	--	73	63	88
Selenium	ug/L	<1	2.2	<1	--	<0.96	--	<0.96	--	5.9	<0.96	<7
Thallium	ug/L	<0.27	<0.27	<0.26	--	<0.26	--	<0.26	--	<0.26	<0.26	<1.3
Total Radium	pCi/L	--	<0.488	<0.488	1.05	0.361	--	0.219	--	0.299	0.514	0.0698
Radium-226	pCi/L	--	<0.127	<0.204	-0.21	0.0686	--	0.102	--	0.0556	0.186	0.0514
Radium-228	pCi/L	--	<0.488	<0.488	1.05	0.292	--	0.116	--	0.243	0.328	0.0183
pH at 25 Degrees C	Std. Units	8.9	9.2	9.1	9.4	9.1	--	9.2	--	9.1	9.1	9.1
Field Oxidation Potential	mV	-62.5	-58.1	-22.4	-178	10.7	-228.9	-170.3	210.7	-113.8	-19.1	-116.4
Field Specific Conductance	umhos/cm	659	618	1008	318.1	743	551.7	507.2	486	616.7	577.7	689
Field Temperature	deg C	12.11	15.05	12.7	14.9	9	15.3	14.6	12.2	11.1	15.1	12.4
Groundwater Elevation	feet	706.19	706.31	705.64	703.87	705.05	703.38	703.21	702.84	705.45	702.6	703.97
Oxygen, Dissolved	mg/L	1.16	0.43	0.1	0.21	0.16	0.13	0.2	0.14	0.06	0.07	0.15
Turbidity	NTU	2.13	2.44	2.33	1.08	9.5	0.14	9.8	0	16.6	3.57	0.02
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	82	89	--	52	--	49	130	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	41	39	--	62	--	98	<4.6	--
Total Alkalinity as CaCO3	mg/L	--	--	--	120	130	--	110	--	150	130	--
Calcium, total	ug/L	--	--	--	43000	--	--	--	--	--	57000	--
Iron, total	ug/L	--	--	--	<50	<36	--	<36	--	<36	<36	<180
Magnesium, total	ug/L	--	--	--	3100	7000	--	2600	--	8100	3300	--
Manganese, total	ug/L	--	--	--	47	85	--	38	--	92	58	--
Arsenic, dissolved	ug/L	--	--	--	44	50	--	50	--	43	41	--
Iron, dissolved	ug/L	--	--	--	<50	<36	--	<36	--	<36	<36	--
Manganese, dissolved	ug/L	--	--	--	52	85	--	36	--	79	58	--
Potassium, total	ug/L	--	--	--	5300	6800	--	6900	--	8600	6700	--
Sodium, total	ug/L	--	--	--	33000	46000	--	42000	--	53000	37000	--

Single Location

Name: IPL - Prairie Creek Generating Station

Location ID: MW-309
Number of Sampling Dates: 9

Parameter Name	Units	10/29/2019	1/9/2020	4/27/2020	10/21/2020	4/27/2021	10/22/2021	4/27/2022	10/12/2022	4/19/2023
Boron	ug/L	1000	1000	1100	1800	1200	1200	970	1500	--
Calcium	mg/L	120	130	120	120	120	110	130	110	--
Chloride	mg/L	18	17	16	13	12	17	14	14	--
Fluoride	mg/L	0.68	0.51	0.75	0.61	0.36	0.36	<0.22	0.24	--
Field pH	Std. Units	7.33	6.95	7.09	7.22	7.34	7.42	7.24	7.46	7.37
Sulfate	mg/L	130	130	130	170	110	130	95	140	--
Total Dissolved Solids	mg/L	550	650	630	620	560	480	530	590	--
Antimony	ug/L	<0.53	<0.53	<0.58	<0.51	<1.1	<1.1	<0.69	<0.69	--
Arsenic	ug/L	140	110	75	89	100	75	39	47	28
Barium	ug/L	130	130	130	130	190	100	100	110	--
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	--
Cadmium	ug/L	<0.039	<0.039	<0.039	<0.049	<0.051	<0.051	<0.055	<0.055	--
Chromium	ug/L	<0.98	<0.98	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	--
Cobalt	ug/L	0.42	0.23	0.35	0.14	0.12	<0.19	0.2	<0.19	--
Lead	ug/L	0.54	<0.27	<0.27	<0.11	<0.21	<0.21	<0.24	<0.24	--
Lithium	ug/L	15	15	13	19	15	15	16	15	16
Mercury	ug/L	<0.1	<0.1	<0.1	--	<0.15	<0.15	<0.11	<0.11	--
Molybdenum	ug/L	19	18	19	21	17	24	18	23	21
Selenium	ug/L	<1	<1	<1	--	<0.96	<0.96	1.1	<0.96	--
Thallium	ug/L	<0.27	<0.27	<0.26	--	<0.26	<0.26	<0.26	<0.26	--
Total Radium	pCi/L	0.801	0.543	0.837	0.815	0.829	0.818	0.739	1.07	--
Radium-226	pCi/L	0.346	0.176	0.211	0.199	0.337	0.288	0.112	0.205	--
Radium-228	pCi/L	0.455	<0.386	0.627	0.616	0.492	0.531	0.627	0.863	--
pH at 25 Degrees C	Std. Units	7.4	7.4	7.2	7.4	7.7	7.5	7.4	7.6	--
Field Oxidation Potential	mV	-103.8	-335.3	-117.7	-145.9	-55.8	-123.4	-3.2	-134.7	-88.6
Field Specific Conductance	umhos/cm	931	1016	898	955	914	855	948	902	1066
Field Temperature	deg C	18.6	15.69	13.2	18.8	13.6	17.9	11.7	18.2	12.6
Groundwater Elevation	feet	703.84	703.1	702.84	701.97	702.68	701.7	703.56	702.08	702.3
Oxygen, Dissolved	mg/L	7.45	4.42	0.06	0.1	0.11	0.21	0.1	0.21	0.19
Turbidity	NTU	4.96	1.81	4.21	1.86	0.7	19.8	11.4	4.59	5.19
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	360	410	390	440	380	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	<3.8	<4.6	<4.6	<4.6	<4.6	--
Total Alkalinity as CaCO3	mg/L	--	--	--	360	410	390	440	380	--
Calcium, total	ug/L	--	--	--	100000	--	--	--	120000	--
Iron, total	ug/L	--	--	--	1200	4400	1300	1700	1300	2100
Magnesium, total	ug/L	--	--	--	33000	39000	32000	37000	33000	--
Manganese, total	ug/L	--	--	--	920	1400	1300	1600	910	--
Arsenic, dissolved	ug/L	--	--	--	78	62	72	36	48	--
Iron, dissolved	ug/L	--	--	--	1200	1300	1200	1300	860	--
Manganese, dissolved	ug/L	--	--	--	980	1400	1200	1400	890	--
Potassium, total	ug/L	--	--	--	4800	4400	4800	4600	5200	--
Sodium, total	ug/L	--	--	--	34000	35000	34000	36000	38000	--

Single Location

Name: IPL - Prairie Creek Generating Station

Location ID: MW-309A
Number of Sampling Dates: 7

Parameter Name	Units	9/15/2020	10/21/2020	4/27/2021	10/22/2021	4/26/2022	10/12/2022	4/19/2023
Boron	ug/L	530	470	780	740	830	660	--
Calcium	mg/L	100	110	110	110	120	110	--
Chloride	mg/L	23	24	26	30	25	30	--
Fluoride	mg/L	<0.23	<0.23	<0.28	<0.28	<0.22	<0.22	--
Field pH	Std. Units	7.26	7.33	7.1	7.19	7.18	7.13	7.32
Sulfate	mg/L	110	110	130	140	120	130	--
Total Dissolved Solids	mg/L	490	460	490	440	490	520	--
Antimony	ug/L	<0.51	<0.51	<1.1	<1.1	<0.69	<0.69	--
Arsenic	ug/L	<0.88	<0.88	0.98	0.87	0.79	0.77	<2.7
Barium	ug/L	170	170	190	180	180	190	--
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	--
Cadmium	ug/L	<0.049	<0.049	<0.051	<0.051	<0.055	<0.055	--
Chromium	ug/L	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	--
Cobalt	ug/L	0.22	0.32	0.3	0.32	0.34	0.22	--
Lead	ug/L	<0.11	<0.11	<0.21	<0.21	<0.24	<0.24	--
Lithium	ug/L	4.1	5.9	5.8	4.9	8.4	5.7	<13
Mercury	ug/L	<0.1	--	<0.15	<0.15	<0.11	<0.11	--
Molybdenum	ug/L	8.5	7.1	9.1	11	11	9	10
Selenium	ug/L	<1	--	<0.96	<0.96	<0.96	<0.96	--
Thallium	ug/L	<0.26	--	<0.26	<0.26	<0.26	<0.26	--
Total Radium	pCi/L	0.783	0.509	1.06	2.49	0.981	1.21	--
Radium-226	pCi/L	0.23	0.0367	0.404	0.306	0.318	0.411	--
Radium-228	pCi/L	0.553	0.473	0.659	2.18	0.663	0.802	--
pH at 25 Degrees C	Std. Units	7.2	7.4	7.3	7.3	7.2	7.1	--
Field Oxidation Potential	mV	-144.8	-181.6	-36.1	-144.2	-135.7	-106.4	-119.6
Field Specific Conductance	umhos/cm	815	749	907	824	770	837	893
Field Temperature	deg C	16.1	15.7	14.1	15.6	14.4	16	14.7
Groundwater Elevation	feet	--	--	702.92	701.6	702.93	702.12	702.61
Oxygen, Dissolved	mg/L	0.14	0.13	4.8	0.32	0.2	0.19	0.18
Turbidity	NTU	1.3	1.46	12.5	19.8	8.18	1.3	0.02
Bicarbonate Alkalinity as CaCO3	mg/L	--	280	290	370	290	290	--
Carbonate Alkalinity as CaCO3	mg/L	--	<1.9	<4.6	<4.6	<4.6	<4.6	--
Total Alkalinity as CaCO3	mg/L	--	280	290	370	290	290	--
Calcium, total	ug/L	--	100000	--	--	--	120000	--
Iron, total	ug/L	--	7500	9100	8900	9700	9500	9800
Magnesium, total	ug/L	--	29000	31000	31000	32000	32000	--
Manganese, total	ug/L	--	710	770	740	800	770	--
Iron, dissolved	ug/L	--	7600	8600	8700	8800	9100	--
Manganese, dissolved	ug/L	--	710	760	720	740	800	--
Potassium, total	ug/L	--	1700	2000	2000	2100	2300	--
Sodium, total	ug/L	--	14000	21000	18000	22000	21000	--

Single Location

Name: IPL - Prairie Creek Generating Station

Location ID: MW-310
Number of Sampling Dates: 9

Parameter Name	Units	10/29/2019	1/9/2020	4/27/2020	10/21/2020	4/27/2021	10/22/2021	4/27/2022	10/12/2022	4/19/2023
Boron	ug/L	950	940	880	1300	850	870	860	1100	--
Calcium	mg/L	88	85	87	110	110	110	120	130	--
Chloride	mg/L	20	19	20	20	18	24	22	22	--
Fluoride	mg/L	0.53	0.61	0.93	<0.23	0.36	0.47	<0.22	<0.22	--
Field pH	Std. Units	7.3	7.33	7.41	7.2	7.21	7.28	7.3	7.26	7.39
Sulfate	mg/L	130	130	130	170	140	160	140	210	--
Total Dissolved Solids	mg/L	430	500	520	580	550	490	530	690	--
Antimony	ug/L	<0.53	<0.53	<0.58	<0.51	<1.1	<1.1	<0.69	<0.69	--
Arsenic	ug/L	31	28	23	36	25	25	20	23	24
Barium	ug/L	130	140	140	160	160	150	160	190	--
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	--
Cadmium	ug/L	<0.039	<0.039	<0.039	<0.049	<0.051	<0.051	<0.055	<0.055	--
Chromium	ug/L	<0.98	<0.98	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	--
Cobalt	ug/L	0.17	0.095	0.098	0.11	0.098	<0.19	<0.19	<0.19	--
Lead	ug/L	<0.27	<0.27	<0.27	<0.11	<0.21	<0.21	<0.24	<0.24	--
Lithium	ug/L	15	14	11	18	15	14	18	15	15
Mercury	ug/L	<0.1	<0.1	<0.1	--	<0.15	<0.15	<0.11	<0.11	--
Molybdenum	ug/L	60	59	55	71	43	45	45	58	33
Selenium	ug/L	<1	<1	<1	--	<0.96	<0.96	<0.96	<0.96	--
Thallium	ug/L	<0.27	<0.27	<0.26	--	<0.26	<0.26	<0.26	<0.26	--
Total Radium	pCi/L	<0.471	<0.377	0.341	0.351	1.11	0.588	0.576	0.813	--
Radium-226	pCi/L	0.211	0.232	0.226	0.17	0.453	0.136	0.181	0.438	--
Radium-228	pCi/L	<0.471	<0.377	<0.341	0.182	0.652	0.452	0.395	0.375	--
pH at 25 Degrees C	Std. Units	7.3	7.5	7.3	7.4	7.5	7.5	7.4	7.4	--
Field Oxidation Potential	mV	-129.8	-342.4	-148.01	-162.5	-115.1	-145.2	-125.3	-149.1	-128.4
Field Specific Conductance	umhos/cm	801	784	734	894	893	880	972	1039	1060
Field Temperature	deg C	16.48	15.23	12.9	17.5	13.3	16.3	11.8	17.3	12.2
Groundwater Elevation	feet	703.71	702.81	702.53	701.78	702.11	701.48	703.33	701.73	702.04
Oxygen, Dissolved	mg/L	7.59	3.72	0.09	0.14	0.09	0.22	0.08	0.07	0.19
Turbidity	NTU	3.03	3.3	6.3	3.72	8.4	20	10.2	0.58	4.61
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	300	350	380	350	370	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	<3.8	<4.6	<4.6	<4.6	<4.6	--
Total Alkalinity as CaCO3	mg/L	--	--	--	300	350	380	350	370	--
Calcium, total	ug/L	--	--	--	100000	--	--	--	140000	--
Iron, total	ug/L	--	--	--	4400	5700	4500	4900	5800	6800
Magnesium, total	ug/L	--	--	--	26000	31000	29000	35000	34000	--
Manganese, total	ug/L	--	--	--	980	1400	1200	1300	1400	--
Arsenic, dissolved	ug/L	--	--	--	32	23	25	19	24	--
Iron, dissolved	ug/L	--	--	--	4100	5500	4200	4000	4400	--
Manganese, dissolved	ug/L	--	--	--	960	1400	1100	1100	1300	--
Potassium, total	ug/L	--	--	--	5800	5200	5400	5800	6400	--
Sodium, total	ug/L	--	--	--	53000	41000	37000	48000	56000	--

Single Location

Name: IPL - Prairie Creek Generating Station

Location ID: MW-310A
Number of Sampling Dates: 7

Parameter Name	Units	9/15/2020	10/21/2020	4/27/2021	10/22/2021	4/27/2022	10/12/2022	4/19/2023
Boron	ug/L	330	340	290	240	250	190	--
Calcium	mg/L	180	180	160	140	140	140	--
Chloride	mg/L	46	48	44	48	43	52	--
Fluoride	mg/L	<0.23	<0.23	<0.28	<0.28	<0.22	<0.22	--
Field pH	Std. Units	7.25	7.24	7.19	7.31	7.25	7.51	7.41
Sulfate	mg/L	310	330	240	190	140	150	--
Total Dissolved Solids	mg/L	890	850	690	570	570	620	--
Antimony	ug/L	<0.51	0.66	<1.1	<1.1	<0.69	<0.69	--
Arsenic	ug/L	<0.88	<0.88	<0.75	<0.75	<0.75	<0.75	<2.7
Barium	ug/L	210	210	200	160	160	180	--
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	--
Cadmium	ug/L	<0.049	<0.049	<0.051	<0.051	<0.055	<0.055	--
Chromium	ug/L	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	--
Cobalt	ug/L	0.54	2.1	4.4	2.8	1.8	1	--
Lead	ug/L	<0.11	<0.11	<0.21	<0.21	<0.24	<0.24	--
Lithium	ug/L	3.2	5.3	4.9	3.5	6.6	4	<13
Mercury	ug/L	<0.1	--	<0.15	<0.15	<0.11	<0.11	--
Molybdenum	ug/L	20	21	24	20	19	18	16
Selenium	ug/L	<1	--	<0.96	<0.96	<0.96	<0.96	--
Thallium	ug/L	<0.26	--	<0.26	<0.26	<0.26	<0.26	--
Total Radium	pCi/L	1.21	1.27	0.627	0.673	0.663	0.818	--
Radium-226	pCi/L	0.484	0.495	0.32	0.155	0.337	0.572	--
Radium-228	pCi/L	0.725	0.779	0.308	0.519	0.325	0.246	--
pH at 25 Degrees C	Std. Units	7.6	7.4	7.4	7.4	7.3	7.6	--
Field Oxidation Potential	mV	-128.9	-165.8	11.6	-149.4	-152.1	-128.9	-124.4
Field Specific Conductance	umhos/cm	1304	1168	862	963	982	969	1015
Field Temperature	deg C	16	15.3	13.6	15.1	14.6	15.5	14.4
Groundwater Elevation	feet	--	--	702.69	701.76	703.68	701.92	704.44
Oxygen, Dissolved	mg/L	0.19	0.11	0.12	--	0.09	0.23	0.26
Turbidity	NTU	1.72	2.82	1	19.9	8.94	0	0.02
Bicarbonate Alkalinity as CaCO3	mg/L	--	320	300	340	320	340	--
Carbonate Alkalinity as CaCO3	mg/L	--	<3.8	<4.6	<4.6	<4.6	<4.6	--
Total Alkalinity as CaCO3	mg/L	--	320	300	340	320	340	--
Calcium, total	ug/L	--	180000	--	--	--	150000	--
Iron, total	ug/L	--	6300	7000	6100	6500	6800	6000
Magnesium, total	ug/L	--	48000	42000	37000	39000	40000	--
Manganese, total	ug/L	--	520	400	360	350	370	--
Iron, dissolved	ug/L	--	6100	6800	6000	5600	6300	--
Manganese, dissolved	ug/L	--	490	420	330	310	360	--
Potassium, total	ug/L	--	1100	990	880	970	1100	--
Sodium, total	ug/L	--	15000	14000	13000	16000	16000	--

Single Location

Name: IPL - Prairie Creek Generating Station

Location ID: MW-312
Number of Sampling Dates: 4

Parameter Name	Units	5/25/2022	7/15/2022	10/12/2022	4/19/2023
Boron	ug/L	--	--	220	<380
Calcium	mg/L	--	100	92	99
Chloride	mg/L	--	--	68	69
Fluoride	mg/L	--	--	<0.22	<0.38
Field pH	Std. Units	6.9	6.97	6.97	7.04
Sulfate	mg/L	--	--	22	41
Total Dissolved Solids	mg/L	--	--	420	400
Antimony	ug/L	--	--	<0.69	<5
Arsenic	ug/L	10	13	9.2	9
Barium	ug/L	--	--	180	150
Beryllium	ug/L	--	--	<0.27	<1.7
Cadmium	ug/L	--	--	<0.055	<0.5
Chromium	ug/L	--	--	<1.1	<5.5
Cobalt	ug/L	--	--	<0.19	<0.85
Lead	ug/L	--	--	<0.24	<1.2
Lithium	ug/L	--	--	5.6	<13
Mercury	ug/L	--	--	<0.11	<0.14
Molybdenum	ug/L	7	--	14	7.7
Selenium	ug/L	--	--	<0.96	<7
Thallium	ug/L	--	--	<0.26	<1.3
Total Radium	pCi/L	--	--	0.69	1.14
Radium-226	pCi/L	--	--	0.257	0.143
Radium-228	pCi/L	--	--	0.433	0.999
pH at 25 Degrees C	Std. Units	--	--	7.1	7.2
Field Oxidation Potential	mV	201.1	-46.1	-85.4	-82.3
Field Specific Conductance	umhos/cm	843	793	795	799
Field Temperature	deg C	17.8	21.5	24.8	17.8
Groundwater Elevation	feet	--	703.8	702.85	701.96
Oxygen, Dissolved	mg/L	0.1	0.14	0.05	0.11
Turbidity	NTU	3.84	0	3.27	1.36
Bicarbonate Alkalinity as CaCO3	mg/L	--	280	320	--
Carbonate Alkalinity as CaCO3	mg/L	--	<4.6	<4.6	--
Total Alkalinity as CaCO3	mg/L	--	280	320	--
Calcium, total	ug/L	--	--	100000	--
Iron, total	ug/L	--	5600	7600	6400
Magnesium, total	ug/L	--	22000	22000	--
Manganese, total	ug/L	--	1600	1500	--
Arsenic, dissolved	ug/L	--	11	9.7	--
Iron, dissolved	ug/L	--	4700	7100	--
Manganese, dissolved	ug/L	--	1300	1500	--
Molybdenum, dissolved	ug/L	--	9.8	14	--
Potassium, total	ug/L	--	2200	2800	--
Sodium, total	ug/L	--	30000	31000	--
Cobalt, Dissolved	ug/L	--	<0.19	--	--
Lithium, dissolved	ug/L	--	3.9	6.3	--

Appendix E

Statistical Evaluation

02/26/2024 - Classification: Internal - ECRM13238692

E1 Confidence Interval Evaluation – October 2022 Event

02/26/2024 - Classification: Internal - ECRM13238692

Confidence Interval

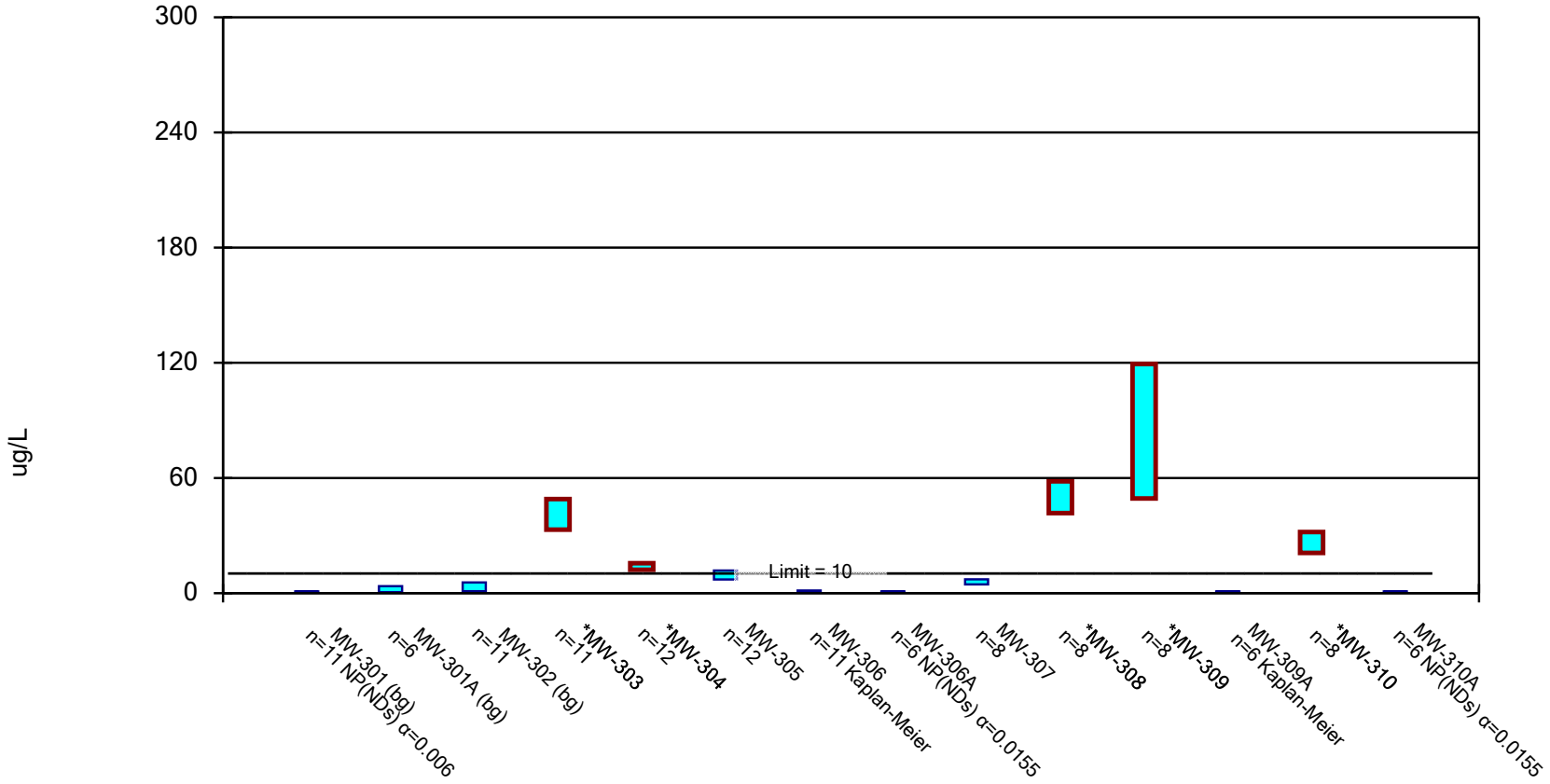
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020 Printed 11/17/2022, 4:23 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (ug/L)	MW-301 (bg)	0.88	0.67	10	No	11	54.55	No	0.006	NP (NDs)
Arsenic (ug/L)	MW-301A (bg)	3.666	0.4905	10	No	6	0	No	0.01	Param.
Arsenic (ug/L)	MW-302 (bg)	5.558	0.9969	10	No	11	0	No	0.01	Param.
Arsenic (ug/L)	**MW-303**	**49.04**	**33.05**	**10**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Arsenic (ug/L)	**MW-304**	**15.61**	**12.16**	**10**	**Yes**	**12**	**0**	**No**	**0.01**	**Param.**
Arsenic (ug/L)	MW-305	11.82	7.164	10	No	12	0	No	0.01	Param.
Arsenic (ug/L)	MW-306	1.352	0.6667	10	No	11	18.18	No	0.01	Param.
Arsenic (ug/L)	MW-306A	0.88	0.75	10	No	6	100	No	0.0155	NP (NDs)
Arsenic (ug/L)	MW-307	7.186	4.564	10	No	8	0	No	0.01	Param.
Arsenic (ug/L)	**MW-308**	**58.29**	**41.71**	**10**	**Yes**	**8**	**0**	**No**	**0.01**	**Param.**
Arsenic (ug/L)	**MW-309**	**119.4**	**49.34**	**10**	**Yes**	**8**	**0**	**No**	**0.01**	**Param.**
Arsenic (ug/L)	MW-309A	0.9409	0.7358	10	No	6	33.33	No	0.01	Param.
Arsenic (ug/L)	**MW-310**	**31.81**	**20.94**	**10**	**Yes**	**8**	**0**	**No**	**0.01**	**Param.**
Arsenic (ug/L)	MW-310A	0.88	0.75	10	No	6	100	No	0.0155	NP (NDs)
Lithium (ug/L)	MW-301 (bg)	14.98	9.714	40	No	11	0	No	0.01	Param.
Lithium (ug/L)	MW-301A (bg)	4.2	1.25	40	No	6	66.67	No	0.0155	NP (NDs)
Lithium (ug/L)	MW-302 (bg)	6.927	4.037	40	No	11	9.091	No	0.01	Param.
Lithium (ug/L)	MW-303	19.16	15.81	40	No	11	0	No	0.01	Param.
Lithium (ug/L)	MW-304	15.98	10.95	40	No	11	0	No	0.01	Param.
Lithium (ug/L)	MW-305	18.1	12.17	40	No	11	0	No	0.01	Param.
Lithium (ug/L)	MW-306	3	1.25	40	No	11	81.82	No	0.006	NP (NDs)
Lithium (ug/L)	MW-306A	7.455	4.012	40	No	6	0	No	0.01	Param.
Lithium (ug/L)	MW-307	14.65	8.774	40	No	8	0	No	0.01	Param.
Lithium (ug/L)	MW-308	45.83	33.37	40	No	10	0	No	0.01	Param.
Lithium (ug/L)	MW-309	19	13	40	No	8	0	No	0.004	NP (normality)
Lithium (ug/L)	MW-309A	7.789	3.811	40	No	6	0	No	0.01	Param.
Lithium (ug/L)	MW-310	17.4	12.6	40	No	8	0	No	0.01	Param.
Lithium (ug/L)	MW-310A	6.333	2.834	40	No	6	0	No	0.01	Param.
Molybdenum (ug/L)	MW-301 (bg)	0.65	0.35	100	No	11	81.82	No	0.006	NP (NDs)
Molybdenum (ug/L)	MW-301A (bg)	3.547	2.219	100	No	6	0	No	0.01	Param.
Molybdenum (ug/L)	MW-302 (bg)	0.78	0.55	100	No	11	72.73	No	0.006	NP (NDs)
Molybdenum (ug/L)	MW-303	20	11.8	100	No	11	0	No	0.01	Param.
Molybdenum (ug/L)	MW-304	28.93	23.4	100	No	11	0	No	0.01	Param.
Molybdenum (ug/L)	MW-305	62.97	29.02	100	No	11	0	No	0.01	Param.
Molybdenum (ug/L)	**MW-306**	**251.3**	**216**	**100**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Molybdenum (ug/L)	MW-306A	19.74	9.79	100	No	6	0	No	0.01	Param.
Molybdenum (ug/L)	MW-307	8.112	5.363	100	No	8	0	No	0.01	Param.
Molybdenum (ug/L)	MW-308	67.03	54.22	100	No	8	0	No	0.01	Param.
Molybdenum (ug/L)	MW-309	22.56	17.19	100	No	8	0	No	0.01	Param.
Molybdenum (ug/L)	MW-309A	11.36	7.21	100	No	6	0	No	0.01	Param.
Molybdenum (ug/L)	MW-310	64.7	44.3	100	No	8	0	No	0.01	Param.
Molybdenum (ug/L)	MW-310A	23.17	17.5	100	No	6	0	No	0.01	Param.

02/26/2024 - Classification: Internal - ECRM13238692

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 11/17/2022 4:22 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Confidence Interval

Constituent: Arsenic (ug/L) Analysis Run 11/17/2022 4:23 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
5/8/2018	0.54 (J)		0.79 (J)	26.9	15	14.3	0.58 (J)		
8/6/2018	1.1		9	35.1	12.3	13	0.7 (J)		
10/9/2018	0.67 (J)		4.5	44.5	14.4	6.6	0.72 (J)		
3/11/2019					12.9	11.6			
4/22/2019	<0.75 (U)		2.1	26	11	5.9	1.9 (J)		
4/23/2019									3.8
10/28/2019	<0.75 (U)		7						7.4
10/29/2019				52	14	7.3	1.6 (J)		
1/9/2020									
4/27/2020	<0.88 (U)		4.4	48	11	6.2	1.3 (J)		
5/27/2020									6.1
9/15/2020		3.7						<0.88 (U)	
10/19/2020	<0.88 (U)		2						6.7
10/20/2020				56	14	9.8	1.1 (J)	<0.88 (U)	
10/21/2020		1.9 (J)							
4/26/2021									6.5
4/27/2021	<0.75 (U)		3.4	39	13	7.9	1 (J)	<0.75 (U)	
4/28/2021		0.87 (J)							
10/20/2021						12	0.87 (J)	<0.75 (U)	
10/21/2021	0.88 (J)		0.9 (J)	46	16				6.2
10/22/2021		1.4 (J)							
4/25/2022	0.8 (J)		1.2 (J)						4.2
4/26/2022				36	14	7.3	<0.75 (U)	<0.75 (U)	
4/27/2022									
4/29/2022		3.3							
10/12/2022	<0.75 (U)		0.76 (J)	42	19	12	<0.75 (U)	<0.75 (U)	6.1
10/13/2022		1.3 (J)							
Mean	0.7955	2.078	3.277	41.05	13.88	9.492	1.025	0.7933	5.875
Std. Dev.	0.1426	1.156	2.737	9.596	2.197	2.966	0.4183	0.06713	1.237
Upper Lim.	0.88	3.666	5.558	49.04	15.61	11.82	1.352	0.88	7.186
Lower Lim.	0.67	0.4905	0.9969	33.05	12.16	7.164	0.6667	0.75	4.564

Confidence Interval

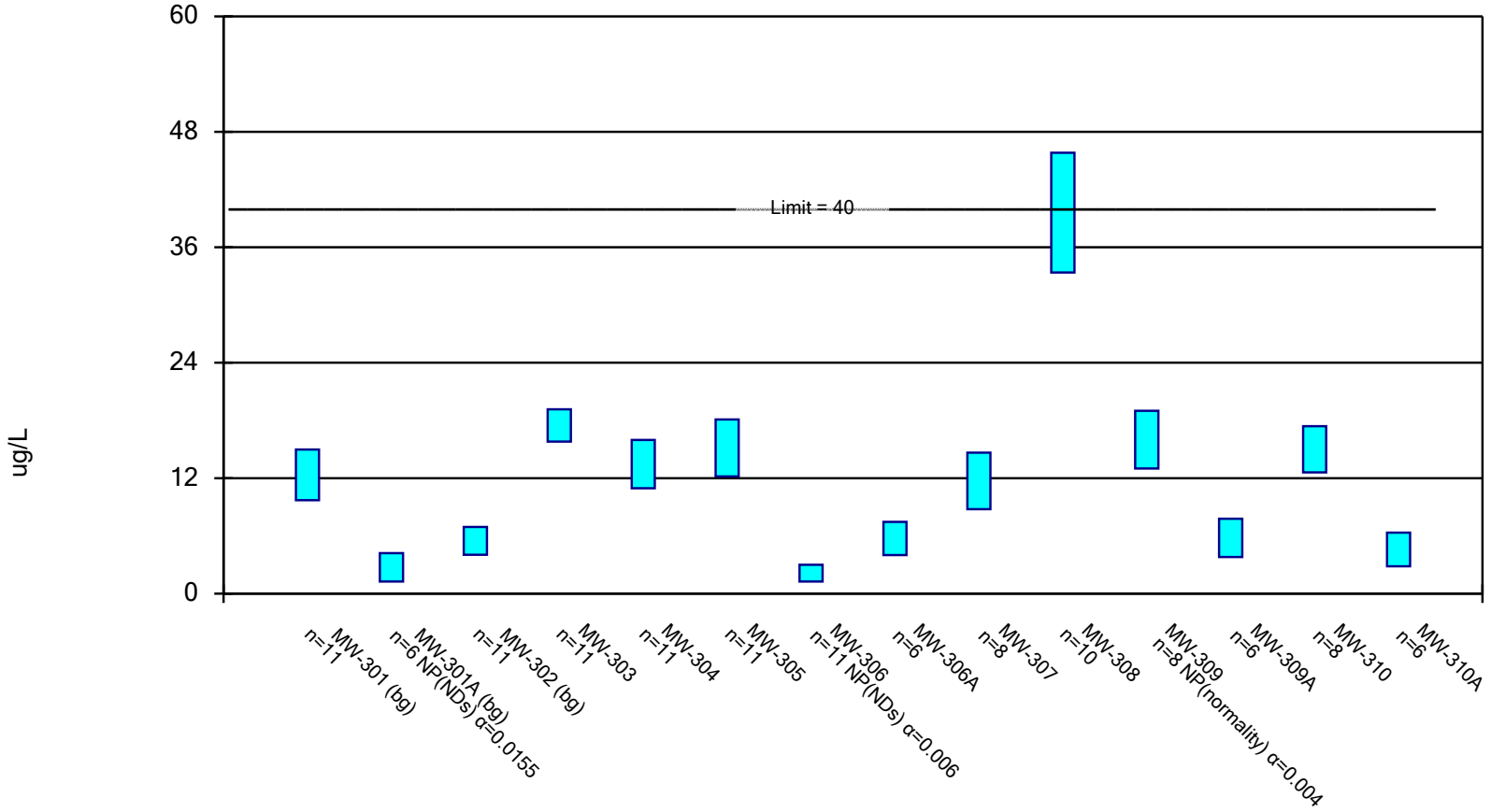
Constituent: Arsenic (ug/L) Analysis Run 11/17/2022 4:23 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A
5/8/2018					
8/6/2018					
10/9/2018					
3/11/2019					
4/22/2019					
4/23/2019	45				
10/28/2019	63				
10/29/2019		140		31	
1/9/2020		110		28	
4/27/2020		75		23	
5/27/2020	58				
9/15/2020			<0.88 (U)		<0.88 (U)
10/19/2020	50				
10/20/2020					
10/21/2020		89	<0.88 (U)	36	<0.88 (U)
4/26/2021	53				
4/27/2021		100	0.98 (J)	25	<0.75 (U)
4/28/2021					
10/20/2021					
10/21/2021	48	75			
10/22/2021			0.87 (J)	25	<0.75 (U)
4/25/2022	44				
4/26/2022			0.79 (J)		
4/27/2022		39		20	<0.75 (U)
4/29/2022					
10/12/2022	39	47	0.77 (J)	23	<0.75 (U)
10/13/2022					
Mean	50	84.38	0.8617	26.38	0.7933
Std. Dev.	7.819	33.05	0.07521	5.125	0.06713
Upper Lim.	58.29	119.4	0.9409	31.81	0.88
Lower Lim.	41.71	49.34	0.7358	20.94	0.75

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 11/17/2022 4:22 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Confidence Interval

Constituent: Lithium (ug/L) Analysis Run 11/17/2022 4:23 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
5/8/2018	13.6		5.4 (J)	19	10.8	10.7	<4.6 (U)		
8/6/2018	5.4 (J)		<4.6 (U)	15.4	6.9 (J)	9.5 (J)	<4.6 (U)		
10/9/2018	13.3		4.6 (J)	19.9	13.4	13.3	<4.6 (U)		
4/22/2019	8.5 (J)		4.7 (J)	17	17	15	3 (J)		
4/23/2019									10
10/28/2019	12		5.3 (J)						15
10/29/2019				17	13	14	<2.7 (U)		
1/9/2020									
4/27/2020	11		3.8 (J)	14	11	12	<2.3 (U)		
5/27/2020									8.3 (J)
9/15/2020		4.2 (J)						4.1 (J)	
10/19/2020	15		8.2 (J)						16
10/20/2020				21	17	20	<2.5 (U)	6.3 (J)	
10/21/2020		4.1 (J)							
4/26/2021									9.4 (J)
4/27/2021	13		6.3 (J)	16	14	17	<2.5 (U)	5.8 (J)	
4/28/2021		<2.5 (U)							
7/14/2021									
10/20/2021						17	<2.5 (U)	5.3 (J)	
10/21/2021	13		6.9 (J)	17	14				10
10/22/2021		<2.5 (U)							
2/22/2022									
4/25/2022	17		5 (J)						12
4/26/2022				18	16	19	3.3 (J)	7.8 (J)	
4/27/2022									
4/29/2022		<2.5 (U)							
10/12/2022	14		7.8 (J)	18	15	19	<2.5 (U)	5.1 (J)	13
10/13/2022		<2.5 (U)							
Mean	12.35	2.217	5.482	17.48	13.46	15.14	1.882	5.733	11.71
Std. Dev.	3.158	1.498	1.734	2.01	3.014	3.556	0.7875	1.253	2.772
Upper Lim.	14.98	4.2	6.927	19.16	15.98	18.1	3	7.455	14.65
Lower Lim.	9.714	1.25	4.037	15.81	10.95	12.17	1.25	4.012	8.774

Confidence Interval

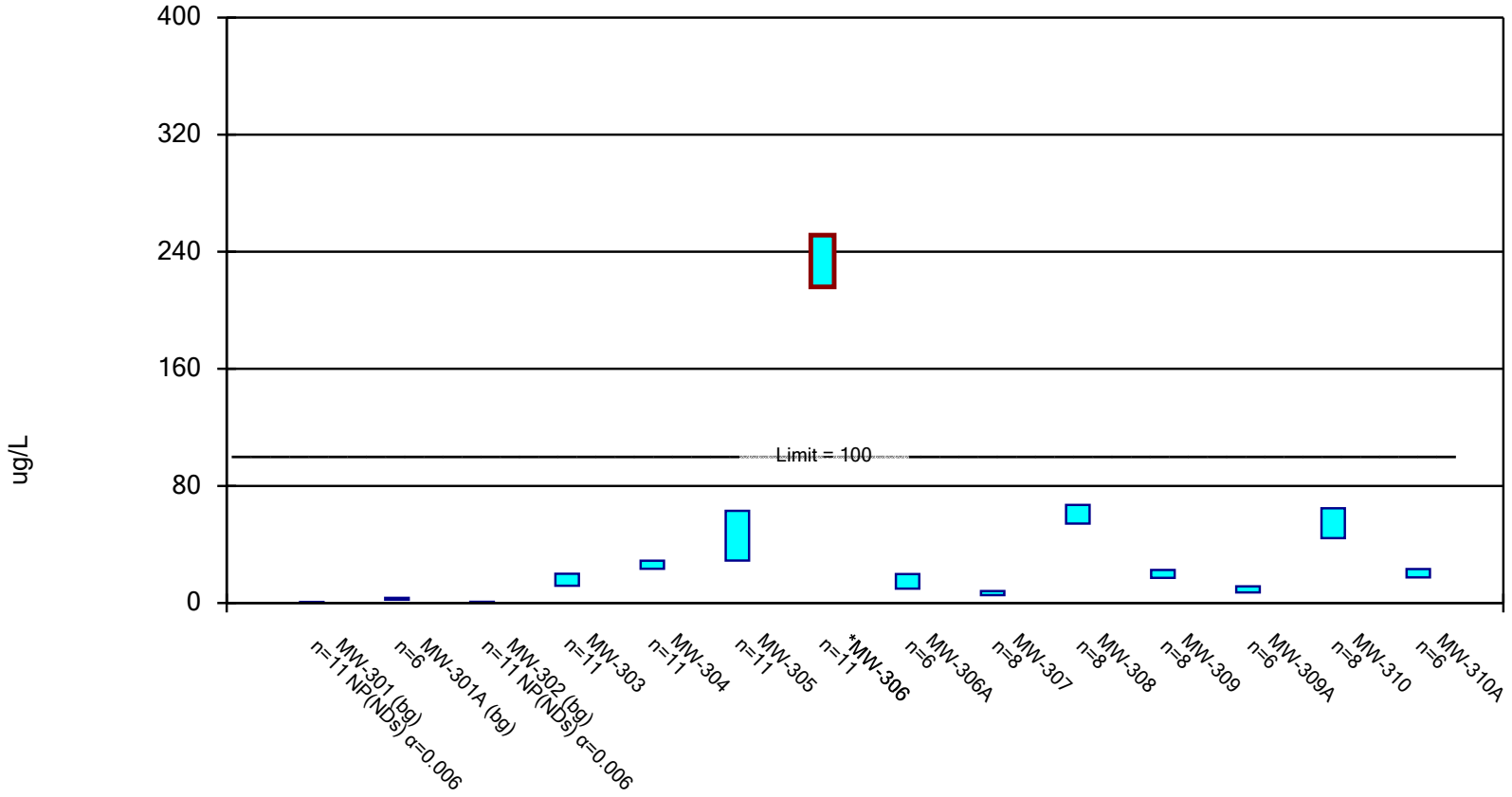
Constituent: Lithium (ug/L) Analysis Run 11/17/2022 4:23 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A
5/8/2018					
8/6/2018					
10/9/2018					
4/22/2019					
4/23/2019	29				
10/28/2019	31				
10/29/2019		15		15	
1/9/2020		15		14	
4/27/2020		13		11	
5/27/2020	35				
9/15/2020			4.1 (J)		3.2 (J)
10/19/2020	47				
10/20/2020					
10/21/2020		19	5.9 (J)	18	5.3 (J)
4/26/2021	39				
4/27/2021		15	5.8 (J)	15	4.9 (J)
4/28/2021					
7/14/2021	47				
10/20/2021					
10/21/2021	39	15			
10/22/2021			4.9 (J)	14	3.5 (J)
2/22/2022	37				
4/25/2022	50				
4/26/2022			8.4 (J)		
4/27/2022		16		18	6.6 (J)
4/29/2022					
10/12/2022	42	15	5.7 (J)	15	4 (J)
10/13/2022					
Mean	39.6	15.38	5.8	15	4.583
Std. Dev.	6.979	1.685	1.448	2.268	1.273
Upper Lim.	45.83	19	7.789	17.4	6.333
Lower Lim.	33.37	13	3.811	12.6	2.834

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 11/17/2022 4:22 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Confidence Interval

Constituent: Molybdenum (ug/L) Analysis Run 11/17/2022 4:23 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
5/8/2018	0.35 (J)		0.99 (J)	23.1	19.8	27.9	271		
8/6/2018	0.44 (J)		0.78 (J)	20.7	25.4	29	234		
10/9/2018	<0.57 (U)		0.67 (J)	21.7	27.6	32	235		
4/22/2019	<1.1 (U)		<1.1 (U)	12	23	26	200		
4/23/2019									5.8
10/28/2019	<1.1 (U)		<1.1 (U)						5.2
10/29/2019				20	31	32	230		
1/9/2020									
4/27/2020	<1.1 (U)		<1.1 (U)	8.4	26	38	250		
5/27/2020									7
9/15/2020		2.1						8.6	
10/19/2020	<1.1 (U)		<1.1 (U)						5.2
10/20/2020				17	28	58	260	13	
10/21/2020		3.1							
4/26/2021									8.5
4/27/2021	<1.3 (U)		<1.3 (U)	12	25	54	240	16	
4/28/2021		3.1							
10/20/2021						84	220	15	
10/21/2021	<1.3 (U)		<1.3 (U)	14	31				6.6
10/22/2021		3.1							
4/25/2022	<1.2 (U)		<1.2 (U)						8.4
4/26/2022				11	24	47	220	17	
4/27/2022									
4/29/2022		2.5							
10/12/2022	<1.2 (U)		<1.2 (U)	15	27	78	210	19	7.2
10/13/2022		3.4							
Mean	0.525	2.883	0.6491	15.9	26.16	45.99	233.6	14.77	6.738
Std. Dev.	0.1185	0.4834	0.1334	4.916	3.318	20.37	21.16	3.623	1.297
Upper Lim.	0.65	3.547	0.78	20	28.93	62.97	251.3	19.74	8.112
Lower Lim.	0.35	2.219	0.55	11.8	23.4	29.02	216	9.79	5.363

Confidence Interval

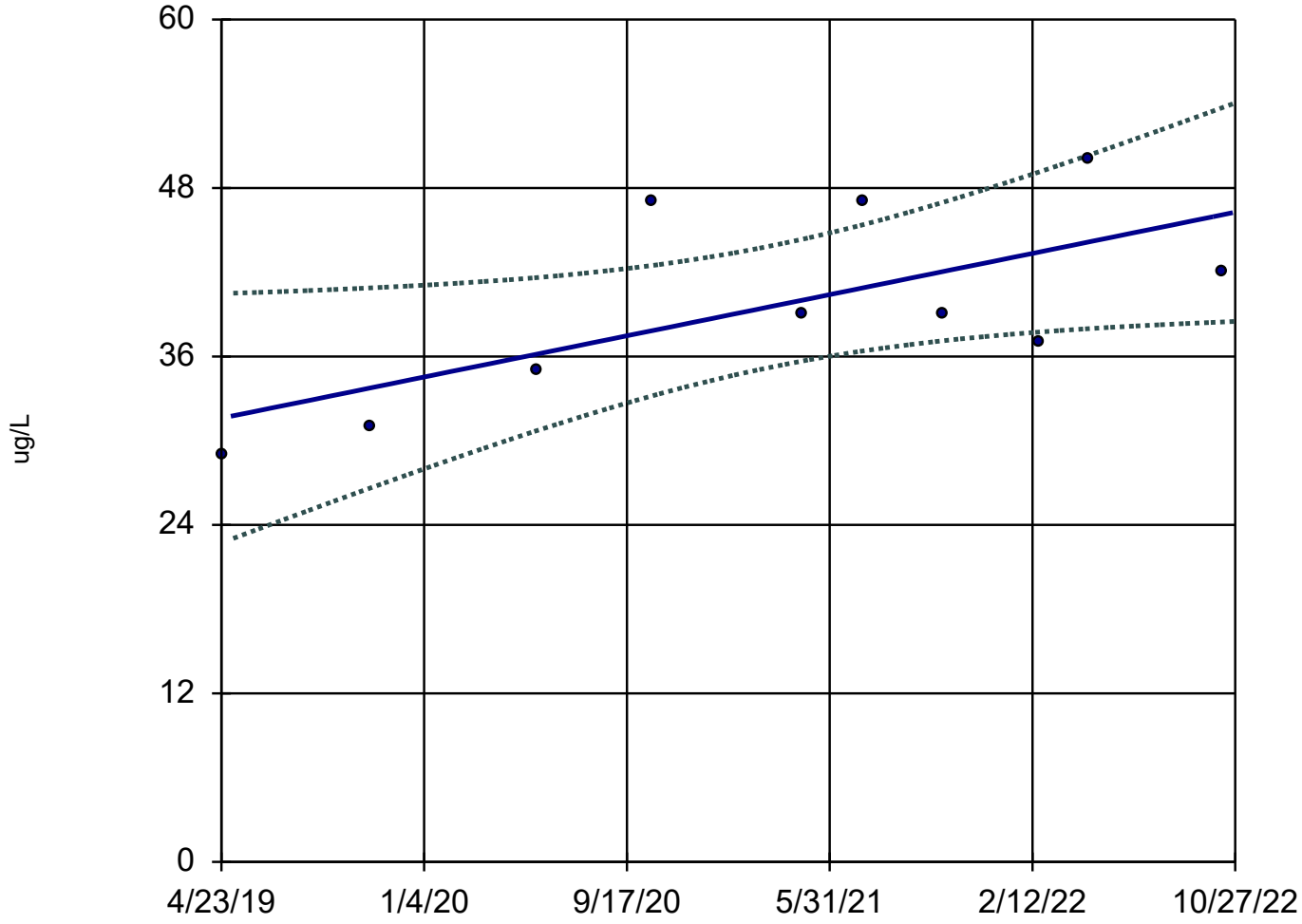
Constituent: Molybdenum (ug/L) Analysis Run 11/17/2022 4:23 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A
5/8/2018					
8/6/2018					
10/9/2018					
4/22/2019					
4/23/2019	58				
10/28/2019	58				
10/29/2019		19		60	
1/9/2020		18		59	
4/27/2020		19		55	
5/27/2020	64				
9/15/2020			8.5		20
10/19/2020	58				
10/20/2020					
10/21/2020		21	7.1	71	21
4/26/2021	53				
4/27/2021		17	9.1	43	24
4/28/2021					
10/20/2021					
10/21/2021	58	24			
10/22/2021			11	45	20
4/25/2022	73				
4/26/2022			11		
4/27/2022		18		45	19
4/29/2022					
10/12/2022	63	23	9	58	18
10/13/2022					
Mean	60.63	19.88	9.283	54.5	20.33
Std. Dev.	6.046	2.532	1.509	9.621	2.066
Upper Lim.	67.03	22.56	11.36	64.7	23.17
Lower Lim.	54.22	17.19	7.21	44.3	17.5

Linear Regression and 95% Confidence Band

MW-308



n = 10

Slope = 4.178
units/year.

alpha = 0.02
t = 2.573
critical = 2.449

Significant increasing trend.

Normality test on residuals:
Shapiro Wilk @alpha
= 0.01, calculated
= 0.8762, critical
= 0.781.

Constituent: Lithium Analysis Run 2/8/2023 11:14 AM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Linear Regression

Constituent: Lithium (ug/L) Analysis Run 2/8/2023 1:27 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	LCL	UCL
4/23/2019	29	22.72	40.48
10/28/2019	31	26.62	40.88
5/27/2020	35	30.73	41.62
10/19/2020	47	33.19	42.48
4/26/2021	39	35.66	44.33
7/14/2021	47	36.4	45.4
10/21/2021	39	37.11	46.95
2/22/2022	37	37.74	49.16
4/25/2022	50	37.98	50.34
10/12/2022	42	38.46	53.75

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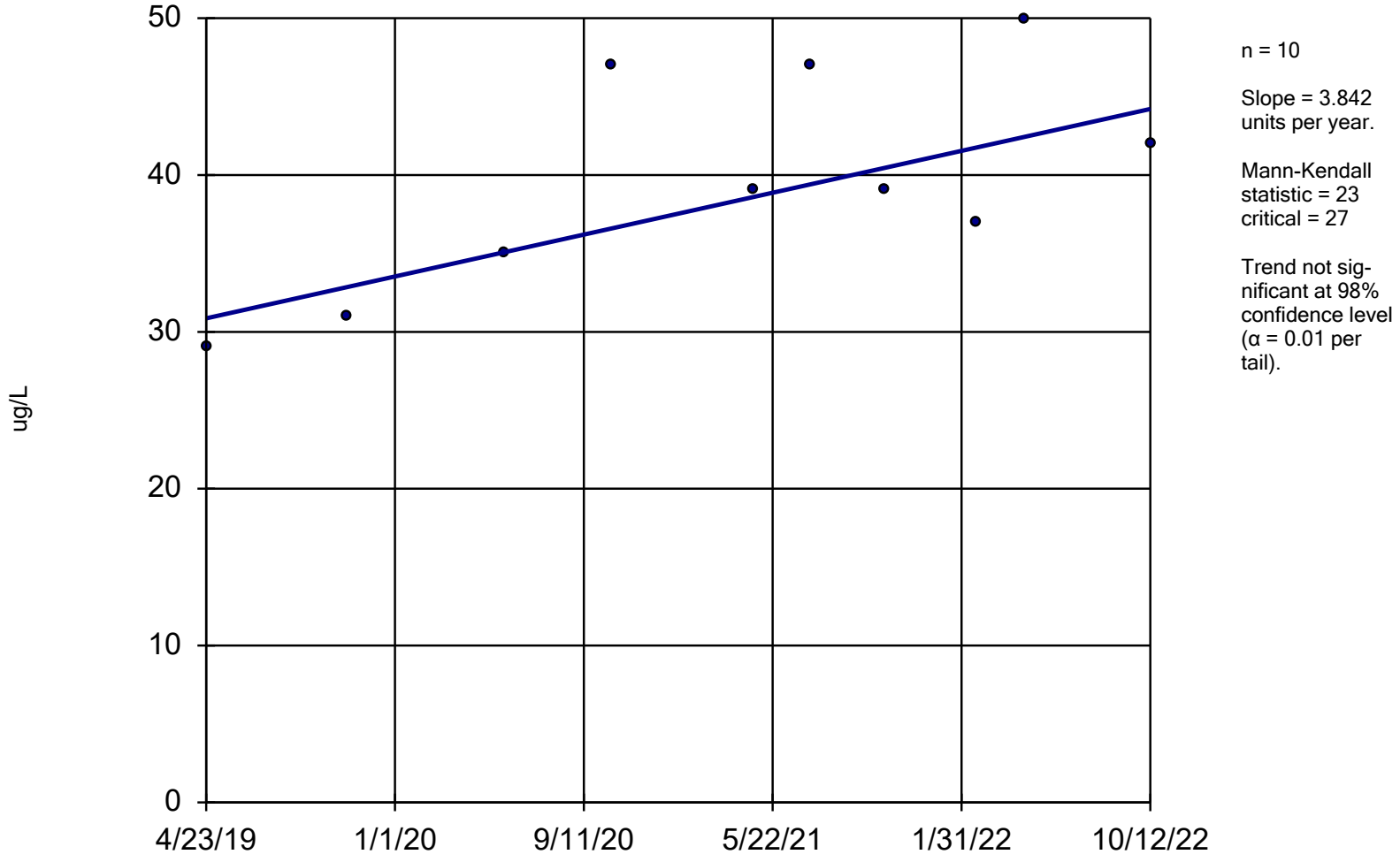
Sen's Slope Estimator

MW-308



Constituent: Lithium Analysis Run 2/8/2023 11:08 AM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Sen's Slope Estimator

Constituent: Lithium (ug/L) Analysis Run 2/8/2023 11:09 AM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308
4/23/2019	29
10/28/2019	31
5/27/2020	35
10/19/2020	47
4/26/2021	39
7/14/2021	47
10/21/2021	39
2/22/2022	37
4/25/2022	50
10/12/2022	42

E2 Updated Statistical Evaluation of Background – UPL and UTL Calculations

02/26/2024 - Classification: Internal - ECRM13238692

December 22, 2022
File No. 25222074.00

TECHNICAL MEMORANDUM

SUBJECT: Statistical Evaluation of Groundwater Monitoring Results – UPL Update and Tolerance Interval Calculation
Prairie Creek Generating Station (PCS)

PREPARED BY: Nicole Kron

CHECKED BY: Sherren Clark

STATISTICAL METHOD

For comparison to background, groundwater monitoring data for the multiunit system at the Prairie Creek Generating Station (PCS) are evaluated in accordance with 40 CFR 257.93(f)(3), using a prediction interval or tolerance interval procedure, in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper prediction limit (UPL) or upper tolerance limit (UTL).

For assessment monitoring parameters, groundwater monitoring data are also evaluated by comparing the lower confidence limit (LCL) for the arithmetic mean of the monitoring results to the Groundwater Protection Standard (GPS) established in accordance with 40 CFR 257.95(h).

Statistical evaluation is performed using commercially available software (*Sanitas for Groundwater*© or similar) in general accordance with the U.S. EPA's *Unified Guidance for Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities* dated March 2009 (Unified Guidance) (U.S. EPA, 2009) and generally accepted procedures.

Under the interwell approach for comparison to background, monitoring results are compared to UPLs and UTLs calculated based on background monitoring results from the background wells: MW-301 and MW-302.

Compliance wells for the former ash pond include MW-303, MW-304, MW-305, MW-306, MW-307, and MW-308. Delineation wells were installed to support the selection of remedy at PCS: MW-302A, MW-306A, MW-309, MW-309A, MW-310, MW-310A, and MW-312. A supplemental background monitoring well, MW-301A, was installed to evaluate the background conditions in the deeper groundwater, but results from MW-301A are not being used in the statistical analysis.

The initial UPLs were calculated based on eight rounds of background monitoring performed prior to the initiation of compliance monitoring for the PCS, from December 2016 through August 2017. Since then, additional rounds of monitoring for Appendix III and IV parameters have been performed at the background wells. As part of the evaluation of the 2022 monitoring results, the background data set for the UPL calculations is being updated to include data from the background wells

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collected through October 2022. This memo addresses updated UPLs for Appendix III parameters and UTLs for Appendix IV parameters.

TIME SERIES PLOTS

Time series plots are prepared for the monitoring parameters to show concentration variations over time. Time series graphs are included in **Attachment 1**. In the graphs, non-detect values are shown with hollow symbols, while detected values have solid symbols. For some Appendix IV parameters, many or all background results are non-detect, but detection limits may have increased or decreased since the earliest data were collected.

OUTLIER ANALYSIS - INTERWELL

For interwell analysis, an outlier evaluation is performed for background monitoring results at the upgradient wells. A statistical outlier is a value that is extremely different from the other values in the data set. The Sanitas outlier tests identify data points that do not appear to fit the distribution of the rest of the data set and determine if they differ significantly from the rest of the data. The outlier analysis performed in Sanitas includes the following steps:

1) Run normality test (Shapiro Wilk/Francia).

2) If normally distributed, run U.S. EPA's 1989 Outlier Test to identify suspected outliers.
   a) If number of background samples is less than or equal to 25, run Dixon's test for suspected outliers.
   b) If number of background samples is more than 25, run Rosner's test for suspected outliers.

3) If not normally distributed, run Tukey's test for outliers.

4) Review data flagged as possible outliers to evaluate whether they should be removed from the background data set. Also review time series plots for possible outliers that were not picked up in the statistical evaluation (e.g., an outlier test may not identify outliers when two values are similar to each other, but very different from all other data).

Results identified as statistical outliers are checked for possible lab instrument failure, field collection problems, or data entry errors; however, outliers may exist naturally in the data if there is an extremely wide inherent or temporal variability in the data. The Unified Guidance states that unless a likely error can be identified, the outlier should not be removed.

For the evaluation of interwell background data collected through the October 2022 sampling event, the following background values were identified by Sanitas as potential outliers and handled as described:

- **Arsenic (MW-301):** One high arsenic result from August 2017 was flagged as a statistical outlier. The result was kept in the dataset because it did not appear to represent lab or sampling error and it appears to fall within a possible range for this parameter.

- **Cadmium (MW-301 and MW302):** One low cadmium result from MW-301 in December 2016 and one high cadmium result from MW-302 in April 2022 were flagged as statistical outliers. Both results were kept in the dataset because neither result appeared

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to represent lab or sampling errors. The MW-301 result (<0.029 micrograms per liter [µg/L]) was one of two non-detect results for cadmium at this well, and most other results were J-flagged. The MW-302 result (0.38 µg/L) was higher than other results for this well, but appears to fall within a possible range for this parameter.

- **Chromium (MW-301):** One high chromium result from August 2017 was flagged as a statistical outlier. The result was kept in the dataset because it did not appear to represent lab or sampling error and it appears to fall within a possible range for this parameter (less than 2 times several other results).

- **Cobalt (MW-302**): A high cobalt concentration at MW-302 in April 2022 (31 µg/L) appears to be an outlier, although it was not flagged by Sanitas as a statistical outlier. This is much higher than other results at this well. The next highest result was 4.7 µg/L in March 2017, and other recent results have been less than 1 µg/L. This result was removed from the background dataset because it does not appear to represent true background water quality.

- **Field pH (MW-302):** One high field pH result from October 2017 and one low field pH result from April 2022 were flagged as statistical outliers. Both results were removed from the dataset because they are significantly different from other results for this well, given that pH is on a log scale. Field pH measurements typically have a higher potential for measurement error due to the monitoring conditions and equipment.

- **Selenium (MW-302):** One high selenium result from April 2022 was flagged as a statistical outlier. The result was kept in the dataset because it did not appear to represent lab or sampling error and it appears to fall within a possible range for this parameter (less than 3 times other recent results). A similar result was reported for MW-301 for the April 2022 event and was not flagged by Sanitas as an outlier.

- **Sulfate (MW-302):** One high sulfate result from April 2022 was flagged as a statistical outlier. The result was kept in the dataset because it did not appear to represent lab or sampling error and it appears to fall within a possible range for this parameter (less than 2 times other recent results).

- **Total Radium (MW-302):** One high total radium result from August 2018 was flagged as a statistical outlier. The result was kept in the dataset because it did not appear to represent lab or sampling error and it appears to fall within a possible range for this parameter.

Outlier analysis results are included in **Attachment 2.**

BACKGROUND UPDATE

The background data pool was updated in accordance with the Unified Guidance, which recommends updating background every 2 to 3 years for semiannual sampling. Prior to expanding the data pool, the original background data set (December 2016 through August 2017) and the data to be added (October 2017 through October 2022) were compared. The Unified Guidance states that recently collected measurements from the background wells can be added to the existing pool if a Student's t-test or Wilcoxon rank-sum test finds no significant difference between the two groups

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at the 1 percent level of significance. If there is a significant difference, the background data should be reviewed to determine which observations are most representative of the current groundwater conditions.

The Sanitas background group comparison for the PCS background data sets, included in **Attachment 3**, indicated no significant difference at the 1 percent level, except for the following:

- **Antimony, beryllium, fluoride, mercury, and molybdenum:** Difference was due to increase in detection limits and does not appear to represent a change in conditions. Use all data.

- **Cadmium (MW-302 only):** The recent data show more variability, partially because the original eight rounds of samples were collected over a period of less than 1 year and likely did not capture the full temporal variability of the population. Most results are J-flagged. Use all data.

- **Chloride (MW-301 only):** The more recent data have higher concentrations, especially in the last three events, which appear to be trending upward. Factors such as salt use may be increasing background concentrations of chloride at this well. Chloride concentrations have also increased at MW-302, but not at the 1 percent signficance level. Use the original data set for UPL calculations. The more recent data can be used in an alternative source evaluation if the UPL is exceeded.

- **Selenium (MW-302 only):** The recent data show more variability, partially because the original eight rounds of samples were collected over a period of less than 1 year and likely did not capture the full temporal variability of the population. An increase in detection limits also contributed to the apparent shift. Most results are J-flagged. Use all data.

- **Total dissoved solids (MW-301 only):** The recent data show more variability, partially because the original eight rounds of samples were collected over a period of less than 1 year and likely did not capture the full temporal variability of the population. There is not a significant upward trend. Use all data.

In summary, the evaluation of the background data indicated that the more recent data can be added to the background data pool with the exception of chloride. For chloride, the original data set will be used.

INTERWELL PREDICTION LIMITS

Interwell prediction limits for Appendix III parameters are calculated using background data from the upgradient monitoring wells (MW-301 and MW-302) for each monitored constituent, with outliers removed as noted above. During this evaluation of compliance monitoring, groundwater results from December 2016 through October 2022 were included to calculate the interwell prediction limits (except for chloride as noted above). The prediction limit analysis performed in Sanitas includes the following steps:

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1) If 100 percent of the background values are non-detect, the Double Quantification rule applies and no prediction limit is calculated.

2) If more than 50 percent of results are non-detect, then a non-parametric prediction limit is calculated.

3) If 50 percent or fewer of the results are non-detect, run normality test (Shapiro Wilk/Francia) to assess whether the data fit a normal distribution or can be transformed to fit a normal distribution (e.g., lognormal).

4) If normal or transformed normal, calculate parametric prediction limit.

5) If not normal or transformed normal, calculate non-parametric prediction limit.

Consistent with the Unified Guidance, parametric prediction limits are calculated based on a 1-of-2 retesting protocol and a 10 percent site-wide false positive rate. Sanitas establishes the per-test significance level based on user inputs of the number of events per year, number of constituents being evaluated, and number of compliance wells. For this update, the following values were used:

Parameter	Value	Comments
Evaluations per year	2	April and October events
Constituents analyzed	7	Total of 7 Appendix III constituents
Compliance wells	6	Six compliance wells at the waste boundary

Non-parametric prediction limits are also based on a 1-of-2 retesting protocol.

For results with 100 percent non-detects in the background data, evaluation under the Double Quantification Rule means that a statistically significant increase (SSI) has not occurred for a compliance well unless two sample results from the well exceed the laboratory's reporting limit or quanitification limit. All of the Appendix III constituents were detected at least one in the background wells; therefore, UPLs were calculated for all. Although UPLs were calculated for all constituents, a future result will not be identified as an SSI unless two sample results exceed both the UPL and the reporting limit or quantification limit.

For evaluation of parameters with less than 100 percent non-detects in the background sampling, the non-detects were adjusted using the Kaplan-Meier technique, unless the non-detects represent less than 15 percent of the total samples, in which case one-half of the detection limit was used.

Interwell prediction limit analysis Appendix III results are included in Attachment 4.

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INTERWELL TOLERANCE LIMITS

Interwell tolerance limits for Appendix IV parameters were calculated using background data from the upgradient monitoring wells (MW-301 and MW-302) for each monitored constituent, with outliers removed as noted above. During this evaluation of compliance monitoring, groundwater results from December 2016 through October 2022 were included to calculate the interwell tolerance limits. The tolerance limit analysis was performed in Sanitas, including the same five steps listed above. Management of non-detect results in the background data was also the same as described above for prediction limits. As recommended in the Unified Guidance, the UTL was calculated with 95 percent confidence and 95 percent coverage.

Interwell tolerance limits analysis results are included in Attachment 5.

NDK/lmh/SCC

I:\25222074.00\Data and Calculations\Sanitas\2301_PCS CCR Stats Updates\PCS_AppIII_IV_Background UPLs_2022_12.docx

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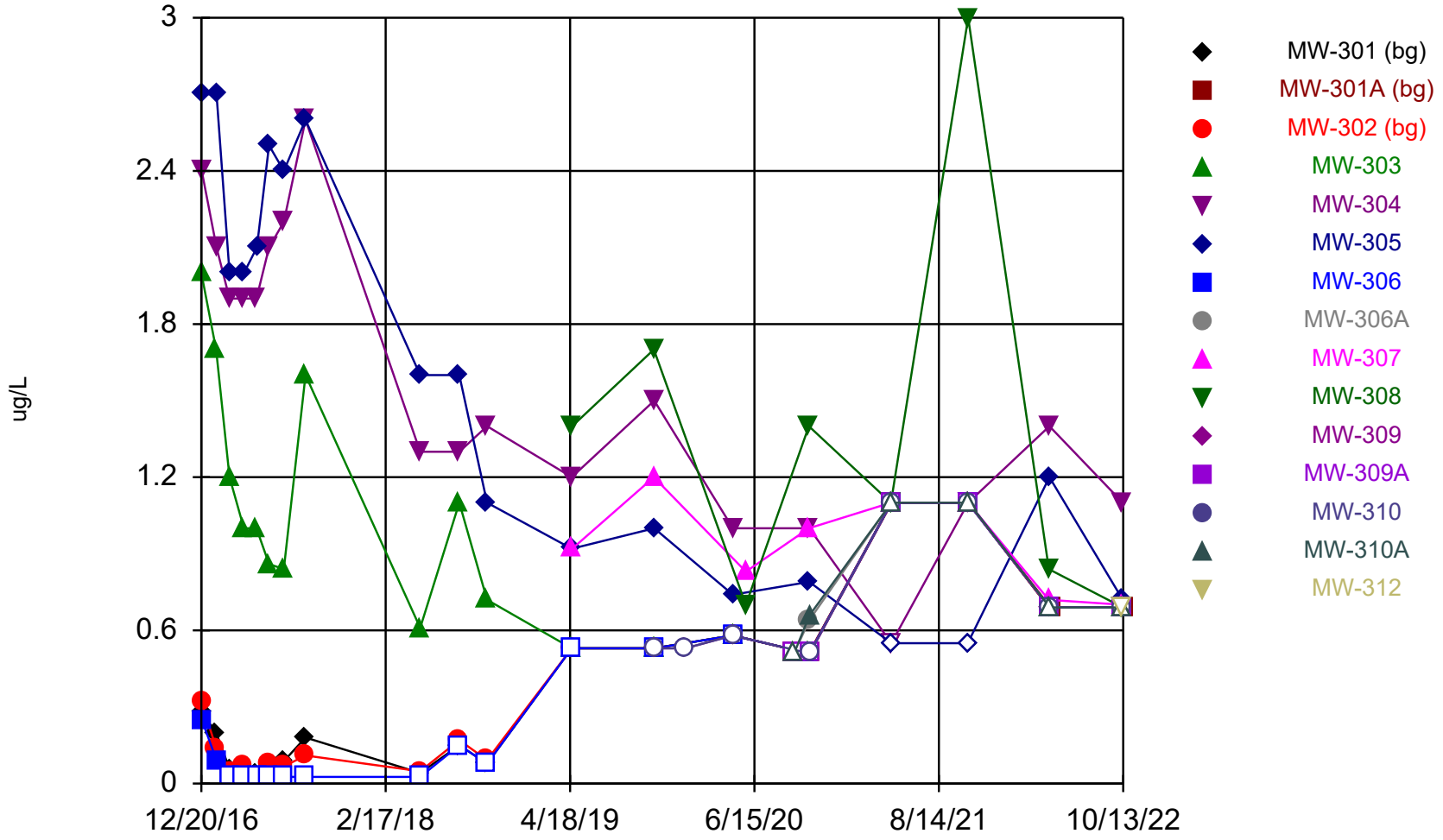
Attachment 1

Time Series Plots

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Antimony



Time Series Analysis Run 12/16/2022 5:10 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Antimony (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	0.28 (J)		0.32 (J)	2					
12/21/2016					2.4	2.7	0.25 (J)		
1/23/2017	0.2 (J)		0.14 (J)	1.7					
1/24/2017					2.1	2.7	0.091 (J)		
2/23/2017	0.057 (J)		0.049 (J)	1.2	1.9	2	<0.026 (U)		
3/28/2017	0.06 (J)		0.067 (J)	1	1.9	2	<0.026 (U)		
4/26/2017	0.034 (J)		0.028 (J)	1	1.9				
4/27/2017						2.1	<0.026 (U)		
5/25/2017	0.065 (J)		0.077 (J)	0.86 (J)	2.1	2.5	<0.026 (U)		
6/28/2017	0.088 (J)		0.067 (J)	0.84 (J)	2.2	2.4	<0.026 (U)		
8/17/2017	0.18 (J)		0.11 (J)	1.6	2.6	2.6	<0.026 (U)		
5/8/2018	0.041 (J)		0.048 (J)	0.61 (J)	1.3	1.6	<0.026 (U)		
8/6/2018	<0.15 (U)		0.17 (J)	1.1	1.3	1.6	<0.15 (U)		
10/9/2018	<0.078 (U)		0.092 (J)	0.72 (J)	1.4	1.1	<0.078 (U)		
4/22/2019	<0.53 (U)		<0.53 (U)	<0.53 (U)	1.2	0.92 (J)	<0.53 (U)		
4/23/2019									0.92 (J)
10/28/2019	<0.53 (U)		<0.53 (U)						1.2
10/29/2019				<0.53 (U)	1.5	1	<0.53 (U)		
1/9/2020									
4/27/2020	<0.58 (U)		<0.58 (U)	<0.58 (U)	1	0.74 (J)	<0.58 (U)		
5/27/2020									0.83 (J)
9/15/2020		<0.51 (U)						<0.51 (U)	
10/19/2020	<0.51 (U)		<0.51 (U)						1
10/20/2020				<0.51 (U)	1	0.79 (J)	<0.51 (U)	0.64 (J)	
10/21/2020		<0.51 (U)							
4/26/2021									<1.1 (U)
4/27/2021	<1.1 (U)		<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	
4/28/2021		<1.1 (U)							
10/20/2021						<1.1 (U)	<1.1 (U)	<1.1 (U)	
10/21/2021	<1.1 (U)		<1.1 (U)	<1.1 (U)	1.1 (J)				<1.1 (U)
10/22/2021		<1.1 (U)							
4/25/2022	<0.69 (U)		<0.69 (U)						0.72 (J)
4/26/2022				<0.69 (U)	1.4 (J)	1.2 (J)	<0.69 (U)	<0.69 (U)	
4/27/2022									
4/29/2022		<0.69 (U)							
10/12/2022	<0.69 (U)		<0.69 (U)	<0.69 (U)	1.1 (J)	0.72 (J)	<0.69 (U)	<0.69 (U)	0.7 (J)
10/13/2022		<0.69 (U)							

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Antimony (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
4/22/2019						
4/23/2019	1.4					
10/28/2019	1.7					
10/29/2019		<0.53 (U)		<0.53 (U)		
1/9/2020		<0.53 (U)		<0.53 (U)		
4/27/2020		<0.58 (U)		<0.58 (U)		
5/27/2020	0.7 (J)					
9/15/2020			<0.51 (U)		<0.51 (U)	
10/19/2020	1.4					
10/20/2020						
10/21/2020		<0.51 (U)	<0.51 (U)	<0.51 (U)	0.66 (J)	
4/26/2021	<1.1 (U)					
4/27/2021		<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	
4/28/2021						
10/20/2021						
10/21/2021	3	<1.1 (U)				
10/22/2021			<1.1 (U)	<1.1 (U)	<1.1 (U)	
4/25/2022	0.84 (J)					
4/26/2022			<0.69 (U)			
4/27/2022		<0.69 (U)		<0.69 (U)	<0.69 (U)	
4/29/2022						
10/12/2022	<0.69 (U)	<0.69 (U)	<0.69 (U)	<0.69 (U)	<0.69 (U)	<0.69 (U)
10/13/2022						

ND substitution: RL or RL/2 if <15% NDs.

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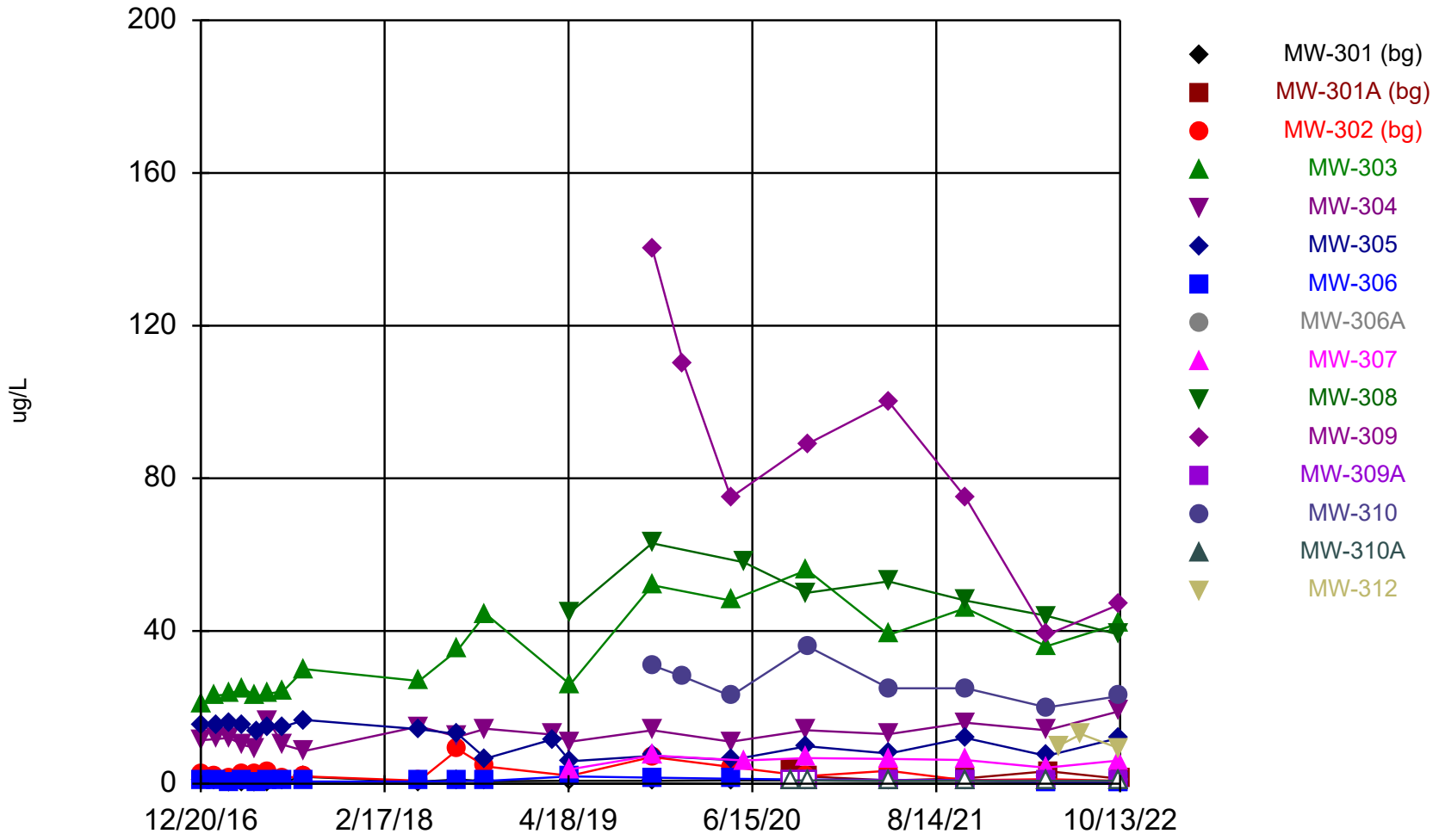
Hollow symbols indicate censored values.

Arsenic



Time Series Analysis Run 12/16/2022 5:10 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Arsenic (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	0.7 (J)		2.3	20.8					
12/21/2016					11.4	15.4	0.82 (J)		
1/23/2017	0.69 (J)		1.7	23.1					
1/24/2017					11.7	15.4	0.58 (J)		
2/23/2017	0.55 (J)		1.6	23.4	12	16	0.5 (J)		
3/28/2017	0.54 (J)		2.7	25	10.1	15.2	0.61 (J)		
4/26/2017	0.55 (J)		2.4	22.9	9.4				
4/27/2017						13.9	0.55 (J)		
5/25/2017	0.5 (J)		3.2	23.6	16.6	14.7	0.6 (J)		
6/28/2017	0.62 (J)		1.6	24.2	10.2	14.9	0.59 (J)		
8/17/2017	1.8		1.9	30	8.6	16.7	0.57 (J)		
5/8/2018	0.54 (J)		0.79 (J)	26.9	15	14.3	0.58 (J)		
8/6/2018	1.1		9	35.1	12.3	13	0.7 (J)		
10/9/2018	0.67 (J)		4.5	44.5	14.4	6.6	0.72 (J)		
3/11/2019					12.9	11.6			
4/22/2019	<0.75 (U)		2.1	26	11	5.9	1.9 (J)		
4/23/2019									3.8
10/28/2019	<0.75 (U)		7						7.4
10/29/2019				52	14	7.3	1.6 (J)		
1/9/2020									
4/27/2020	<0.88 (U)		4.4	48	11	6.2	1.3 (J)		
5/27/2020									6.1
9/15/2020		3.7						<0.88 (U)	
10/19/2020	<0.88 (U)		2						6.7
10/20/2020				56	14	9.8	1.1 (J)	<0.88 (U)	
10/21/2020		1.9 (J)							
4/26/2021									6.5
4/27/2021	<0.75 (U)		3.4	39	13	7.9	1 (J)	<0.75 (U)	
4/28/2021		0.87 (J)							
10/20/2021						12	0.87 (J)	<0.75 (U)	
10/21/2021	0.88 (J)		0.9 (J)	46	16				6.2
10/22/2021		1.4 (J)							
4/25/2022	0.8 (J)		1.2 (J)						4.2
4/26/2022				36	14	7.3	<0.75 (U)	<0.75 (U)	
4/27/2022									
4/29/2022		3.3							
5/25/2022									
7/15/2022									
10/12/2022	<0.75 (U)		0.76 (J)	42	19	12	<0.75 (U)	<0.75 (U)	6.1
10/13/2022		1.3 (J)							

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Arsenic (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

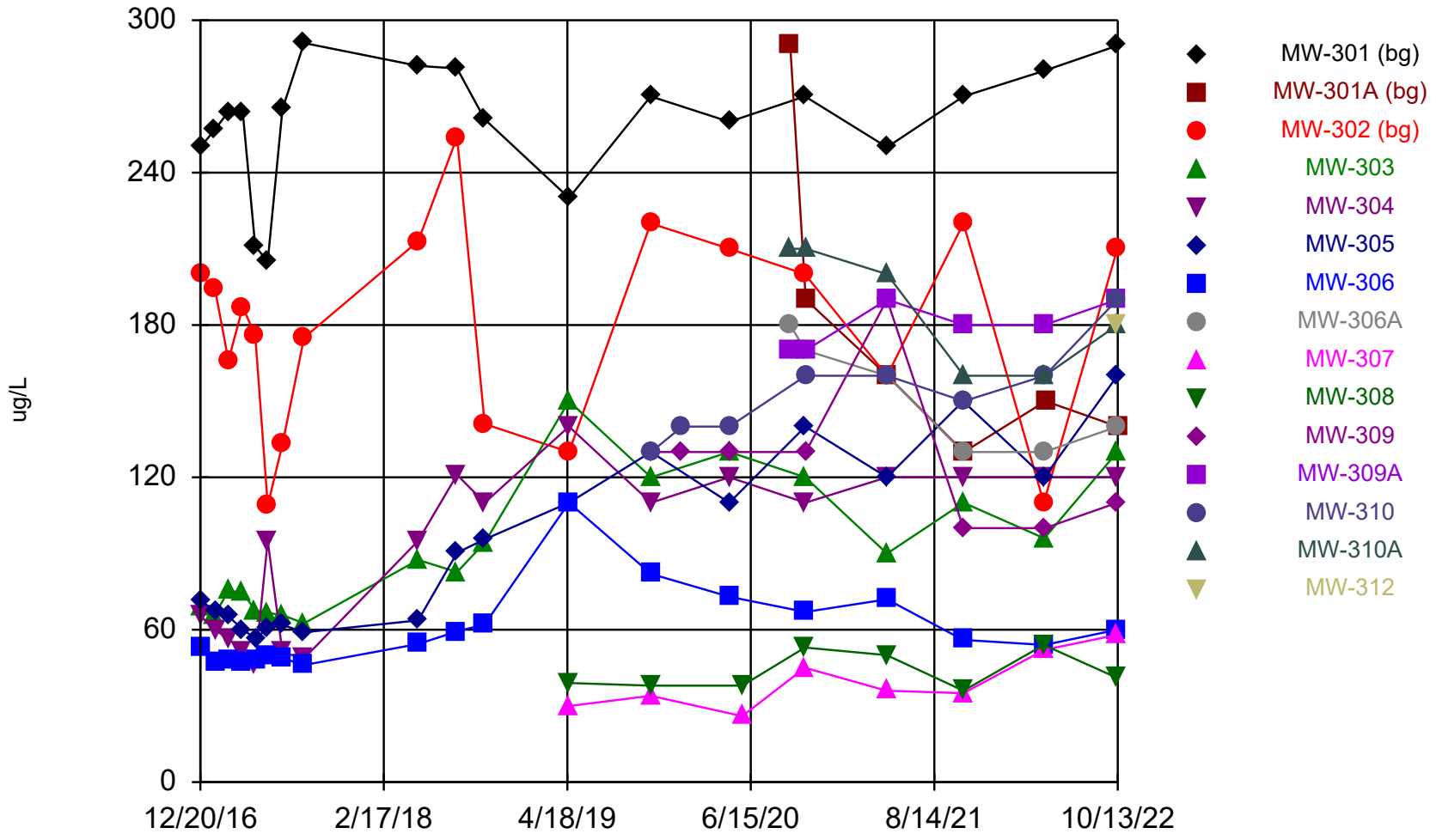
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
3/11/2019						
4/22/2019						
4/23/2019	45					
10/28/2019	63					
10/29/2019		140		31		
1/9/2020		110		28		
4/27/2020		75		23		
5/27/2020	58					
9/15/2020			<0.88 (U)		<0.88 (U)	
10/19/2020	50					
10/20/2020						
10/21/2020		89	<0.88 (U)	36	<0.88 (U)	
4/26/2021	53					
4/27/2021		100	0.98 (J)	25	<0.75 (U)	
4/28/2021						
10/20/2021						
10/21/2021	48	75				
10/22/2021			0.87 (J)	25	<0.75 (U)	
4/25/2022	44					
4/26/2022			0.79 (J)			
4/27/2022		39		20	<0.75 (U)	
4/29/2022						
5/25/2022						10
7/15/2022						13
10/12/2022	39	47	0.77 (J)	23	<0.75 (U)	9.2
10/13/2022						

02/26/2024 - Classification: Internal - ECRM13238692

ND substitution: RL or RL/2 if <15% NDs.

Barium



Time Series Analysis Run 12/16/2022 5:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Barium (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	250		200	68.8					
12/21/2016					65.3	71.4	53		
1/23/2017	257		194	66					
1/24/2017					59.8	67.4	47.4		
2/23/2017	264		166	75.4	56.4	65.3	47.7		
3/28/2017	264		187	74.6	51.6	60.1	47.2		
4/26/2017	211		176	67.6	46.6				
4/27/2017						56.5	47.8		
5/25/2017	205		109	66.6	95	60.7	50.1		
6/28/2017	265		133	65.8	51.1	61.9	48.8		
8/17/2017	291		175	62.5	48.7	59	46.1		
5/8/2018	282		213	87.5	95	63.7	54.4		
8/6/2018	281		254	82.7	121	90.3	59.3		
10/9/2018	261		141	94.3	110	95.6	62.1		
4/22/2019	230		130	150	140	110	110		
4/23/2019									30
10/28/2019	270		220						34
10/29/2019				120	110	130	82		
1/9/2020									
4/27/2020	260		210	130	120	110	73		
5/27/2020									26
9/15/2020		290						180	
10/19/2020	270		200						45
10/20/2020				120	110	140	67	170	
10/21/2020		190							
4/26/2021									36
4/27/2021	250		160	90	120	120	72	160	
4/28/2021		160							
10/20/2021						150	56	130	
10/21/2021	270		220	110	120				35
10/22/2021		130							
4/25/2022	280		110						52
4/26/2022				96	120	120	54	130	
4/27/2022									
4/29/2022		150							
10/12/2022	290		210	130	120	160	60	140	58
10/13/2022		140							

Time Series

Constituent: Barium (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
4/22/2019						
4/23/2019	39					
10/28/2019	38					
10/29/2019		130		130		
1/9/2020		130		140		
4/27/2020		130		140		
5/27/2020	38					
9/15/2020			170		210	
10/19/2020	53					
10/20/2020						
10/21/2020		130	170	160	210	
4/26/2021	50					
4/27/2021		190	190	160	200	
4/28/2021						
10/20/2021						
10/21/2021	36	100				
10/22/2021			180	150	160	
4/25/2022	54					
4/26/2022			180			
4/27/2022		100		160	160	
4/29/2022						
10/12/2022	41	110	190	190	180	180
10/13/2022						

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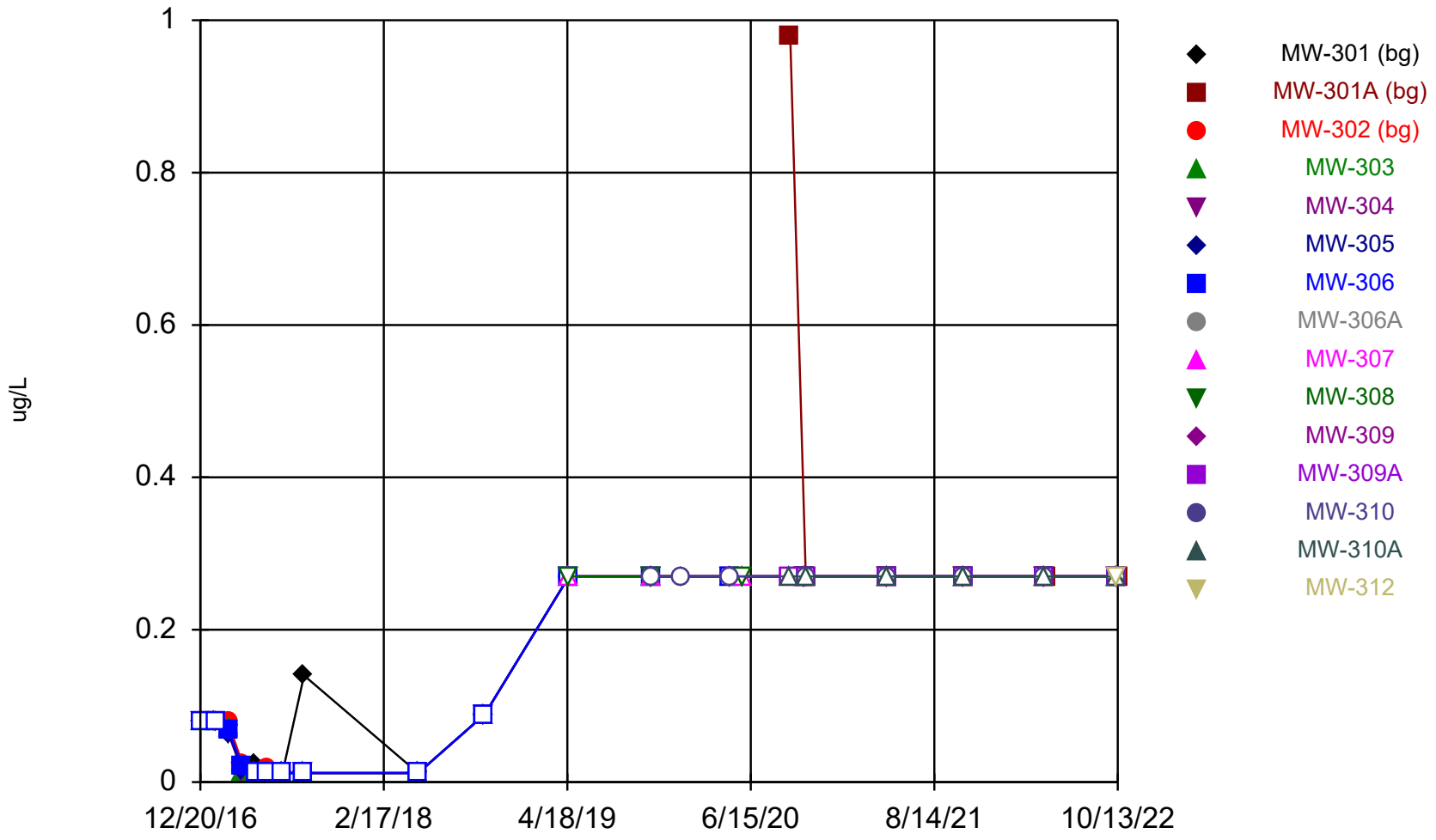
Hollow symbols indicate censored values.

Beryllium



Time Series Analysis Run 12/16/2022 5:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Beryllium (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	<0.08 (U)		<0.08 (U)	<0.08 (U)					
12/21/2016					<0.08 (U)	<0.08 (U)	<0.08 (U)		
1/23/2017	<0.08 (U)		<0.08 (U)	<0.08 (U)					
1/24/2017					<0.08 (U)	<0.08 (U)	<0.08 (U)		
2/23/2017	0.075 (J)		0.078 (J)	0.072 (J)	0.064 (J)	0.064 (J)	0.068 (J)		
3/28/2017	0.012 (J)		0.023 (J)	0.013 (J)	<0.012 (U)	0.016 (J)	0.021 (J)		
4/26/2017	0.023 (J)		<0.012 (U)	<0.012 (U)	<0.012 (U)				
4/27/2017						<0.012 (U)	<0.012 (U)		
5/25/2017	0.016 (J)		0.019 (J)	<0.012 (U)	<0.012 (U)	<0.012 (U)	<0.012 (U)		
6/28/2017	<0.012 (U)		<0.012 (U)	<0.012 (U)	<0.012 (U)	<0.012 (U)	<0.012 (U)		
8/17/2017	0.14 (J)		<0.012 (U)	<0.012 (U)	<0.012 (U)	<0.012 (U)	<0.012 (U)		
5/8/2018	<0.012 (U)		<0.012 (U)	<0.012 (U)	<0.012 (U)	<0.012 (U)	<0.012 (U)		
10/9/2018	<0.089 (U)		<0.089 (U)	<0.089 (U)	<0.089 (U)	<0.089 (U)	<0.089 (U)		
4/22/2019	<0.27 (U)		<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)		
4/23/2019									<0.27 (U)
10/28/2019	<0.27 (U)		<0.27 (U)						<0.27 (U)
10/29/2019				<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)		
1/9/2020									
4/27/2020	<0.27 (U)		<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)		
5/27/2020									<0.27 (U)
9/15/2020		0.98 (J)						<0.27 (U)	
10/19/2020	<0.27 (U)		<0.27 (U)						<0.27 (U)
10/20/2020				<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	
10/21/2020		<0.27 (U)							
4/26/2021									<0.27 (U)
4/27/2021	<0.27 (U)		<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	
4/28/2021		<0.27 (U)							
10/20/2021						<0.27 (U)	<0.27 (U)	<0.27 (U)	
10/21/2021	<0.27 (U)		<0.27 (U)	<0.27 (U)	<0.27 (U)				<0.27 (U)
10/22/2021		<0.27 (U)							
4/25/2022	<0.27 (U)		<0.27 (U)						<0.27 (U)
4/26/2022				<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	
4/27/2022									
4/29/2022		<0.27 (U)							
10/12/2022	<0.27 (U)		<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)
10/13/2022		<0.27 (U)							

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Beryllium (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
5/8/2018						
10/9/2018						
4/22/2019						
4/23/2019	<0.27 (U)					
10/28/2019	<0.27 (U)					
10/29/2019		<0.27 (U)		<0.27 (U)		
1/9/2020		<0.27 (U)		<0.27 (U)		
4/27/2020		<0.27 (U)		<0.27 (U)		
5/27/2020	<0.27 (U)					
9/15/2020			<0.27 (U)		<0.27 (U)	
10/19/2020	<0.27 (U)					
10/20/2020						
10/21/2020		<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	
4/26/2021	<0.27 (U)					
4/27/2021		<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	
4/28/2021						
10/20/2021						
10/21/2021	<0.27 (U)	<0.27 (U)				
10/22/2021			<0.27 (U)	<0.27 (U)	<0.27 (U)	
4/25/2022	<0.27 (U)					
4/26/2022			<0.27 (U)			
4/27/2022		<0.27 (U)		<0.27 (U)	<0.27 (U)	
4/29/2022						
10/12/2022	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)
10/13/2022						

ND substitution: RL or RL/2 if <15% NDs.

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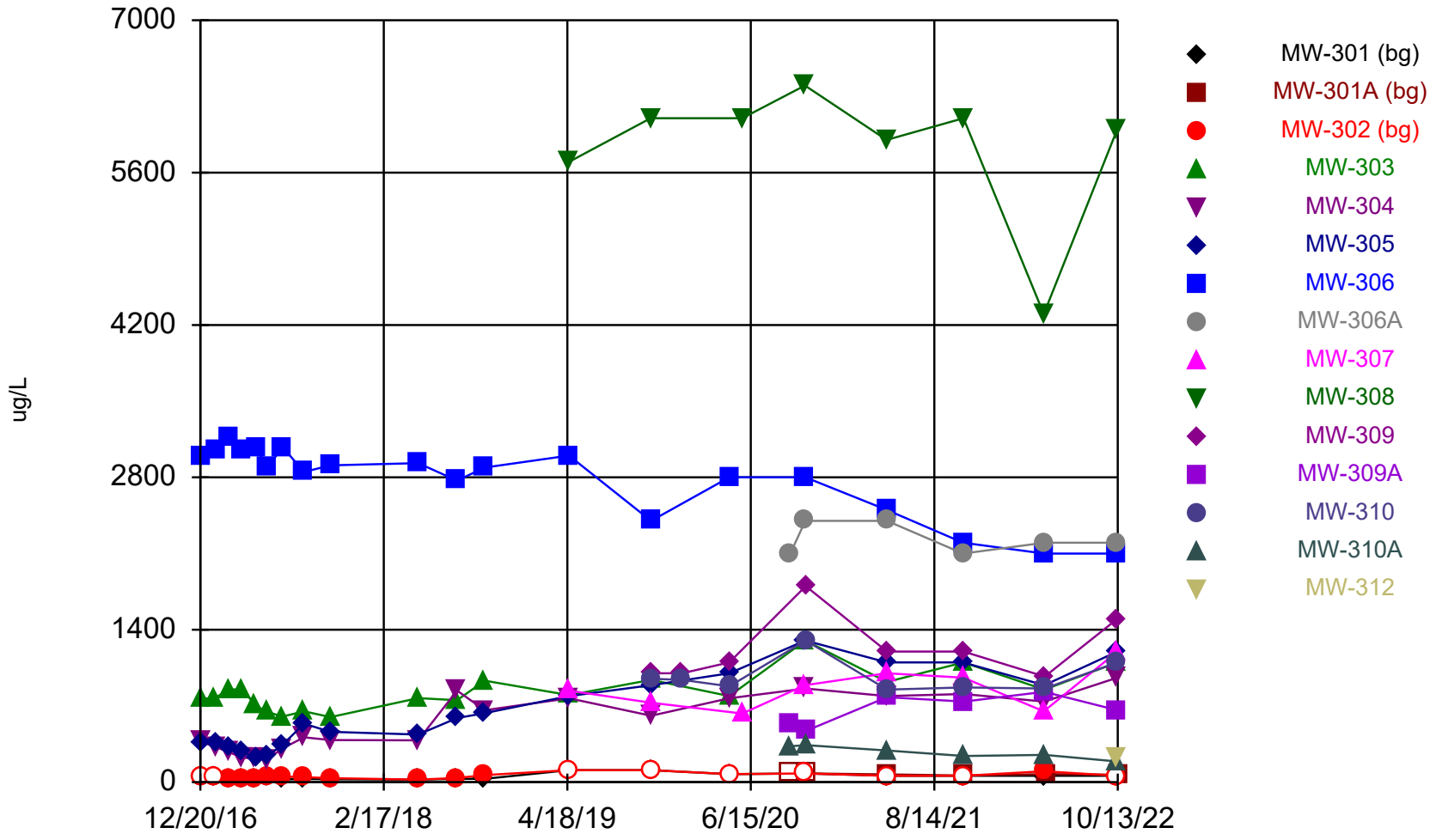
Hollow symbols indicate censored values.

Boron



Time Series Analysis Run 12/16/2022 5:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Boron (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	<50 (U)		<50 (U)	767					
12/21/2016					372	363	2990		
1/23/2017	<50 (U)		<50 (U)	773					
1/24/2017					323	353	3050		
2/23/2017	25.2 (J)		30.1 (J)	851	277	316	3160		
3/28/2017	23.8 (J)		33.7 (J)	852	224	274	3060		
4/26/2017	37.3 (J)		36.5 (J)	705	218				
4/27/2017						229	3080		
5/25/2017	40.8 (J)		51.6 (J)	644	212	243	2890		
6/28/2017	24.6 (J)		51.8 (J)	603	310	342	3080		
8/17/2017	28.9 (J)		45.1 (J)	650	412	537	2850		
10/17/2017	26.8 (J)		36.5 (J)	598	386	462	2910		
5/8/2018	22.8 (J)		22.4 (J)	772	384	437	2930		
8/6/2018	30.9 (J)		38.1 (J)	753	841	589	2770		
10/9/2018	30.6 (J)		65 (J)	932	661	634	2890		
4/22/2019	<110 (U)		<110 (U)	800	770	790	3000		
4/23/2019									840
10/28/2019	<110 (U)		<110 (U)						730
10/29/2019				940	610	890	2400		
1/9/2020									
4/27/2020	<73 (U)		<73 (U)	790	770	1000	2800		
5/27/2020									630
9/15/2020		<80 (U)						2100	
10/19/2020	<80 (U)		<80 (U)						890
10/20/2020				1300	860	1300	2800	2400	
10/21/2020		<80 (U)							
4/26/2021									1000
4/27/2021	<58 (U)		<58 (U)	920	790	1100	2500	2400	
4/28/2021		71 (J)							
10/20/2021						1100	2200	2100	
10/21/2021	<58 (U)		<58 (U)	1100	810				960
10/22/2021		61 (J)							
4/25/2022	<58 (U)		100						650
4/26/2022				850	740	890	2100	2200	
4/27/2022									
4/29/2022		74 (J)							
10/12/2022	<58 (U)		<58 (U)	1100	960	1200	2100	2200	1200
10/13/2022		68 (J)							

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Boron (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
10/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
4/22/2019						
4/23/2019	5700					
10/28/2019	6100					
10/29/2019		1000		950		
1/9/2020		1000		940		
4/27/2020		1100		880		
5/27/2020	6100					
9/15/2020			530		330	
10/19/2020	6400					
10/20/2020						
10/21/2020		1800	470	1300	340	
4/26/2021	5900					
4/27/2021		1200	780	850	290	
4/28/2021						
10/20/2021						
10/21/2021	6100	1200				
10/22/2021			740	870	240	
4/25/2022	4300					
4/26/2022			830			
4/27/2022		970		860	250	
4/29/2022						
10/12/2022	6000	1500	660	1100	190	220
10/13/2022						

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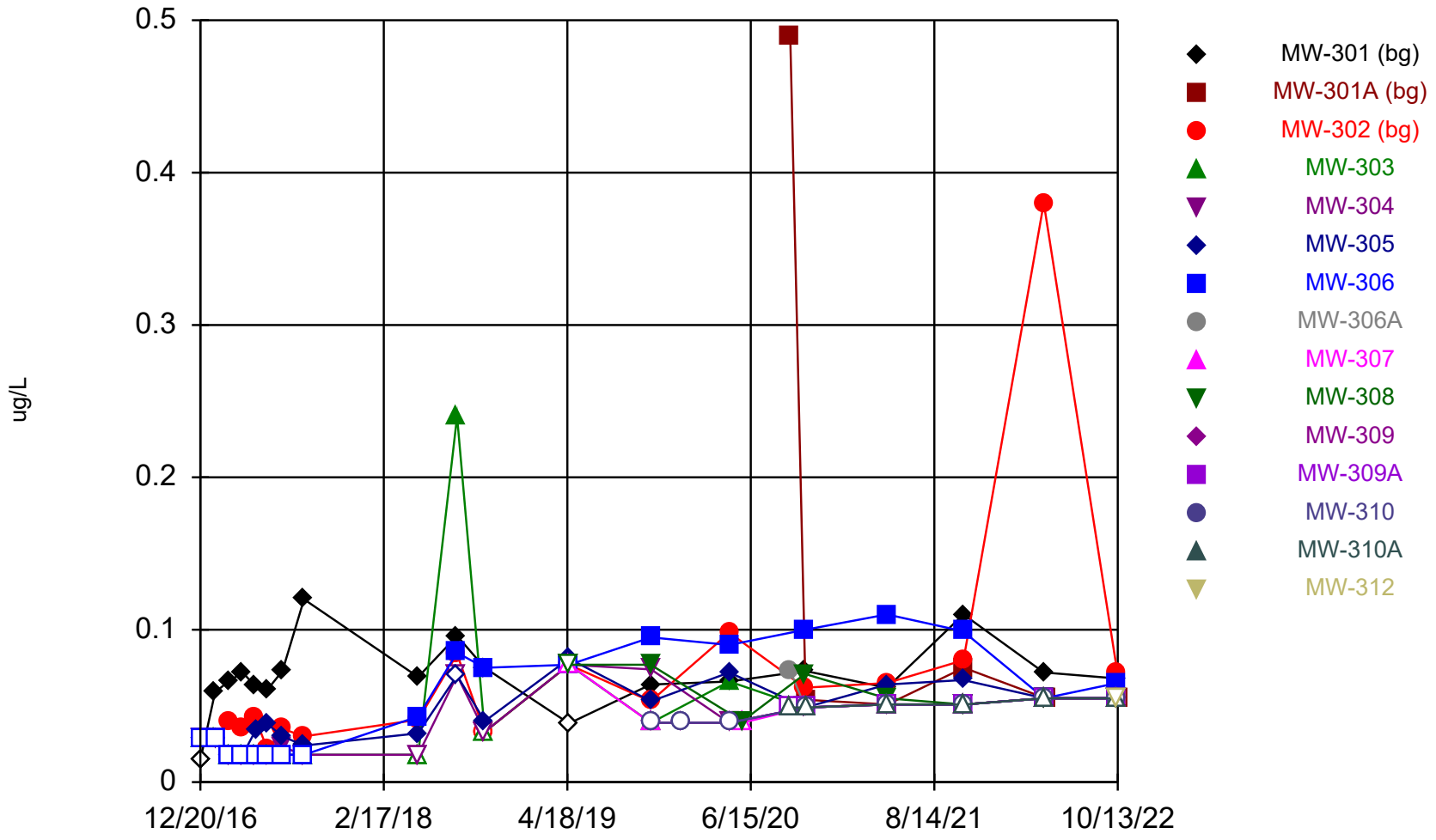
Hollow symbols indicate censored values.

Cadmium



Time Series Analysis Run 12/16/2022 5:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Cadmium (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	<0.029 (U)		<0.029 (U)	<0.029 (U)					
12/21/2016					<0.029 (U)	<0.029 (U)	<0.029 (U)		
1/23/2017	0.059 (J)		<0.029 (U)	<0.029 (U)					
1/24/2017					<0.029 (U)	<0.029 (U)	<0.029 (U)		
2/23/2017	0.066 (J)		0.04 (J)	<0.018 (U)	<0.018 (U)	<0.018 (U)	<0.018 (U)		
3/28/2017	0.072 (J)		0.036 (J)	<0.018 (U)	<0.018 (U)	<0.018 (U)	<0.018 (U)		
4/26/2017	0.063 (J)		0.042 (J)	<0.018 (U)	<0.018 (U)				
4/27/2017						0.034 (J)	<0.018 (U)		
5/25/2017	0.061 (J)		0.021 (J)	<0.018 (U)	0.018 (J)	0.038 (J)	<0.018 (U)		
6/28/2017	0.073 (J)		0.035 (J)	<0.018 (U)	0.023 (J)	0.03 (J)	<0.018 (U)		
8/17/2017	0.12 (J)		0.03 (J)	<0.018 (U)	<0.018 (U)	0.024 (J)	<0.018 (U)		
5/8/2018	0.069 (J)		0.041 (J)	<0.018 (U)	<0.018 (U)	0.032 (J)	0.043 (J)		
8/6/2018	0.096 (J)		0.084 (J)	0.24 (J)	<0.07 (U)	<0.07 (U)	0.085 (J)		
10/9/2018	0.075 (J)		<0.033 (U)	<0.033 (U)	<0.033 (U)	0.04 (J)	0.075 (J)		
4/22/2019	<0.077 (U)		<0.077 (U)	<0.077 (U)	<0.077 (U)	0.081 (J)	<0.077 (U)		
4/23/2019									<0.077 (U)
10/28/2019	0.064 (J)		0.053 (J)						<0.039 (U)
10/29/2019				<0.039 (U)	0.074 (J)	0.053 (J)	0.095 (J)		
1/9/2020									
4/27/2020	0.066 (J)		0.098 (J)	0.066 (J)	<0.039 (U)	0.072 (J)	0.09 (J)		
5/27/2020									<0.039 (U)
9/15/2020		0.49						0.073 (J)	
10/19/2020	0.073 (J)		0.062 (J)						<0.049 (U)
10/20/2020				<0.049 (U)	<0.049 (U)	<0.049 (U)	0.1	<0.049 (U)	
10/21/2020		0.054 (J)							
4/26/2021									<0.051 (U)
4/27/2021	0.062 (J)		0.065 (J)	<0.051 (U)	<0.051 (U)	0.064 (J)	0.11	<0.051 (U)	
4/28/2021		<0.051 (U)							
10/20/2021						0.067 (J)	0.099 (J)	<0.051 (U)	
10/21/2021	0.11		0.08 (J)	<0.051 (U)	<0.051 (U)				<0.051 (U)
10/22/2021		0.075 (J)							
4/25/2022	0.072 (J)		0.38						<0.055 (U)
4/26/2022				<0.055 (U)	<0.055 (U)	<0.055 (U)	<0.055 (U)	<0.055 (U)	
4/27/2022									
4/29/2022		<0.055 (U)							
10/12/2022	0.068 (J)		0.072 (J)	<0.055 (U)	<0.055 (U)	<0.055 (U)	0.065 (J)	<0.055 (U)	<0.055 (U)
10/13/2022		<0.055 (U)							

ND substitution: RL or RL/2 if <15% NDs.

Time Series

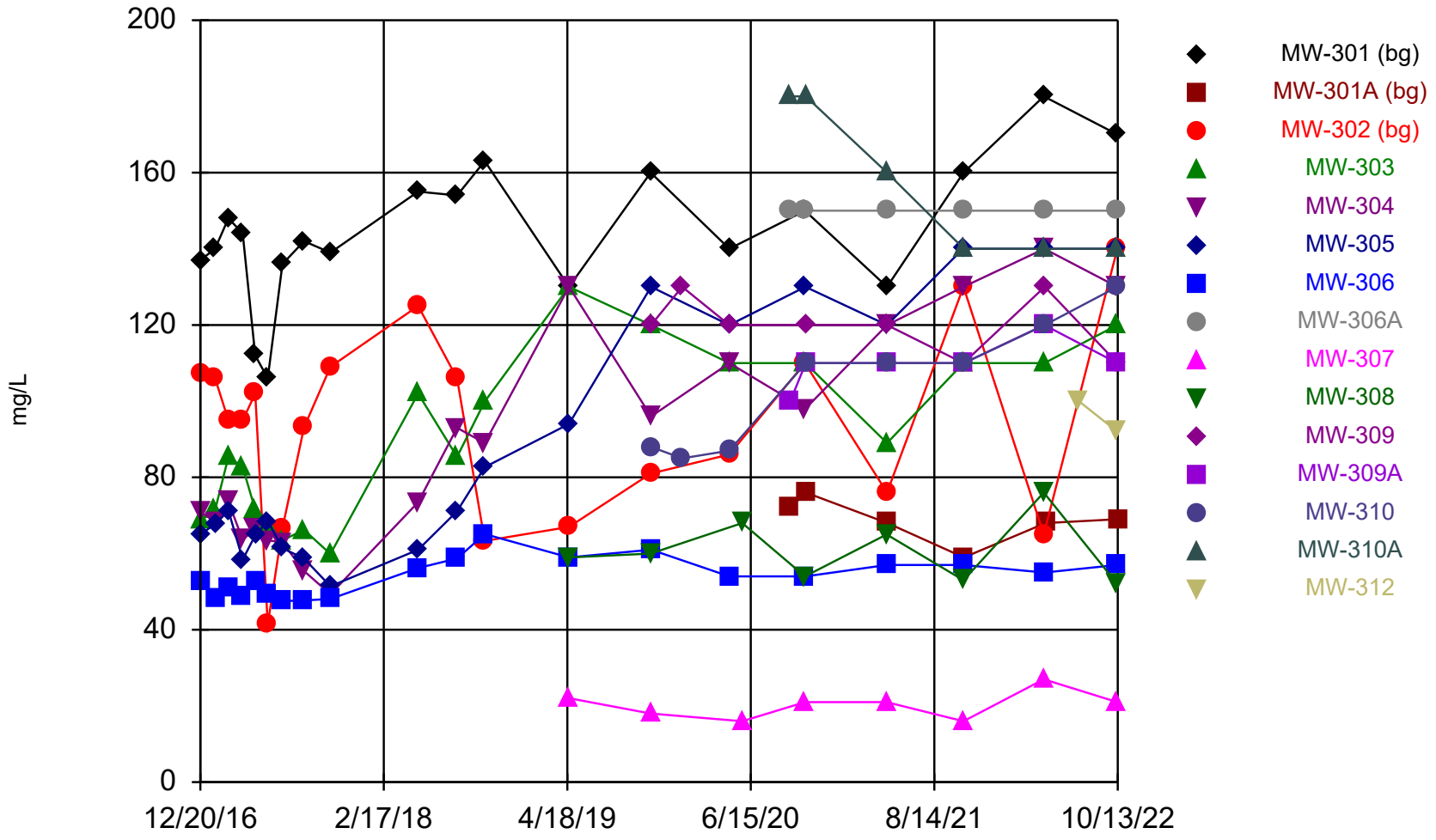
Constituent: Cadmium (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
4/22/2019						
4/23/2019	<0.077 (U)					
10/28/2019	0.077 (J)					
10/29/2019		<0.039 (U)		<0.039 (U)		
1/9/2020		<0.039 (U)		<0.039 (U)		
4/27/2020		<0.039 (U)		<0.039 (U)		
5/27/2020	0.04 (J)					
9/15/2020			<0.049 (U)		<0.049 (U)	
10/19/2020	0.071 (J)					
10/20/2020						
10/21/2020		<0.049 (U)	<0.049 (U)	<0.049 (U)	<0.049 (U)	
4/26/2021	0.055 (J)					
4/27/2021		<0.051 (U)	<0.051 (U)	<0.051 (U)	<0.051 (U)	
4/28/2021						
10/20/2021						
10/21/2021	<0.051 (U)	<0.051 (U)				
10/22/2021			<0.051 (U)	<0.051 (U)	<0.051 (U)	
4/25/2022	<0.055 (U)					
4/26/2022			<0.055 (U)			
4/27/2022		<0.055 (U)		<0.055 (U)	<0.055 (U)	
4/29/2022						
10/12/2022	<0.055 (U)	<0.055 (U)	<0.055 (U)	<0.055 (U)	<0.055 (U)	<0.055 (U)
10/13/2022						

ND substitution: RL or RL/2 if <15% NDs.

Calcium



Time Series Analysis Run 12/16/2022 5:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	137		107	68.7					
12/21/2016					71	65.1	52.4		
1/23/2017	140		106	71.4					
1/24/2017					68.2	67.8	48.4		
2/23/2017	148		95	85.4	73.6	71.3	51.2		
3/28/2017	144		95	82.7	63.6	58.4	48.8		
4/26/2017	112		102	71.5	66.6				
4/27/2017						65	52.8		
5/25/2017	106		41.4	67.8	63.5	68.5	49.1		
6/28/2017	136		66.7	63.5	62.9	61.4	47.5		
8/17/2017	142		93.1	66.2	55.4	58.7	47.7		
10/17/2017	139		109	59.9	49.3	51.4	48.1		
5/8/2018	155		125	102	73.5	61	56.2		
8/6/2018	154		106	85.4	93	71.1	58.7		
10/9/2018	163		63.3	99.9	89	82.7	65.1		
4/22/2019	130		67	130	130	94	59		
4/23/2019									22
10/28/2019	160		81						18
10/29/2019				120	96	130	61		
1/9/2020									
4/27/2020	140		86	110	110	120	54		
5/27/2020									16
9/15/2020		72						150	
10/19/2020	150		110						21
10/20/2020				110	98	130	54	150	
10/21/2020		76							
4/26/2021									21
4/27/2021	130		76	89	120	120	57	150	
4/28/2021		68							
10/20/2021						140	57	150	
10/21/2021	160		130	110	130				16
10/22/2021		59							
4/25/2022	180		65						27
4/26/2022				110	140	140	55	150	
4/27/2022									
4/29/2022		68							
7/15/2022									
10/12/2022	170		140	120	130	140	57	150	21
10/13/2022		69							

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
10/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
4/22/2019						
4/23/2019	59					
10/28/2019	60					
10/29/2019		120		88		
1/9/2020		130		85		
4/27/2020		120		87		
5/27/2020	68					
9/15/2020			100		180	
10/19/2020	54					
10/20/2020						
10/21/2020		120	110	110	180	
4/26/2021	65					
4/27/2021		120	110	110	160	
4/28/2021						
10/20/2021						
10/21/2021	53	110				
10/22/2021			110	110	140	
4/25/2022	76					
4/26/2022			120			
4/27/2022		130		120	140	
4/29/2022						
7/15/2022						100
10/12/2022	52	110	110	130	140	92
10/13/2022						

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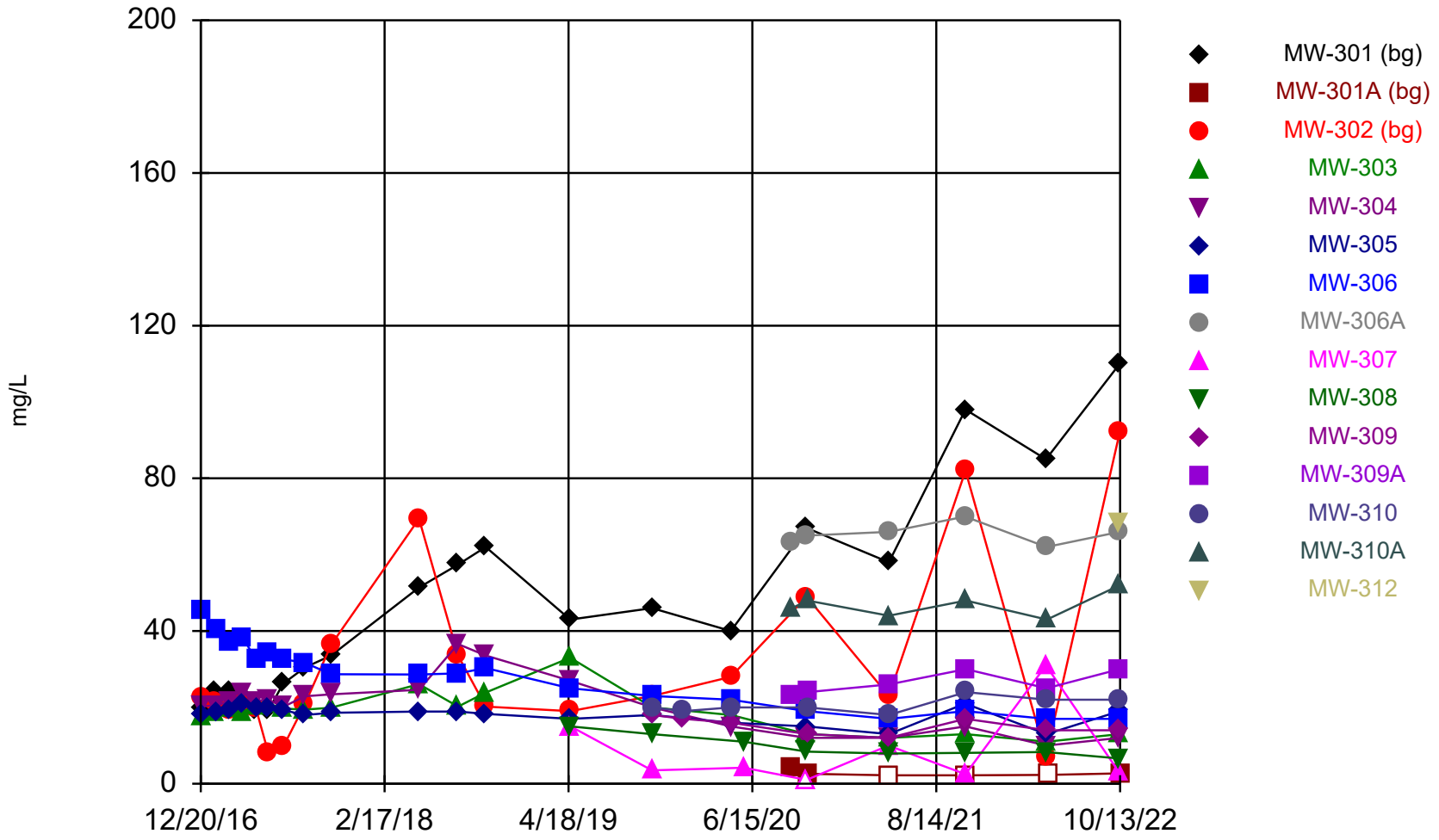
Hollow symbols indicate censored values.

Chloride



Time Series Analysis Run 12/16/2022 5:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	19.5		22.6	17.6					
12/21/2016					20.2	18	45.4		
1/23/2017	24.1		21.4	18.7					
1/24/2017					20.6	18.6	40.3		
2/23/2017	24.4		19.2	19.6	21.4	19.2	36.8		
3/28/2017	23.3		21.6	18.9	23.7	21	38.1		
4/26/2017	19.2		19.9	20.2	21.7				
4/27/2017						19.5	32.4		
5/25/2017	19.1		8.1	21	22.1	19.8	34.5		
6/28/2017	26.2		9.6	19.7	20.1	19.3	32.6		
8/17/2017	30.4		20.7	19.4	22.9	18	31.7		
10/17/2017	33.6		36.4	19.9	23.4	18.6	28.7		
5/8/2018	51.4		69.4	26.1	24.6	18.9	28.6		
8/6/2018	57.4		33.6	20.2	36.6	18.9	28.9		
10/9/2018	62		20.2	23.9	33.6	18.3	30.3		
4/22/2019	43		19	33	27	17	25		
4/23/2019									15
10/28/2019	46		23						3.5 (J)
10/29/2019				20	20	18	23		
1/9/2020									
4/27/2020	40		28	18	15	16	22		
5/27/2020									4.2 (J)
9/15/2020		4.1 (JB)						63 (B)	
10/19/2020	67		49						<2 (U)
10/20/2020				13	12	15	19	65	
10/21/2020		2.6 (J)							
4/26/2021									10
4/27/2021	58		23	12	12	13	17	66	
4/28/2021		<2.2 (U)							
10/20/2021						21	19	70	
10/21/2021	98		82	13	15				2.5 (J)
10/22/2021		<2.2 (U)							
4/25/2022	85		7.2						31
4/26/2022				11	10	13	17	62	
4/27/2022									
4/29/2022		<2.3 (U)							
10/12/2022	110		92	13	12	19	17	66	2.8 (J)
10/13/2022		2.7 (J)							

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
10/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
4/22/2019						
4/23/2019	15					
10/28/2019	13					
10/29/2019		18		20		
1/9/2020		17		19		
4/27/2020		16		20		
5/27/2020	11					
9/15/2020			23 (B)		46 (B)	
10/19/2020	8.4					
10/20/2020						
10/21/2020		13	24	20	48	
4/26/2021	7.9					
4/27/2021		12	26	18	44	
4/28/2021						
10/20/2021						
10/21/2021	8.1	17				
10/22/2021			30	24	48	
4/25/2022	8.3					
4/26/2022			25			
4/27/2022		14		22	43	
4/29/2022						
10/12/2022	6.6	14	30	22	52	68
10/13/2022						

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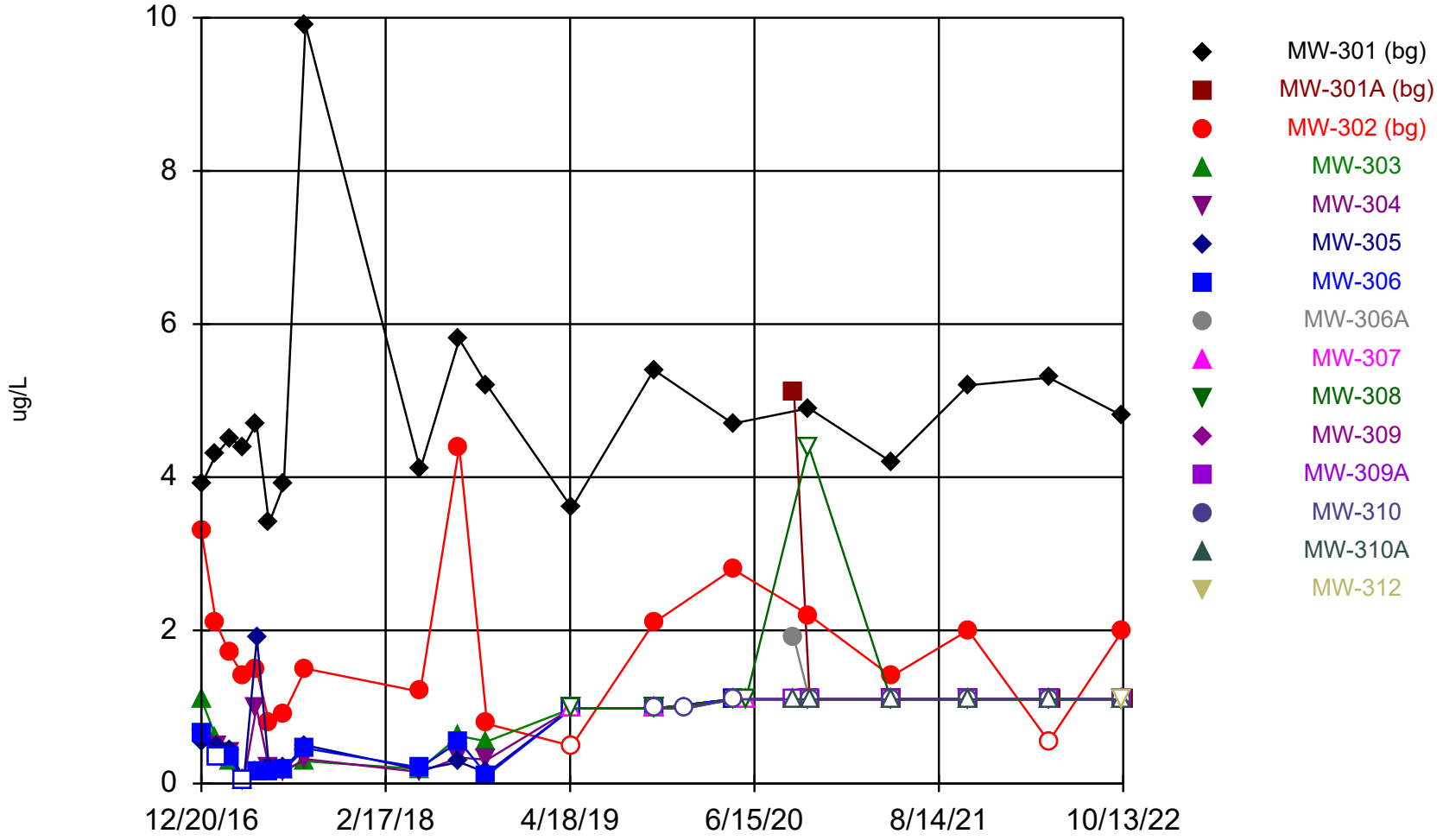
Hollow symbols indicate censored values.

Chromium



Time Series Analysis Run 12/16/2022 5:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Chromium (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	3.9		3.3	1.1					
12/21/2016					0.58 (J)	0.55 (J)	0.65 (J)		
1/23/2017	4.3		2.1	0.6 (J)					
1/24/2017					0.5 (J)	0.49 (J)	<0.34 (U)		
2/23/2017	4.5		1.7	0.28 (J)	0.41 (J)	0.44 (J)	0.34 (J)		
3/28/2017	4.4		1.4	<0.054 (U)	<0.054 (U)	<0.054 (U)	<0.054 (U)		
4/26/2017	4.7		1.5	0.14 (J)	0.99 (J)				
4/27/2017						1.9	0.14 (J)		
5/25/2017	3.4		0.8 (J)	0.21 (J)	0.2 (J)	0.2 (J)	0.16 (J)		
6/28/2017	3.9		0.91 (J)	0.18 (J)	0.16 (J)	0.2 (J)	0.18 (J)		
8/17/2017	9.9		1.5	0.29 (J)	0.32 (J)	0.5 (J)	0.46 (J)		
5/8/2018	4.1		1.2	0.19 (J)	0.15 (J)	0.18 (J)	0.21 (J)		
8/6/2018	5.8		4.4	0.62 (J)	0.34 (J)	0.28 (J)	0.55 (J)		
10/9/2018	5.2		0.78 (J)	0.55 (J)	0.31 (J)	0.14 (J)	0.11 (J)		
4/22/2019	3.6 (J)		<0.98 (U)	<0.98 (U)	<0.98 (U)	<0.98 (U)	<0.98 (U)		
4/23/2019									<0.98 (U)
10/28/2019	5.4		2.1 (J)						<0.98 (U)
10/29/2019				<0.98 (U)	<0.98 (U)	<0.98 (U)	<0.98 (U)		
1/9/2020									
4/27/2020	4.7 (J)		2.8 (J)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)		
5/27/2020									<1.1 (U)
9/15/2020		5.1						1.9 (J)	
10/19/2020	4.9 (J)		2.2 (J)						<1.1 (U)
10/20/2020				<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	
10/21/2020		1.1 (J)							
4/26/2021									<1.1 (U)
4/27/2021	4.2 (J)		1.4 (J)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	
4/28/2021		<1.1 (U)							
10/20/2021						<1.1 (U)	<1.1 (U)	<1.1 (U)	
10/21/2021	5.2		2 (J)	<1.1 (U)	<1.1 (U)				<1.1 (U)
10/22/2021		<1.1 (U)							
4/25/2022	5.3		<1.1 (U)						<1.1 (U)
4/26/2022				<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	
4/27/2022									
4/29/2022		<1.1 (U)							
10/12/2022	4.8 (J)		2 (J)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)
10/13/2022		<1.1 (U)							

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Chromium (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
4/22/2019						
4/23/2019	<0.98 (U)					
10/28/2019	<0.98 (U)					
10/29/2019		<0.98 (U)		<0.98 (U)		
1/9/2020		<0.98 (U)		<0.98 (U)		
4/27/2020		<1.1 (U)		<1.1 (U)		
5/27/2020	<1.1 (U)					
9/15/2020			<1.1 (U)		<1.1 (U)	
10/19/2020	<4.4 (U)					
10/20/2020						
10/21/2020		<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	
4/26/2021	<1.1 (U)					
4/27/2021		<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	
4/28/2021						
10/20/2021						
10/21/2021	<1.1 (U)	<1.1 (U)				
10/22/2021			<1.1 (U)	<1.1 (U)	<1.1 (U)	
4/25/2022	<1.1 (U)					
4/26/2022			<1.1 (U)			
4/27/2022		<1.1 (U)		<1.1 (U)	<1.1 (U)	
4/29/2022						
10/12/2022	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)
10/13/2022						

ND substitution: RL or RL/2 if <15% NDs.

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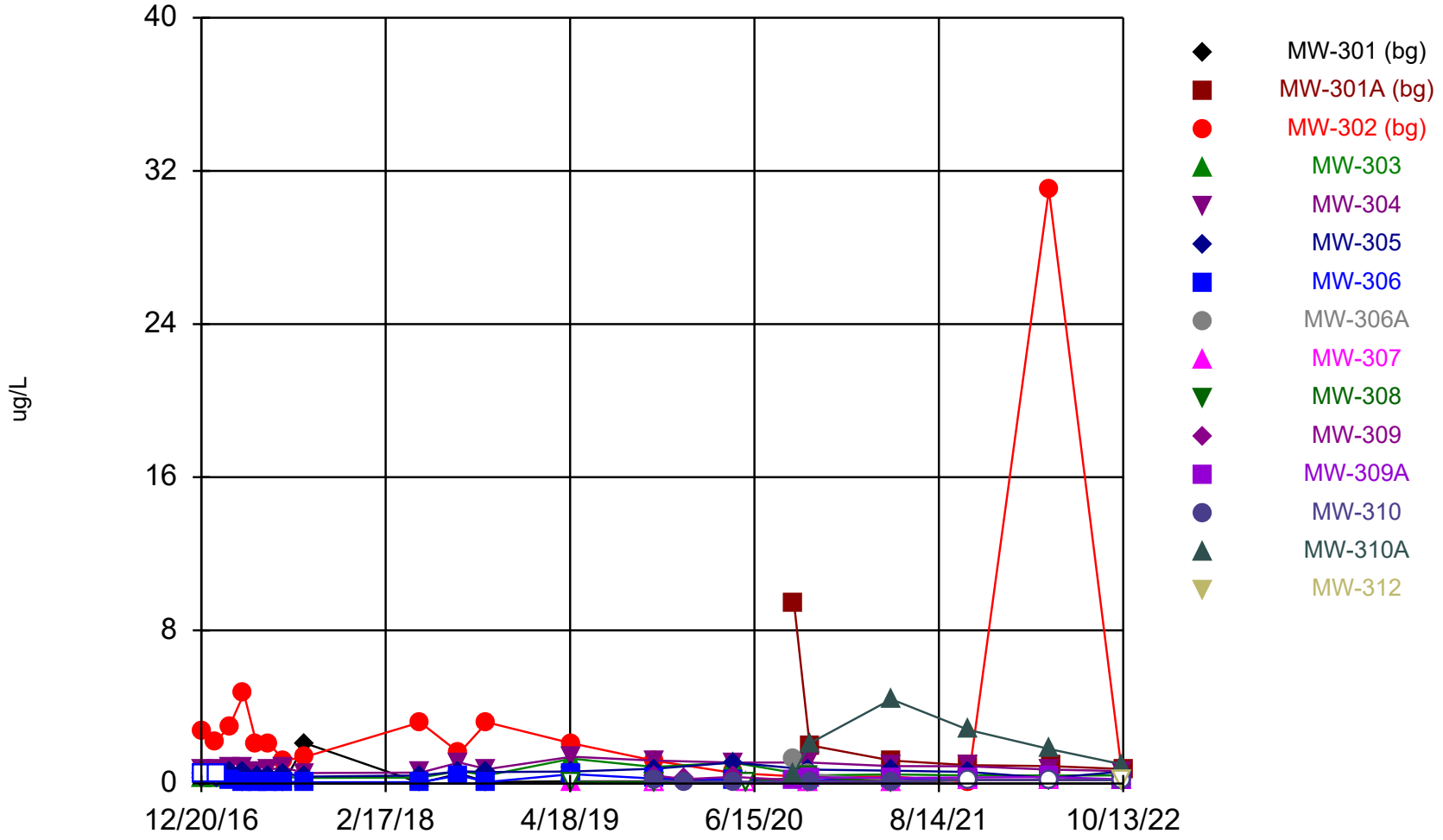
Hollow symbols indicate censored values.

Cobalt



Time Series Analysis Run 12/16/2022 5:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Cobalt (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	<0.5 (U)		2.7	<0.5 (U)					
12/21/2016					0.75 (J)	<0.5 (U)	<0.5 (U)		
1/23/2017	<0.5 (U)		2.2	<0.5 (U)					
1/24/2017					0.72 (J)	<0.5 (U)	<0.5 (U)		
2/23/2017	0.25 (J)		3	0.4 (J)	0.79 (J)	0.56 (J)	0.16 (J)		
3/28/2017	0.11 (J)		4.7	0.3 (J)	0.83 (J)	0.6 (J)	0.11 (J)		
4/26/2017	0.28 (J)		2.1	0.3 (J)	0.63 (J)				
4/27/2017						0.43 (J)	0.077 (J)		
5/25/2017	0.18 (J)		2.1	0.3 (J)	0.74 (J)	0.34 (J)	0.068 (J)		
6/28/2017	0.057 (J)		1.2	0.35 (J)	0.83 (J)	0.53 (J)	0.078 (J)		
8/17/2017	2.1		1.4	0.3 (J)	0.55 (J)	0.36 (J)	0.065 (J)		
5/8/2018	0.028 (J)		3.2	0.31 (J)	0.57 (J)	0.42 (J)	0.071 (J)		
8/6/2018	0.52 (J)		1.6	0.66 (J)	1.1	0.64 (J)	0.43 (J)		
10/9/2018	0.084 (J)		3.2	0.43 (J)	0.75 (J)	0.6 (J)	0.079 (J)		
4/22/2019	0.12 (J)		2.1	1.3	1.4	0.63	0.49 (J)		
4/23/2019									0.091 (J)
10/28/2019	0.12 (J)		1.2						<0.091 (U)
10/29/2019				0.87	1.2	0.77	0.26 (J)		
1/9/2020									
4/27/2020	0.23 (J)		0.56	1.1	1.1	1.1	0.2 (J)		
5/27/2020									<0.091 (U)
9/15/2020		9.4						1.3	
10/19/2020	<0.091 (U)		0.33 (J)						<0.091 (U)
10/20/2020				0.43 (J)	1.1	0.73	0.17 (J)	0.49 (J)	
10/21/2020		2							
4/26/2021									<0.091 (U)
4/27/2021	0.15 (J)		0.37 (J)	0.48 (J)	0.91	0.67	0.28 (J)	0.15 (J)	
4/28/2021		1.2							
10/20/2021						0.61	<0.19 (U)	<0.19 (U)	
10/21/2021	<0.19 (U)		<0.19 (U)	0.43 (J)	0.9				<0.19 (U)
10/22/2021		0.96							
4/25/2022	<0.19 (U)		31						<0.19 (U)
4/26/2022				0.42 (J)	0.73	0.29 (J)	<0.19 (U)	<0.19 (U)	
4/27/2022									
4/29/2022		0.91							
10/12/2022	<0.19 (U)		0.21 (J)	0.43 (J)	0.65	0.63	<0.19 (U)	<0.19 (U)	<0.19 (U)
10/13/2022		0.76							

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cobalt (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

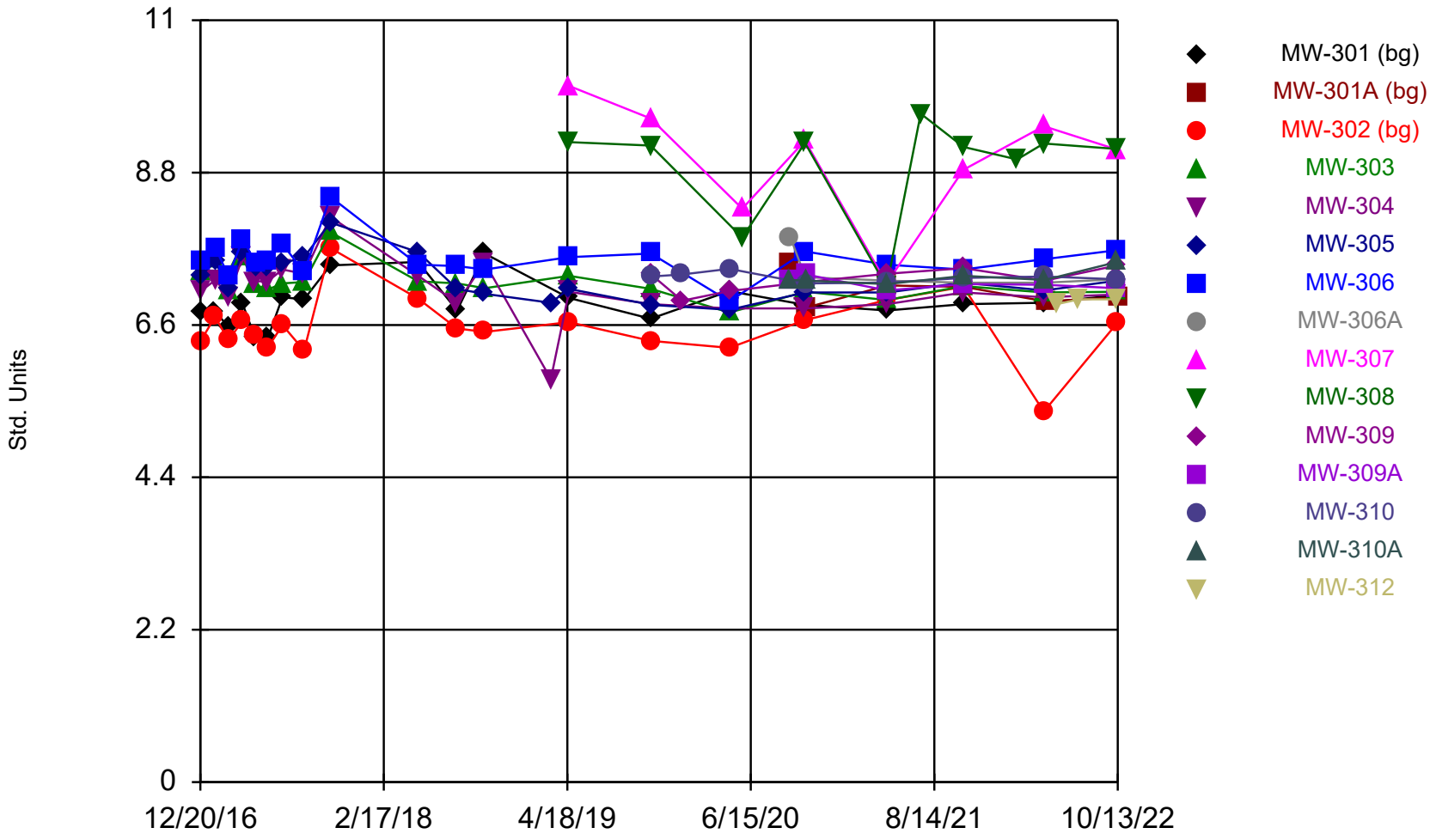
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
4/22/2019						
4/23/2019	<0.091 (U)					
10/28/2019	<0.091 (U)					
10/29/2019		0.42 (J)		0.17 (J)		
1/9/2020		0.23 (J)		0.095 (J)		
4/27/2020		0.35 (J)		0.098 (J)		
5/27/2020	<0.091 (U)					
9/15/2020			0.22 (J)		0.54	
10/19/2020	<0.36 (U)					
10/20/2020						
10/21/2020		0.14 (J)	0.32 (J)	0.11 (J)	2.1	
4/26/2021	<0.091 (U)					
4/27/2021		0.12 (J)	0.3 (J)	0.098 (J)	4.4	
4/28/2021						
10/20/2021						
10/21/2021	<0.19 (U)	<0.19 (U)				
10/22/2021			0.32 (J)	<0.19 (U)	2.8	
4/25/2022	<0.19 (U)					
4/26/2022			0.34 (J)			
4/27/2022		0.2 (J)		<0.19 (U)	1.8	
4/29/2022						
10/12/2022	<0.19 (U)	<0.19 (U)	0.22 (J)	<0.19 (U)	1	<0.19 (U)
10/13/2022						

02/26/2024 - Classification: Internal - ECRM13238692

ND substitution: RL or RL/2 if <15% NDs.

Field pH



Time Series Analysis Run 12/16/2022 5:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Field pH (Std. Units) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	6.78		6.36	7.37					
12/21/2016					7.09	7.32	7.53		
1/23/2017	6.8		6.72	7.55					
1/24/2017					7.25	7.51	7.71		
2/23/2017	6.57		6.38	7.09	7.01	7.13	7.31		
3/28/2017	6.9		6.66	7.57	7.58	7.65	7.84		
4/26/2017	6.41		6.44	7.18	7.23				
4/27/2017						7.42	7.5		
5/25/2017	6.41		6.27	7.11	7.23	7.42	7.53		
6/28/2017	7		6.6	7.2	7.4	7.49	7.77		
8/17/2017	6.97		6.23	7.22	7.34	7.58	7.36		
10/17/2017	7.46		7.71	7.94	8.16	8.08	8.45		
5/8/2018	7.51		6.98	7.23	7.31	7.65	7.47		
8/6/2018	6.81		6.55	7.2	6.92	7.12	7.45		
10/9/2018	7.63		6.5	7.13	7.5	7.05	7.4		
3/11/2019					5.82	6.92			
4/22/2019	6.99		6.64	7.31	7.08	7.12	7.58		
4/23/2019									10.05
10/28/2019	6.69		6.37						9.58
10/29/2019				7.12	6.9	6.89	7.63		
1/9/2020									
4/27/2020	7.09		6.27	6.78	6.84	6.82	6.94		
5/27/2020									8.28
9/15/2020		7.5						7.87	
10/19/2020	6.89		6.67						9.26
10/20/2020				7.08	6.84	7.07	7.66	7.29	
10/21/2020		6.85							
4/26/2021									7.2
4/27/2021	6.81		6.96	6.96	6.9	7.07	7.47	7.24	
4/28/2021		7.17							
7/14/2021									
10/20/2021						7.21	7.4	7.21	
10/21/2021	6.9		7.15	7.16	7.07				8.84
10/22/2021		7.15							
2/22/2022									
4/25/2022	6.92		5.35						9.47
4/26/2022				7.07	7	7.1	7.55	7.21	
4/27/2022									
4/29/2022		6.94							
5/25/2022									
7/15/2022									
10/12/2022	7.03		6.63	7.08	7.04	7.24	7.68	7.26	9.13
10/13/2022		7							

Time Series

Constituent: Field pH (Std. Units) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
10/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
3/11/2019						
4/22/2019						
4/23/2019	9.24					
10/28/2019	9.19					
10/29/2019		7.33		7.3		
1/9/2020		6.95		7.33		
4/27/2020		7.09		7.41		
5/27/2020	7.86					
9/15/2020			7.26		7.25	
10/19/2020	9.23					
10/20/2020						
10/21/2020		7.22	7.33	7.2	7.24	
4/26/2021	7.15					
4/27/2021		7.34	7.1	7.21	7.19	
4/28/2021						
7/14/2021	9.65					
10/20/2021						
10/21/2021	9.17	7.42				
10/22/2021			7.19	7.28	7.31	
2/22/2022	8.99					
4/25/2022	9.22					
4/26/2022			7.18			
4/27/2022		7.24		7.3	7.25	
4/29/2022						
5/25/2022						6.9
7/15/2022						6.97
10/12/2022	9.14	7.46	7.13	7.26	7.51	6.97
10/13/2022						

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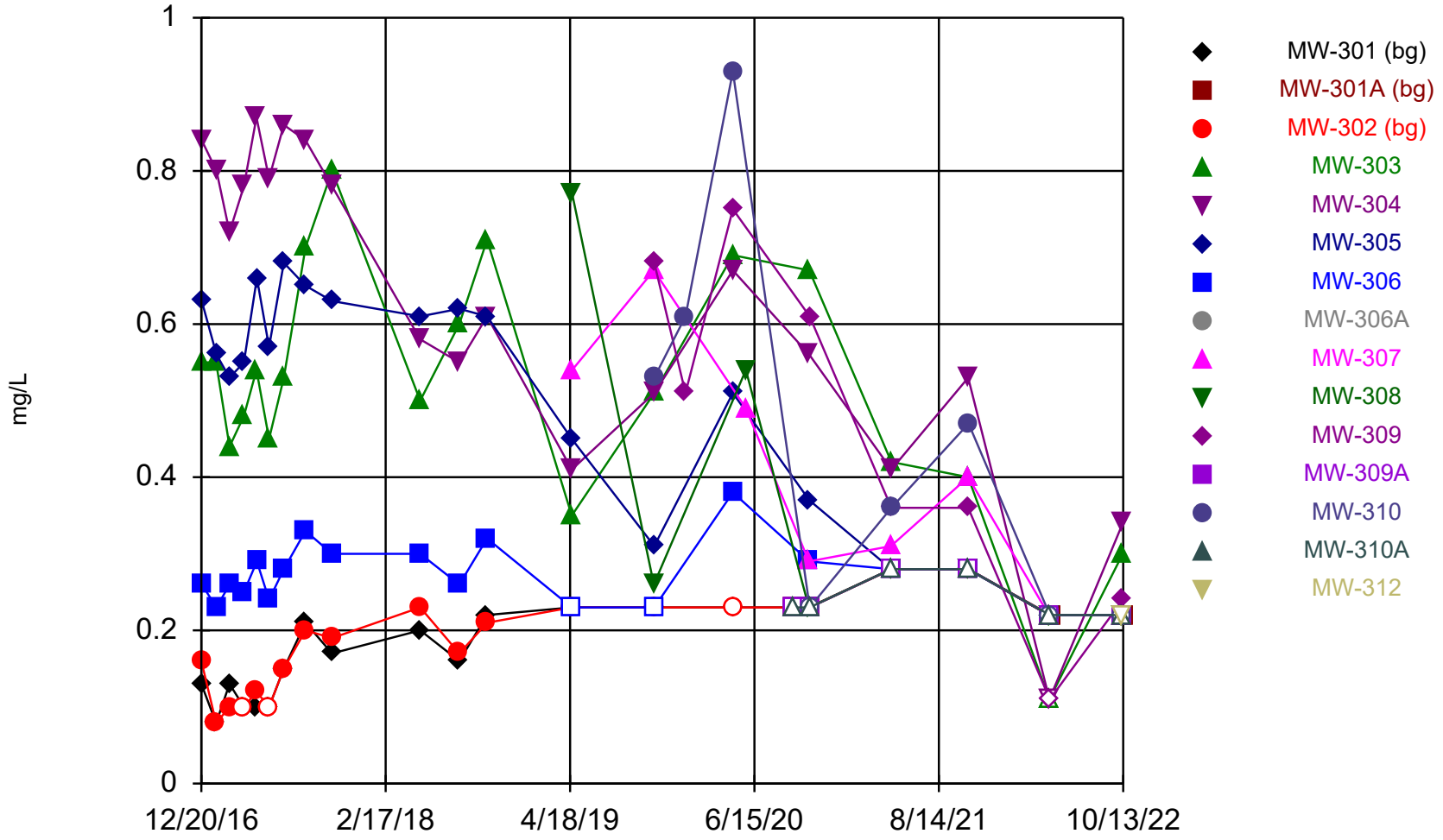
Hollow symbols indicate censored values.

Fluoride



Time Series Analysis Run 12/16/2022 5:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	0.13 (J)		0.16 (J)	0.55					
12/21/2016					0.84	0.63	0.26		
1/23/2017	0.079 (J)		0.079 (J)	0.55					
1/24/2017					0.8	0.56	0.23		
2/23/2017	0.13 (J)		0.1 (J)	0.44	0.72	0.53	0.26		
3/28/2017	0.1 (J)		<0.1 (U)	0.48	0.78	0.55	0.25		
4/26/2017	0.1 (J)		0.12 (J)	0.54	0.87				
4/27/2017						0.66	0.29		
5/25/2017	<0.1 (U)		<0.1 (U)	0.45	0.79	0.57	0.24		
6/28/2017	0.15 (J)		0.15 (J)	0.53	0.86	0.68	0.28		
8/17/2017	0.21		0.2 (J)	0.7	0.84	0.65	0.33		
10/17/2017	0.17 (J)		0.19 (J)	0.8	0.78	0.63	0.3		
5/8/2018	0.2 (J)		0.23	0.5	0.58	0.61	0.3		
8/6/2018	0.16 (J)		0.17 (J)	0.6	0.55	0.62	0.26		
10/9/2018	0.22		0.21	0.71	0.61	0.61	0.32		
4/22/2019	<0.23 (U)		<0.23 (U)	0.35 (J)	0.41 (J)	0.45 (J)	<0.23 (U)		
4/23/2019									0.54
10/28/2019	<0.23 (U)		<0.23 (U)						0.67
10/29/2019				0.51	0.51	0.31 (J)	<0.23 (U)		
1/9/2020									
4/27/2020	<0.23 (U)		<0.23 (U)	0.69	0.67	0.51	0.38 (J)		
5/27/2020									0.49 (J)
9/15/2020		<0.23 (U)						<0.23 (U)	
10/19/2020	<0.23 (U)		<0.23 (U)						0.29 (J)
10/20/2020				0.67	0.56	0.37 (J)	0.29 (J)	<0.23 (U)	
10/21/2020		<0.23 (U)							
4/26/2021									0.31 (J)
4/27/2021	<0.28 (U)		<0.28 (U)	0.42 (J)	0.41 (J)	<0.28 (U)	<0.28 (U)	<0.28 (U)	
4/28/2021		<0.28 (U)							
10/20/2021						<0.28 (U)	<0.28 (U)	<0.28 (U)	
10/21/2021	<0.28 (U)		<0.28 (U)	0.4 (J)	0.53				0.4 (J)
10/22/2021		<0.28 (U)							
4/25/2022	<0.22 (U)		<0.22 (U)						<0.22 (U)
4/26/2022				<0.22 (U)	<0.22 (U)	<0.22 (U)	<0.22 (U)	<0.22 (U)	
4/27/2022									
4/29/2022		<0.22 (U)							
10/12/2022	<0.22 (U)		<0.22 (U)	0.3 (J)	0.34 (J)	<0.22 (U)	<0.22 (U)	<0.22 (U)	<0.22 (U)
10/13/2022		<0.22 (U)							

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
10/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
4/22/2019						
4/23/2019	0.77					
10/28/2019	0.26 (J)					
10/29/2019		0.68		0.53		
1/9/2020		0.51		0.61		
4/27/2020		0.75		0.93		
5/27/2020	0.54					
9/15/2020			<0.23 (U)		<0.23 (U)	
10/19/2020	<0.23 (U)					
10/20/2020						
10/21/2020		0.61	<0.23 (U)	<0.23 (U)	<0.23 (U)	
4/26/2021	<0.28 (U)					
4/27/2021		0.36 (J)	<0.28 (U)	0.36 (J)	<0.28	
4/28/2021						
10/20/2021						
10/21/2021	<0.28 (U)	0.36 (J)				
10/22/2021			<0.28 (U)	0.47 (J)	<0.28 (U)	
4/25/2022	<0.22 (U)					
4/26/2022			<0.22 (U)			
4/27/2022		<0.22 (U)		<0.22 (U)	<0.22 (U)	
4/29/2022						
10/12/2022	<0.22 (U)	0.24 (J)	<0.22 (U)	<0.22 (U)	<0.22 (U)	<0.22 (U)
10/13/2022						

ND substitution: RL or RL/2 if <15% NDs.

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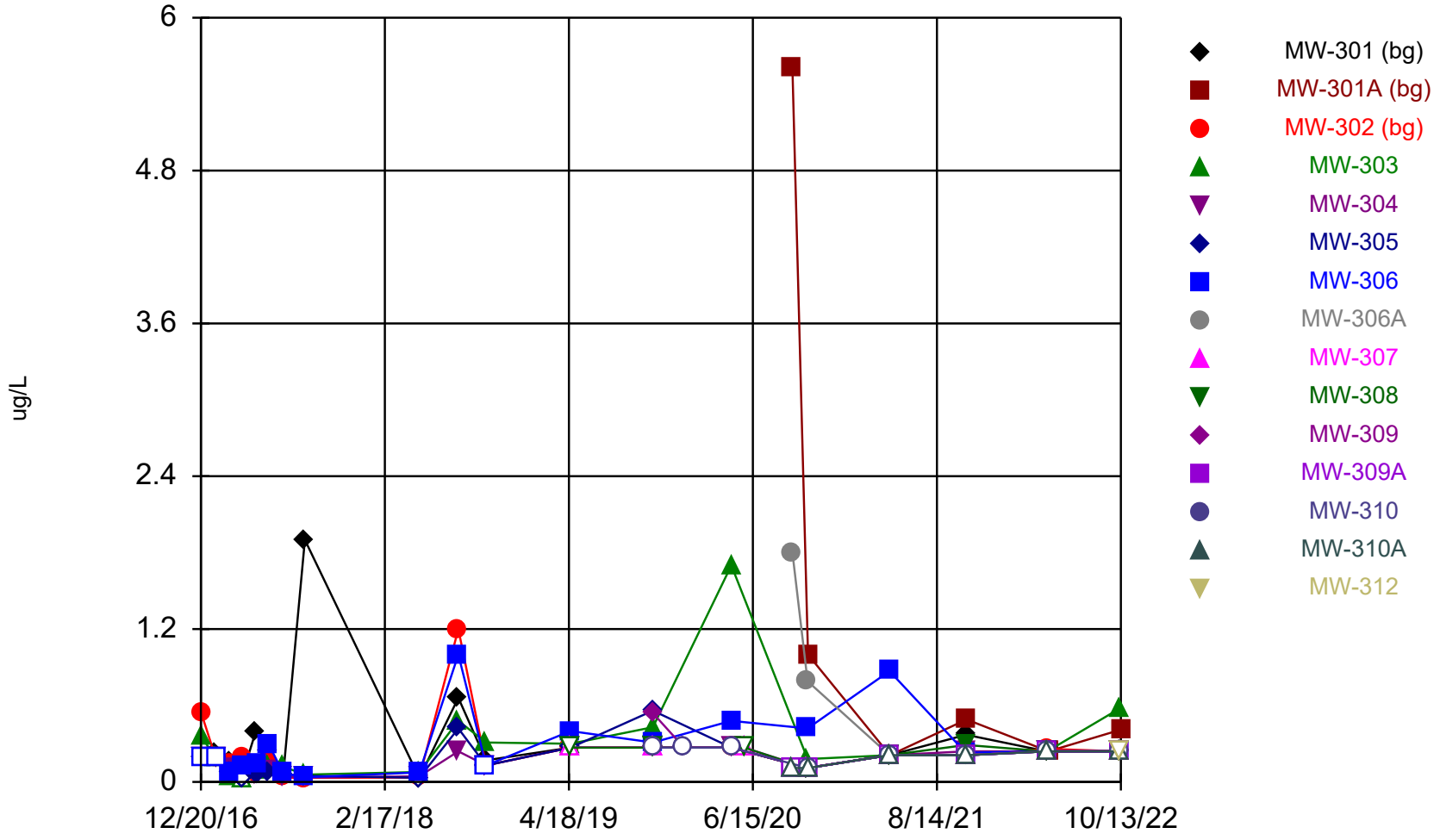
Hollow symbols indicate censored values.

Lead



Time Series Analysis Run 12/16/2022 5:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Lead (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	<0.19 (U)		0.55 (J)	0.36 (J)					
12/21/2016					<0.19 (U)	<0.19 (U)	<0.19 (U)		
1/23/2017	0.23 (J)		<0.19 (U)	<0.19 (U)					
1/24/2017					<0.19 (U)	<0.19 (U)	<0.19 (U)		
2/23/2017	0.16 (J)		0.14 (J)	0.037 (J)	0.11 (J)	0.07 (J)	0.075 (J)		
3/28/2017	0.086 (J)		0.2 (J)	<0.033 (U)	0.043 (J)	<0.033 (U)	0.13 (J)		
4/26/2017	0.4 (J)		0.083 (J)	0.095 (J)	0.061 (J)				
4/27/2017						0.058 (J)	0.15 (J)		
5/25/2017	0.25 (J)		0.16 (J)	0.12 (J)	0.1 (J)	0.08 (J)	0.3 (J)		
6/28/2017	0.058 (J)		0.034 (J)	0.12 (J)	0.042 (J)	0.061 (J)	0.068 (J)		
8/17/2017	1.9		<0.033 (U)	0.057 (J)	0.034 (J)	0.048 (J)	0.037 (J)		
5/8/2018	<0.033 (U)		0.035 (J)	0.078 (J)	0.045 (J)	<0.033 (U)	0.075 (J)		
8/6/2018	0.66 (J)		1.2	0.48 (J)	0.24 (J)	0.42 (J)	1		
10/9/2018	0.17 (J)		0.13 (J)	0.31 (J)	<0.13 (U)	<0.13 (U)	<0.13 (U)		
4/22/2019	<0.27 (U)		<0.27 (U)	0.3 (J)	<0.27 (U)	<0.27 (U)	0.4 (J)		
4/23/2019									<0.27 (U)
10/28/2019	<0.27 (U)		<0.27 (U)						<0.27 (U)
10/29/2019				0.43 (J)	0.27 (J)	0.56	0.31 (J)		
1/9/2020									
4/27/2020	0.27 (J)		<0.27 (U)	1.7	<0.27 (U)	<0.27 (U)	0.48 (J)		
5/27/2020									<0.27 (U)
9/15/2020		5.6						1.8	
10/19/2020	<0.11 (U)		<0.11 (U)						<0.11 (U)
10/20/2020				0.18 (J)	<0.11 (U)	<0.11 (U)	0.42 (J)	0.79	
10/21/2020		1							
4/26/2021									<0.21 (U)
4/27/2021	<0.21 (U)		<0.21 (U)	<0.21 (U)	<0.21 (U)	<0.21 (U)	0.87	<0.21 (U)	
4/28/2021		0.21 (J)							
10/20/2021						<0.21 (U)	0.23 (J)	<0.21 (U)	
10/21/2021	0.37 (J)		<0.21 (U)	<0.21 (U)	0.24 (J)				<0.21 (U)
10/22/2021		0.49 (J)							
4/25/2022	<0.24 (U)		0.26 (J)						<0.24 (U)
4/26/2022				<0.24 (U)	<0.24 (U)	<0.24 (U)	<0.24 (U)	<0.24 (U)	
4/27/2022									
4/29/2022		<0.24 (U)							
10/12/2022	<0.24 (U)		<0.24 (U)	0.58	<0.24 (U)	<0.24 (U)	<0.24 (U)	<0.24 (U)	<0.24 (U)
10/13/2022		0.41 (J)							

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lead (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
4/22/2019						
4/23/2019	<0.27 (U)					
10/28/2019	<0.27 (U)					
10/29/2019		0.54		<0.27 (U)		
1/9/2020		<0.27 (U)		<0.27 (U)		
4/27/2020		<0.27 (U)		<0.27 (U)		
5/27/2020	<0.27 (U)					
9/15/2020			<0.11 (U)		<0.11 (U)	
10/19/2020	<0.11 (U)					
10/20/2020						
10/21/2020		<0.11 (U)	<0.11 (U)	<0.11 (U)	<0.11 (U)	
4/26/2021	<0.21 (U)					
4/27/2021		<0.21 (U)	<0.21 (U)	<0.21 (U)	<0.21 (U)	
4/28/2021						
10/20/2021						
10/21/2021	0.29 (J)	<0.21 (U)				
10/22/2021			<0.21 (U)	<0.21 (U)	<0.21 (U)	
4/25/2022	<0.24 (U)					
4/26/2022			<0.24 (U)			
4/27/2022		<0.24 (U)		<0.24 (U)	<0.24 (U)	
4/29/2022						
10/12/2022	<0.24 (U)	<0.24 (U)	<0.24 (U)	<0.24 (U)	<0.24 (U)	<0.24 (U)
10/13/2022						

ND substitution: RL or RL/2 if <15% NDs.

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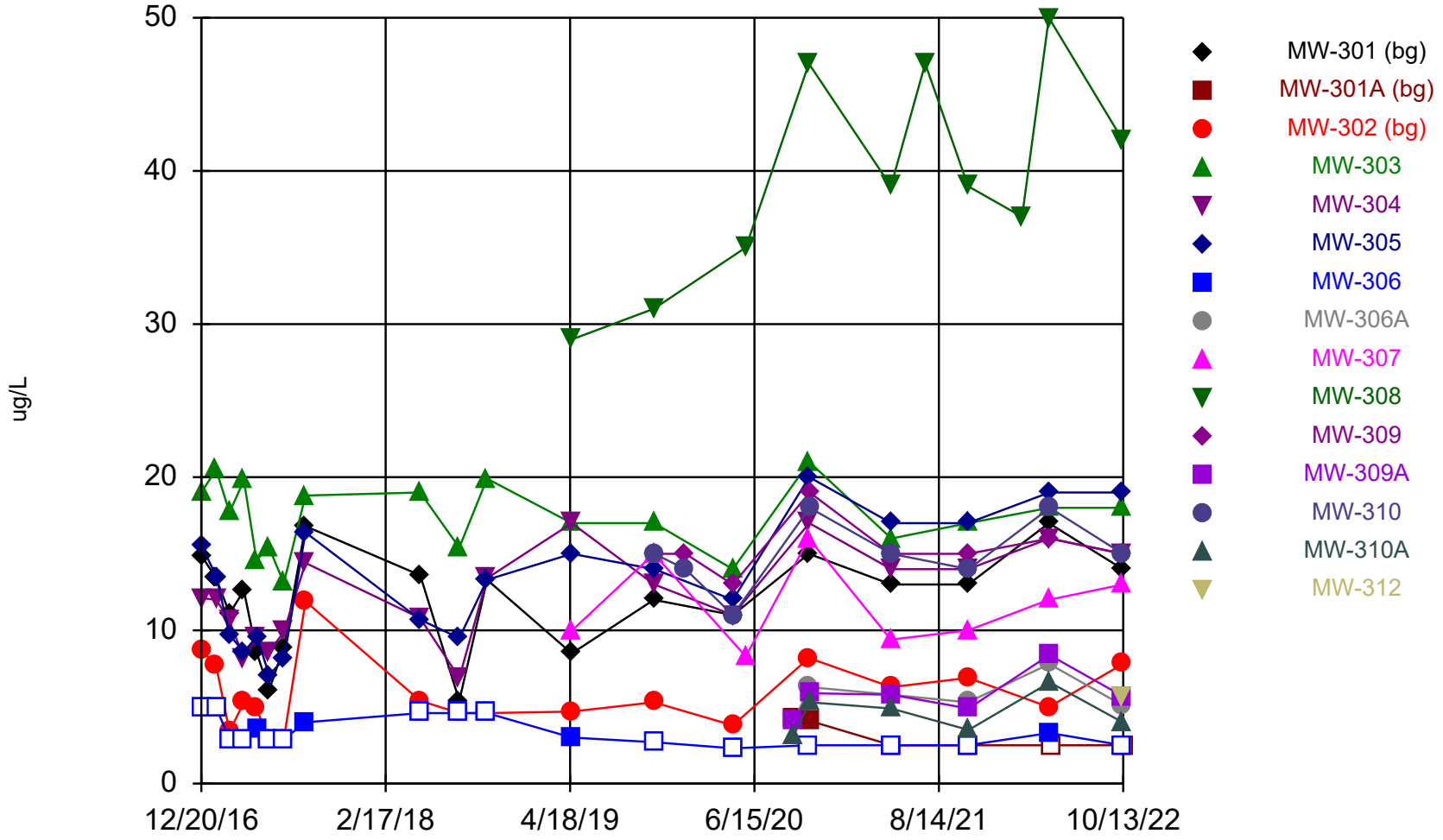
Hollow symbols indicate censored values.

Lithium



Time Series Analysis Run 12/16/2022 5:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Lithium (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	14.9		8.7 (J)	19					
12/21/2016					12.1	15.5	<4.9 (U)		
1/23/2017	13.4		7.7 (J)	20.5					
1/24/2017					12	13.5	<4.9 (U)		
2/23/2017	11.1		3.4 (J)	17.7	10.6	9.7 (J)	<2.9 (U)		
3/28/2017	12.6		5.3 (J)	19.8	8.2 (J)	8.6 (J)	<2.9 (U)		
4/26/2017	8.6 (J)		4.9 (J)	14.6	9.6 (J)				
4/27/2017						9.6 (J)	3.5 (J)		
5/25/2017	6.1 (J)		<2.9 (U)	15.4	8.6 (J)	7.1 (J)	<2.9 (U)		
6/28/2017	8.9 (J)		<2.9 (U)	13.1	9.9 (J)	8.1 (J)	<2.9 (U)		
8/17/2017	16.8		11.9	18.8	14.4	16.4	4 (J)		
5/8/2018	13.6		5.4 (J)	19	10.8	10.7	<4.6 (U)		
8/6/2018	5.4 (J)		<4.6 (U)	15.4	6.9 (J)	9.5 (J)	<4.6 (U)		
10/9/2018	13.3		4.6 (J)	19.9	13.4	13.3	<4.6 (U)		
4/22/2019	8.5 (J)		4.7 (J)	17	17	15	3 (J)		
4/23/2019									10
10/28/2019	12		5.3 (J)						15
10/29/2019				17	13	14	<2.7 (U)		
1/9/2020									
4/27/2020	11		3.8 (J)	14	11	12	<2.3 (U)		
5/27/2020									8.3 (J)
9/15/2020		4.2 (J)						4.1 (J)	
10/19/2020	15		8.2 (J)						16
10/20/2020				21	17	20	<2.5 (U)	6.3 (J)	
10/21/2020		4.1 (J)							
4/26/2021									9.4 (J)
4/27/2021	13		6.3 (J)	16	14	17	<2.5 (U)	5.8 (J)	
4/28/2021		<2.5 (U)							
7/14/2021									
10/20/2021						17	<2.5 (U)	5.3 (J)	
10/21/2021	13		6.9 (J)	17	14				10
10/22/2021		<2.5 (U)							
2/22/2022									
4/25/2022	17		5 (J)						12
4/26/2022				18	16	19	3.3 (J)	7.8 (J)	
4/27/2022									
4/29/2022		<2.5 (U)							
10/12/2022	14		7.8 (J)	18	15	19	<2.5 (U)	5.1 (J)	13
10/13/2022		<2.5 (U)							

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lithium (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
4/22/2019						
4/23/2019	29					
10/28/2019	31					
10/29/2019		15		15		
1/9/2020		15		14		
4/27/2020		13		11		
5/27/2020	35					
9/15/2020			4.1 (J)		3.2 (J)	
10/19/2020	47					
10/20/2020						
10/21/2020		19	5.9 (J)	18	5.3 (J)	
4/26/2021	39					
4/27/2021		15	5.8 (J)	15	4.9 (J)	
4/28/2021						
7/14/2021	47					
10/20/2021						
10/21/2021	39	15				
10/22/2021			4.9 (J)	14	3.5 (J)	
2/22/2022	37					
4/25/2022	50					
4/26/2022			8.4 (J)			
4/27/2022		16		18	6.6 (J)	
4/29/2022						
10/12/2022	42	15	5.7 (J)	15	4 (J)	5.6 (J)
10/13/2022						

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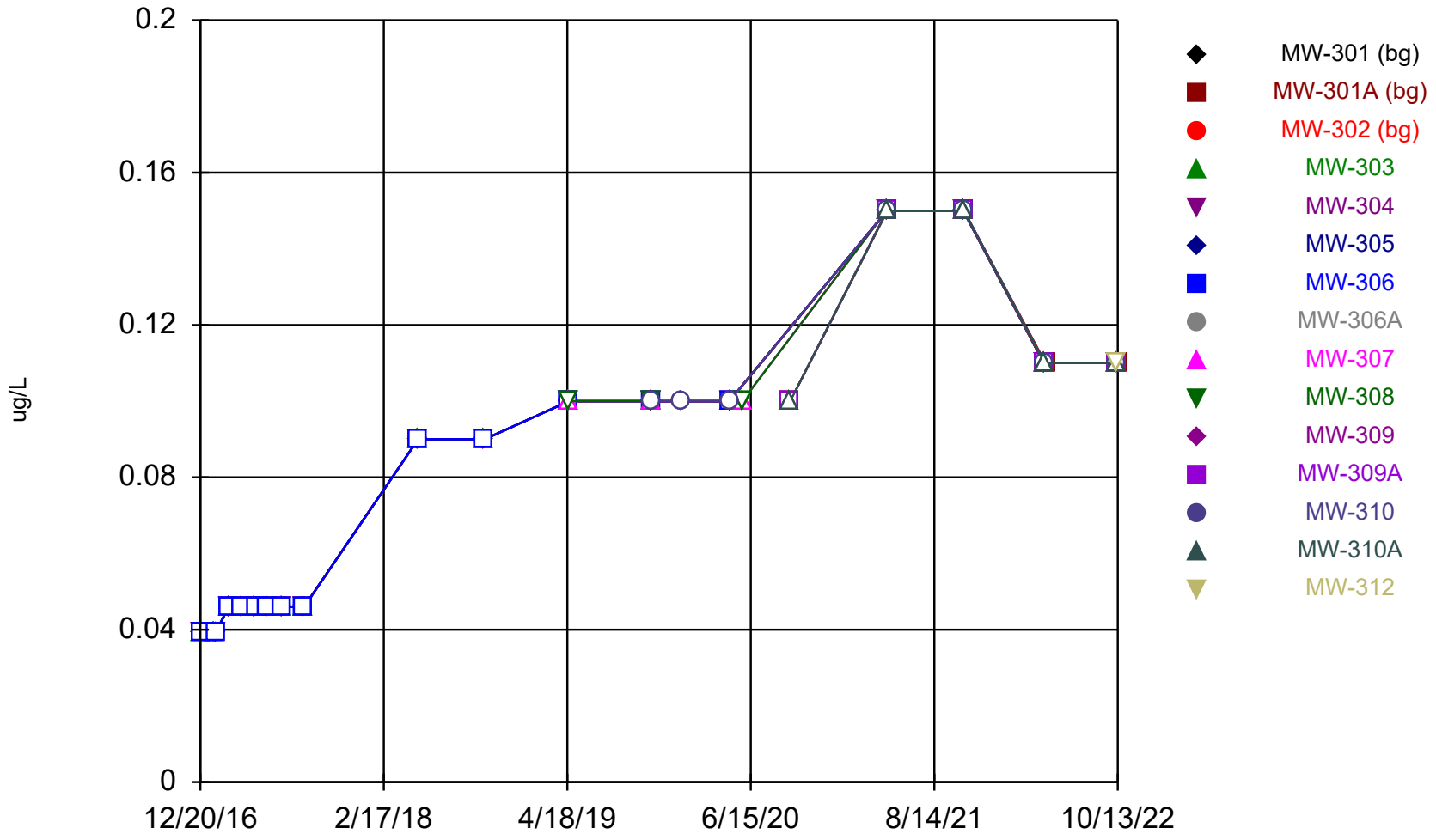
Hollow symbols indicate censored values.

Mercury



Time Series Analysis Run 12/16/2022 5:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Mercury (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	<0.039 (U)		<0.039 (U)	<0.039 (U)					
12/21/2016					<0.039 (U)	<0.039 (U)	<0.039 (U)		
1/23/2017	<0.039 (U)		<0.039 (U)	<0.039 (U)					
1/24/2017					<0.039 (U)	<0.039 (U)	<0.039 (U)		
2/23/2017	<0.046 (U)		<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)		
3/28/2017	<0.046 (U)		<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)		
4/26/2017	<0.046 (U)		<0.046 (U)	<0.046 (U)	<0.046 (U)				
4/27/2017						<0.046 (U)	<0.046 (U)		
5/25/2017	<0.046 (U)		<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)		
6/28/2017	<0.046 (U)		<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)		
8/17/2017	<0.046 (U)		<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)		
5/8/2018	<0.09 (U)		<0.09 (U)	<0.09 (U)	<0.09 (U)	<0.09 (U)	<0.09 (U)		
10/9/2018	<0.09 (U)		<0.09 (U)	<0.09 (U)	<0.09 (U)	<0.09 (U)	<0.09 (U)		
4/22/2019	<0.1 (U)		<0.1 (U)	<0.1 (U)	<0.1 (U)	<0.1 (U)	<0.1 (U)		
4/23/2019									<0.1 (U)
10/28/2019	<0.1 (U)		<0.1 (U)						<0.1 (U)
10/29/2019				<0.1 (U)	<0.1 (U)	<0.1 (U)	<0.1 (U)		
1/9/2020									
4/27/2020	<0.1 (U)		<0.1 (U)	<0.1 (U)	<0.1 (U)	<0.1 (U)	<0.1 (U)		
5/27/2020									<0.1 (U)
9/15/2020		<0.1 (U)						<0.1 (U)	
4/26/2021									<0.15 (U)
4/27/2021	<0.15 (U)		<0.15 (U)	<0.15 (U)	<0.15 (U)	<0.15 (U)	<0.15 (U)	<0.15 (U)	
4/28/2021		<0.15 (U)							
10/20/2021						<0.15 (U)	<0.15 (U)	<0.15 (U)	
10/21/2021	<0.15 (U)		<0.15 (U)	<0.15 (U)	<0.15 (U)				<0.15 (U)
10/22/2021		<0.15 (U)							
4/25/2022	<0.11 (U)		<0.11 (U)						<0.11 (U)
4/26/2022				<0.11 (U)	<0.11 (U)	<0.11 (U)	<0.11 (U)	<0.11 (U)	
4/27/2022									
4/29/2022		<0.11 (U)							
10/12/2022	<0.11 (U)		<0.11 (U)	<0.11 (U)	<0.11 (U)	<0.11 (U)	<0.11 (U)	<0.11 (U)	<0.11 (U)
10/13/2022		<0.11 (U)							

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Mercury (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
5/8/2018						
10/9/2018						
4/22/2019						
4/23/2019	<0.1 (U)					
10/28/2019	<0.1 (U)					
10/29/2019		<0.1 (U)		<0.1 (U)		
1/9/2020		<0.1 (U)		<0.1 (U)		
4/27/2020		<0.1 (U)		<0.1 (U)		
5/27/2020	<0.1 (U)					
9/15/2020			<0.1 (U)		<0.1 (U)	
4/26/2021	<0.15 (U)					
4/27/2021		<0.15 (U)	<0.15 (U)	<0.15 (U)	<0.15 (U)	
4/28/2021						
10/20/2021						
10/21/2021	<0.15 (U)	<0.15 (U)				
10/22/2021			<0.15 (U)	<0.15 (U)	<0.15 (U)	
4/25/2022	<0.11 (U)					
4/26/2022			<0.11 (U)			
4/27/2022		<0.11 (U)		<0.11 (U)	<0.11 (U)	
4/29/2022						
10/12/2022	<0.11 (U)	<0.11 (U)	<0.11 (U)	<0.11 (U)	<0.11 (U)	<0.11 (U)
10/13/2022						

ND substitution: RL or RL/2 if <15% NDs.

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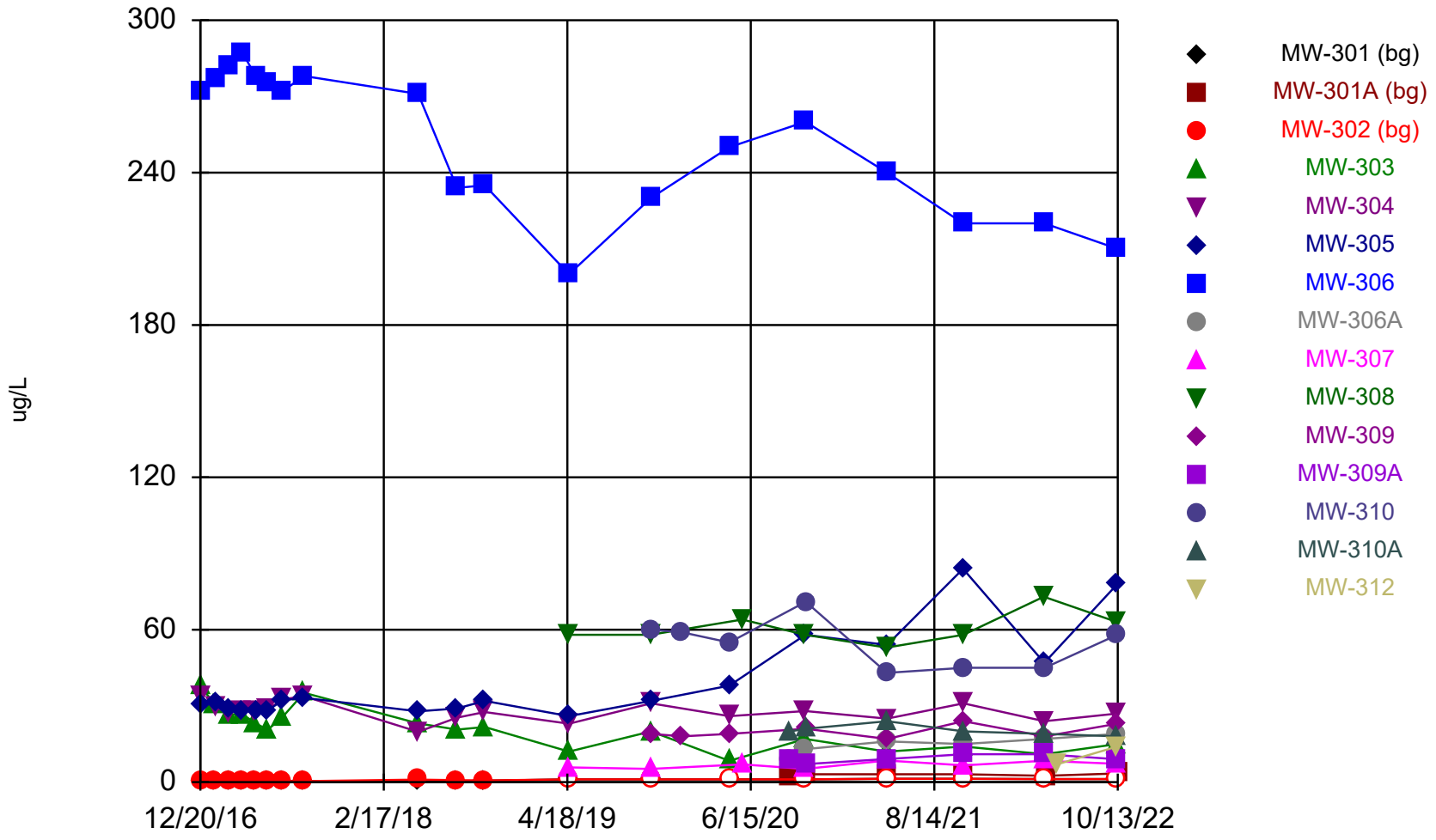
Hollow symbols indicate censored values.

Molybdenum



Time Series Analysis Run 12/16/2022 5:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Molybdenum (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	0.61 (J)		0.76 (J)	37.8					
12/21/2016					33.5	30.7	272		
1/23/2017	0.34 (J)		0.43 (J)	30.5					
1/24/2017					29.3	31	277		
2/23/2017	0.38 (J)		0.45 (J)	26.7	27.5	29	282		
3/28/2017	0.45 (J)		0.38 (J)	26.7	28.4	28.3	287		
4/26/2017	0.23 (J)		0.52 (J)	23.2	28.3				
4/27/2017						28.3	278		
5/25/2017	0.26 (J)		0.28 (J)	20.6	28.5	28.2	275		
6/28/2017	0.33 (J)		0.38 (J)	25.6	32.6	32.2	272		
8/17/2017	0.44 (J)		0.38 (J)	35.2	33.8	33.2	278		
5/8/2018	0.35 (J)		0.99 (J)	23.1	19.8	27.9	271		
8/6/2018	0.44 (J)		0.78 (J)	20.7	25.4	29	234		
10/9/2018	<0.57 (U)		0.67 (J)	21.7	27.6	32	235		
4/22/2019	<1.1 (U)		<1.1 (U)	12	23	26	200		
4/23/2019									5.8
10/28/2019	<1.1 (U)		<1.1 (U)						5.2
10/29/2019				20	31	32	230		
1/9/2020									
4/27/2020	<1.1 (U)		<1.1 (U)	8.4	26	38	250		
5/27/2020									7
9/15/2020		2.1						8.6	
10/19/2020	<1.1 (U)		<1.1 (U)						5.2
10/20/2020				17	28	58	260	13	
10/21/2020		3.1							
4/26/2021									8.5
4/27/2021	<1.3 (U)		<1.3 (U)	12	25	54	240	16	
4/28/2021		3.1							
10/20/2021						84	220	15	
10/21/2021	<1.3 (U)		<1.3 (U)	14	31				6.6
10/22/2021		3.1							
4/25/2022	<1.2 (U)		<1.2 (U)						8.4
4/26/2022				11	24	47	220	17	
4/27/2022									
4/29/2022		2.5							
5/25/2022									
10/12/2022	<1.2 (U)		<1.2 (U)	15	27	78	210	19	7.2
10/13/2022		3.4							

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Molybdenum (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
4/22/2019						
4/23/2019	58					
10/28/2019	58					
10/29/2019		19		60		
1/9/2020		18		59		
4/27/2020		19		55		
5/27/2020	64					
9/15/2020			8.5		20	
10/19/2020	58					
10/20/2020						
10/21/2020		21	7.1	71	21	
4/26/2021	53					
4/27/2021		17	9.1	43	24	
4/28/2021						
10/20/2021						
10/21/2021	58	24				
10/22/2021			11	45	20	
4/25/2022	73					
4/26/2022			11			
4/27/2022		18		45	19	
4/29/2022						
5/25/2022						7
10/12/2022	63	23	9	58	18	14
10/13/2022						

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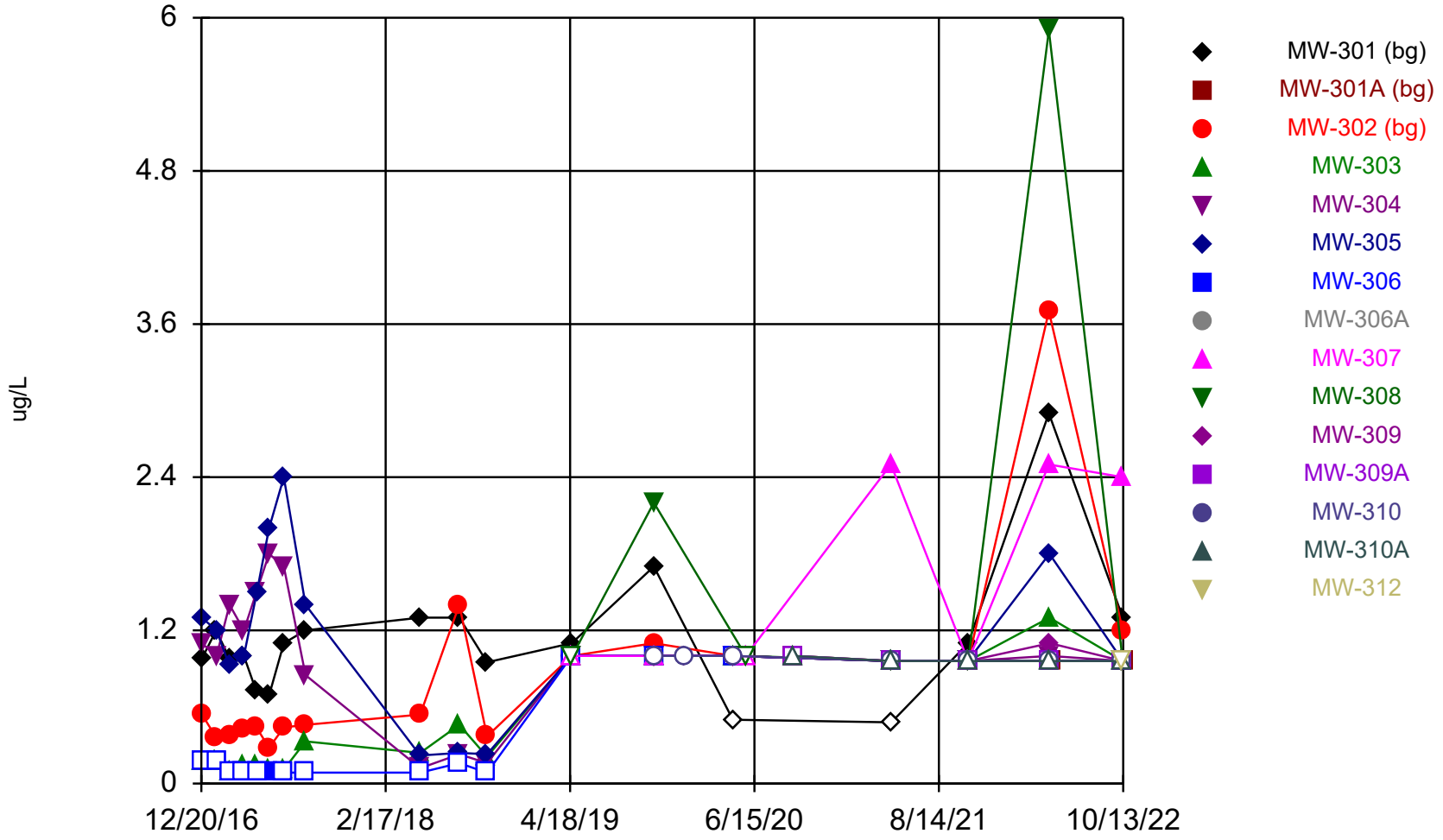
Hollow symbols indicate censored values.

Selenium



Time Series Analysis Run 12/16/2022 5:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Selenium (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	0.97 (J)		0.55 (J)	<0.18 (U)					
12/21/2016					1.1	1.3	<0.18 (U)		
1/23/2017	1.2		0.36 (J)	<0.18 (U)					
1/24/2017					1 (J)	1.2	<0.18 (U)		
2/23/2017	0.98 (J)		0.37 (J)	<0.086 (U)	1.4	0.92 (J)	<0.086 (U)		
3/28/2017	1		0.43 (J)	0.14 (J)	1.2	1	<0.086 (U)		
4/26/2017	0.72 (J)		0.44 (J)	0.15 (J)	1.5				
4/27/2017						1.5	<0.086 (U)		
5/25/2017	0.69 (J)		0.28 (J)	0.11 (J)	1.8	2	0.091 (J)		
6/28/2017	1.1		0.44 (J)	0.11 (J)	1.7	2.4	<0.086 (U)		
8/17/2017	1.2		0.46 (J)	0.33 (J)	0.85 (J)	1.4	<0.086 (U)		
5/8/2018	1.3		0.54 (J)	0.24 (J)	0.12 (J)	0.22 (J)	<0.086 (U)		
8/6/2018	1.3		1.4	0.46 (J)	0.23 (J)	0.24 (J)	<0.16 (U)		
10/9/2018	0.95 (J)		0.37 (J)	0.21 (J)	0.16 (J)	0.23 (J)	<0.085 (U)		
4/22/2019	1.1 (J)		<1 (U)	<1 (U)	<1 (U)	<1 (U)	<1 (U)		
4/23/2019									<1 (U)
10/28/2019	1.7 (J)		1.1 (J)						<1 (U)
10/29/2019				<1 (U)	<1 (U)	<1 (U)	<1 (U)		
1/9/2020									
4/27/2020	<1 (U)		<1 (U)	<1 (U)	<1 (U)	<1 (U)	<1 (U)		
5/27/2020									<1 (U)
9/15/2020		<1 (U)						<1 (U)	
4/26/2021									2.5 (J)
4/27/2021	<0.96 (U)		0.96 (J)	<0.96 (U)	<0.96 (U)	<0.96 (U)	<0.96 (U)	<0.96 (U)	
4/28/2021		<0.96 (U)							
10/20/2021						<0.96 (U)	<0.96 (U)	<0.96 (U)	
10/21/2021	1.1 (J)		<0.96 (U)	<0.96 (U)	<0.96 (U)				<0.96 (U)
10/22/2021		<0.96 (U)							
4/25/2022	2.9 (J)		3.7 (J)						2.5 (J)
4/26/2022				1.3 (J)	1 (J)	1.8 (J)	<0.96 (U)	<0.96 (U)	
4/27/2022									
4/29/2022		<0.96 (U)							
10/12/2022	1.3 (J)		1.2 (J)	<0.96 (U)	<0.96 (U)	<0.96 (U)	<0.96 (U)	<0.96 (U)	2.4 (J)
10/13/2022		<0.96 (U)							

ND substitution: RL or RL/2 if <15% NDs.

Time Series

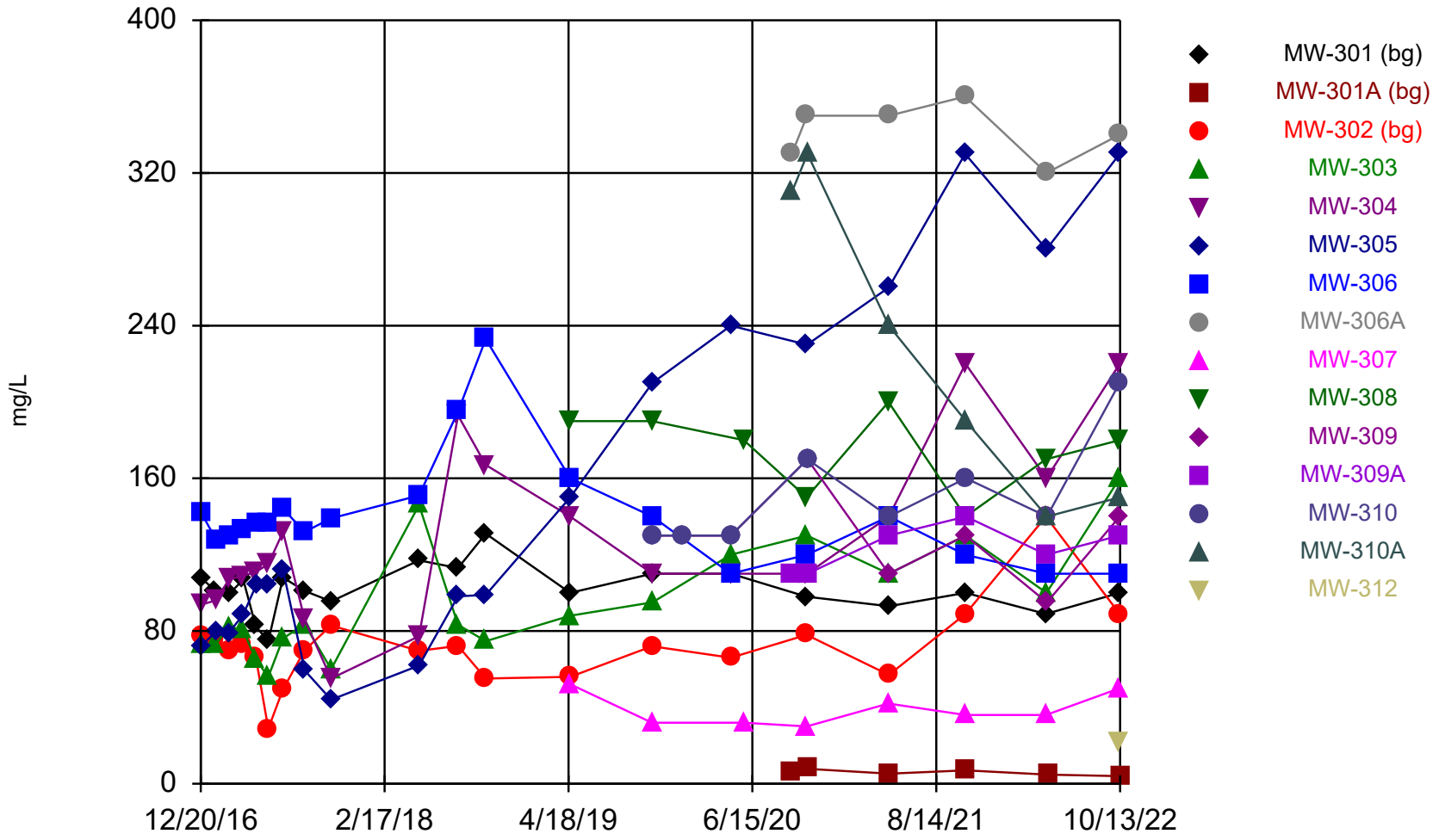
Constituent: Selenium (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
4/22/2019						
4/23/2019	<1 (U)					
10/28/2019	2.2 (J)					
10/29/2019		<1 (U)		<1 (U)		
1/9/2020		<1 (U)		<1 (U)		
4/27/2020		<1 (U)		<1 (U)		
5/27/2020	<1 (U)					
9/15/2020			<1 (U)		<1 (U)	
4/26/2021	<0.96 (U)					
4/27/2021		<0.96 (U)	<0.96 (U)	<0.96 (U)	<0.96 (U)	
4/28/2021						
10/20/2021						
10/21/2021	<0.96 (U)	<0.96 (U)				
10/22/2021			<0.96 (U)	<0.96 (U)	<0.96 (U)	
4/25/2022	5.9					
4/26/2022			<0.96 (U)			
4/27/2022		1.1 (J)		<0.96 (U)	<0.96 (U)	
4/29/2022						
10/12/2022	<0.96 (U)	<0.96 (U)	<0.96 (U)	<0.96 (U)	<0.96 (U)	<0.96 (U)
10/13/2022						

ND substitution: RL or RL/2 if <15% NDs.

Sulfate



Time Series Analysis Run 12/16/2022 5:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	108		77.7	72.6					
12/21/2016					93.8	72.1	142		
1/23/2017	101		75.6	72.7					
1/24/2017					96.1	79.8	128		
2/23/2017	99.2		69.7	82.4	107	79	130		
3/28/2017	107		72.9	80.4	109	88.7	133		
4/26/2017	82.5		66.4	65.1	111				
4/27/2017						104	137		
5/25/2017	74.7		28.9	56	115	104	136		
6/28/2017	108		49.5	76.2	132	112	144		
8/17/2017	101		70	83.5	85.9	59.4	132		
10/17/2017	95.5		82.9	60	55.1	44	139		
5/8/2018	117		69.6	146	77.3	61.9	151		
8/6/2018	113		72.2	83.3	193	98.2	195		
10/9/2018	131		55.1	74.7	167	98.9	233		
4/22/2019	100		56	88	140	150	160		
4/23/2019									52
10/28/2019	110		72						32
10/29/2019				95	110	210	140		
1/9/2020									
4/27/2020	110		66	120	110	240	110		
5/27/2020									32
9/15/2020		6.4						330	
10/19/2020	98		78						30
10/20/2020				130	110	230	120	350	
10/21/2020		7.8							
4/26/2021									42
4/27/2021	93		57	110	140	260	140	350	
4/28/2021		5.3							
10/20/2021						330	120	360	
10/21/2021	100		89	130	220				36
10/22/2021		7							
4/25/2022	89		140						36
4/26/2022				100	160	280	110	320	
4/27/2022									
4/29/2022		4.8 (J)							
10/12/2022	100		89	160	220	330	110	340	50
10/13/2022		4 (J)							

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
10/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
4/22/2019						
4/23/2019	190					
10/28/2019	190					
10/29/2019		130		130		
1/9/2020		130		130		
4/27/2020		130		130		
5/27/2020	180					
9/15/2020			110		310	
10/19/2020	150					
10/20/2020						
10/21/2020		170	110	170	330	
4/26/2021	200					
4/27/2021		110	130	140	240	
4/28/2021						
10/20/2021						
10/21/2021	140	130				
10/22/2021			140	160	190	
4/25/2022	170					
4/26/2022			120			
4/27/2022		95		140	140	
4/29/2022						
10/12/2022	180	140	130	210	150	22
10/13/2022						

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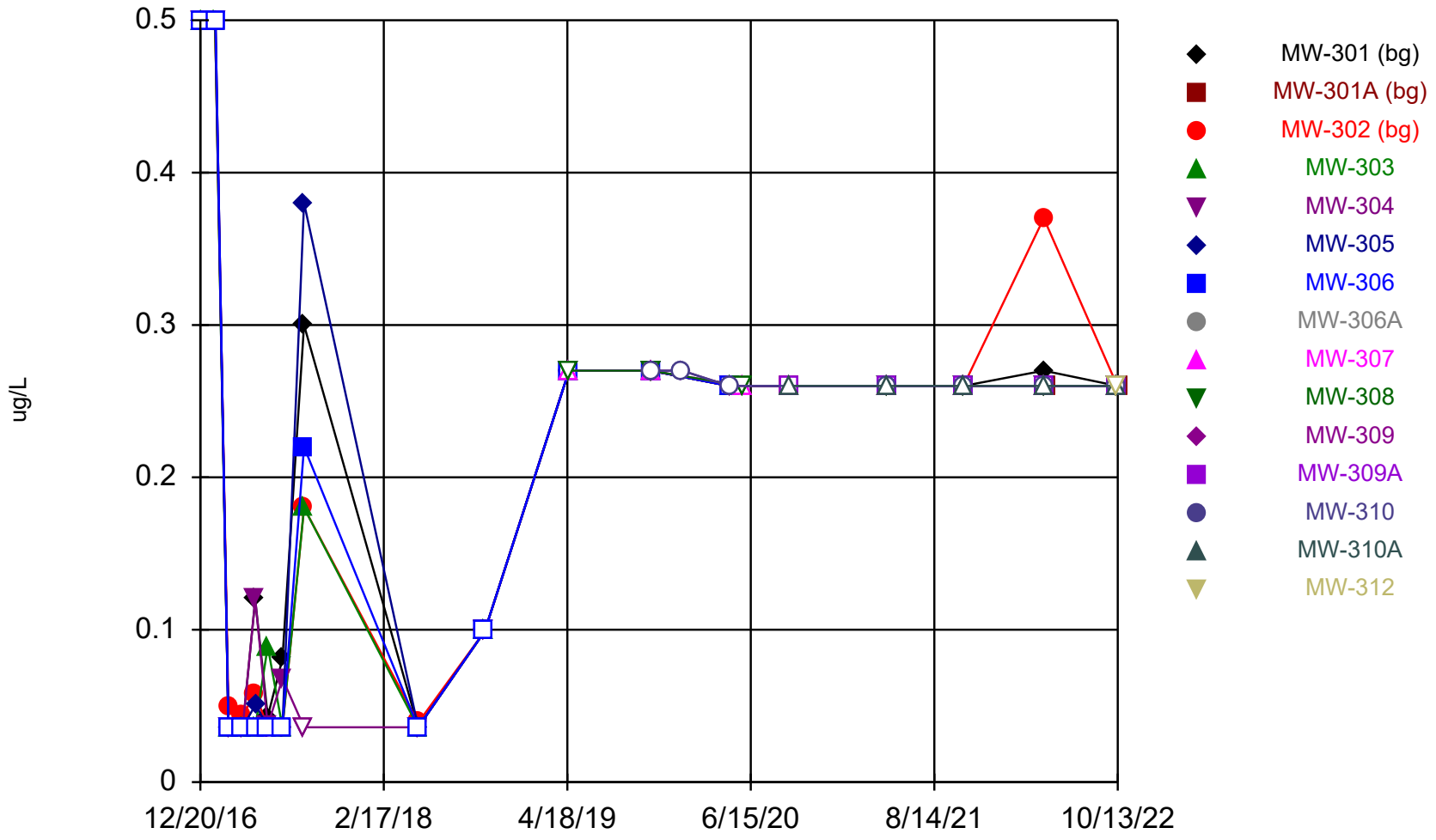
Hollow symbols indicate censored values.

Thallium



Time Series Analysis Run 12/16/2022 5:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Thallium (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	<0.5 (U)		<0.5 (U)	<0.5 (U)					
12/21/2016					<0.5 (U)	<0.5 (U)	<0.5 (U)		
1/23/2017	<0.5 (U)		<0.5 (U)	<0.5 (U)					
1/24/2017					<0.5 (U)	<0.5 (U)	<0.5 (U)		
2/23/2017	<0.036 (U)		0.05 (J)	<0.036 (U)	<0.036 (U)	<0.036 (U)	<0.036 (U)		
3/28/2017	<0.036 (U)		0.044 (J)	<0.036 (U)	<0.036 (U)	<0.036 (U)	<0.036 (U)		
4/26/2017	0.12 (J)		0.058 (J)	<0.036 (U)	0.12 (J)				
4/27/2017						0.051 (J)	<0.036 (U)		
5/25/2017	0.043 (J)		<0.036 (U)	0.089 (J)	0.037 (J)	<0.036 (U)	<0.036 (U)		
6/28/2017	0.081 (J)		<0.036 (U)	<0.036 (U)	0.068 (J)	<0.036 (U)	<0.036 (U)		
8/17/2017	0.3 (J)		0.18 (J)	0.18 (J)	<0.036 (U)	0.38 (J)	0.22 (J)		
5/8/2018	<0.036 (U)		0.039 (J)	<0.036 (U)	<0.036 (U)	<0.036 (U)	<0.036 (U)		
10/9/2018	<0.099 (U)		<0.099 (U)	<0.099 (U)	<0.099 (U)	<0.099 (U)	<0.099 (U)		
4/22/2019	<0.27 (U)		<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)		
4/23/2019									<0.27 (U)
10/28/2019	<0.27 (U)		<0.27 (U)						<0.27 (U)
10/29/2019				<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)		
1/9/2020									
4/27/2020	<0.26 (U)		<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)		
5/27/2020									<0.26 (U)
9/15/2020		<0.26 (U)						<0.26 (U)	
4/26/2021									<0.26 (U)
4/27/2021	<0.26 (U)		<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	
4/28/2021		<0.26 (U)							
10/20/2021						<0.26 (U)	<0.26 (U)	<0.26 (U)	
10/21/2021	<0.26 (U)		<0.26 (U)	<0.26 (U)	<0.26 (U)				<0.26 (U)
10/22/2021		<0.26 (U)							
4/25/2022	0.27 (J)		0.37 (J)						<0.26 (U)
4/26/2022				<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	
4/27/2022									
4/29/2022		<0.26 (U)							
10/12/2022	<0.26 (U)		<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)
10/13/2022		<0.26 (U)							

ND substitution: RL or RL/2 if <15% NDs.

Time Series

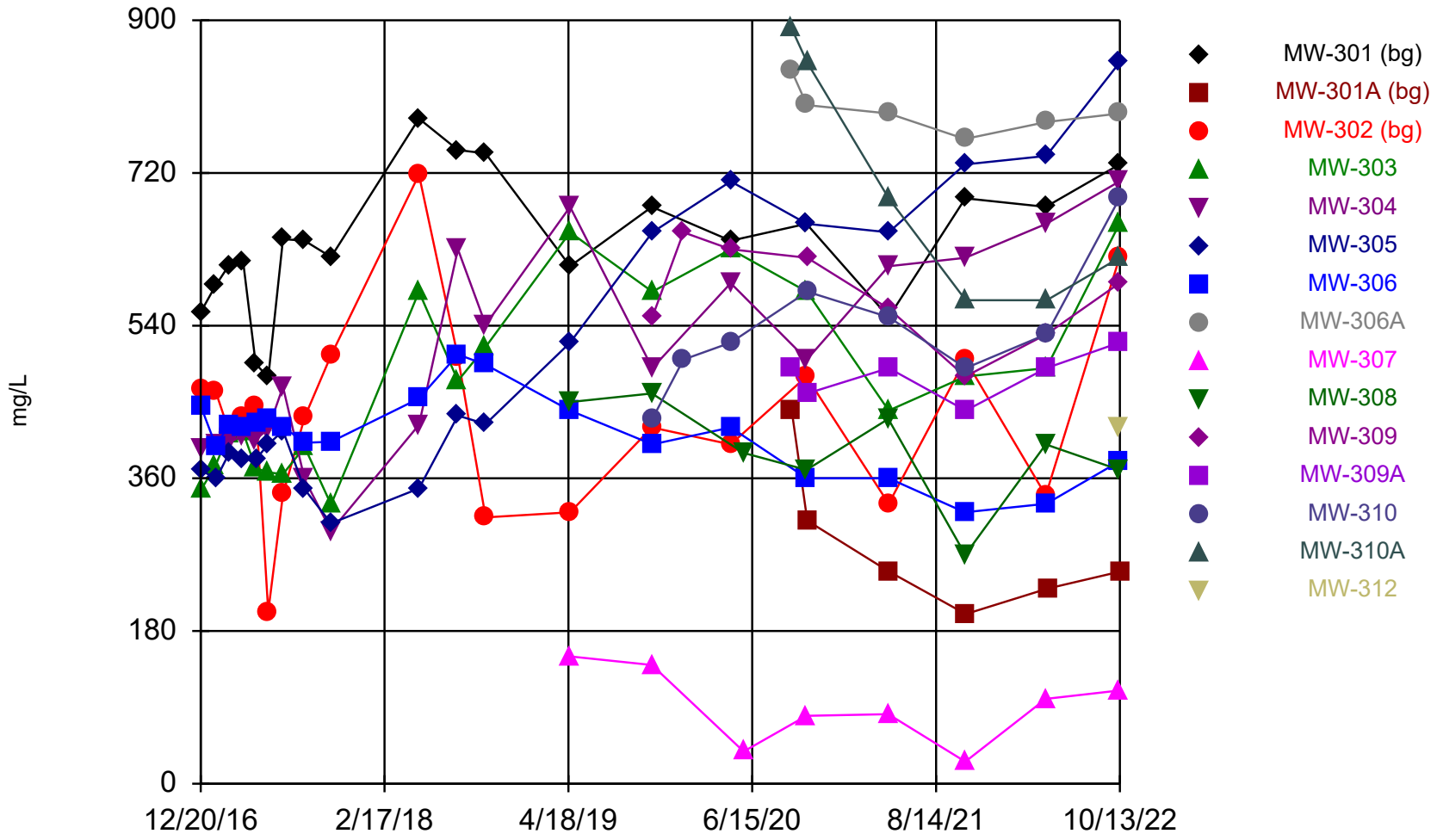
Constituent: Thallium (ug/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
5/8/2018						
10/9/2018						
4/22/2019						
4/23/2019	<0.27 (U)					
10/28/2019	<0.27 (U)					
10/29/2019		<0.27 (U)		<0.27 (U)		
1/9/2020		<0.27 (U)		<0.27 (U)		
4/27/2020		<0.26 (U)		<0.26 (U)		
5/27/2020	<0.26 (U)					
9/15/2020			<0.26 (U)		<0.26 (U)	
4/26/2021	<0.26 (U)					
4/27/2021		<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	
4/28/2021						
10/20/2021						
10/21/2021	<0.26 (U)	<0.26 (U)				
10/22/2021			<0.26 (U)	<0.26 (U)	<0.26 (U)	
4/25/2022	<0.26 (U)					
4/26/2022			<0.26 (U)			
4/27/2022		<0.26 (U)		<0.26 (U)	<0.26 (U)	
4/29/2022						
10/12/2022	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)
10/13/2022						

ND substitution: RL or RL/2 if <15% NDs.

Total Dissolved Solids



Time Series Analysis Run 12/16/2022 5:12 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/16/2022 5:24 PM View: PCS
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	556		465	346					
12/21/2016					396	370	444		
1/23/2017	587		463	375					
1/24/2017					399	359	398		
2/23/2017	611		416	413	402	389	423		
3/28/2017	615		432	414	411	383	421		
4/26/2017	495		445	372	406				
4/27/2017						383	426		
5/25/2017	479		203	367	418	400	430		
6/28/2017	642		341	365	468	416	421		
8/17/2017	640		432	397	359	347	402		
10/17/2017	621		505	329	298	307	403		
5/8/2018	784		718	580	423	348	454		
8/6/2018	747		503	475	630	434	506		
10/9/2018	743		314	515	541	424	494		
4/22/2019	610		320	650	680	520	440		
4/23/2019									150
10/28/2019	680 (B)		420 (B)						140 (B)
10/29/2019				580	490	650	400		
1/9/2020									
4/27/2020	640		400	630	590	710	420		
5/27/2020									38
9/15/2020		440						840	
10/19/2020	660		480						80
10/20/2020				580	500	660	360	800	
10/21/2020		310							
4/26/2021									82
4/27/2021	550		330	440	610	650	360	790	
4/28/2021		250							
10/20/2021						730	320	760	
10/21/2021	690		500	480	620				26 (J)
10/22/2021		200							
4/25/2022	680		340						100
4/26/2022				490	660	740	330	780	
4/27/2022									
4/29/2022		230							
10/12/2022	730		620	660	710	850	380	790	110
10/13/2022		250							

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
10/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
4/22/2019						
4/23/2019	450					
10/28/2019	460 (B)					
10/29/2019		550		430		
1/9/2020		650		500		
4/27/2020		630		520		
5/27/2020	390					
9/15/2020			490		890	
10/19/2020	370					
10/20/2020						
10/21/2020		620	460	580	850	
4/26/2021	430					
4/27/2021		560	490	550	690	
4/28/2021						
10/20/2021						
10/21/2021	270	480				
10/22/2021			440	490	570	
4/25/2022	400					
4/26/2022			490			
4/27/2022		530		530	570	
4/29/2022						
10/12/2022	370	590	520	690	620	420
10/13/2022						

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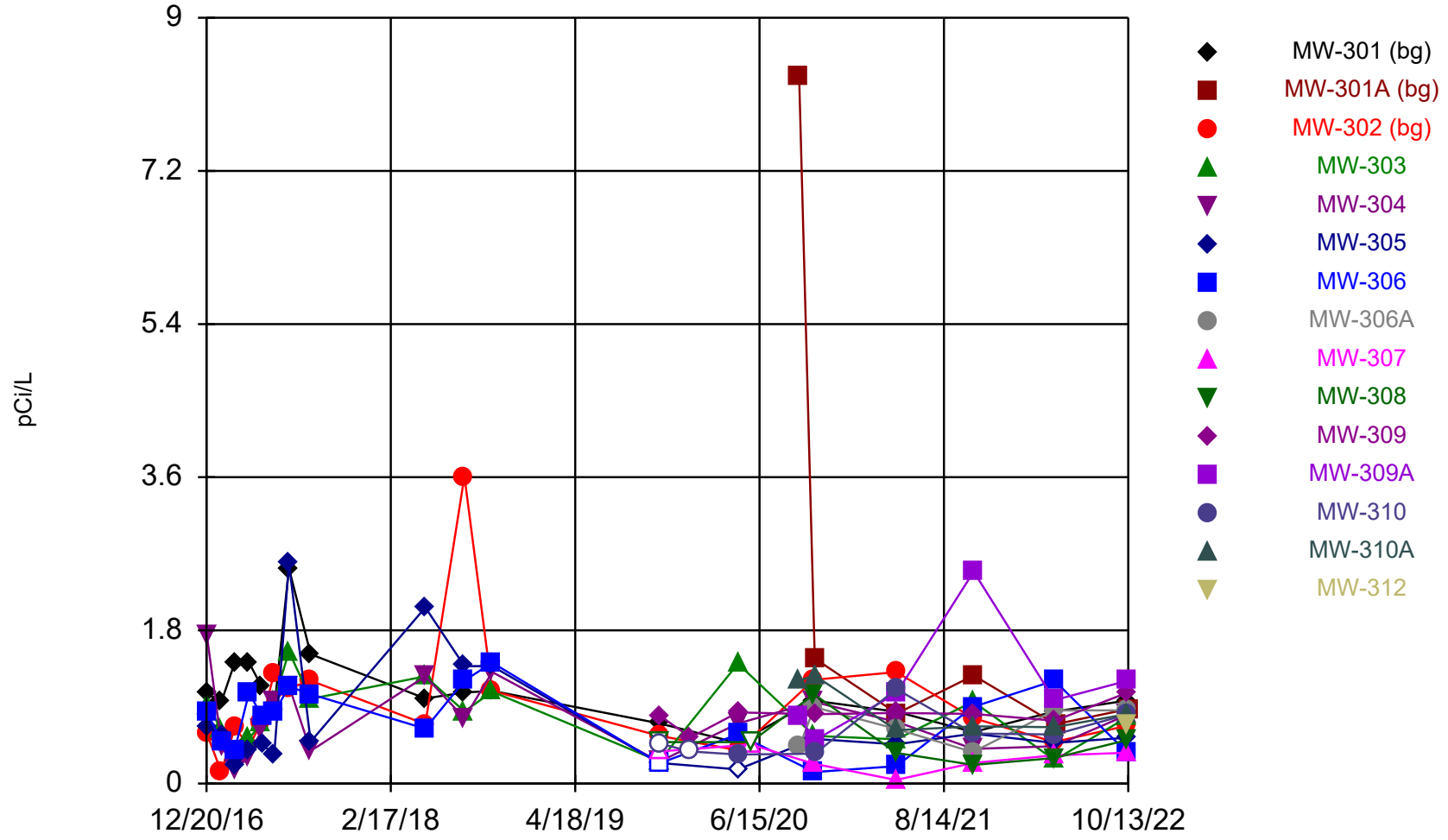
Hollow symbols indicate censored values.

Total Radium



Time Series Analysis Run 12/16/2022 5:12 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Time Series

Constituent: Total Radium (pCi/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-306A	MW-307
12/20/2016	1.06		0.597	0.925					
12/21/2016					1.74	0.665	0.843		
1/23/2017	0.957		0.138	0.647					
1/24/2017					0.439	0.567	0.481		
2/23/2017	1.42		0.655	0.375	0.162	0.209	0.391		
3/28/2017	1.42		0.447	0.53	0.311	0.396	1.07		
4/26/2017	1.14		0.713	0.71	0.632				
4/27/2017						0.463	0.785		
5/25/2017	0.877		1.3	0.977	0.964	0.339	0.831		
6/28/2017	2.53		1.12	1.55	1.15	2.59	1.14		
8/17/2017	1.52		1.21	0.995	0.384	0.492	1.05		
5/8/2018	1		0.699	1.26	1.26	2.07	0.645		
8/6/2018	1.07		3.61	0.847	0.768	1.38	1.21		
10/9/2018	1.09		1.09	1.08	1.31	1.38	1.42		
10/28/2019	0.708		0.562						<0.377 (U)
10/29/2019				<0.522 (U)	<0.513 (U)	<0.484 (U)	<0.476 (U)		
1/9/2020									
4/27/2020	0.477		0.392	1.41	0.707	<0.333 (U)	0.578		
5/27/2020									<0.458 (U)
9/15/2020		8.3						0.427	
10/19/2020	0.975		1.22						0.233
10/20/2020				0.56	0.958	0.525	0.135	0.898	
10/21/2020		1.47							
4/26/2021									0.043
4/27/2021	0.844		1.31	0.519	0.726	0.461	0.205	0.642	
4/28/2021		0.823							
10/20/2021						0.586	0.899	0.368	
10/21/2021	0.606		0.77	0.963	0.407				0.242
10/22/2021		1.27							
4/25/2022	0.845		0.489						0.331
4/26/2022				0.276	0.439	0.478	1.21	0.859	
4/27/2022									
4/29/2022		0.698							
10/12/2022	0.977		0.681	0.783	0.811	0.539	0.356	0.861	0.362
10/13/2022		0.876							

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Total Radium (pCi/L) Analysis Run 12/16/2022 5:24 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	MW-309	MW-309A	MW-310	MW-310A	MW-312
12/20/2016						
12/21/2016						
1/23/2017						
1/24/2017						
2/23/2017						
3/28/2017						
4/26/2017						
4/27/2017						
5/25/2017						
6/28/2017						
8/17/2017						
5/8/2018						
8/6/2018						
10/9/2018						
10/28/2019	<0.488 (U)					
10/29/2019		0.801		<0.471 (U)		
1/9/2020		0.543		<0.377 (U)		
4/27/2020		0.837		0.341		
5/27/2020	<0.488 (U)					
9/15/2020			0.783		1.21	
10/19/2020	1.05					
10/20/2020						
10/21/2020		0.815	0.509	0.351	1.27	
4/26/2021	0.361					
4/27/2021		0.829	1.06	1.11	0.627	
4/28/2021						
10/20/2021						
10/21/2021	0.219	0.818				
10/22/2021			2.49	0.588	0.673	
4/25/2022	0.299					
4/26/2022			0.981			
4/27/2022		0.739		0.576	0.663	
4/29/2022						
10/12/2022	0.514	1.07	1.21	0.813	0.818	0.69
10/13/2022						

02/26/2024 - Classification: Internal - ECRM13238692

ND substitution: RL or RL/2 if <15% NDs.

Attachment 2

Outliers Analysis

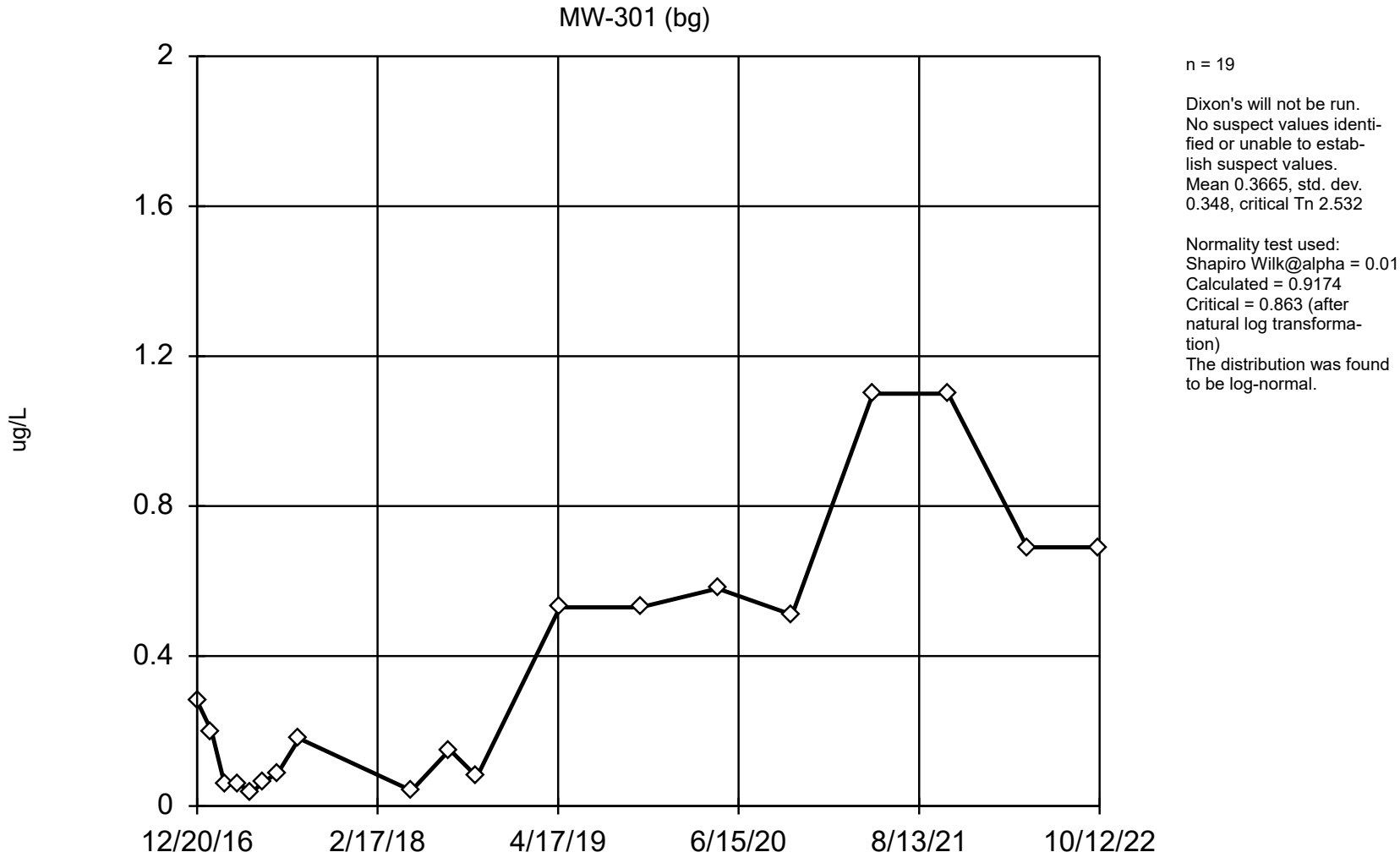
Outlier Analysis

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020 Printed 1/1/2023, 5:49 PM

Constituent	Well	Outlier	Value(s)	Date(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
Antimony (ug/L)	MW-301 (bg)	No	n/a	n/a	EPA 1989	0.05	19	0.3665	0.348	ln(x)	ShapiroWilk
Antimony (ug/L)	MW-302 (bg)	No	n/a	n/a	EPA 1989	0.05	19	0.3631	0.351	ln(x)	ShapiroWilk
Arsenic (ug/L)	**MW-301 (bg)**	**Yes**	**1.8**	**8/17/2017**	**Dixon`s**	**0.05**	**19**	**0.7737**	**0.2913**	**normal**	**ShapiroWilk**
Arsenic (ug/L)	MW-302 (bg)	No	n/a	n/a	EPA 1989	0.05	19	2.813	2.146	ln(x)	ShapiroWilk
Barium (ug/L)	MW-301 (bg)	No	n/a	n/a	EPA 1989	0.05	19	260.6	23.66	normal	ShapiroWilk
Barium (ug/L)	MW-302 (bg)	No	n/a	n/a	EPA 1989	0.05	19	179.4	40.42	normal	ShapiroWilk
Beryllium (ug/L)	MW-301 (bg)	No	n/a	n/a	NP (nrm)	NaN	18	0.1499	0.1152	unknown	ShapiroWilk
Beryllium (ug/L)	MW-302 (bg)	No	n/a	n/a	NP (nrm)	NaN	18	0.1432	0.1194	unknown	ShapiroWilk
Boron (ug/L)	MW-301 (bg)	No	n/a	n/a	EPA 1989	0.05	20	49.84	26.7	ln(x)	ShapiroWilk
Boron (ug/L)	MW-302 (bg)	No	n/a	n/a	EPA 1989	0.05	20	57.89	25.4	normal	ShapiroWilk
Cadmium (ug/L)	**MW-301 (bg)**	**Yes**	**0.0145**	**12/20/2016**	**Dixon`s**	**0.05**	**19**	**0.06958**	**0.02271**	**ln(x)**	**ShapiroWilk**
Cadmium (ug/L)	**MW-302 (bg)**	**Yes**	**0.38**	**4/25/2022**	**Dixon`s**	**0.05**	**19**	**0.06879**	**0.07861**	**normal**	**ShapiroWilk**
Calcium (mg/L)	MW-301 (bg)	No	n/a	n/a	EPA 1989	0.05	20	144.8	17.98	normal	ShapiroWilk
Calcium (mg/L)	MW-302 (bg)	No	n/a	n/a	Dixon`s	0.05	20	93.23	25.08	normal	ShapiroWilk
Chloride (mg/L)	MW-301 (bg)	No	n/a	n/a	EPA 1989	0.05	20	46.88	26.9	normal	ShapiroWilk
Chloride (mg/L)	MW-302 (bg)	No	n/a	n/a	EPA 1989	0.05	20	31.3	23.75	ln(x)	ShapiroWilk
Chromium (ug/L)	**MW-301 (bg)**	**Yes**	**9.9**	**8/17/2017**	**Dixon`s**	**0.05**	**19**	**4.853**	**1.38**	**normal**	**ShapiroWilk**
Chromium (ug/L)	MW-302 (bg)	No	n/a	n/a	EPA 1989	0.05	19	1.744	0.9818	normal	ShapiroWilk
Cobalt (ug/L)	MW-301 (bg)	No	n/a	n/a	Dixon`s	0.05	19	0.31	0.4578	ln(x)	ShapiroWilk
Cobalt (ug/L)	MW-302 (bg)	No	n/a	n/a	EPA 1989	0.05	19	3.33	6.812	ln(x)	ShapiroWilk
Field pH (Std. Units)	MW-301 (bg)	No	n/a	n/a	EPA 1989	0.05	20	6.929	0.3206	normal	ShapiroWilk
Field pH (Std. Units)	**MW-302 (bg)**	**Yes**	**7.71,5.35**	**10/17/201...**	**Dixon`s**	**0.05**	**20**	**6.572**	**0.4549**	**normal**	**ShapiroWilk**
Fluoride (mg/L)	MW-301 (bg)	No	n/a	n/a	EPA 1989	0.05	20	0.1835	0.06141	normal	ShapiroWilk
Fluoride (mg/L)	MW-302 (bg)	No	n/a	n/a	EPA 1989	0.05	20	0.1865	0.06099	normal	ShapiroWilk
Lead (ug/L)	MW-301 (bg)	No	n/a	n/a	EPA 1989	0.05	19	0.3219	0.407	ln(x)	ShapiroWilk
Lead (ug/L)	MW-302 (bg)	No	n/a	n/a	EPA 1989	0.05	19	0.2418	0.2608	ln(x)	ShapiroWilk
Lithium (ug/L)	MW-301 (bg)	No	n/a	n/a	EPA 1989	0.05	19	12.01	3.263	normal	ShapiroWilk
Lithium (ug/L)	MW-302 (bg)	No	n/a	n/a	EPA 1989	0.05	19	5.805	2.276	normal	ShapiroWilk
Mercury (ug/L)	MW-301 (bg)	No	n/a	n/a	NP (nrm)	NaN	17	0.07965	0.03816	unknown	ShapiroWilk
Mercury (ug/L)	MW-302 (bg)	No	n/a	n/a	NP (nrm)	NaN	17	0.07965	0.03816	unknown	ShapiroWilk
Molybdenum (ug/L)	MW-301 (bg)	No	n/a	n/a	EPA 1989	0.05	19	0.7263	0.4066	ln(x)	ShapiroWilk
Molybdenum (ug/L)	MW-302 (bg)	No	n/a	n/a	EPA 1989	0.05	19	0.8116	0.3628	normal	ShapiroWilk
Selenium (ug/L)	MW-301 (bg)	No	n/a	n/a	EPA 1989	0.05	18	1.138	0.5333	ln(x)	ShapiroWilk
Selenium (ug/L)	**MW-302 (bg)**	**Yes**	**3.7**	**4/25/2022**	**Dixon`s**	**0.05**	**18**	**0.8644**	**0.7879**	**normal**	**ShapiroWilk**
Sulfate (mg/L)	MW-301 (bg)	No	n/a	n/a	EPA 1989	0.05	20	101.9	12.28	normal	ShapiroWilk
Sulfate (mg/L)	**MW-302 (bg)**	**Yes**	**140**	**4/25/2022**	**Dixon`s**	**0.05**	**20**	**71.88**	**21.29**	**normal**	**ShapiroWilk**
Thallium (ug/L)	MW-301 (bg)	No	n/a	n/a	EPA 1989	0.05	17	0.2118	0.1485	normal	ShapiroWilk
Thallium (ug/L)	MW-302 (bg)	No	n/a	n/a	EPA 1989	0.05	17	0.2054	0.1561	normal	ShapiroWilk
Total Dissolved Solids (mg/L)	MW-301 (bg)	No	n/a	n/a	EPA 1989	0.05	20	638	80.97	normal	ShapiroWilk
Total Dissolved Solids (mg/L)	MW-302 (bg)	No	n/a	n/a	Dixon`s	0.05	20	432.4	113.4	normal	ShapiroWilk
Total Radium (pCi/L)	MW-301 (bg)	No	n/a	n/a	EPA 1989	0.05	18	1.084	0.4507	ln(x)	ShapiroWilk
Total Radium (pCi/L)	**MW-302 (bg)**	**Yes**	**3.61**	**8/6/2018**	**Dixon`s**	**0.05**	**18**	**0.9446**	**0.7491**	**normal**	**ShapiroWilk**

02/26/2024 - Classification: Internal - ECRM13238692

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Antimony Analysis Run 1/1/2023 5:40 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

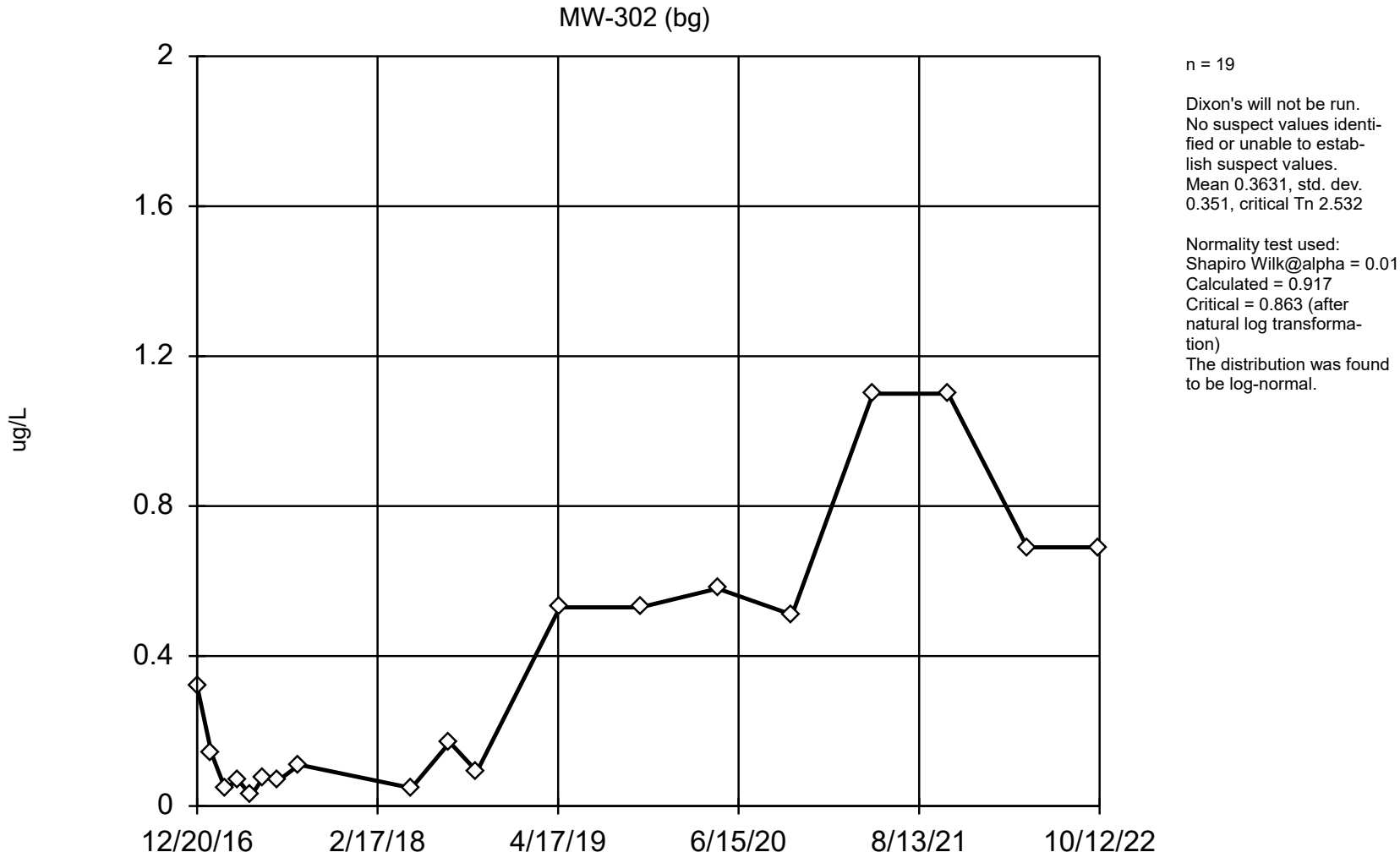
Constituent: Antimony (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	0.28 (J)
1/23/2017	0.2 (J)
2/23/2017	0.057 (J)
3/28/2017	0.06 (J)
4/26/2017	0.034 (J)
5/25/2017	0.065 (J)
6/28/2017	0.088 (J)
8/17/2017	0.18 (J)
5/8/2018	0.041 (J)
8/6/2018	<0.15 (U)
10/9/2018	<0.078 (U)
4/22/2019	<0.53 (U)
10/28/2019	<0.53 (U)
4/27/2020	<0.58 (U)
10/19/2020	<0.51 (U)
4/27/2021	<1.1 (U)
10/21/2021	<1.1 (U)
4/25/2022	<0.69 (U)
10/12/2022	<0.69 (U)

ND substitution: RL or RL/2 if <15% NDs.

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Antimony Analysis Run 1/1/2023 5:40 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

Constituent: Antimony (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

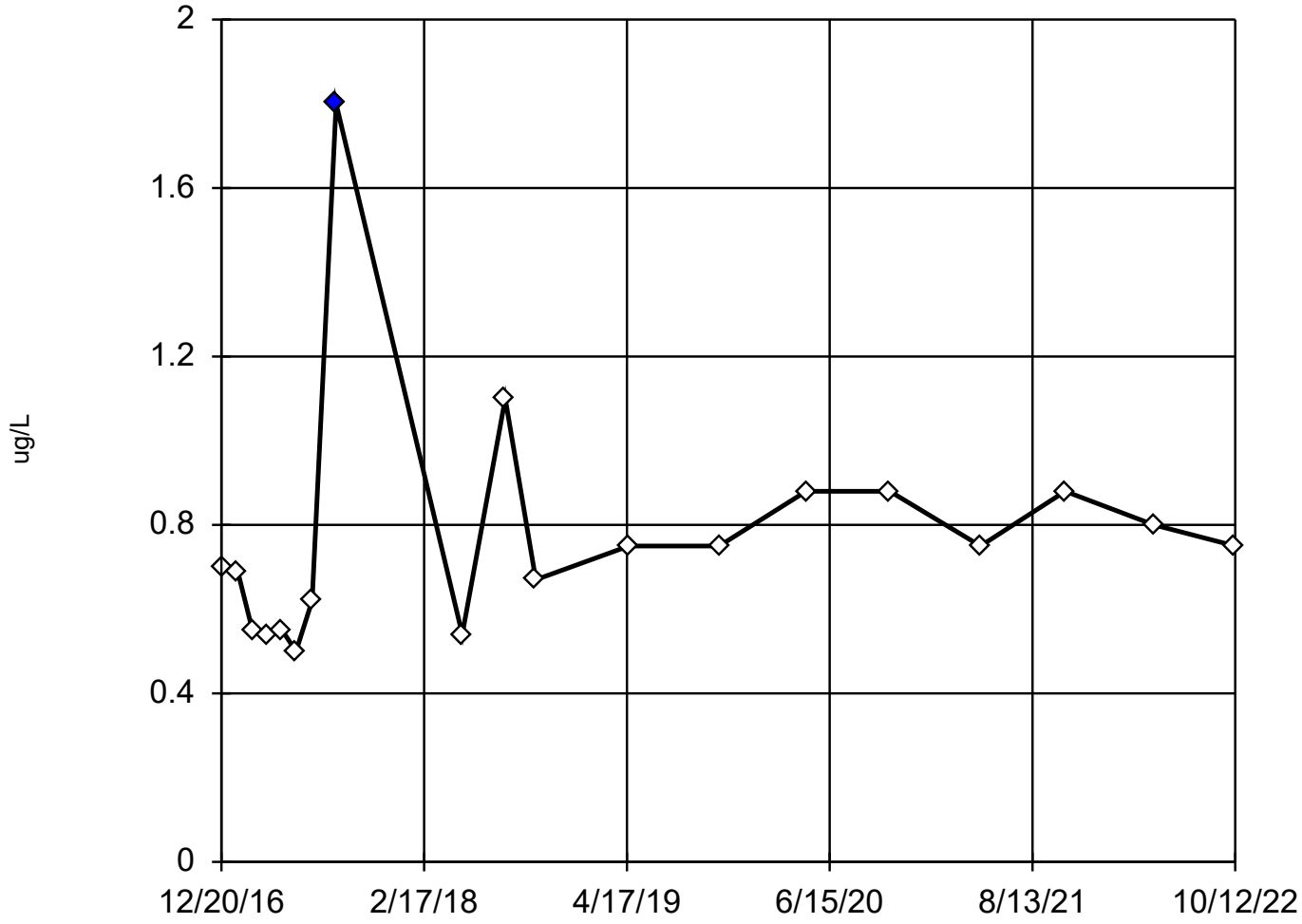
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	0.32 (J)
1/23/2017	0.14 (J)
2/23/2017	0.049 (J)
3/28/2017	0.067 (J)
4/26/2017	0.028 (J)
5/25/2017	0.077 (J)
6/28/2017	0.067 (J)
8/17/2017	0.11 (J)
5/8/2018	0.048 (J)
8/6/2018	0.17 (J)
10/9/2018	0.092 (J)
4/22/2019	<0.53 (U)
10/28/2019	<0.53 (U)
4/27/2020	<0.58 (U)
10/19/2020	<0.51 (U)
4/27/2021	<1.1 (U)
10/21/2021	<1.1 (U)
4/25/2022	<0.69 (U)
10/12/2022	<0.69 (U)

ND substitution: RL or RL/2 if <15% NDs.

Dixon's Outlier Test

MW-301 (bg)



n = 19

Statistical outlier is drawn as solid.
Testing for 1 high outlier.
Mean = 0.7737.
Std. Dev. = 0.2913.
1.8: c = 0.7302
tabl = 0.462.
Alpha = 0.05.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.934
Critical = 0.858
The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Arsenic Analysis Run 1/1/2023 5:40 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Dixon's Outlier Test

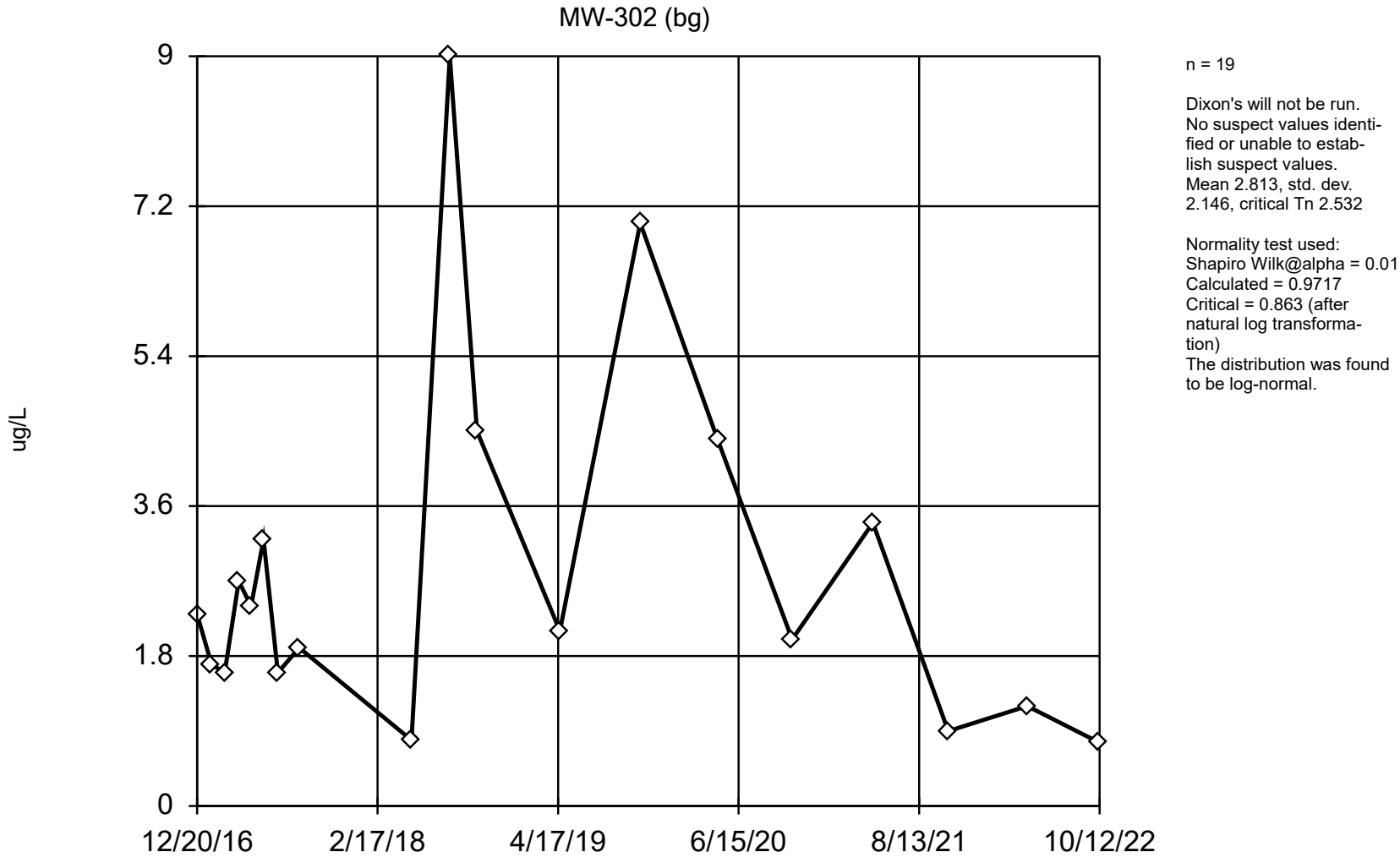
Constituent: Arsenic (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	0.7 (J)
1/23/2017	0.69 (J)
2/23/2017	0.55 (J)
3/28/2017	0.54 (J)
4/26/2017	0.55 (J)
5/25/2017	0.5 (J)
6/28/2017	0.62 (J)
8/17/2017	1.8 (O)
5/8/2018	0.54 (J)
8/6/2018	1.1
10/9/2018	0.67 (J)
4/22/2019	<0.75 (U)
10/28/2019	<0.75 (U)
4/27/2020	<0.88 (U)
10/19/2020	<0.88 (U)
4/27/2021	<0.75 (U)
10/21/2021	0.88 (J)
4/25/2022	0.8 (J)
10/12/2022	<0.75 (U)

ND substitution: RL or RL/2 if <15% NDs.

EPA Screening (suspected outliers for Dixon's Test)



n = 19

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Mean 2.813, std. dev. 2.146, critical Tn 2.532

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9717
Critical = 0.863 (after natural log transformation)
The distribution was found to be log-normal.

Constituent: Arsenic Analysis Run 1/1/2023 5:40 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

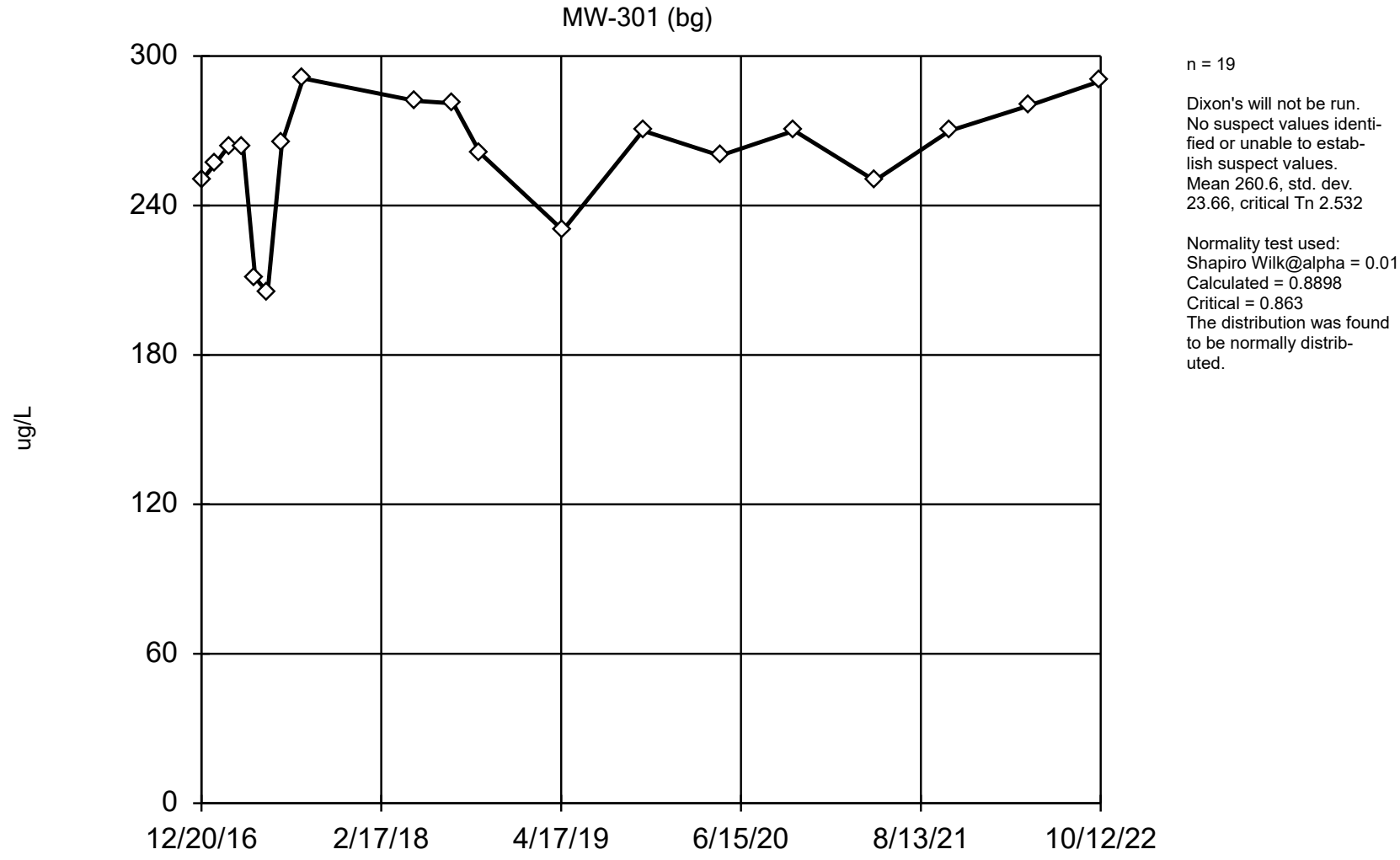
EPA 1989 Outlier Screening

Constituent: Arsenic (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	2.3
1/23/2017	1.7
2/23/2017	1.6
3/28/2017	2.7
4/26/2017	2.4
5/25/2017	3.2
6/28/2017	1.6
8/17/2017	1.9
5/8/2018	0.79 (J)
8/6/2018	9
10/9/2018	4.5
4/22/2019	2.1
10/28/2019	7
4/27/2020	4.4
10/19/2020	2
4/27/2021	3.4
10/21/2021	0.9 (J)
4/25/2022	1.2 (J)
10/12/2022	0.76 (J)

EPA Screening (suspected outliers for Dixon's Test)



n = 19

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Mean 260.6, std. dev. 23.66, critical Tn 2.532

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8898
Critical = 0.863
The distribution was found to be normally distributed.

Constituent: Barium Analysis Run 1/1/2023 5:40 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

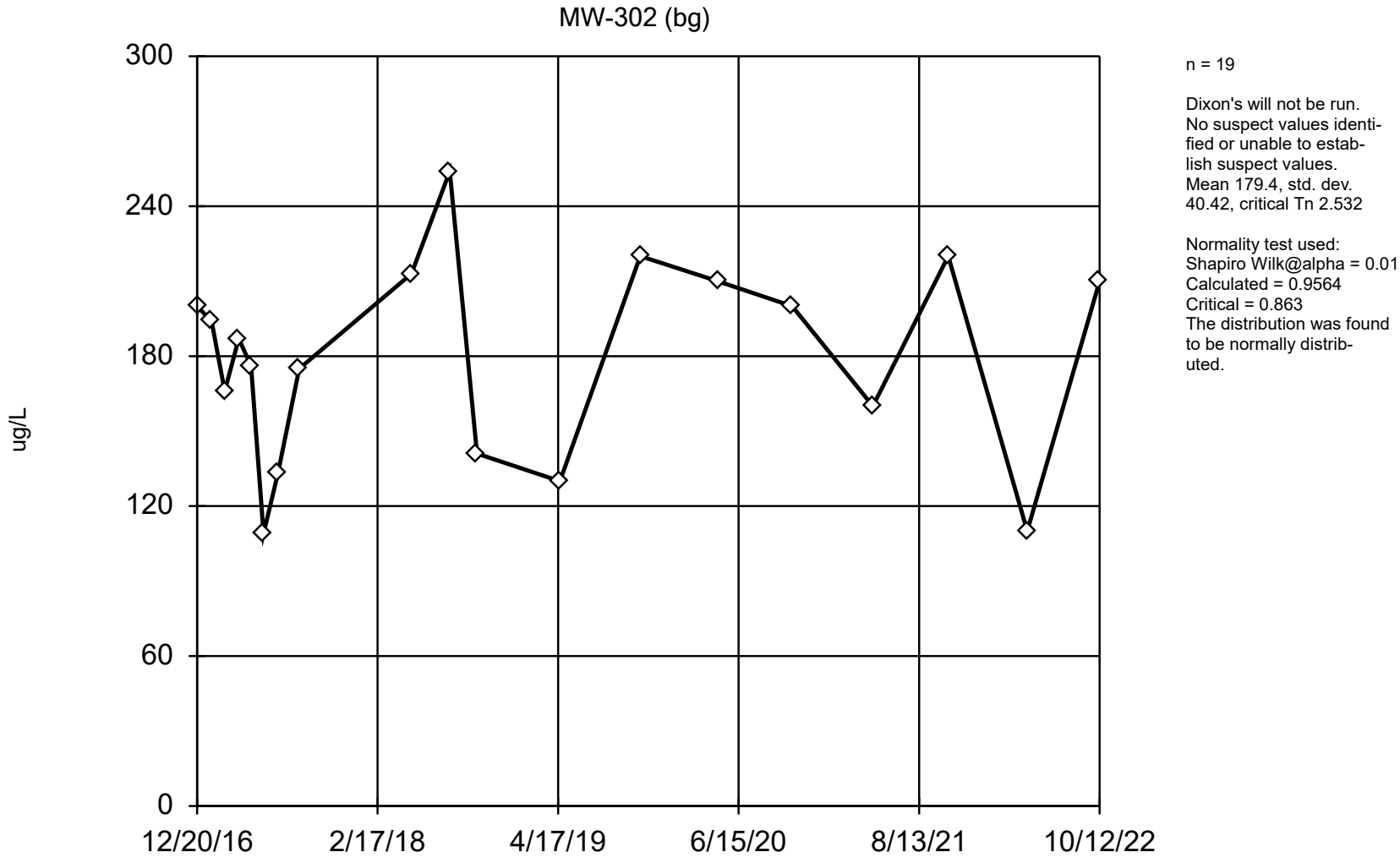
EPA 1989 Outlier Screening

Constituent: Barium (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	250
1/23/2017	257
2/23/2017	264
3/28/2017	264
4/26/2017	211
5/25/2017	205
6/28/2017	265
8/17/2017	291
5/8/2018	282
8/6/2018	281
10/9/2018	261
4/22/2019	230
10/28/2019	270
4/27/2020	260
10/19/2020	270
4/27/2021	250
10/21/2021	270
4/25/2022	280
10/12/2022	290

EPA Screening (suspected outliers for Dixon's Test)



n = 19

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Mean 179.4, std. dev. 40.42, critical Tn 2.532

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9564
Critical = 0.863
The distribution was found to be normally distributed.

Constituent: Barium Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

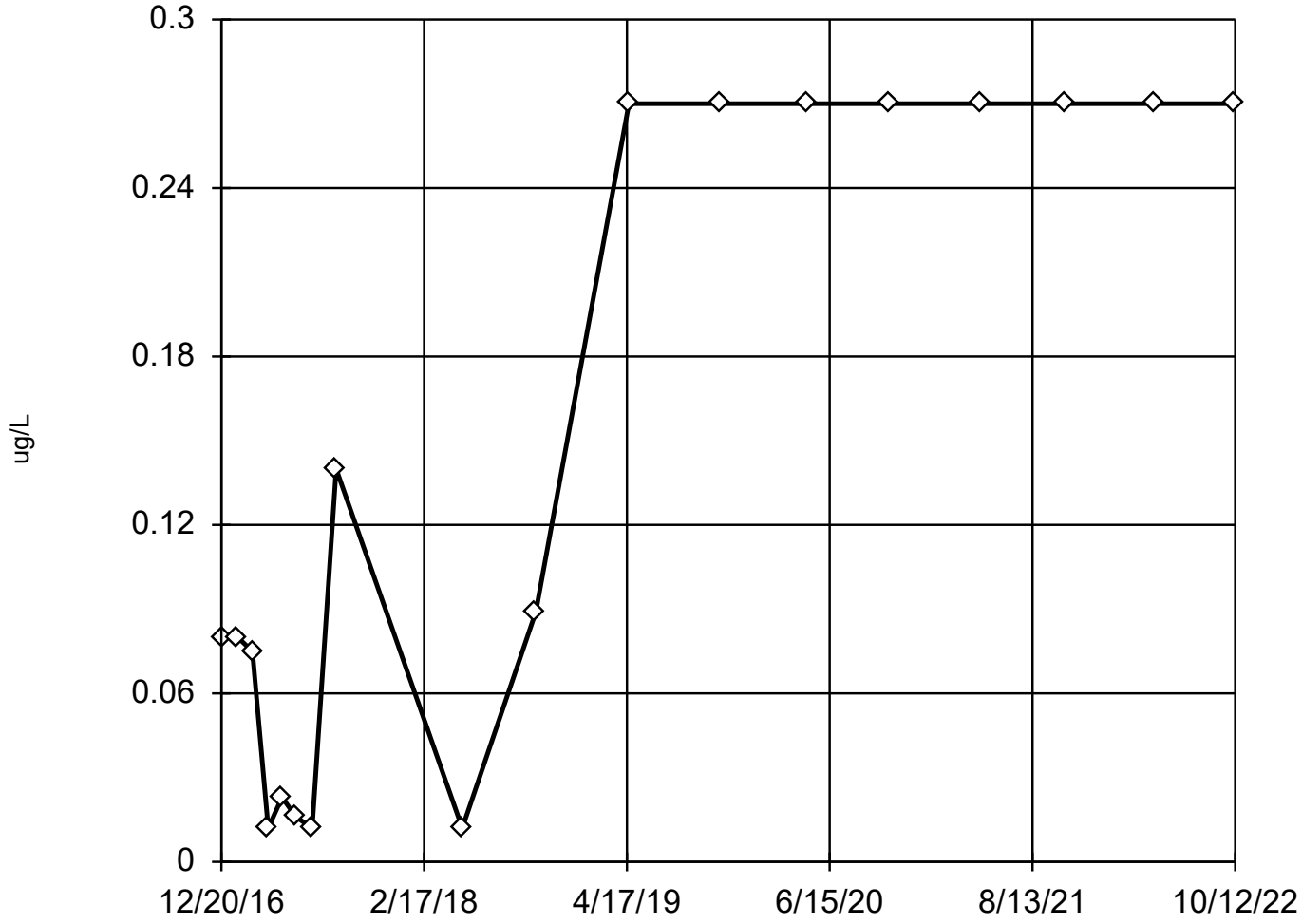
Constituent: Barium (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	200
1/23/2017	194
2/23/2017	166
3/28/2017	187
4/26/2017	176
5/25/2017	109
6/28/2017	133
8/17/2017	175
5/8/2018	213
8/6/2018	254
10/9/2018	141
4/22/2019	130
10/28/2019	220
4/27/2020	210
10/19/2020	200
4/27/2021	160
10/21/2021	220
4/25/2022	110
10/12/2022	210

Tukey's Outlier Screening

MW-301 (bg)



n = 18

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

Data were cube root transformed to achieve best W statistic (graph shown in original units).

High cutoff = 5.647, low cutoff = -0.65, based on IQR multiplier of 3.

Constituent: Beryllium Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tukey's Outlier Screening

Constituent: Beryllium (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

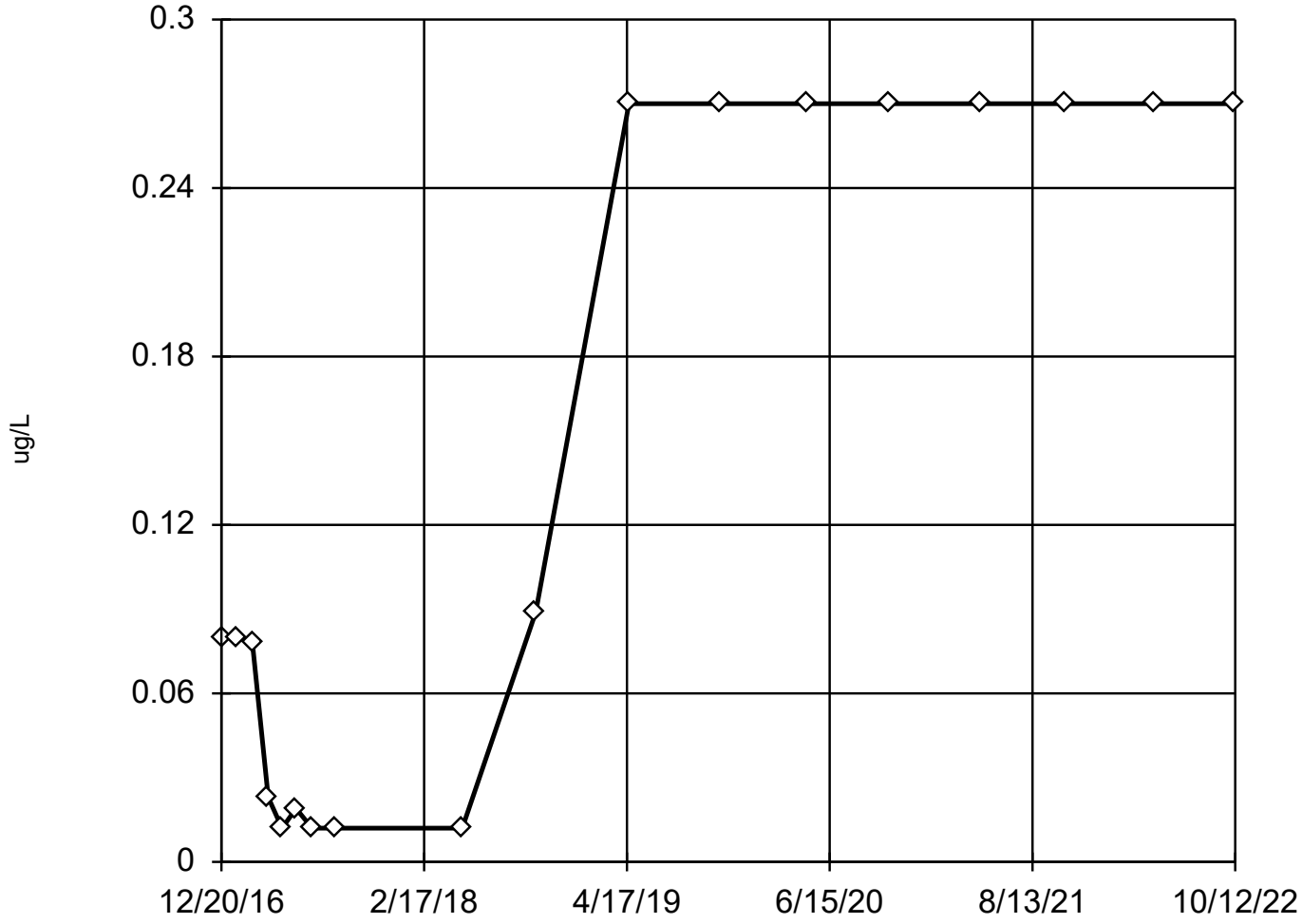
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	<0.08 (U)
1/23/2017	<0.08 (U)
2/23/2017	0.075 (J)
3/28/2017	0.012 (J)
4/26/2017	0.023 (J)
5/25/2017	0.016 (J)
6/28/2017	<0.012 (U)
8/17/2017	0.14 (J)
5/8/2018	<0.012 (U)
10/9/2018	<0.089 (U)
4/22/2019	<0.27 (U)
10/28/2019	<0.27 (U)
4/27/2020	<0.27 (U)
10/19/2020	<0.27 (U)
4/27/2021	<0.27 (U)
10/21/2021	<0.27 (U)
4/25/2022	<0.27 (U)
10/12/2022	<0.27 (U)

ND substitution: RL or RL/2 if <15% NDs.

Tukey's Outlier Screening

MW-302 (bg)



n = 18

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 1544, low cutoff = 0.000002641, based on IQR multiplier of 3.

Constituent: Beryllium Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tukey's Outlier Screening

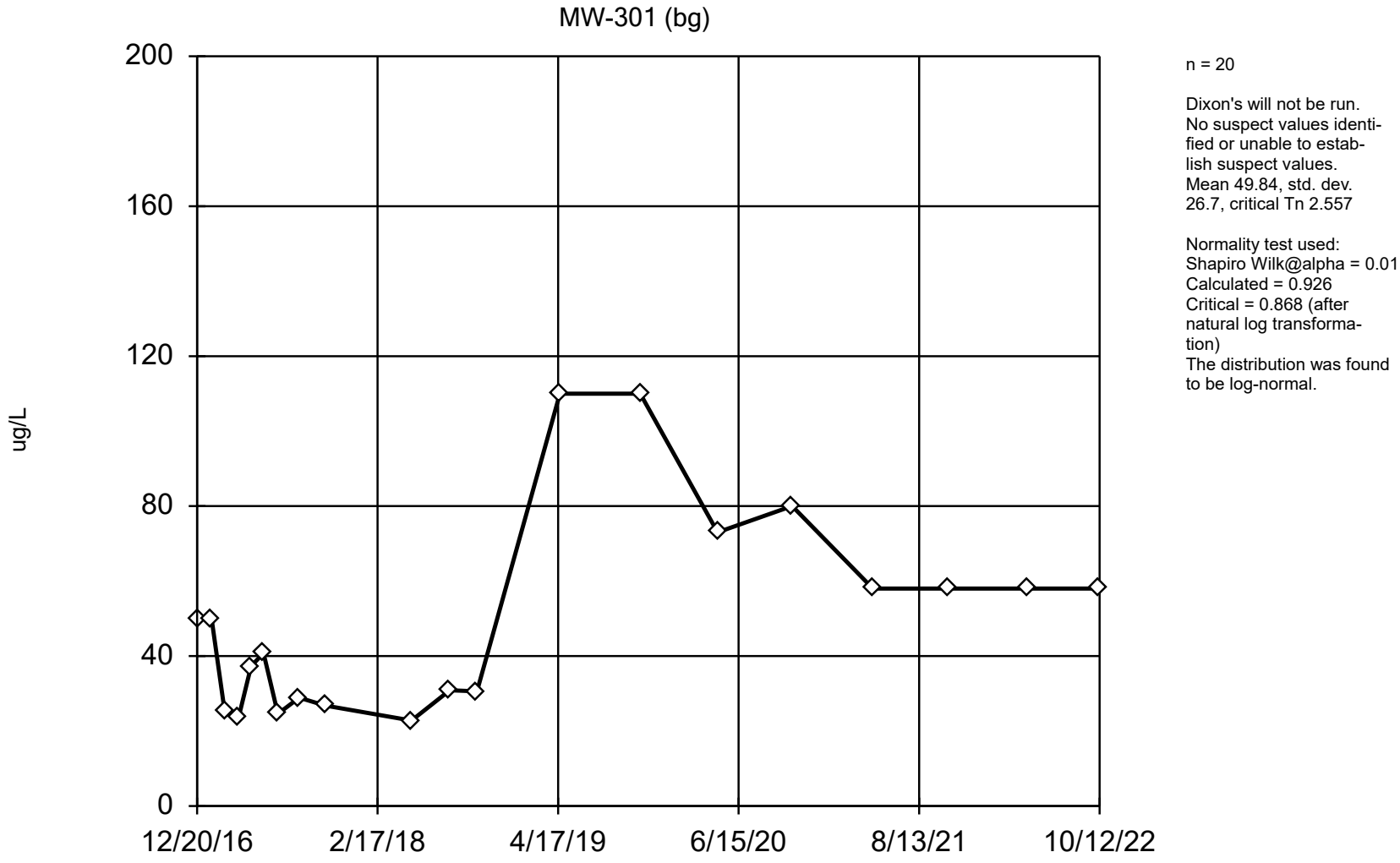
Constituent: Beryllium (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	<0.08 (U)
1/23/2017	<0.08 (U)
2/23/2017	0.078 (J)
3/28/2017	0.023 (J)
4/26/2017	<0.012 (U)
5/25/2017	0.019 (J)
6/28/2017	<0.012 (U)
8/17/2017	<0.012 (U)
5/8/2018	<0.012 (U)
10/9/2018	<0.089 (U)
4/22/2019	<0.27 (U)
10/28/2019	<0.27 (U)
4/27/2020	<0.27 (U)
10/19/2020	<0.27 (U)
4/27/2021	<0.27 (U)
10/21/2021	<0.27 (U)
4/25/2022	<0.27 (U)
10/12/2022	<0.27 (U)

ND substitution: RL or RL/2 if <15% NDs.

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Boron Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

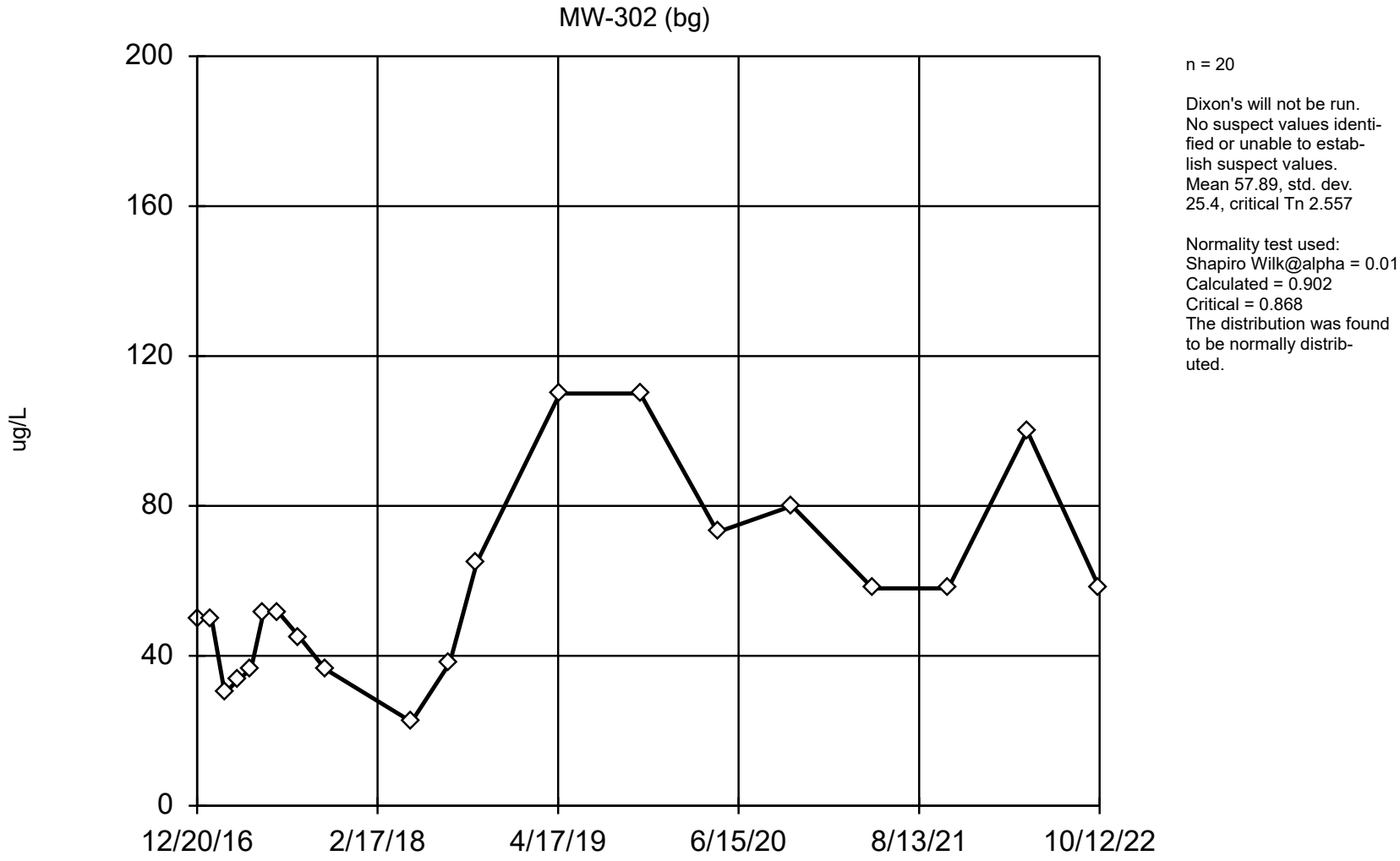
Constituent: Boron (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	<50 (U)
1/23/2017	<50 (U)
2/23/2017	25.2 (J)
3/28/2017	23.8 (J)
4/26/2017	37.3 (J)
5/25/2017	40.8 (J)
6/28/2017	24.6 (J)
8/17/2017	28.9 (J)
10/17/2017	26.8 (J)
5/8/2018	22.8 (J)
8/6/2018	30.9 (J)
10/9/2018	30.6 (J)
4/22/2019	<110 (U)
10/28/2019	<110 (U)
4/27/2020	<73 (U)
10/19/2020	<80 (U)
4/27/2021	<58 (U)
10/21/2021	<58 (U)
4/25/2022	<58 (U)
10/12/2022	<58 (U)

ND substitution: RL or RL/2 if <15% NDs.

EPA Screening (suspected outliers for Dixon's Test)



n = 20

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Mean 57.89, std. dev. 25.4, critical Tn 2.557

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.902
Critical = 0.868
The distribution was found to be normally distributed.

Constituent: Boron Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

Constituent: Boron (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

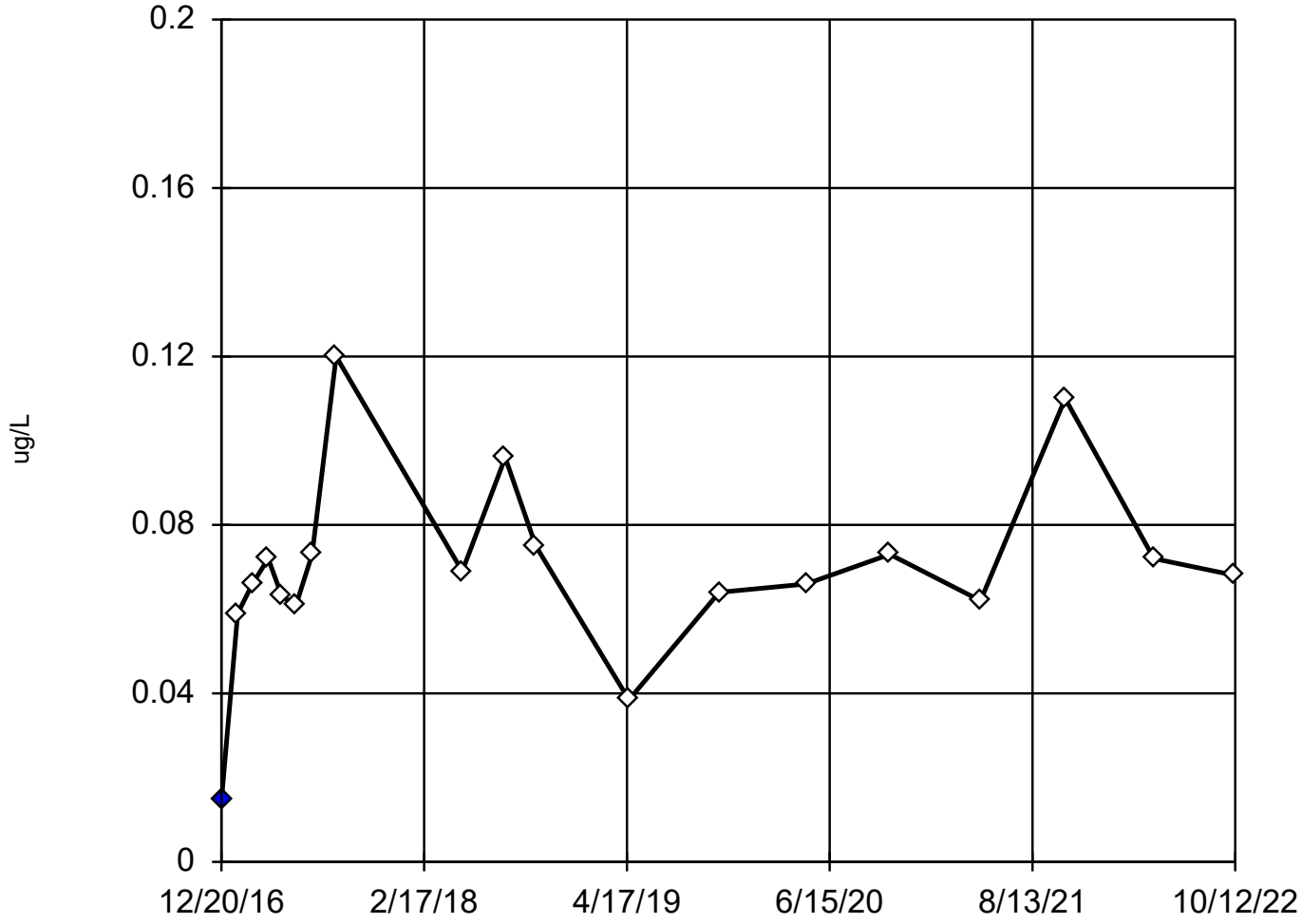
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	<50 (U)
1/23/2017	<50 (U)
2/23/2017	30.1 (J)
3/28/2017	33.7 (J)
4/26/2017	36.5 (J)
5/25/2017	51.6 (J)
6/28/2017	51.8 (J)
8/17/2017	45.1 (J)
10/17/2017	36.5 (J)
5/8/2018	22.4 (J)
8/6/2018	38.1 (J)
10/9/2018	65 (J)
4/22/2019	<110 (U)
10/28/2019	<110 (U)
4/27/2020	<73 (U)
10/19/2020	<80 (U)
4/27/2021	<58 (U)
10/21/2021	<58 (U)
4/25/2022	100
10/12/2022	<58 (U)

ND substitution: RL or RL/2 if <15% NDs.

Dixon's Outlier Test

MW-301 (bg)



n = 19

Statistical outlier is drawn as solid.
Testing for 1 low outlier.
Mean = 0.06958.
Std. Dev. = 0.02271.
-4.234 (U): c = 0.7425
tabl = 0.462.
Alpha = 0.05.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8833
Critical = 0.858 (after natural log transformation)
The distribution, after removal of suspect value, was found to be log-normal.

Constituent: Cadmium Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Dixon's Outlier Test

Constituent: Cadmium (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

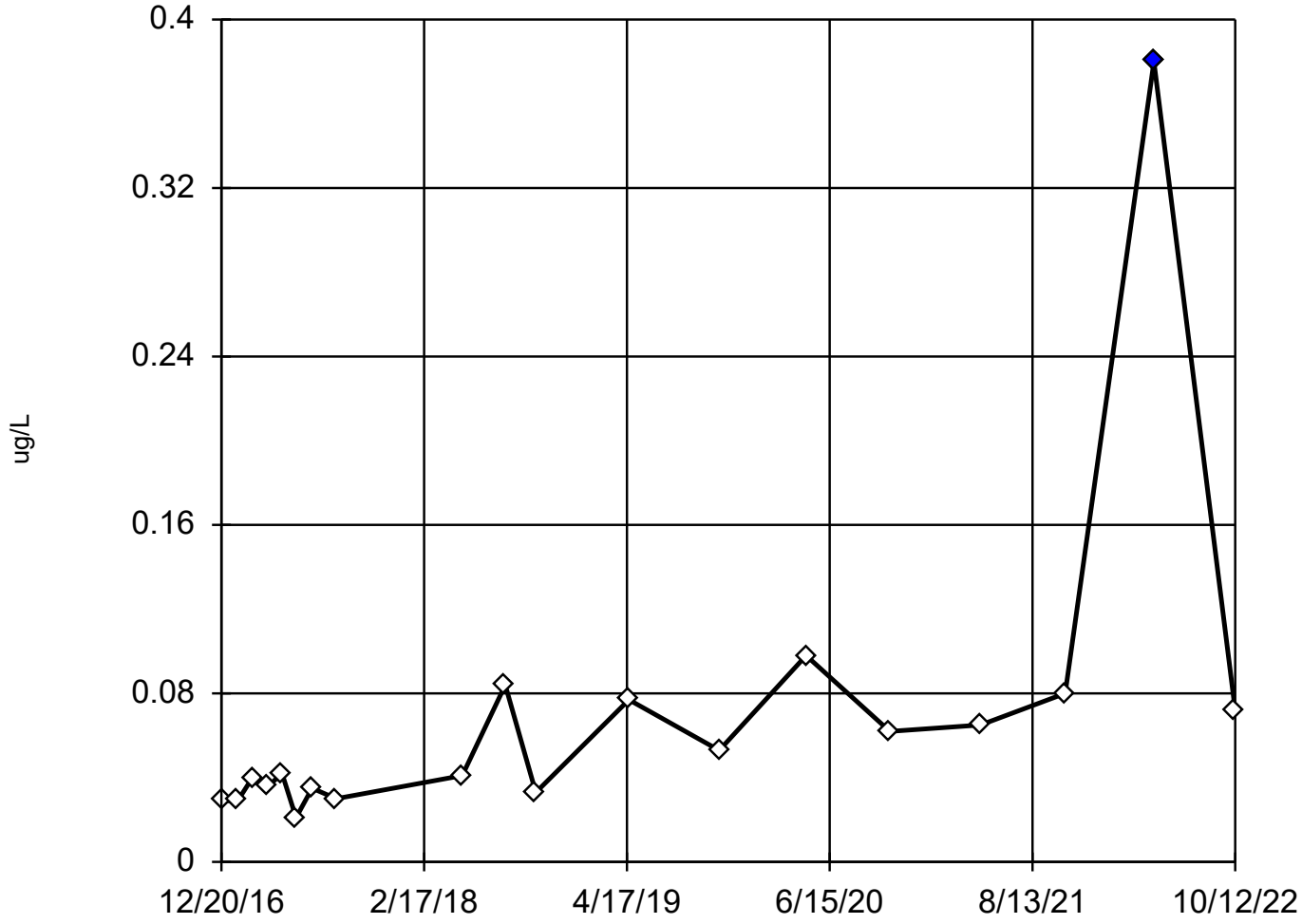
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	<0.029 (UO)
1/23/2017	0.059 (J)
2/23/2017	0.066 (J)
3/28/2017	0.072 (J)
4/26/2017	0.063 (J)
5/25/2017	0.061 (J)
6/28/2017	0.073 (J)
8/17/2017	0.12 (J)
5/8/2018	0.069 (J)
8/6/2018	0.096 (J)
10/9/2018	0.075 (J)
4/22/2019	<0.077 (U)
10/28/2019	0.064 (J)
4/27/2020	0.066 (J)
10/19/2020	0.073 (J)
4/27/2021	0.062 (J)
10/21/2021	0.11
4/25/2022	0.072 (J)
10/12/2022	0.068 (J)

ND substitution: RL or RL/2 if <15% NDs.

Dixon's Outlier Test

MW-302 (bg)



n = 19

Statistical outlier is drawn as solid.
Testing for 1 high outlier.
Mean = 0.06879.
Std. Dev. = 0.07861.
0.38: c = 0.8433
tabl = 0.462.
Alpha = 0.05.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9148
Critical = 0.858
The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Cadmium Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Dixon's Outlier Test

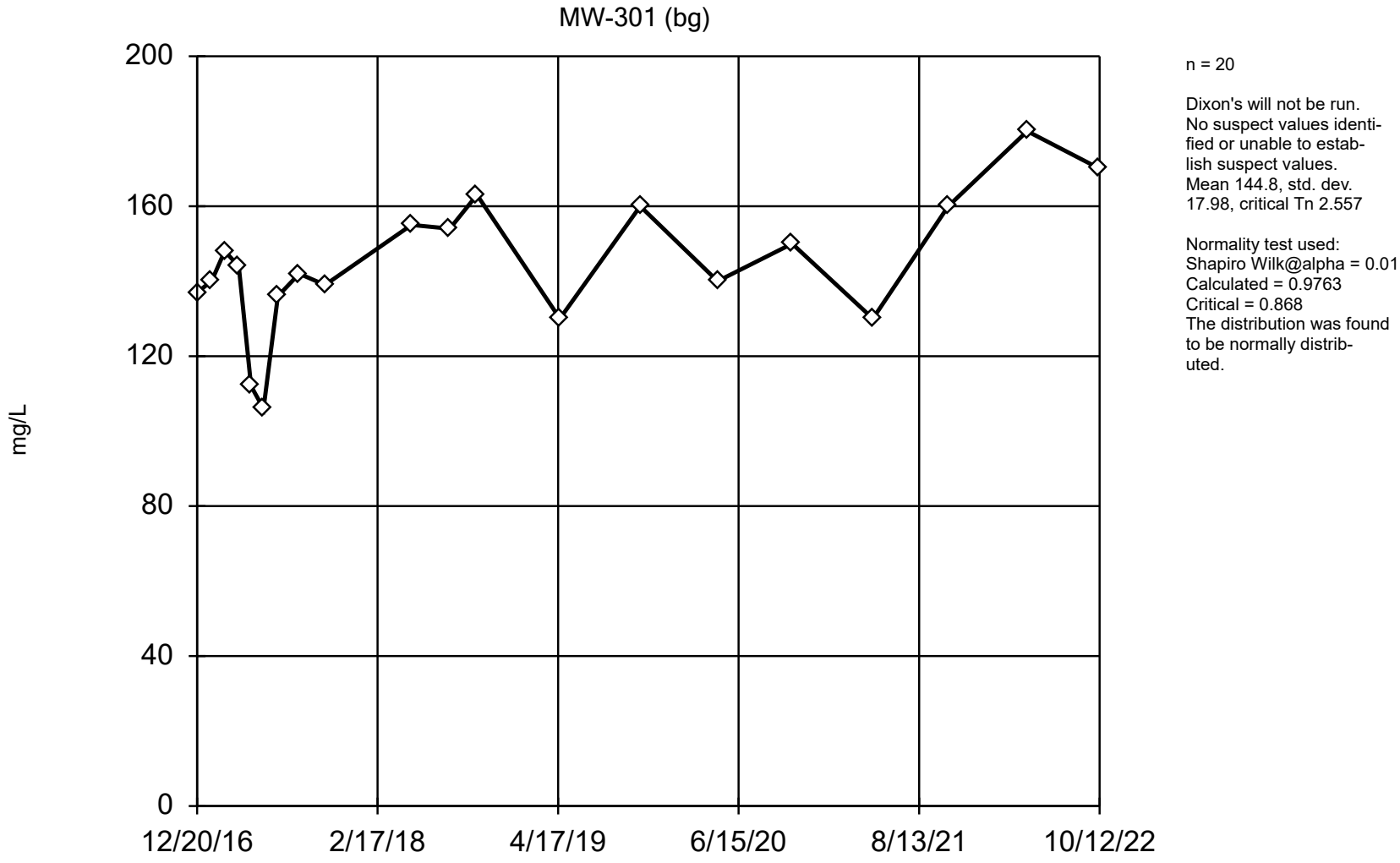
Constituent: Cadmium (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	<0.029 (U)
1/23/2017	<0.029 (U)
2/23/2017	0.04 (J)
3/28/2017	0.036 (J)
4/26/2017	0.042 (J)
5/25/2017	0.021 (J)
6/28/2017	0.035 (J)
8/17/2017	0.03 (J)
5/8/2018	0.041 (J)
8/6/2018	0.084 (J)
10/9/2018	<0.033 (U)
4/22/2019	<0.077 (U)
10/28/2019	0.053 (J)
4/27/2020	0.098 (J)
10/19/2020	0.062 (J)
4/27/2021	0.065 (J)
10/21/2021	0.08 (J)
4/25/2022	0.38 (O)
10/12/2022	0.072 (J)

ND substitution: RL or RL/2 if <15% NDs.

EPA Screening (suspected outliers for Dixon's Test)



n = 20

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Mean 144.8, std. dev. 17.98, critical Tn 2.557

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9763
Critical = 0.868
The distribution was found to be normally distributed.

Constituent: Calcium Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

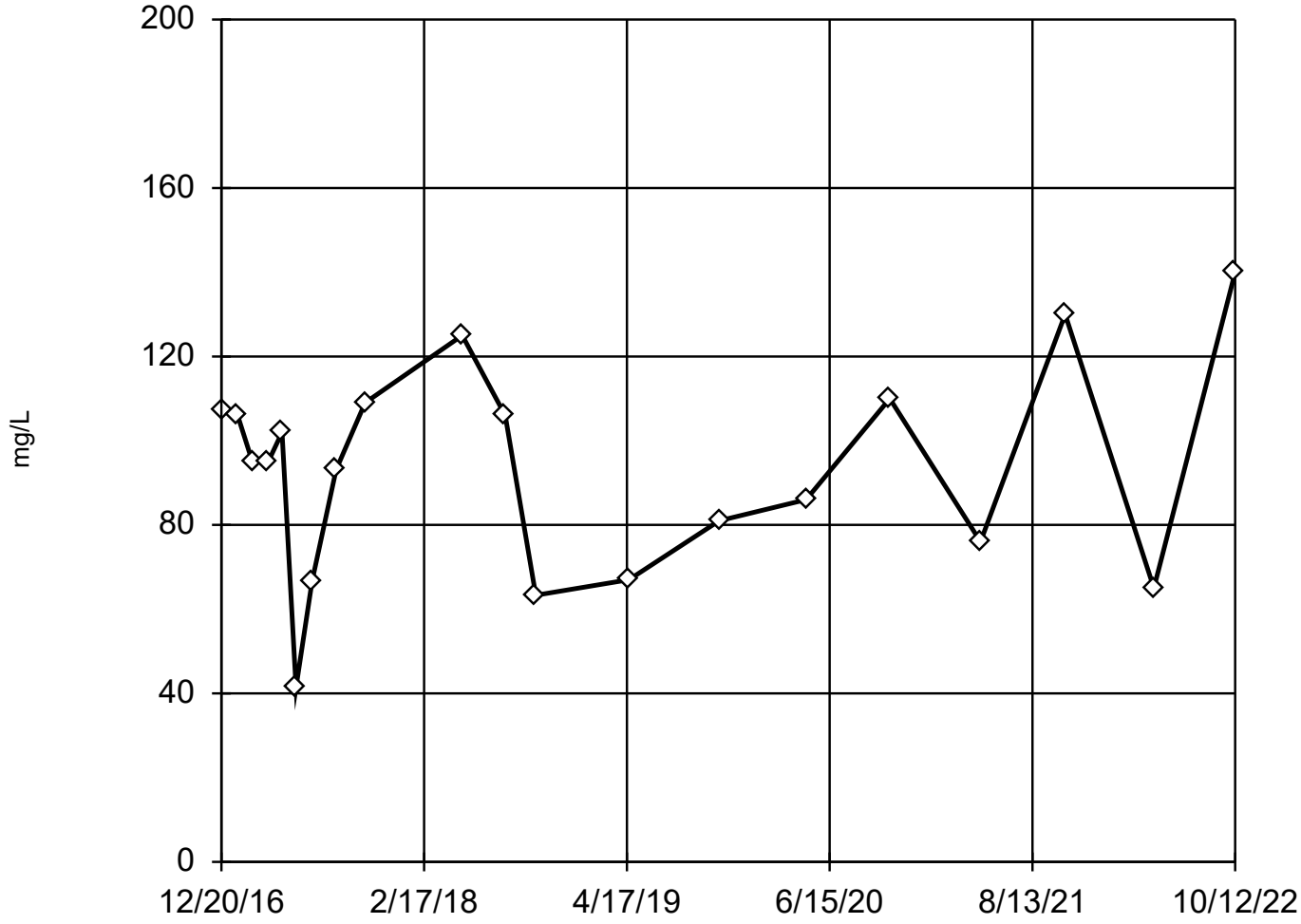
Constituent: Calcium (mg/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	137
1/23/2017	140
2/23/2017	148
3/28/2017	144
4/26/2017	112
5/25/2017	106
6/28/2017	136
8/17/2017	142
10/17/2017	139
5/8/2018	155
8/6/2018	154
10/9/2018	163
4/22/2019	130
10/28/2019	160
4/27/2020	140
10/19/2020	150
4/27/2021	130
10/21/2021	160
4/25/2022	180
10/12/2022	170

Dixon's Outlier Test

MW-302 (bg)



n = 20

No statistical outliers.
Testing for 1 low outlier.
Mean = 93.23.
Std. Dev. = 25.08.
41.4: c = 0.2823
tabl = 0.45.
Alpha = 0.05.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9536
Critical = 0.863
The distribution was found to be normally distrib-uted.

Constituent: Calcium Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

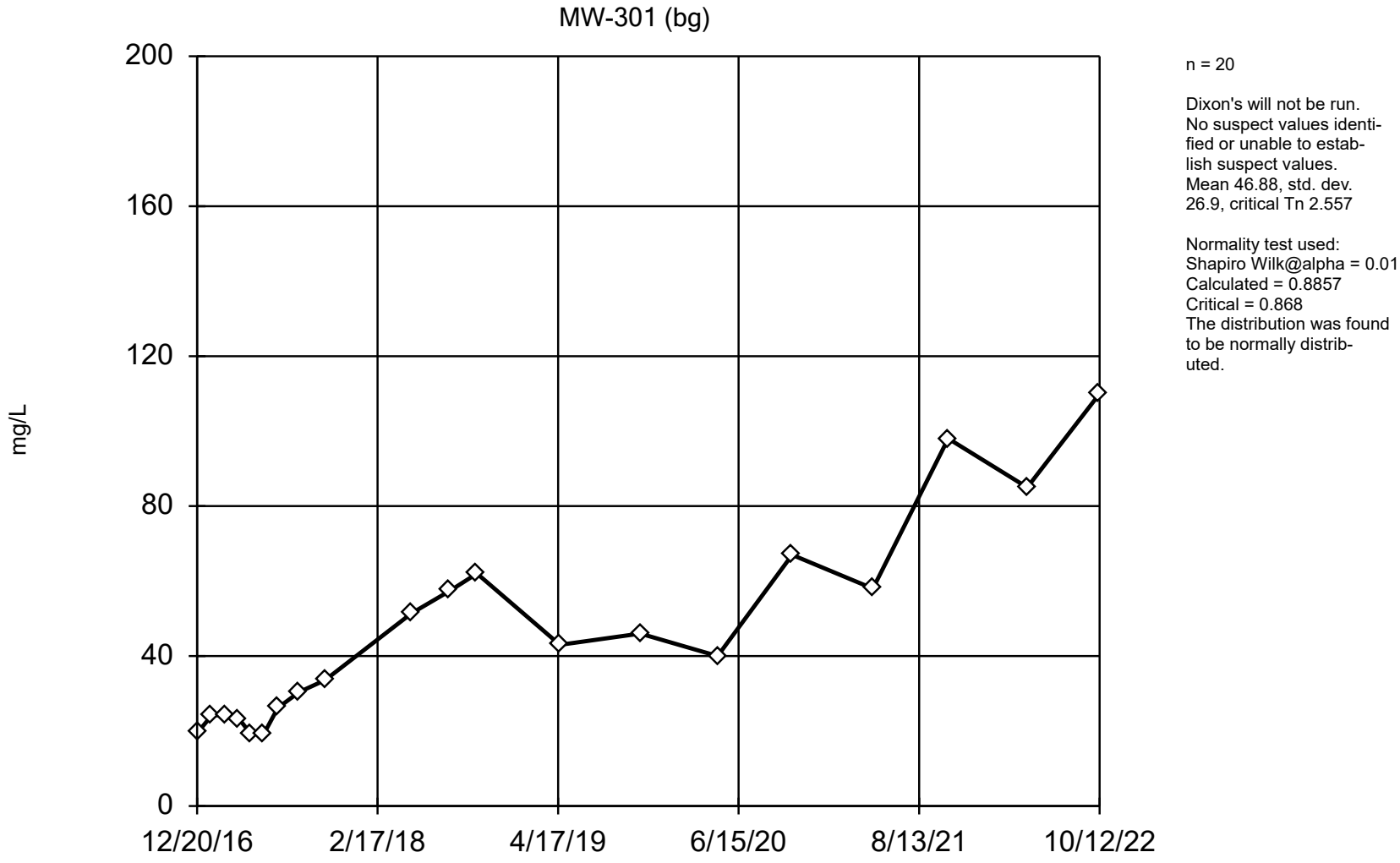
Dixon's Outlier Test

Constituent: Calcium (mg/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	107
1/23/2017	106
2/23/2017	95
3/28/2017	95
4/26/2017	102
5/25/2017	41.4
6/28/2017	66.7
8/17/2017	93.1
10/17/2017	109
5/8/2018	125
8/6/2018	106
10/9/2018	63.3
4/22/2019	67
10/28/2019	81
4/27/2020	86
10/19/2020	110
4/27/2021	76
10/21/2021	130
4/25/2022	65
10/12/2022	140

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Chloride Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

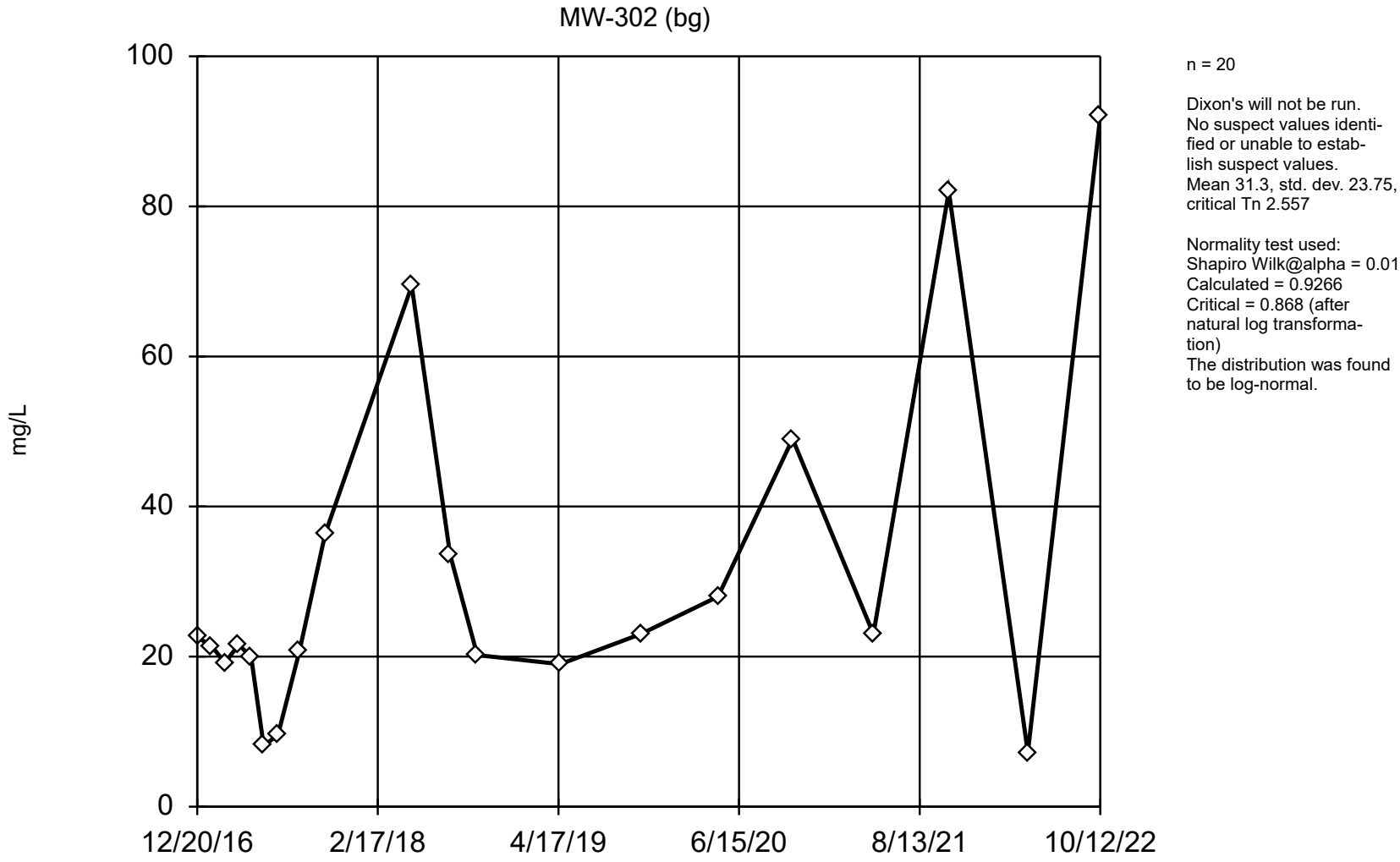
EPA 1989 Outlier Screening

Constituent: Chloride (mg/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	19.5
1/23/2017	24.1
2/23/2017	24.4
3/28/2017	23.3
4/26/2017	19.2
5/25/2017	19.1
6/28/2017	26.2
8/17/2017	30.4
10/17/2017	33.6
5/8/2018	51.4
8/6/2018	57.4
10/9/2018	62
4/22/2019	43
10/28/2019	46
4/27/2020	40
10/19/2020	67
4/27/2021	58
10/21/2021	98
4/25/2022	85
10/12/2022	110

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Chloride Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

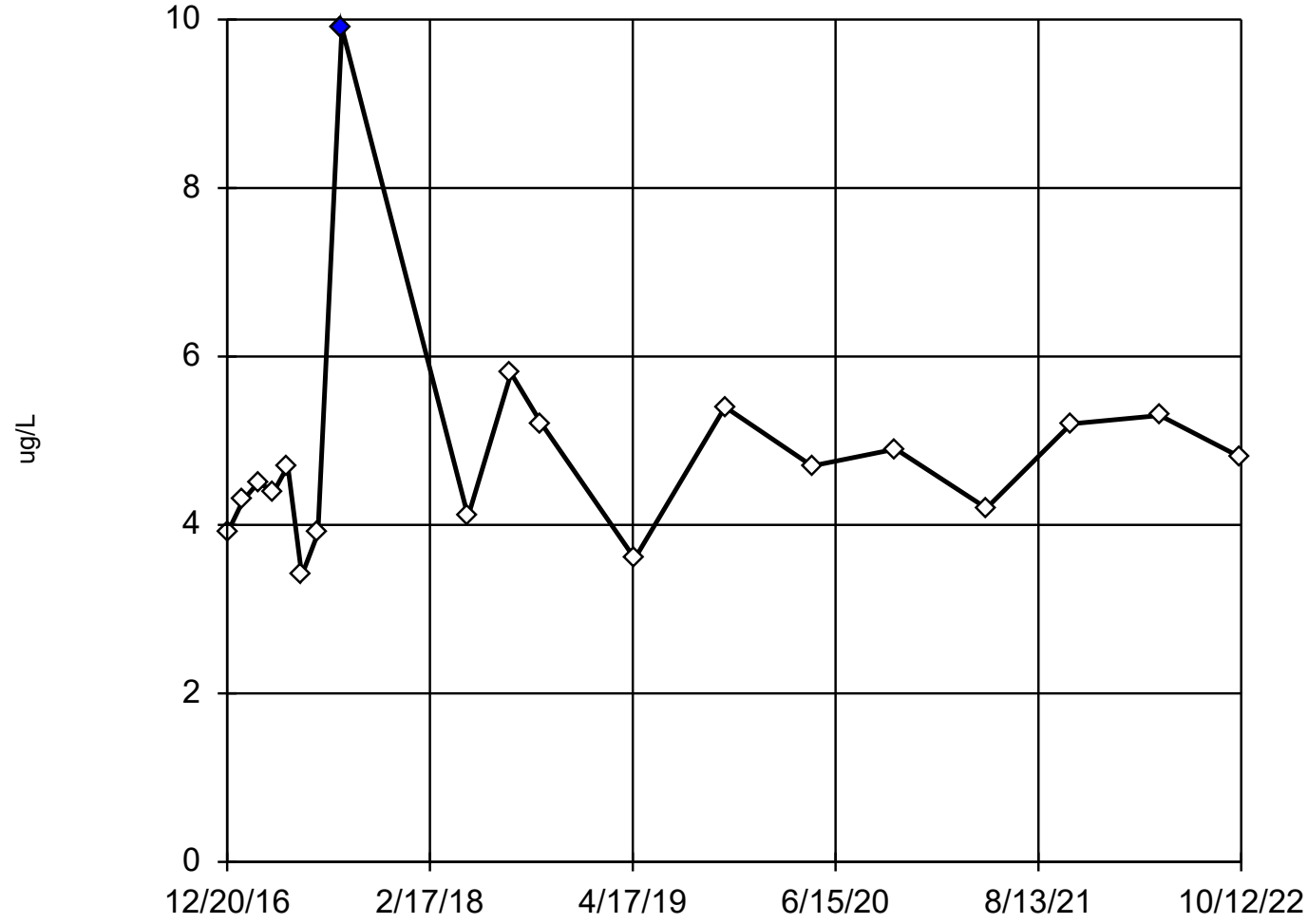
Constituent: Chloride (mg/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	22.6
1/23/2017	21.4
2/23/2017	19.2
3/28/2017	21.6
4/26/2017	19.9
5/25/2017	8.1
6/28/2017	9.6
8/17/2017	20.7
10/17/2017	36.4
5/8/2018	69.4
8/6/2018	33.6
10/9/2018	20.2
4/22/2019	19
10/28/2019	23
4/27/2020	28
10/19/2020	49
4/27/2021	23
10/21/2021	82
4/25/2022	7.2
10/12/2022	92

Dixon's Outlier Test

MW-301 (bg)



n = 19

Statistical outlier is drawn as solid.
Testing for 1 high outlier.
Mean = 4.853.
Std. Dev. = 1.38.
9.9: c = 0.75
tabl = 0.462.
Alpha = 0.05.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9838
Critical = 0.858
The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Chromium Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

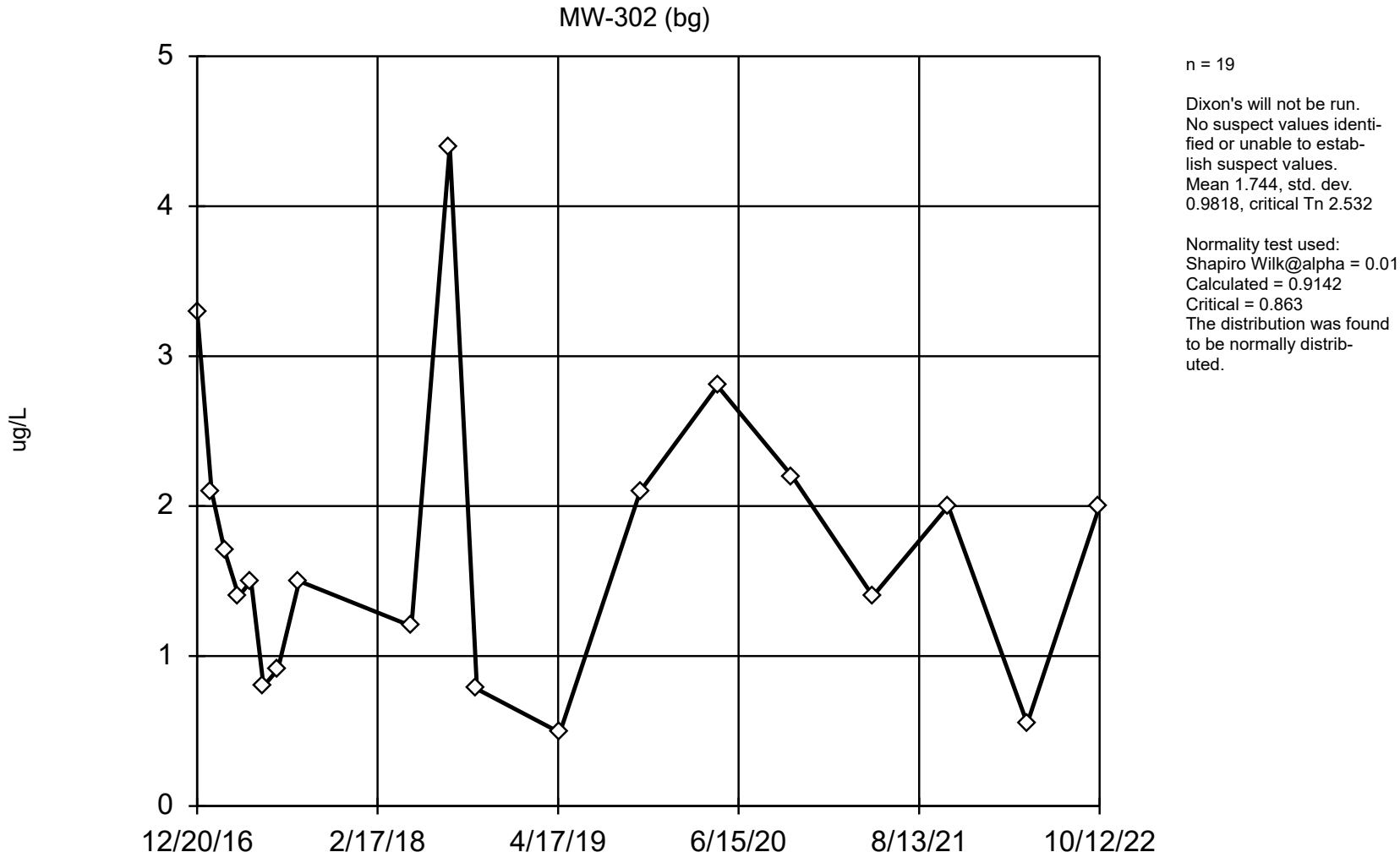
Dixon's Outlier Test

Constituent: Chromium (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	3.9
1/23/2017	4.3
2/23/2017	4.5
3/28/2017	4.4
4/26/2017	4.7
5/25/2017	3.4
6/28/2017	3.9
8/17/2017	9.9 (O)
5/8/2018	4.1
8/6/2018	5.8
10/9/2018	5.2
4/22/2019	3.6 (J)
10/28/2019	5.4
4/27/2020	4.7 (J)
10/19/2020	4.9 (J)
4/27/2021	4.2 (J)
10/21/2021	5.2
4/25/2022	5.3
10/12/2022	4.8 (J)

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Chromium Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

Constituent: Chromium (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

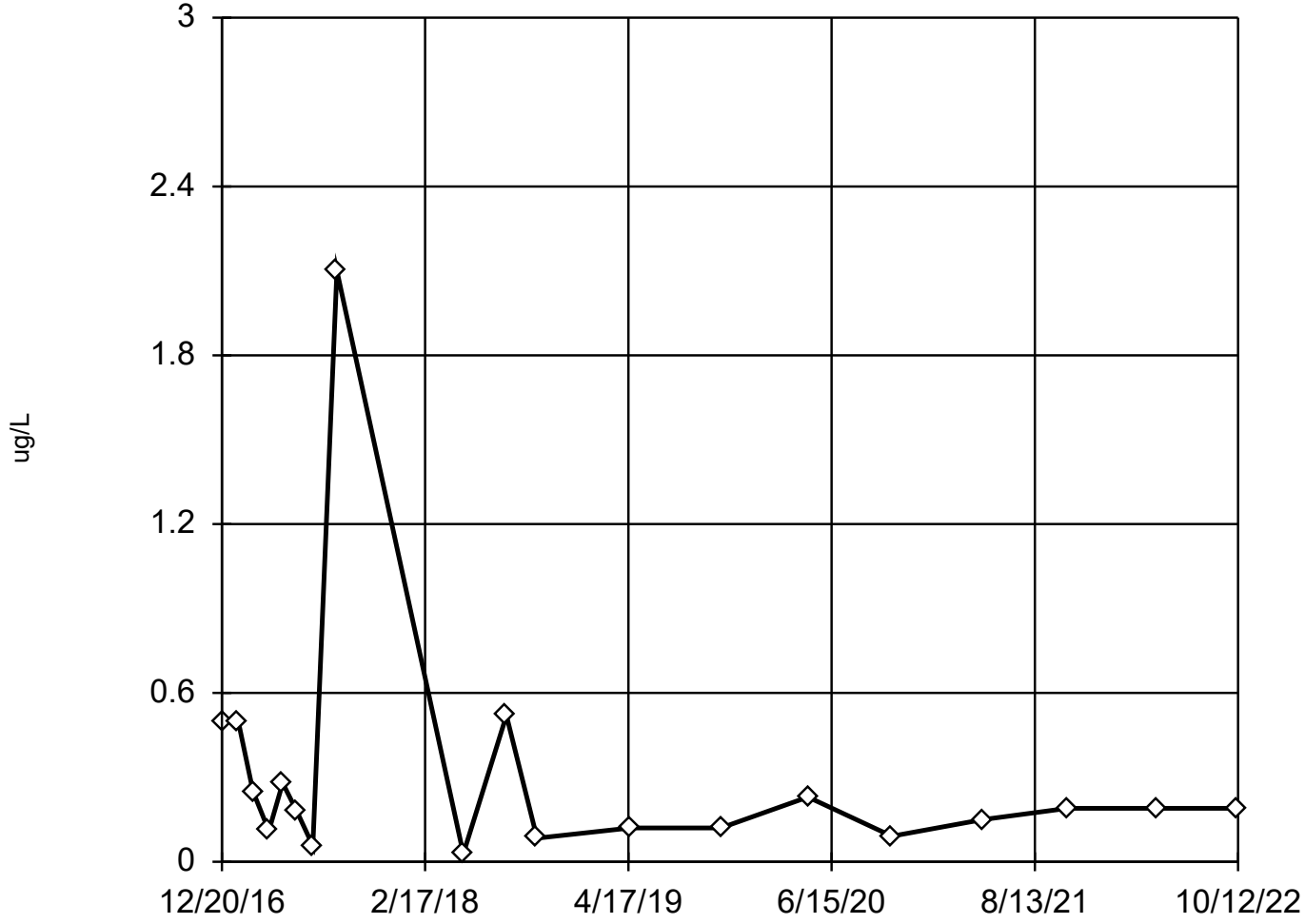
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	3.3
1/23/2017	2.1
2/23/2017	1.7
3/28/2017	1.4
4/26/2017	1.5
5/25/2017	0.8 (J)
6/28/2017	0.91 (J)
8/17/2017	1.5
5/8/2018	1.2
8/6/2018	4.4
10/9/2018	0.78 (J)
4/22/2019	<0.98 (U)
10/28/2019	2.1 (J)
4/27/2020	2.8 (J)
10/19/2020	2.2 (J)
4/27/2021	1.4 (J)
10/21/2021	2 (J)
4/25/2022	<1.1 (U)
10/12/2022	2 (J)

ND substitution: RL or RL/2 if <15% NDs.

Dixon's Outlier Test

MW-301 (bg)



n = 19

No statistical outliers.
Testing for 1 high outlier.
Mean = 0.31.
Std. Dev. = 0.4578.
2.1: c = 0.4458
tabl = 0.462.
Alpha = 0.05.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9591
Critical = 0.858 (after natural log transformation)
The distribution was found to be log-normal.

Constituent: Cobalt Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Dixon's Outlier Test

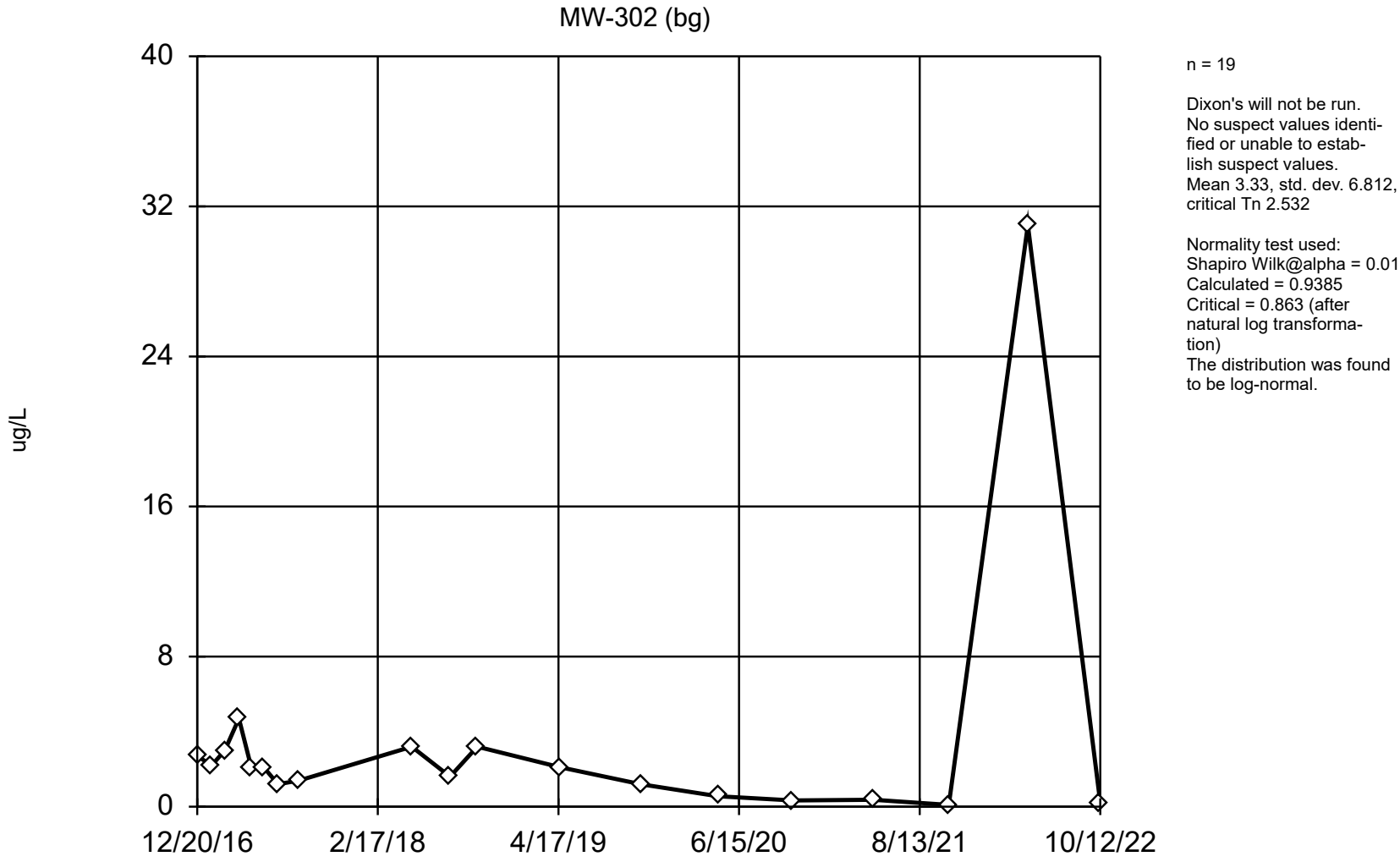
Constituent: Cobalt (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	<0.5 (U)
1/23/2017	<0.5 (U)
2/23/2017	0.25 (J)
3/28/2017	0.11 (J)
4/26/2017	0.28 (J)
5/25/2017	0.18 (J)
6/28/2017	0.057 (J)
8/17/2017	2.1
5/8/2018	0.028 (J)
8/6/2018	0.52 (J)
10/9/2018	0.084 (J)
4/22/2019	0.12 (J)
10/28/2019	0.12 (J)
4/27/2020	0.23 (J)
10/19/2020	<0.091 (U)
4/27/2021	0.15 (J)
10/21/2021	<0.19 (U)
4/25/2022	<0.19 (U)
10/12/2022	<0.19 (U)

ND substitution: RL or RL/2 if <15% NDs.

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Cobalt Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

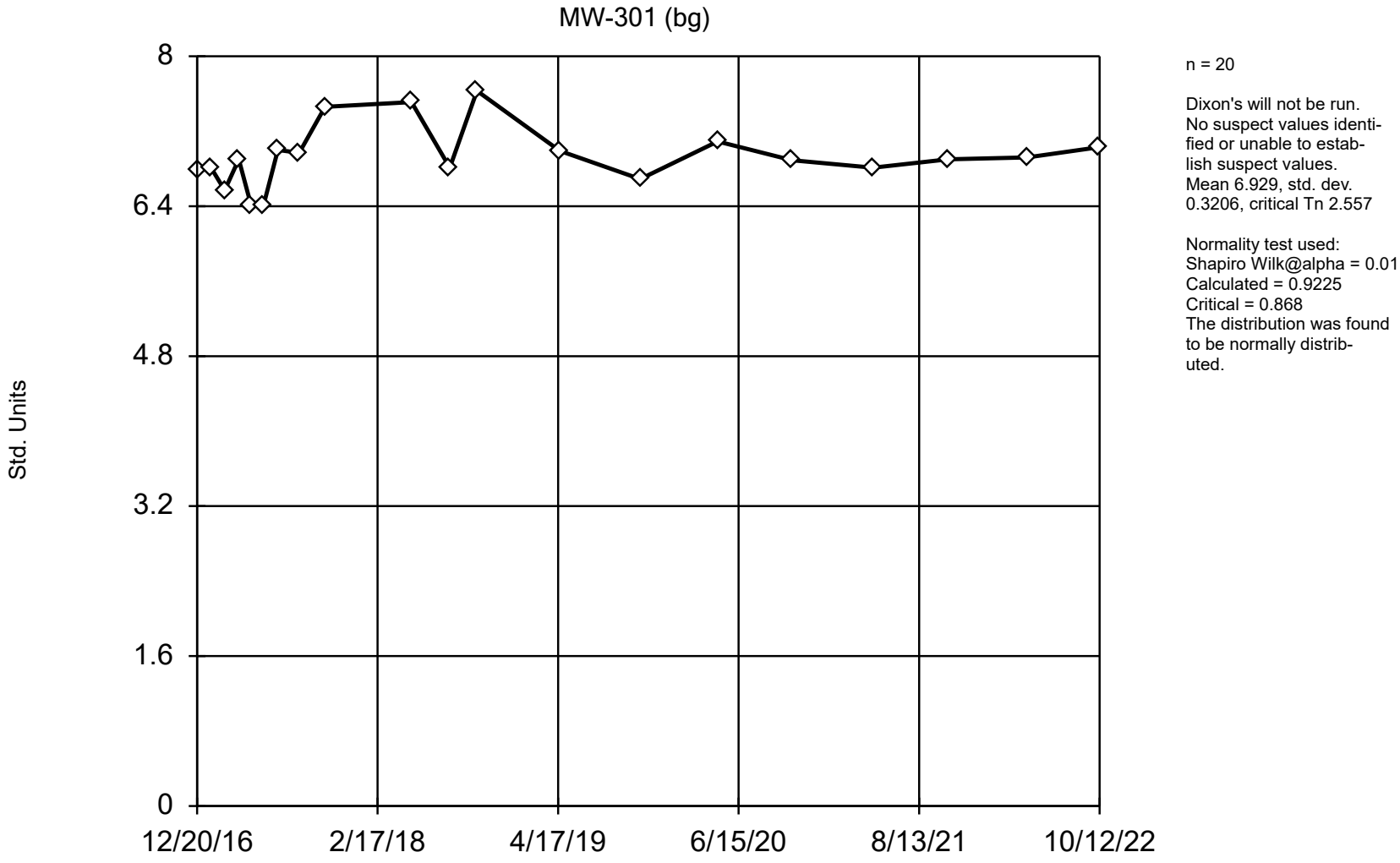
Constituent: Cobalt (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	2.7
1/23/2017	2.2
2/23/2017	3
3/28/2017	4.7
4/26/2017	2.1
5/25/2017	2.1
6/28/2017	1.2
8/17/2017	1.4
5/8/2018	3.2
8/6/2018	1.6
10/9/2018	3.2
4/22/2019	2.1
10/28/2019	1.2
4/27/2020	0.56
10/19/2020	0.33 (J)
4/27/2021	0.37 (J)
10/21/2021	<0.19 (U)
4/25/2022	31
10/12/2022	0.21 (J)

ND substitution: RL or RL/2 if <15% NDs.

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Field pH Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

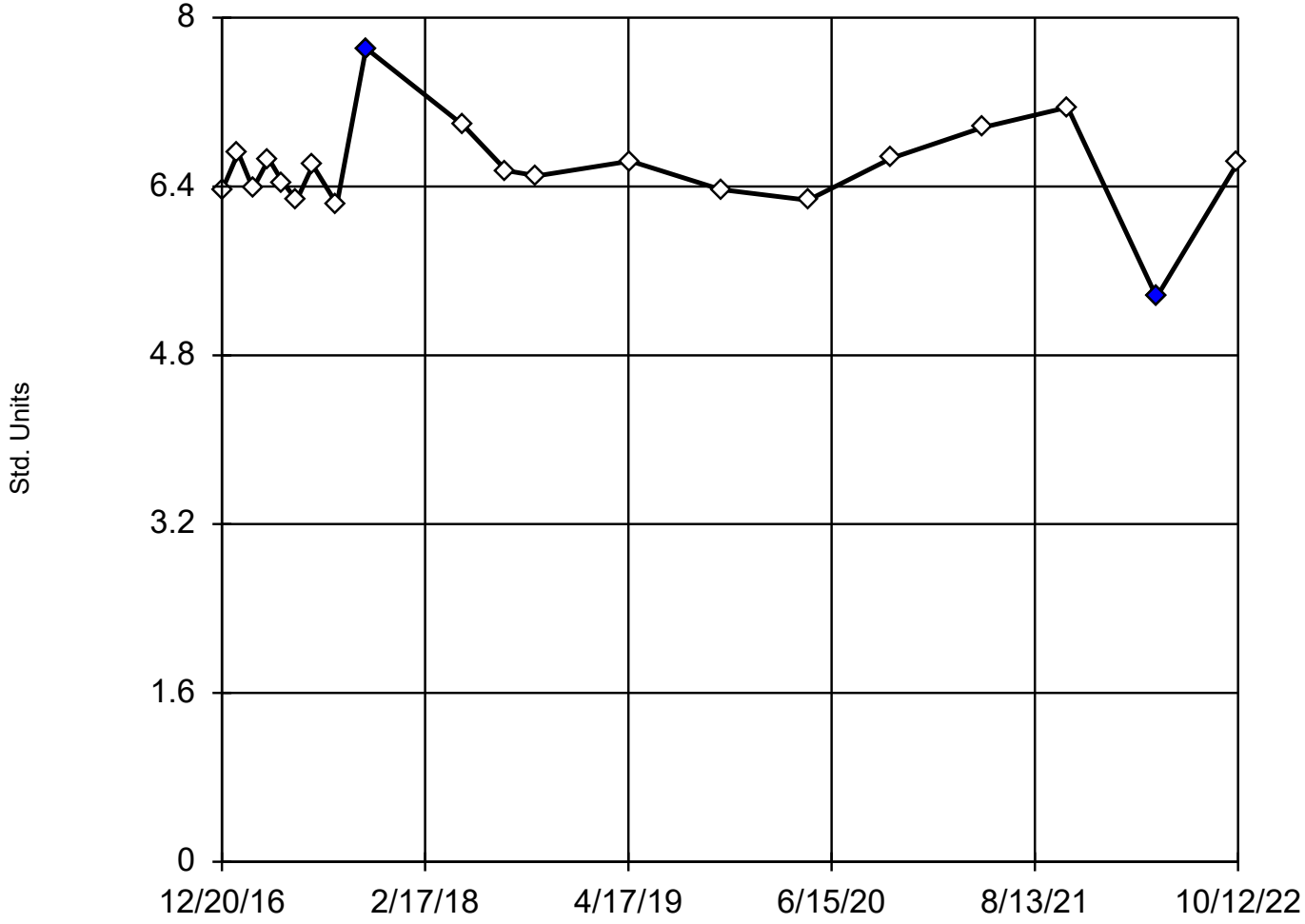
Constituent: Field pH (Std. Units) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	6.78
1/23/2017	6.8
2/23/2017	6.57
3/28/2017	6.9
4/26/2017	6.41
5/25/2017	6.41
6/28/2017	7
8/17/2017	6.97
10/17/2017	7.46
5/8/2018	7.51
8/6/2018	6.81
10/9/2018	7.63
4/22/2019	6.99
10/28/2019	6.69
4/27/2020	7.09
10/19/2020	6.89
4/27/2021	6.81
10/21/2021	6.9
4/25/2022	6.92
10/12/2022	7.03

Dixon's Outlier Test

MW-302 (bg)



n = 20

Statistical outliers are drawn as solid.
Testing for 1 high and 1 low outliers.
Mean = 6.572.
Std. Dev. = 0.4549.
7.71: c = 0.5069
tabl = 0.45.
5.35: c = 0.5644
tabl = 0.45.
Alpha = 0.05.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9361
Critical = 0.858
The distribution, after removal of suspect values, was found to be normally distributed.

Constituent: Field pH Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

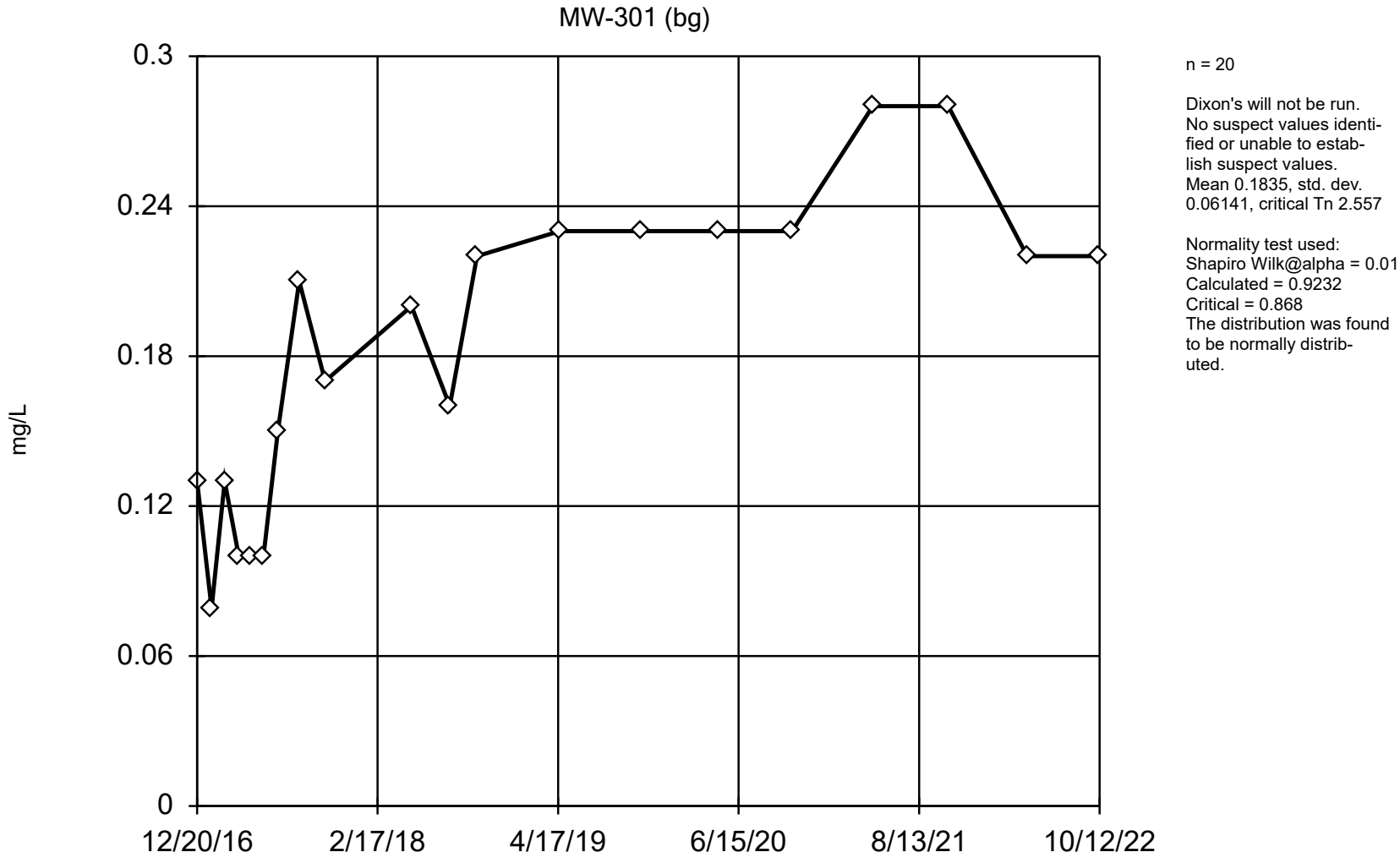
Dixon's Outlier Test

Constituent: Field pH (Std. Units) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	6.36
1/23/2017	6.72
2/23/2017	6.38
3/28/2017	6.66
4/26/2017	6.44
5/25/2017	6.27
6/28/2017	6.6
8/17/2017	6.23
10/17/2017	7.71 (O)
5/8/2018	6.98
8/6/2018	6.55
10/9/2018	6.5
4/22/2019	6.64
10/28/2019	6.37
4/27/2020	6.27
10/19/2020	6.67
4/27/2021	6.96
10/21/2021	7.15
4/25/2022	5.35 (O)
10/12/2022	6.63

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Fluoride Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

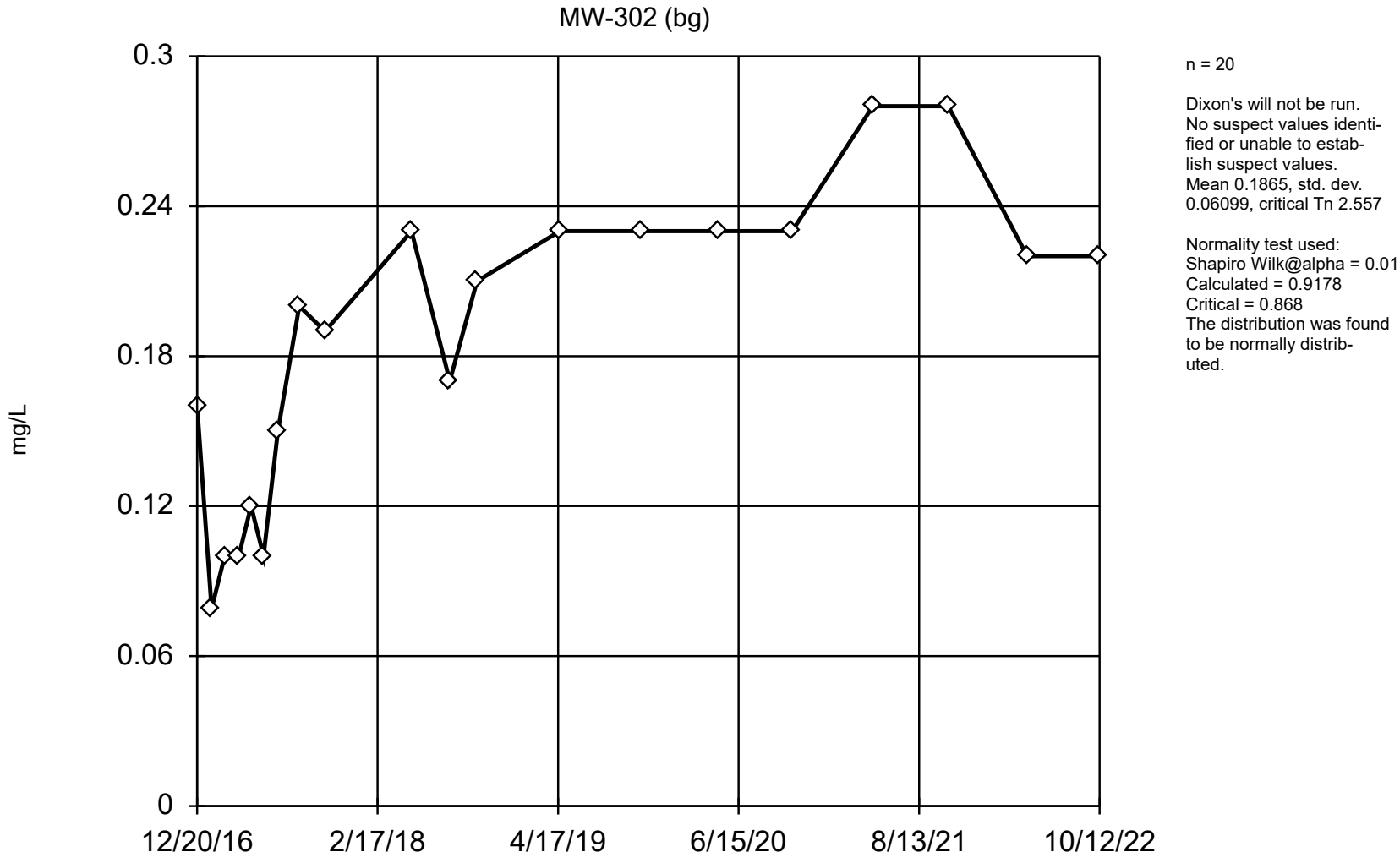
Constituent: Fluoride (mg/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	0.13 (J)
1/23/2017	0.079 (J)
2/23/2017	0.13 (J)
3/28/2017	0.1 (J)
4/26/2017	0.1 (J)
5/25/2017	<0.1 (U)
6/28/2017	0.15 (J)
8/17/2017	0.21
10/17/2017	0.17 (J)
5/8/2018	0.2 (J)
8/6/2018	0.16 (J)
10/9/2018	0.22
4/22/2019	<0.23 (U)
10/28/2019	<0.23 (U)
4/27/2020	<0.23 (U)
10/19/2020	<0.23 (U)
4/27/2021	<0.28 (U)
10/21/2021	<0.28 (U)
4/25/2022	<0.22 (U)
10/12/2022	<0.22 (U)

ND substitution: RL or RL/2 if <15% NDs.

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Fluoride Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

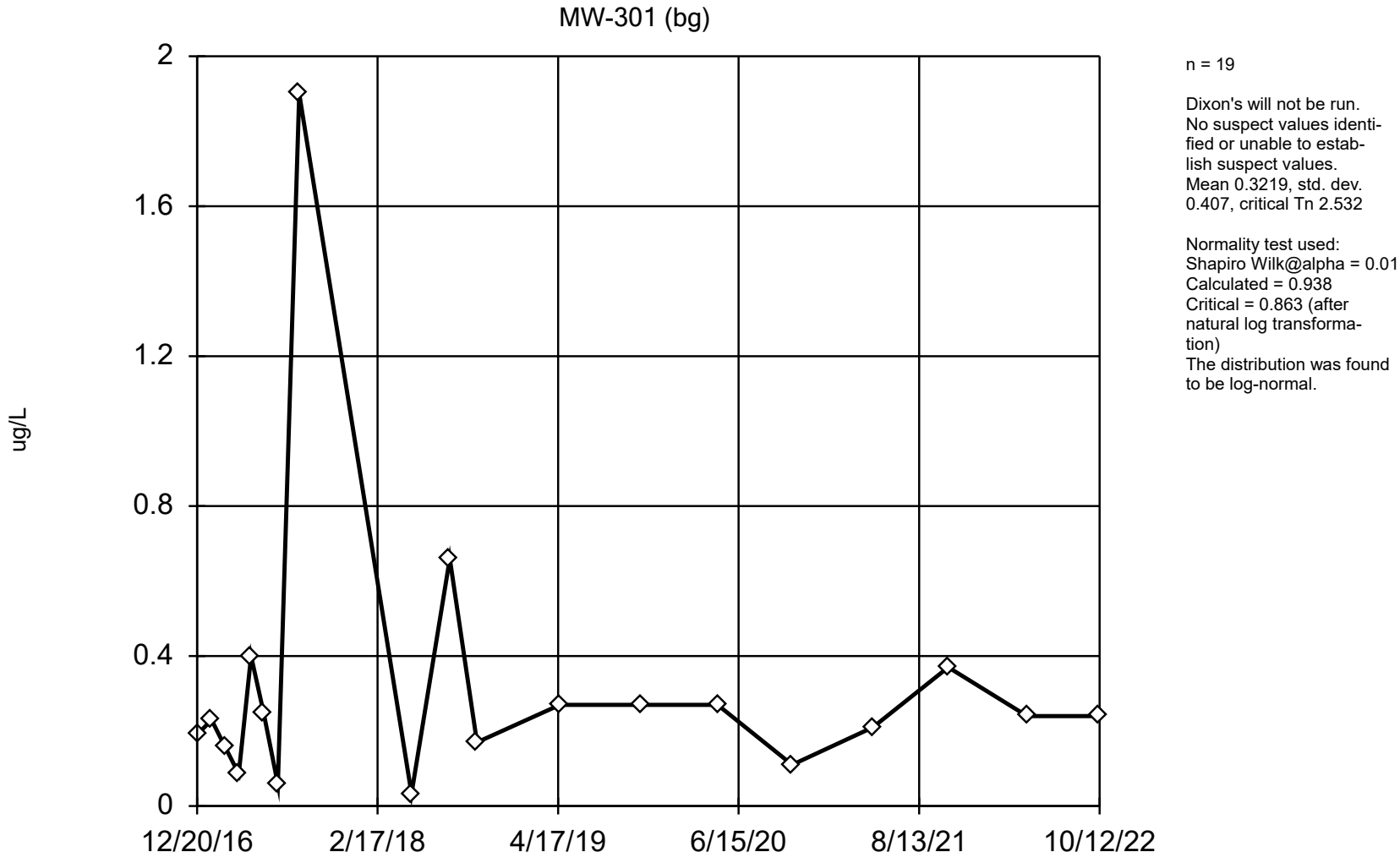
Constituent: Fluoride (mg/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	0.16 (J)
1/23/2017	0.079 (J)
2/23/2017	0.1 (J)
3/28/2017	<0.1 (U)
4/26/2017	0.12 (J)
5/25/2017	<0.1 (U)
6/28/2017	0.15 (J)
8/17/2017	0.2 (J)
10/17/2017	0.19 (J)
5/8/2018	0.23
8/6/2018	0.17 (J)
10/9/2018	0.21
4/22/2019	<0.23 (U)
10/28/2019	<0.23 (U)
4/27/2020	<0.23 (U)
10/19/2020	<0.23 (U)
4/27/2021	<0.28 (U)
10/21/2021	<0.28 (U)
4/25/2022	<0.22 (U)
10/12/2022	<0.22 (U)

ND substitution: RL or RL/2 if <15% NDs.

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Lead Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

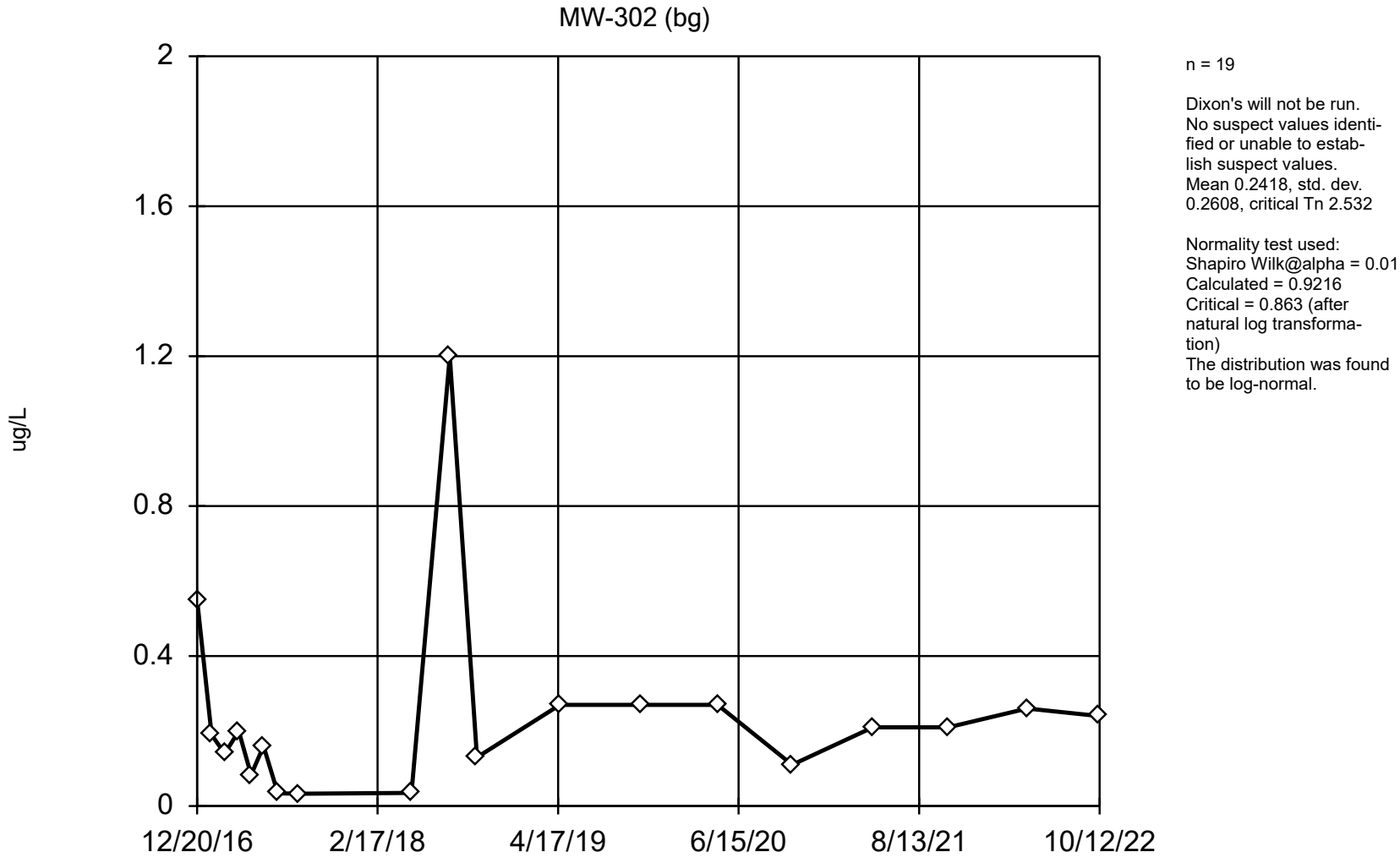
Constituent: Lead (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	<0.19 (U)
1/23/2017	0.23 (J)
2/23/2017	0.16 (J)
3/28/2017	0.086 (J)
4/26/2017	0.4 (J)
5/25/2017	0.25 (J)
6/28/2017	0.058 (J)
8/17/2017	1.9
5/8/2018	<0.033 (U)
8/6/2018	0.66 (J)
10/9/2018	0.17 (J)
4/22/2019	<0.27 (U)
10/28/2019	<0.27 (U)
4/27/2020	0.27 (J)
10/19/2020	<0.11 (U)
4/27/2021	<0.21 (U)
10/21/2021	0.37 (J)
4/25/2022	<0.24 (U)
10/12/2022	<0.24 (U)

ND substitution: RL or RL/2 if <15% NDs.

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Lead Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

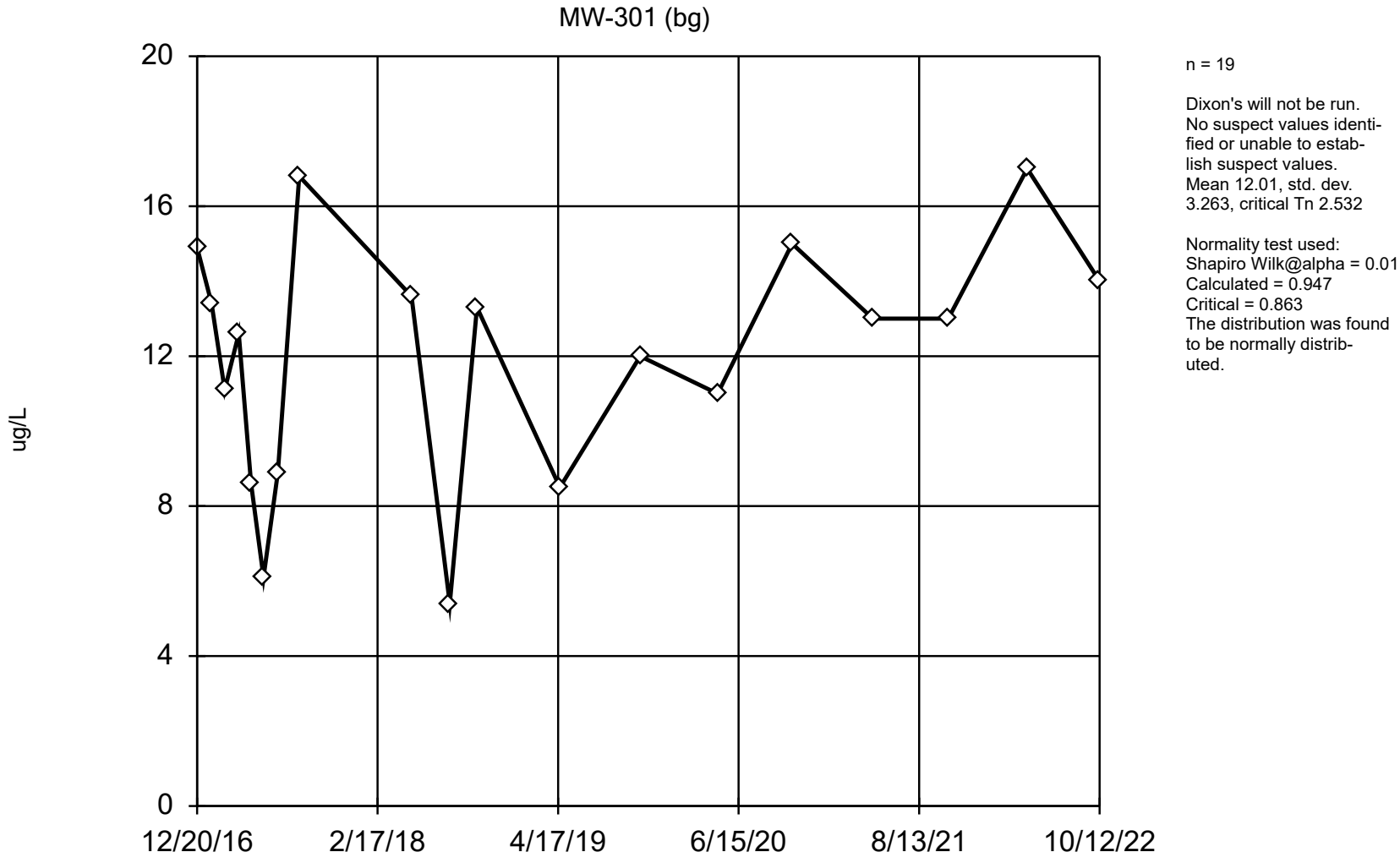
Constituent: Lead (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	0.55 (J)
1/23/2017	<0.19 (U)
2/23/2017	0.14 (J)
3/28/2017	0.2 (J)
4/26/2017	0.083 (J)
5/25/2017	0.16 (J)
6/28/2017	0.034 (J)
8/17/2017	<0.033 (U)
5/8/2018	0.035 (J)
8/6/2018	1.2
10/9/2018	0.13 (J)
4/22/2019	<0.27 (U)
10/28/2019	<0.27 (U)
4/27/2020	<0.27 (U)
10/19/2020	<0.11 (U)
4/27/2021	<0.21 (U)
10/21/2021	<0.21 (U)
4/25/2022	0.26 (J)
10/12/2022	<0.24 (U)

ND substitution: RL or RL/2 if <15% NDs.

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Lithium Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

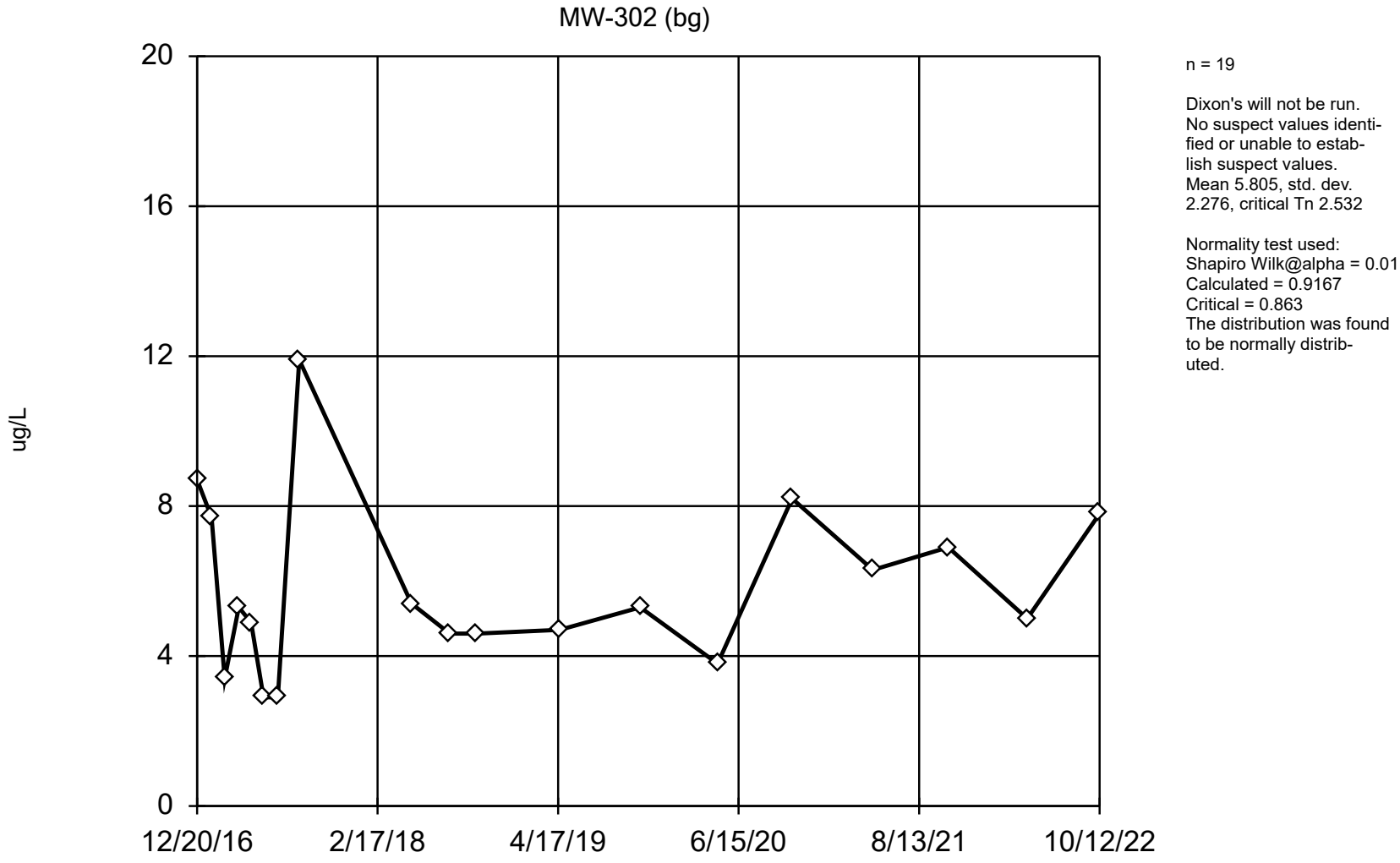
EPA 1989 Outlier Screening

Constituent: Lithium (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	14.9
1/23/2017	13.4
2/23/2017	11.1
3/28/2017	12.6
4/26/2017	8.6 (J)
5/25/2017	6.1 (J)
6/28/2017	8.9 (J)
8/17/2017	16.8
5/8/2018	13.6
8/6/2018	5.4 (J)
10/9/2018	13.3
4/22/2019	8.5 (J)
10/28/2019	12
4/27/2020	11
10/19/2020	15
4/27/2021	13
10/21/2021	13
4/25/2022	17
10/12/2022	14

EPA Screening (suspected outliers for Dixon's Test)



n = 19

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Mean 5.805, std. dev. 2.276, critical Tn 2.532

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9167
Critical = 0.863
The distribution was found to be normally distributed.

Constituent: Lithium Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

Constituent: Lithium (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

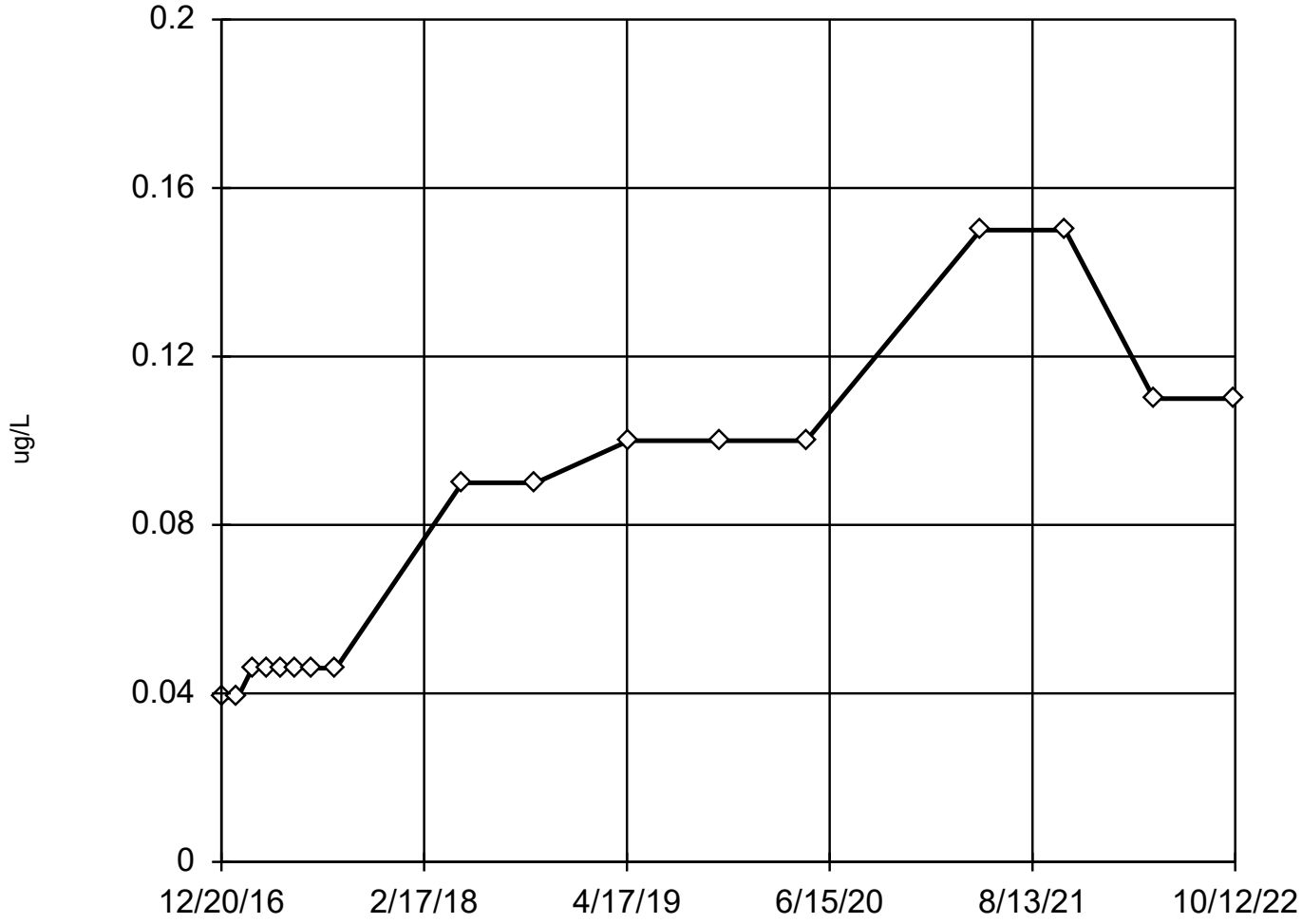
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	8.7 (J)
1/23/2017	7.7 (J)
2/23/2017	3.4 (J)
3/28/2017	5.3 (J)
4/26/2017	4.9 (J)
5/25/2017	<2.9 (U)
6/28/2017	<2.9 (U)
8/17/2017	11.9
5/8/2018	5.4 (J)
8/6/2018	<4.6 (U)
10/9/2018	4.6 (J)
4/22/2019	4.7 (J)
10/28/2019	5.3 (J)
4/27/2020	3.8 (J)
10/19/2020	8.2 (J)
4/27/2021	6.3 (J)
10/21/2021	6.9 (J)
4/25/2022	5 (J)
10/12/2022	7.8 (J)

ND substitution: RL or RL/2 if <15% NDs.

Tukey's Outlier Screening

MW-301 (bg)



n = 17

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

Data were square root transformed to achieve best W statistic (graph shown in original units).

High cutoff = 0.4256, low cutoff = -0.01298, based on IQR multiplier of 3.

Constituent: Mercury Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tukey's Outlier Screening

Constituent: Mercury (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

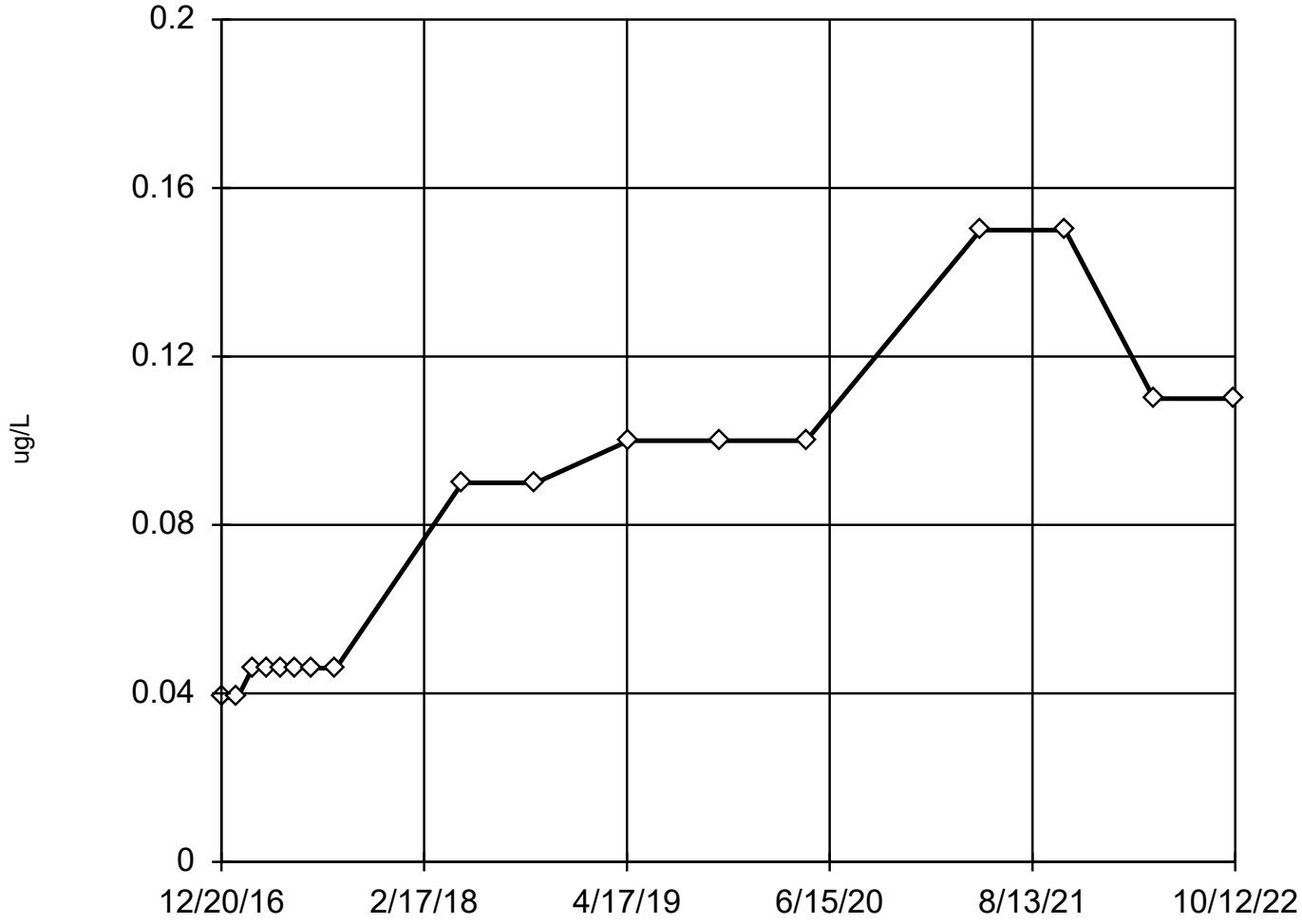
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	<0.039 (U)
1/23/2017	<0.039 (U)
2/23/2017	<0.046 (U)
3/28/2017	<0.046 (U)
4/26/2017	<0.046 (U)
5/25/2017	<0.046 (U)
6/28/2017	<0.046 (U)
8/17/2017	<0.046 (U)
5/8/2018	<0.09 (U)
10/9/2018	<0.09 (U)
4/22/2019	<0.1 (U)
10/28/2019	<0.1 (U)
4/27/2020	<0.1 (U)
4/27/2021	<0.15 (U)
10/21/2021	<0.15 (U)
4/25/2022	<0.11 (U)
10/12/2022	<0.11 (U)

ND substitution: RL or RL/2 if <15% NDs.

Tukey's Outlier Screening

MW-302 (bg)



n = 17

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

Data were square root transformed to achieve best W statistic (graph shown in original units).

High cutoff = 0.4256, low cutoff = -0.01298, based on IQR multiplier of 3.

Constituent: Mercury Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tukey's Outlier Screening

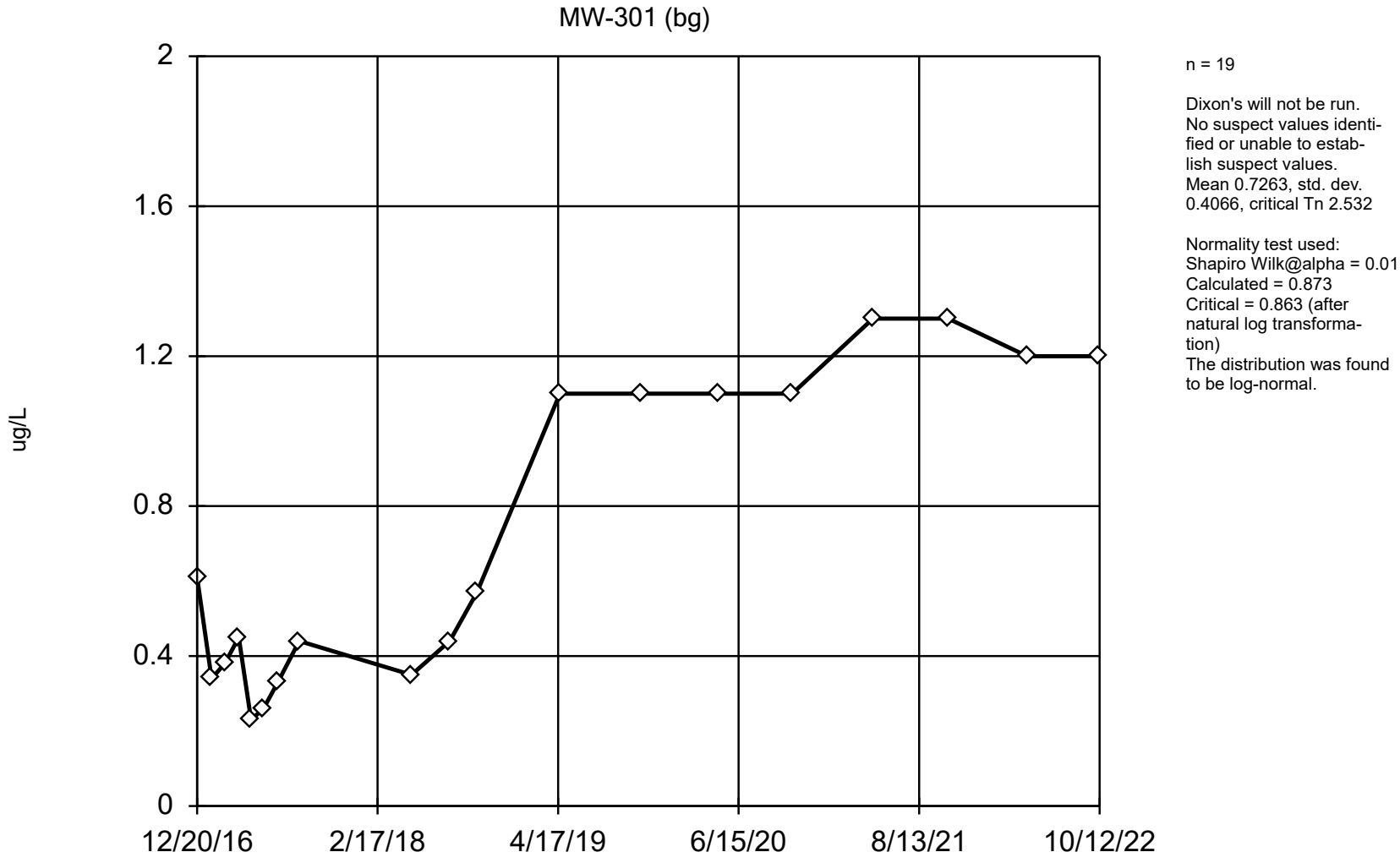
Constituent: Mercury (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	<0.039 (U)
1/23/2017	<0.039 (U)
2/23/2017	<0.046 (U)
3/28/2017	<0.046 (U)
4/26/2017	<0.046 (U)
5/25/2017	<0.046 (U)
6/28/2017	<0.046 (U)
8/17/2017	<0.046 (U)
5/8/2018	<0.09 (U)
10/9/2018	<0.09 (U)
4/22/2019	<0.1 (U)
10/28/2019	<0.1 (U)
4/27/2020	<0.1 (U)
4/27/2021	<0.15 (U)
10/21/2021	<0.15 (U)
4/25/2022	<0.11 (U)
10/12/2022	<0.11 (U)

ND substitution: RL or RL/2 if <15% NDs.

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Molybdenum Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

Constituent: Molybdenum (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

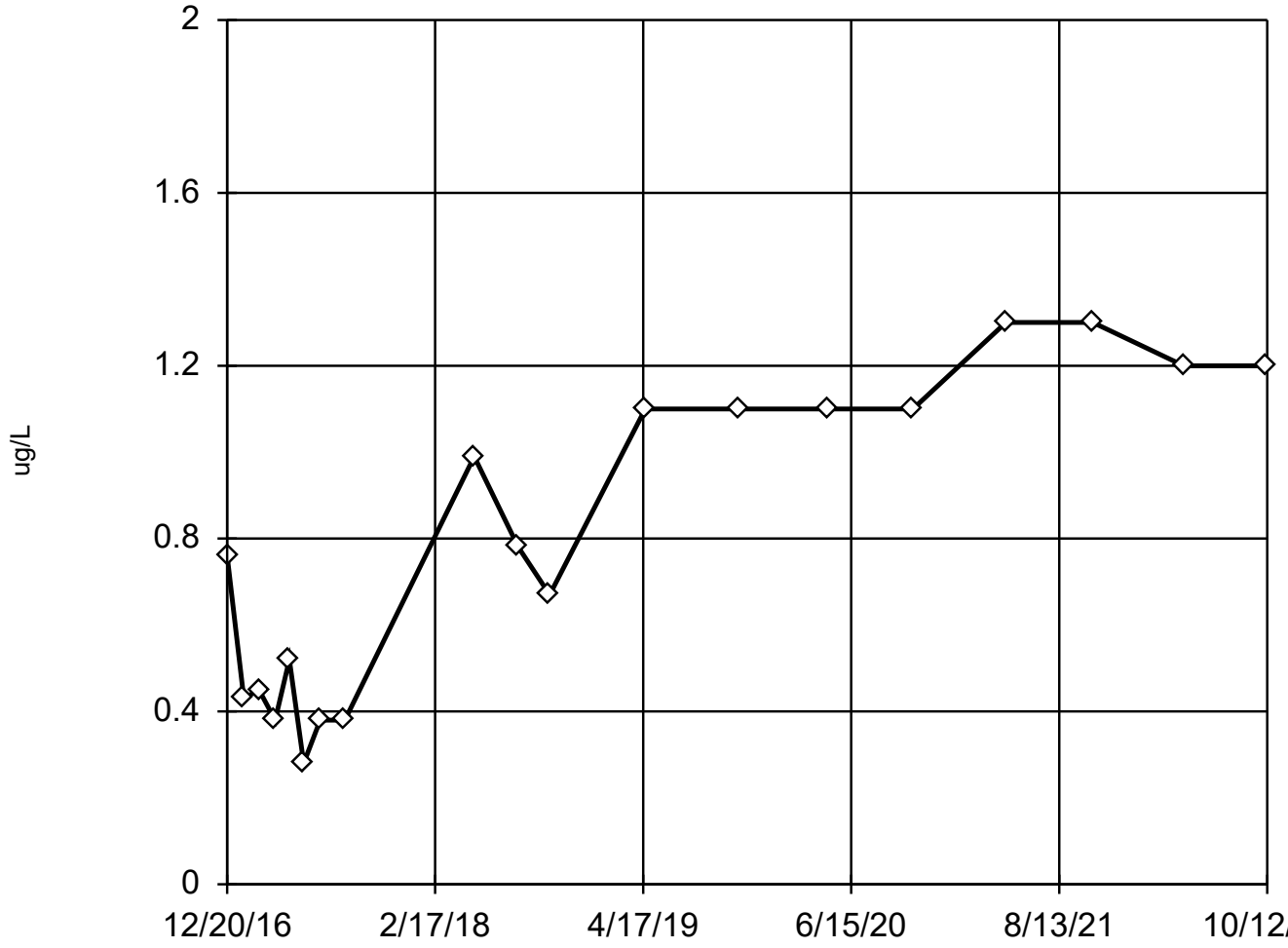
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	0.61 (J)
1/23/2017	0.34 (J)
2/23/2017	0.38 (J)
3/28/2017	0.45 (J)
4/26/2017	0.23 (J)
5/25/2017	0.26 (J)
6/28/2017	0.33 (J)
8/17/2017	0.44 (J)
5/8/2018	0.35 (J)
8/6/2018	0.44 (J)
10/9/2018	<0.57 (U)
4/22/2019	<1.1 (U)
10/28/2019	<1.1 (U)
4/27/2020	<1.1 (U)
10/19/2020	<1.1 (U)
4/27/2021	<1.3 (U)
10/21/2021	<1.3 (U)
4/25/2022	<1.2 (U)
10/12/2022	<1.2 (U)

ND substitution: RL or RL/2 if <15% NDs.

EPA Screening (suspected outliers for Dixon's Test)

MW-302 (bg)



n = 19

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Mean 0.8116, std. dev. 0.3628, critical Tn 2.532

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8829
Critical = 0.863
The distribution was found to be normally distributed.

Constituent: Molybdenum Analysis Run 1/1/2023 5:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

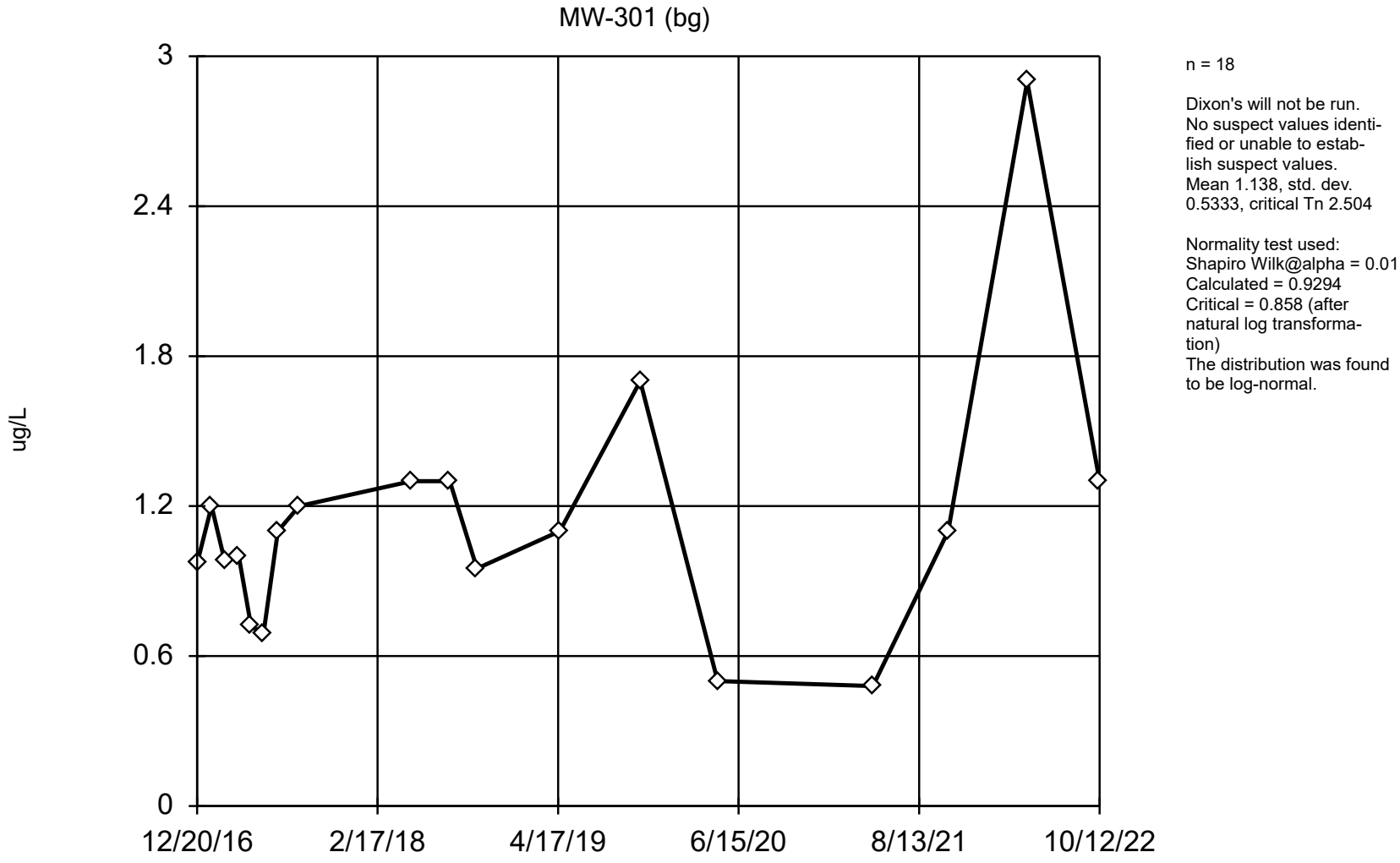
Constituent: Molybdenum (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	0.76 (J)
1/23/2017	0.43 (J)
2/23/2017	0.45 (J)
3/28/2017	0.38 (J)
4/26/2017	0.52 (J)
5/25/2017	0.28 (J)
6/28/2017	0.38 (J)
8/17/2017	0.38 (J)
5/8/2018	0.99 (J)
8/6/2018	0.78 (J)
10/9/2018	0.67 (J)
4/22/2019	<1.1 (U)
10/28/2019	<1.1 (U)
4/27/2020	<1.1 (U)
10/19/2020	<1.1 (U)
4/27/2021	<1.3 (U)
10/21/2021	<1.3 (U)
4/25/2022	<1.2 (U)
10/12/2022	<1.2 (U)

ND substitution: RL or RL/2 if <15% NDs.

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Selenium Analysis Run 1/1/2023 5:42 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

Constituent: Selenium (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

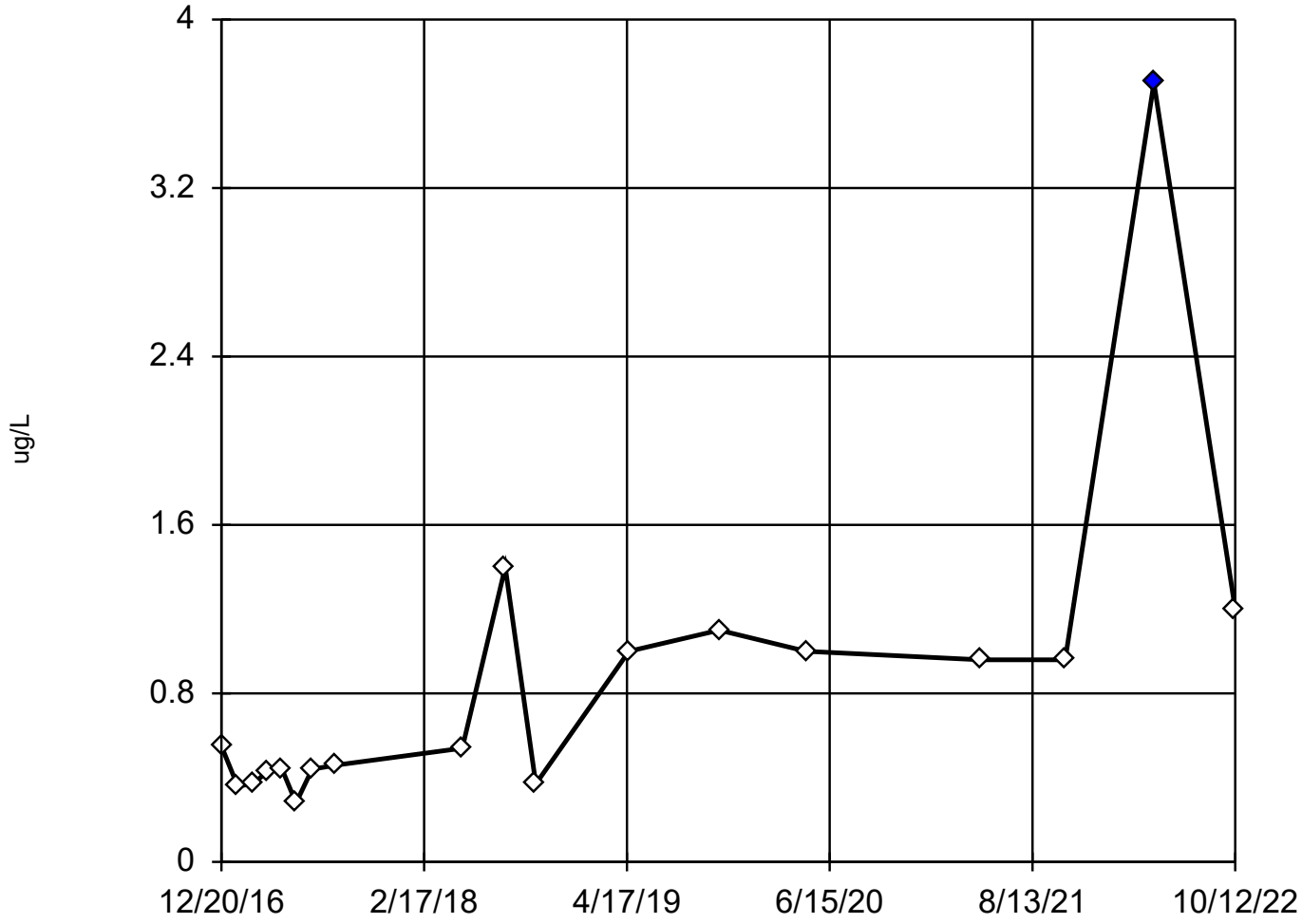
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	0.97 (J)
1/23/2017	1.2
2/23/2017	0.98 (J)
3/28/2017	1
4/26/2017	0.72 (J)
5/25/2017	0.69 (J)
6/28/2017	1.1
8/17/2017	1.2
5/8/2018	1.3
8/6/2018	1.3
10/9/2018	0.95 (J)
4/22/2019	1.1 (J)
10/28/2019	1.7 (J)
4/27/2020	<1 (U)
4/27/2021	<0.96 (U)
10/21/2021	1.1 (J)
4/25/2022	2.9 (J)
10/12/2022	1.3 (J)

ND substitution: RL or RL/2 if <15% NDs.

Dixon's Outlier Test

MW-302 (bg)



n = 18

Statistical outlier is drawn as solid.
Testing for 1 high outlier.
Mean = 0.8644.
Std. Dev. = 0.7879.
3.7 (J): c = 0.7508
tabl = 0.475.
Alpha = 0.05.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8644
Critical = 0.851
The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Selenium Analysis Run 1/1/2023 5:42 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Dixon's Outlier Test

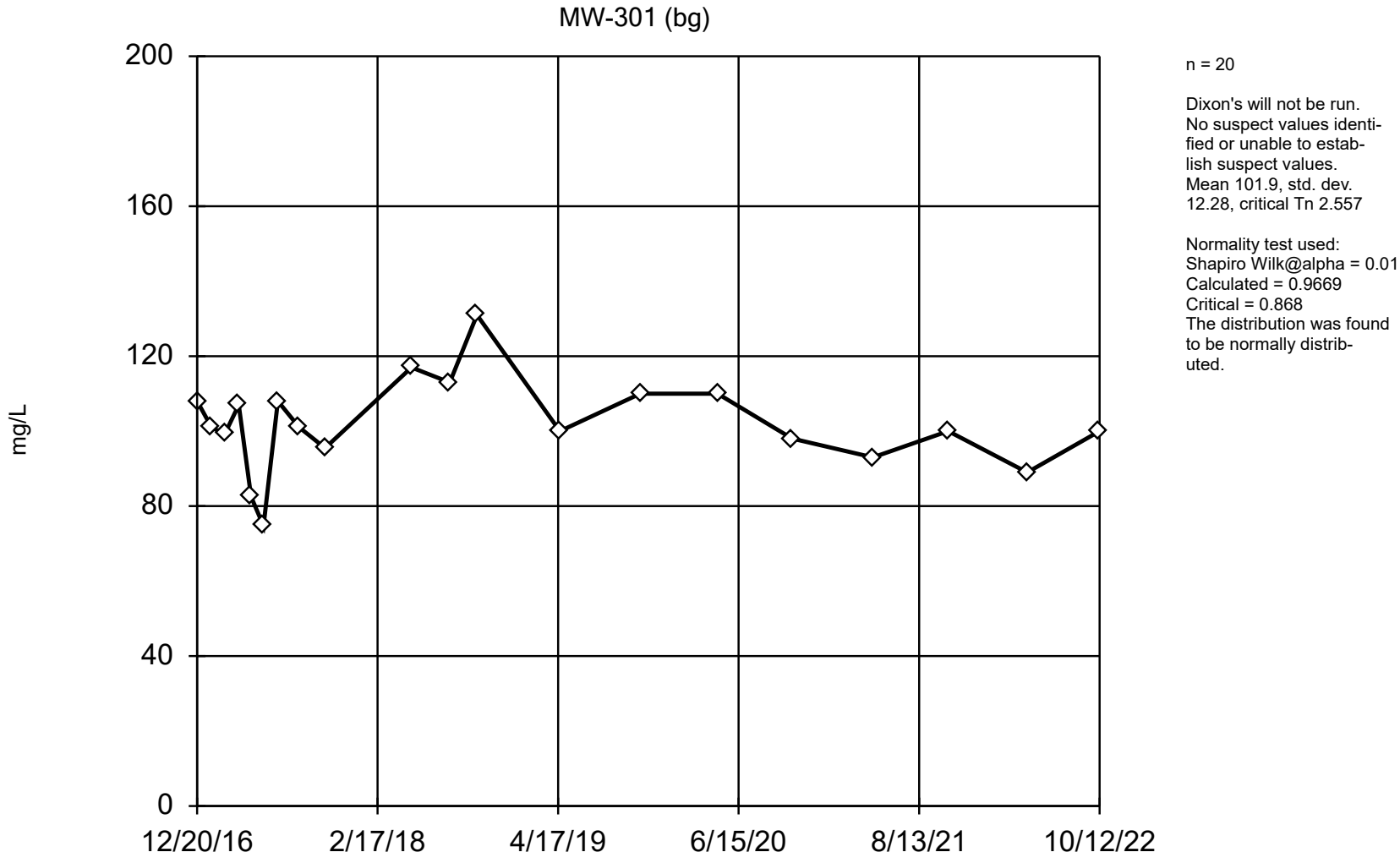
Constituent: Selenium (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	0.55 (J)
1/23/2017	0.36 (J)
2/23/2017	0.37 (J)
3/28/2017	0.43 (J)
4/26/2017	0.44 (J)
5/25/2017	0.28 (J)
6/28/2017	0.44 (J)
8/17/2017	0.46 (J)
5/8/2018	0.54 (J)
8/6/2018	1.4
10/9/2018	0.37 (J)
4/22/2019	<1 (U)
10/28/2019	1.1 (J)
4/27/2020	<1 (U)
4/27/2021	0.96 (J)
10/21/2021	<0.96 (U)
4/25/2022	3.7 (JO)
10/12/2022	1.2 (J)

ND substitution: RL or RL/2 if <15% NDs.

EPA Screening (suspected outliers for Dixon's Test)



n = 20

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Mean 101.9, std. dev. 12.28, critical Tn 2.557

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9669
Critical = 0.868
The distribution was found to be normally distributed.

Constituent: Sulfate Analysis Run 1/1/2023 5:42 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

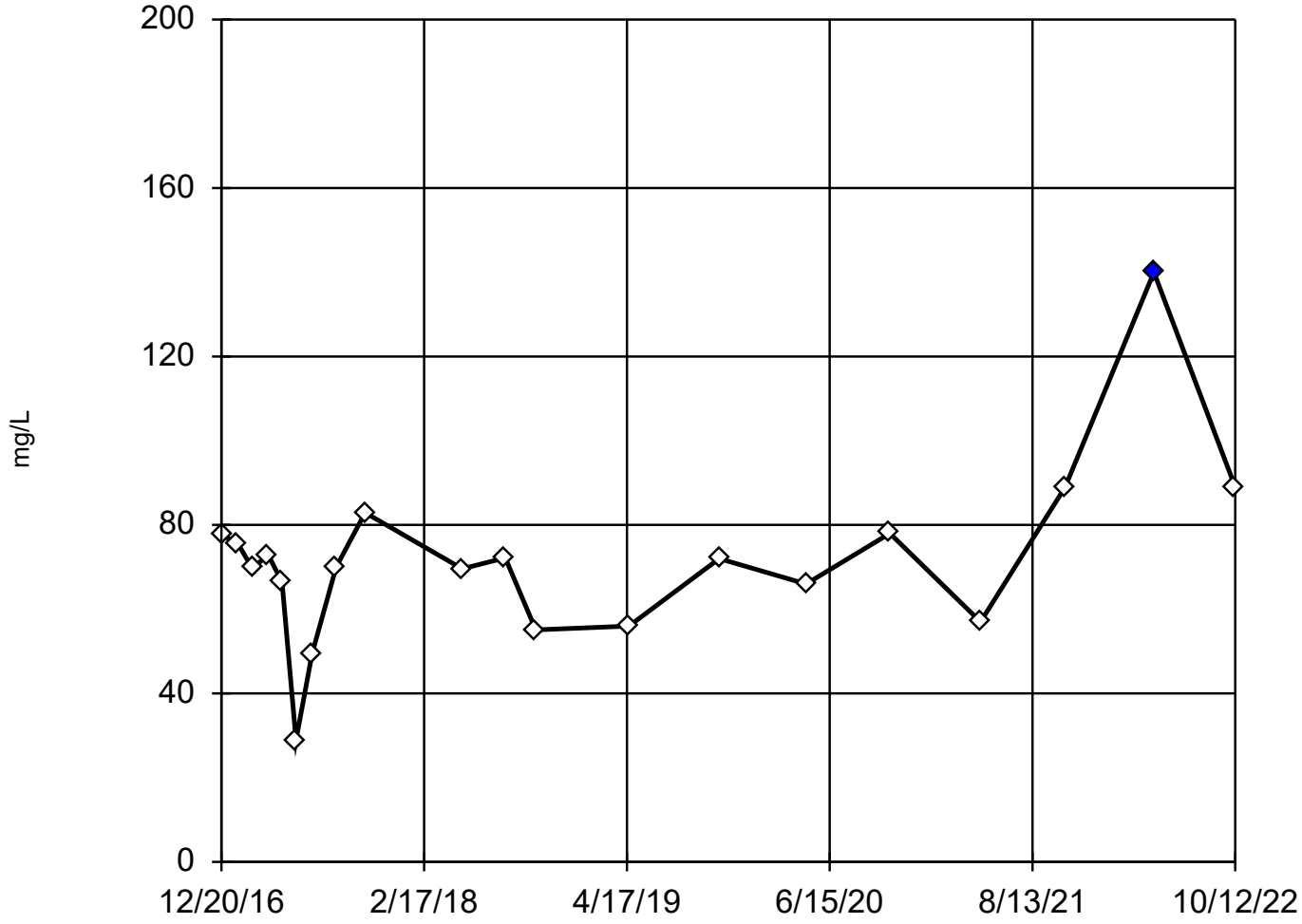
Constituent: Sulfate (mg/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	108
1/23/2017	101
2/23/2017	99.2
3/28/2017	107
4/26/2017	82.5
5/25/2017	74.7
6/28/2017	108
8/17/2017	101
10/17/2017	95.5
5/8/2018	117
8/6/2018	113
10/9/2018	131
4/22/2019	100
10/28/2019	110
4/27/2020	110
10/19/2020	98
4/27/2021	93
10/21/2021	100
4/25/2022	89
10/12/2022	100

Dixon's Outlier Test

MW-302 (bg)



n = 20

Statistical outlier is drawn as solid.
Testing for 1 high and 1 low outliers.
Mean = 71.88.
Std. Dev. = 21.29.
140: c = 0.6007
tabl = 0.45.
28.9: c = 0.4359
tabl = 0.45.
Alpha = 0.05.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9609
Critical = 0.858
The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Sulfate Analysis Run 1/1/2023 5:42 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

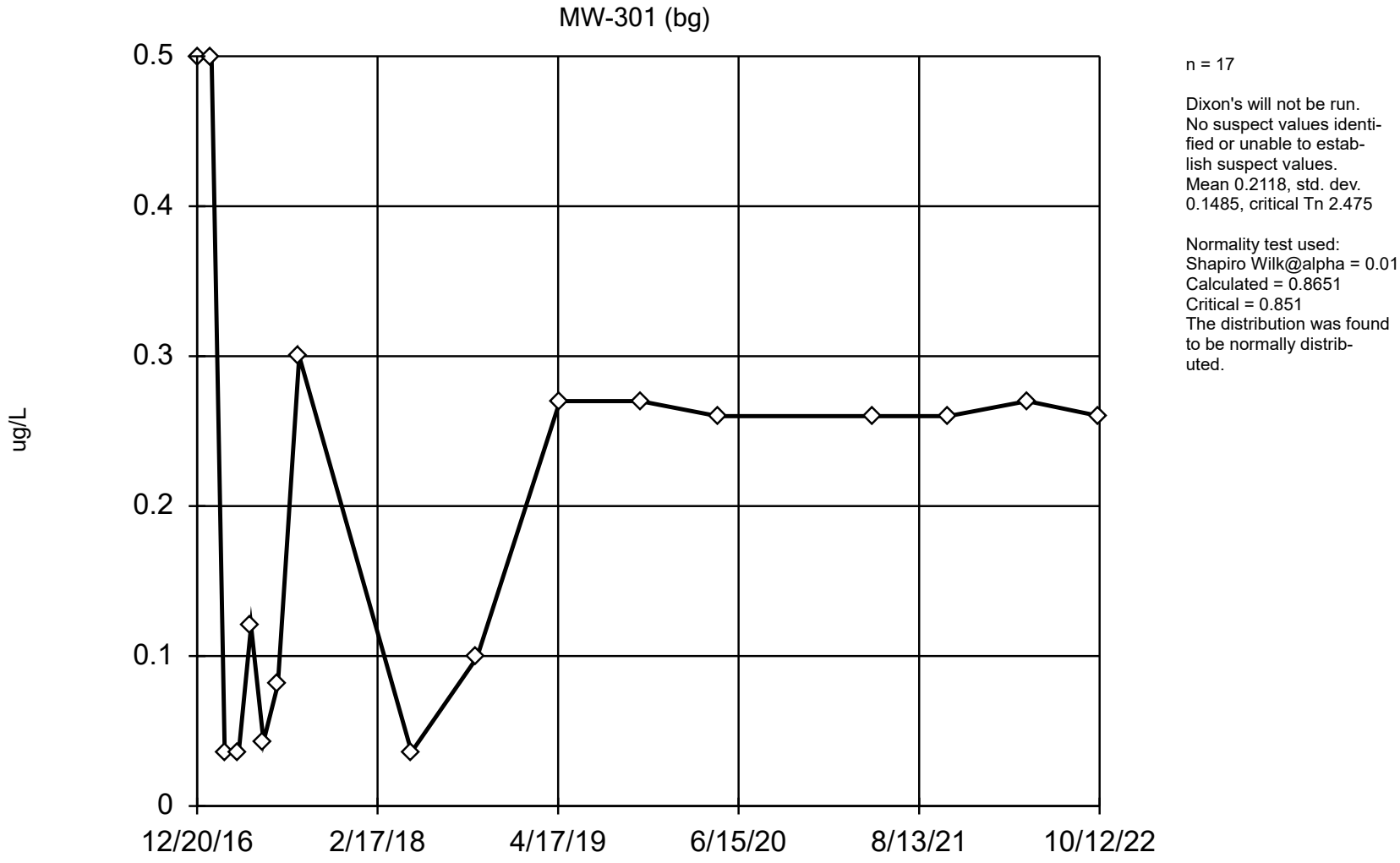
Dixon's Outlier Test

Constituent: Sulfate (mg/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	77.7
1/23/2017	75.6
2/23/2017	69.7
3/28/2017	72.9
4/26/2017	66.4
5/25/2017	28.9
6/28/2017	49.5
8/17/2017	70
10/17/2017	82.9
5/8/2018	69.6
8/6/2018	72.2
10/9/2018	55.1
4/22/2019	56
10/28/2019	72
4/27/2020	66
10/19/2020	78
4/27/2021	57
10/21/2021	89
4/25/2022	140 (O)
10/12/2022	89

EPA Screening (suspected outliers for Dixon's Test)



n = 17

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Mean 0.2118, std. dev. 0.1485, critical Tn 2.475

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8651
Critical = 0.851
The distribution was found to be normally distributed.

Constituent: Thallium Analysis Run 1/1/2023 5:42 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

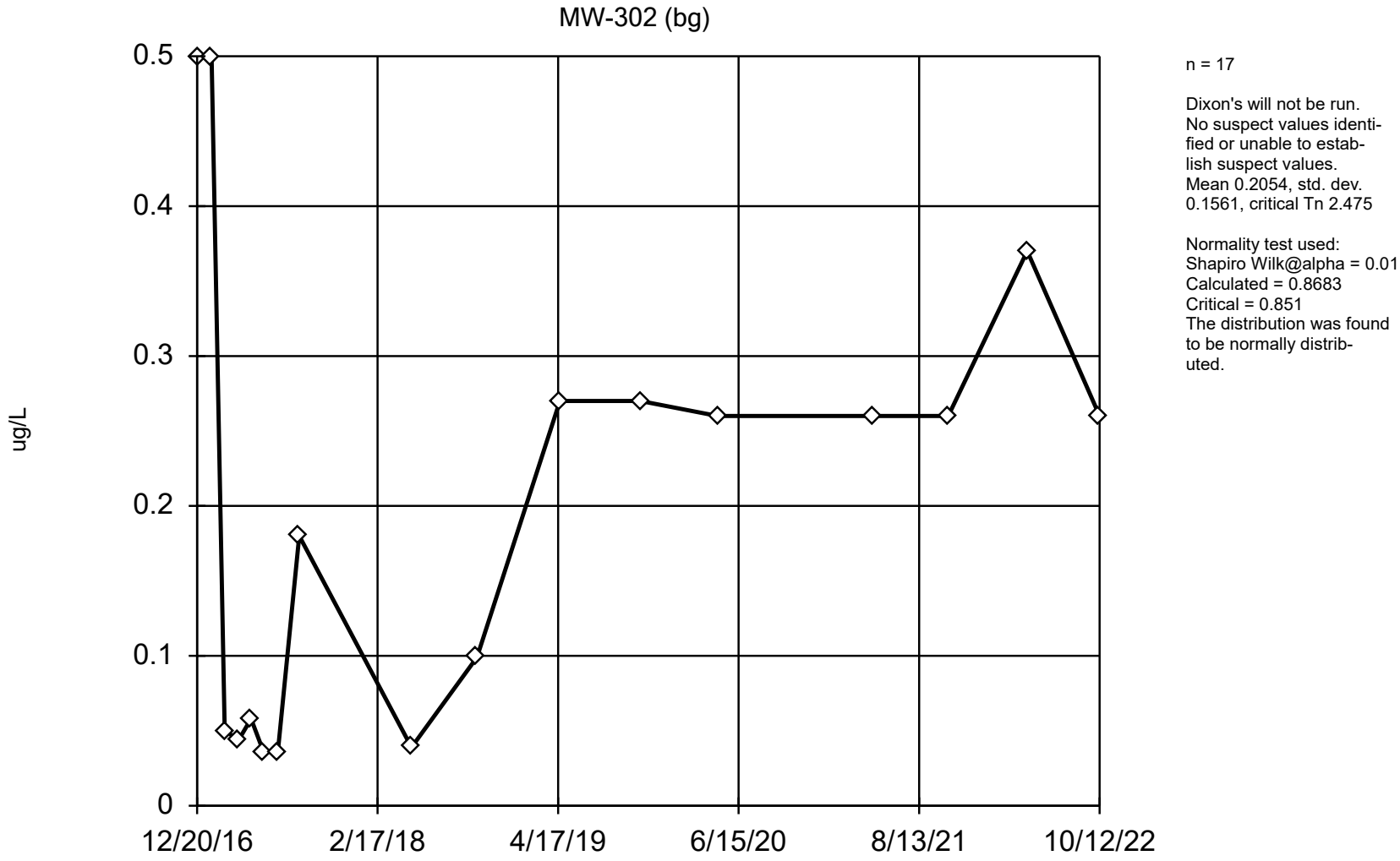
Constituent: Thallium (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	<0.5 (U)
1/23/2017	<0.5 (U)
2/23/2017	<0.036 (U)
3/28/2017	<0.036 (U)
4/26/2017	0.12 (J)
5/25/2017	0.043 (J)
6/28/2017	0.081 (J)
8/17/2017	0.3 (J)
5/8/2018	<0.036 (U)
10/9/2018	<0.099 (U)
4/22/2019	<0.27 (U)
10/28/2019	<0.27 (U)
4/27/2020	<0.26 (U)
4/27/2021	<0.26 (U)
10/21/2021	<0.26 (U)
4/25/2022	0.27 (J)
10/12/2022	<0.26 (U)

ND substitution: RL or RL/2 if <15% NDs.

EPA Screening (suspected outliers for Dixon's Test)



n = 17

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Mean 0.2054, std. dev. 0.1561, critical Tn 2.475

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8683
Critical = 0.851
The distribution was found to be normally distributed.

Constituent: Thallium Analysis Run 1/1/2023 5:42 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

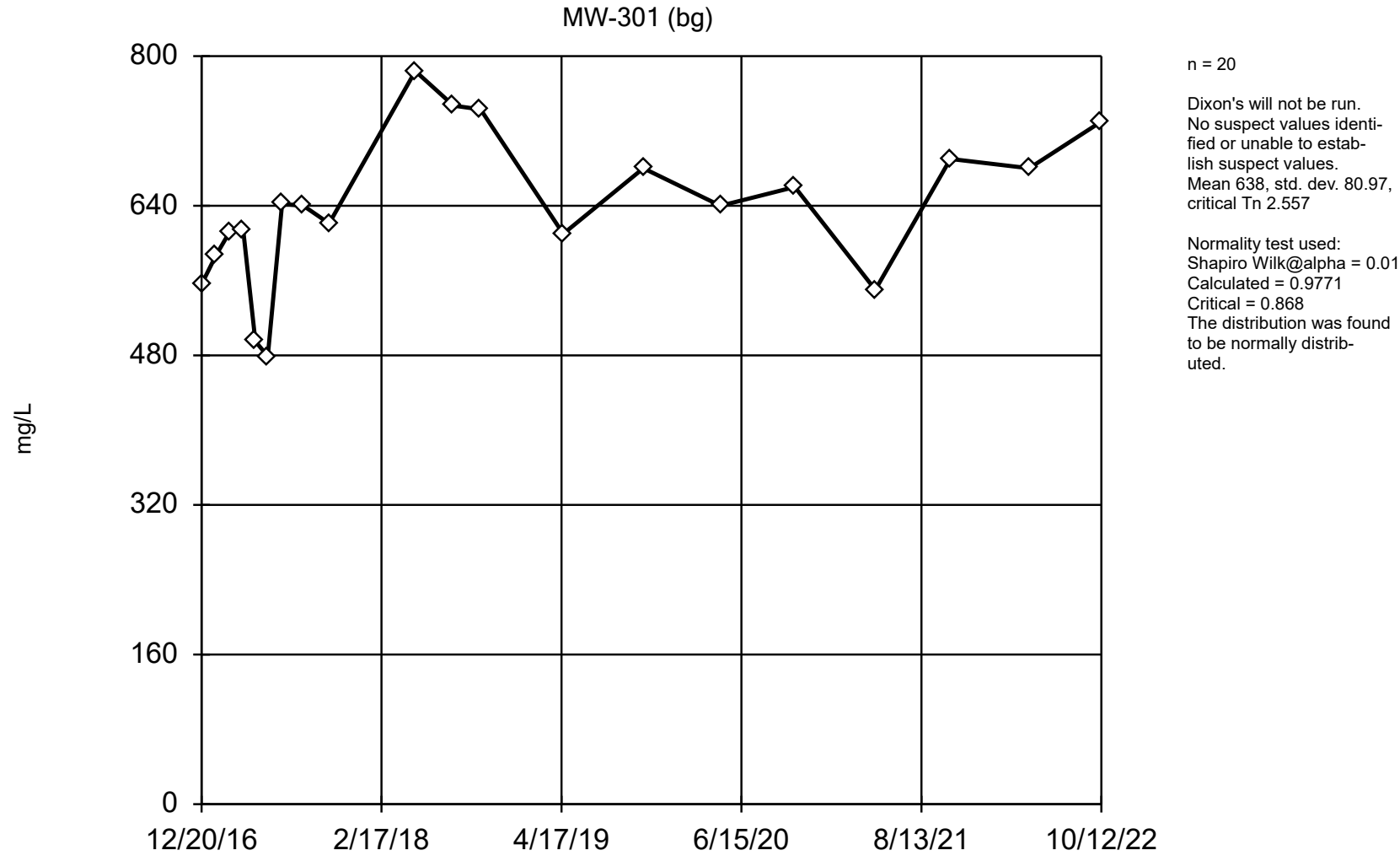
Constituent: Thallium (ug/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	<0.5 (U)
1/23/2017	<0.5 (U)
2/23/2017	0.05 (J)
3/28/2017	0.044 (J)
4/26/2017	0.058 (J)
5/25/2017	<0.036 (U)
6/28/2017	<0.036 (U)
8/17/2017	0.18 (J)
5/8/2018	0.039 (J)
10/9/2018	<0.099 (U)
4/22/2019	<0.27 (U)
10/28/2019	<0.27 (U)
4/27/2020	<0.26 (U)
4/27/2021	<0.26 (U)
10/21/2021	<0.26 (U)
4/25/2022	0.37 (J)
10/12/2022	<0.26 (U)

ND substitution: RL or RL/2 if <15% NDs.

EPA Screening (suspected outliers for Dixon's Test)



n = 20

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Mean 638, std. dev. 80.97, critical Tn 2.557

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9771
Critical = 0.868
The distribution was found to be normally distributed.

Constituent: Total Dissolved Solids Analysis Run 1/1/2023 5:42 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

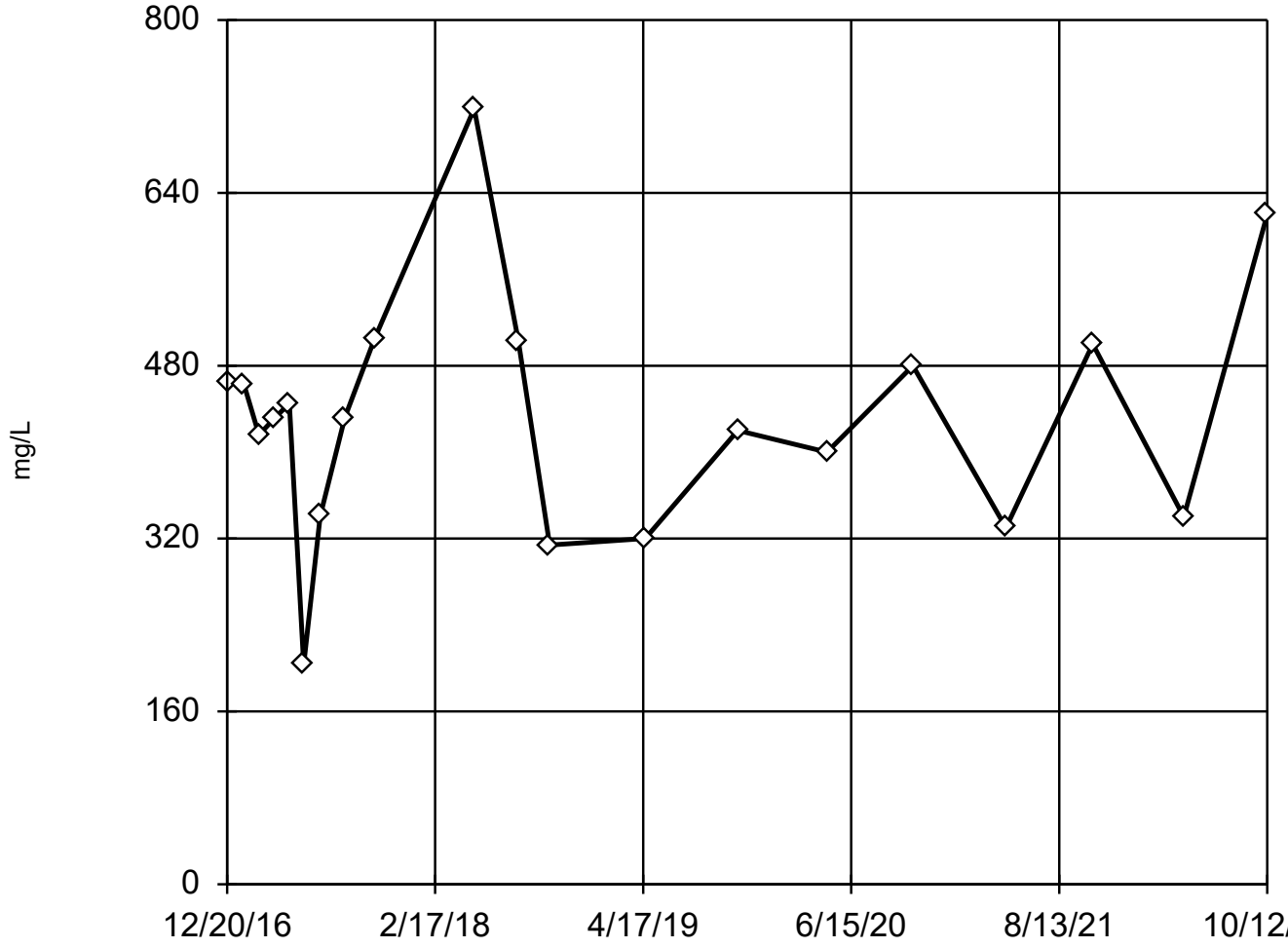
Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	556
1/23/2017	587
2/23/2017	611
3/28/2017	615
4/26/2017	495
5/25/2017	479
6/28/2017	642
8/17/2017	640
10/17/2017	621
5/8/2018	784
8/6/2018	747
10/9/2018	743
4/22/2019	610
10/28/2019	680 (B)
4/27/2020	640
10/19/2020	660
4/27/2021	550
10/21/2021	690
4/25/2022	680
10/12/2022	730

Dixon's Outlier Test

MW-302 (bg)



n = 20

No statistical outliers.
Testing for 1 low outlier.
Mean = 432.4.
Std. Dev. = 113.4.
203: c = 0.3874
tabl = 0.45.
Alpha = 0.05.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9055
Critical = 0.863
The distribution was found to be normally distrib-uted.

Constituent: Total Dissolved Solids Analysis Run 1/1/2023 5:42 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

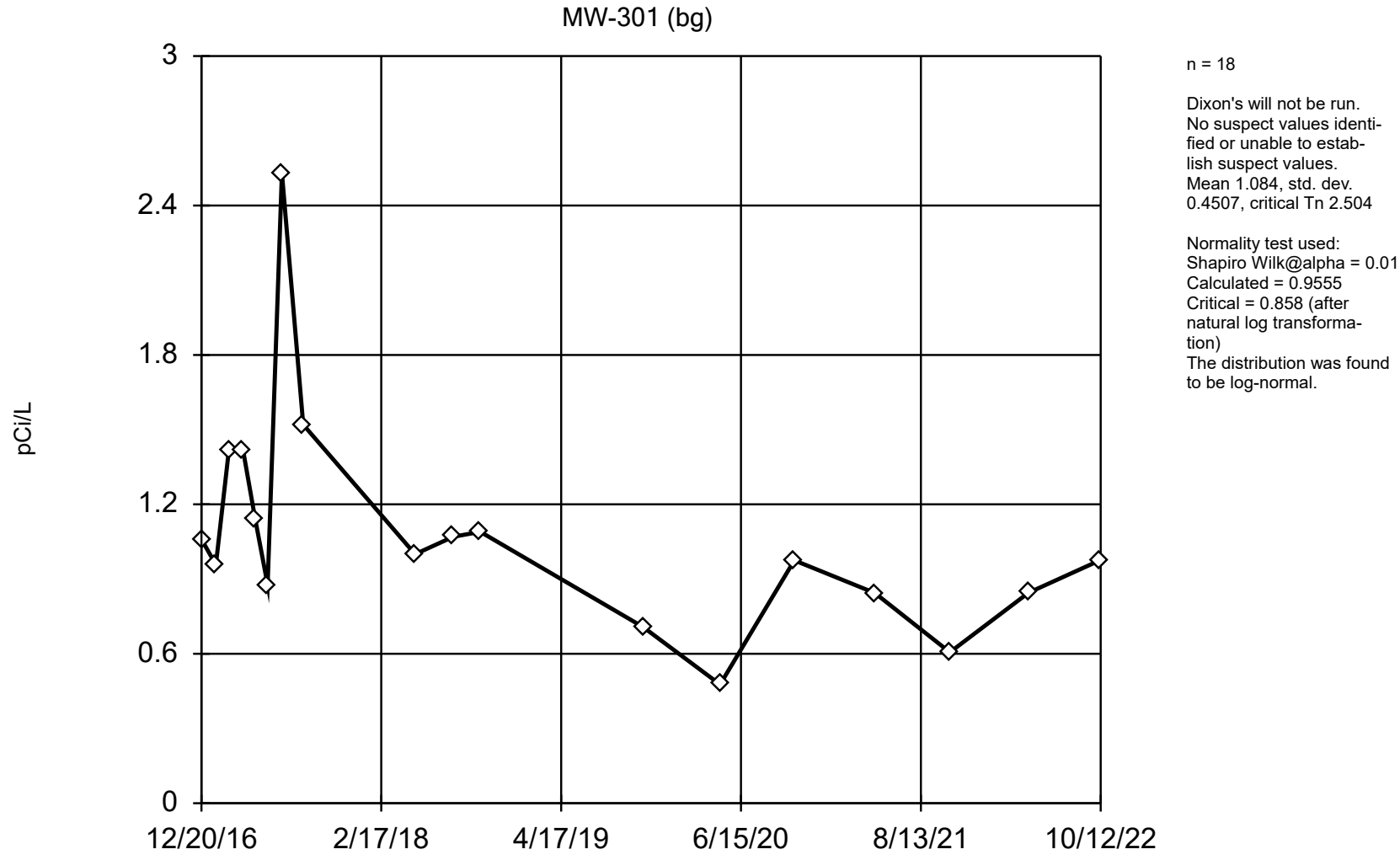
Dixon's Outlier Test

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	465
1/23/2017	463
2/23/2017	416
3/28/2017	432
4/26/2017	445
5/25/2017	203
6/28/2017	341
8/17/2017	432
10/17/2017	505
5/8/2018	718
8/6/2018	503
10/9/2018	314
4/22/2019	320
10/28/2019	420 (B)
4/27/2020	400
10/19/2020	480
4/27/2021	330
10/21/2021	500
4/25/2022	340
10/12/2022	620

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Total Radium Analysis Run 1/1/2023 5:42 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

EPA 1989 Outlier Screening

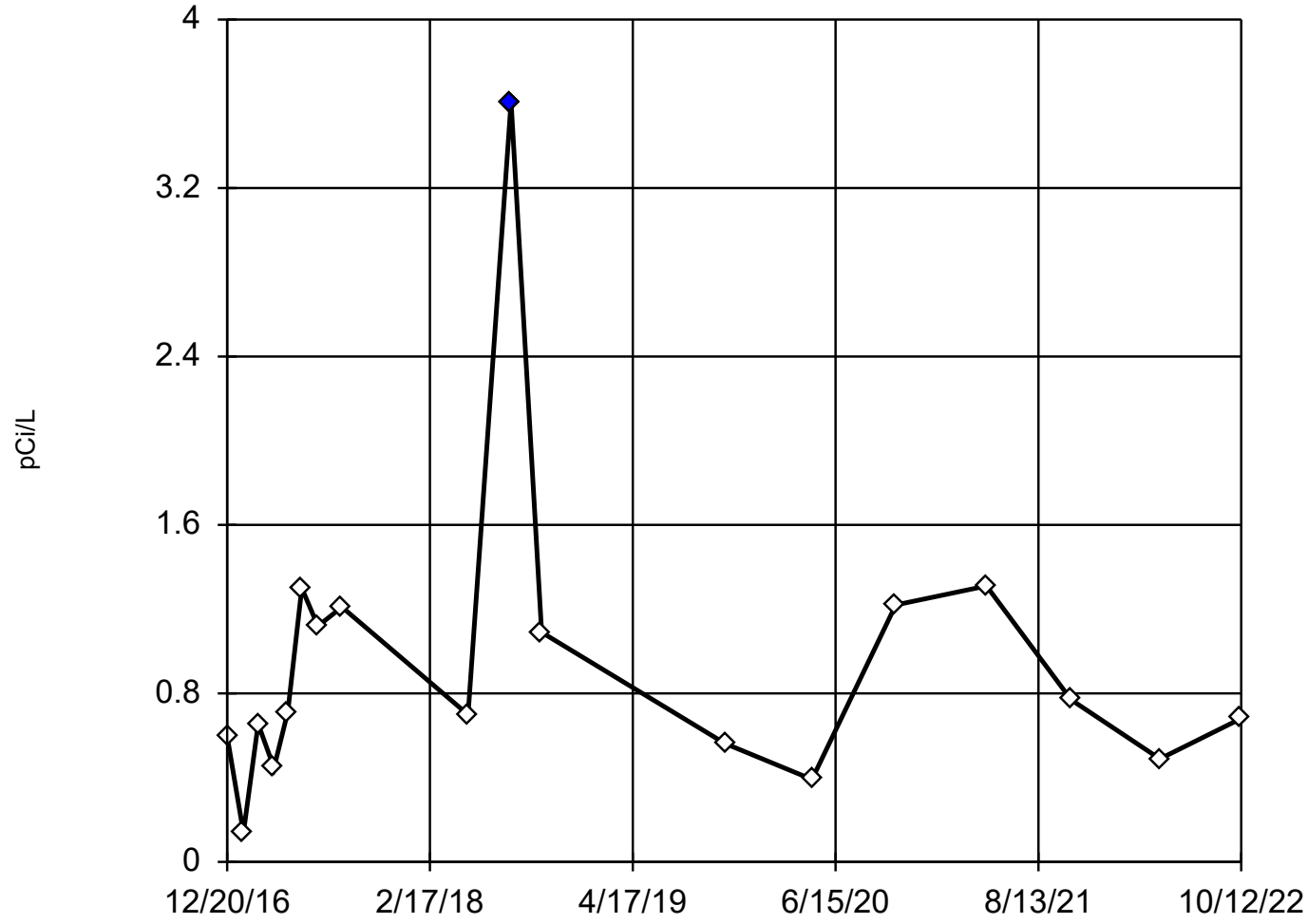
Constituent: Total Radium (pCi/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)
12/20/2016	1.06
1/23/2017	0.957
2/23/2017	1.42
3/28/2017	1.42
4/26/2017	1.14
5/25/2017	0.877
6/28/2017	2.53
8/17/2017	1.52
5/8/2018	1
8/6/2018	1.07
10/9/2018	1.09
10/28/2019	0.708
4/27/2020	0.477
10/19/2020	0.975
4/27/2021	0.844
10/21/2021	0.606
4/25/2022	0.845
10/12/2022	0.977

Dixon's Outlier Test

MW-302 (bg)



n = 18

Statistical outlier is drawn as solid.
Testing for 1 high and 1 low outliers.
Mean = 0.9446.
Std. Dev. = 0.7491.
3.61: c = 0.7303
tabl = 0.475.
0.138: c = 0.2659
tabl = 0.475.
Alpha = 0.05.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8877
Critical = 0.844
The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Total Radium Analysis Run 1/1/2023 5:42 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Dixon's Outlier Test

Constituent: Total Radium (pCi/L) Analysis Run 1/1/2023 5:49 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302 (bg)
12/20/2016	0.597
1/23/2017	0.138
2/23/2017	0.655
3/28/2017	0.447
4/26/2017	0.713
5/25/2017	1.3
6/28/2017	1.12
8/17/2017	1.21
5/8/2018	0.699
8/6/2018	3.61 (O)
10/9/2018	1.09
10/28/2019	0.562
4/27/2020	0.392
10/19/2020	1.22
4/27/2021	1.31
10/21/2021	0.77
4/25/2022	0.489
10/12/2022	0.681

Attachment 3

Welch’s/Mann-Whitney Comparison

Welch's t-test/Mann-Whitney

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020 Printed 1/1/2023, 8:46 PM

Constituent	Well	Calc.	0.1	0.05	0.025	0.01	Alpha	Sig.	Bg. Wells	Method
Antimony (ug/L)	**MW-301 (bg)**	**2.439**	**Yes**	**Yes**	**Yes**	**Yes**	**0.01**	**Yes**	**(intrawell)**	**Mann-W**
Antimony (ug/L)	**MW-302 (bg)**	**2.688**	**Yes**	**Yes**	**Yes**	**Yes**	**0.01**	**Yes**	**(intrawell)**	**Mann-W**
Arsenic (ug/L)	MW-301 (bg)	2.076	Yes	Yes	Yes	No	0.01	No	(intrawell)	Mann-W
Arsenic (ug/L)	MW-302 (bg)	0.2891	No	No	No	No	0.01	No	(intrawell)	Mann-W
Barium (ug/L)	MW-301 (bg)	1.407	Yes	No	No	No	0.01	No	(intrawell)	Mann-W
Barium (ug/L)	MW-302 (bg)	1.406	Yes	No	No	No	0.01	No	(intrawell)	Mann-W
Beryllium (ug/L)	**MW-301 (bg)**	**2.979**	**Yes**	**Yes**	**Yes**	**Yes**	**0.01**	**Yes**	**(intrawell)**	**Mann-W**
Beryllium (ug/L)	**MW-302 (bg)**	**3.087**	**Yes**	**Yes**	**Yes**	**Yes**	**0.01**	**Yes**	**(intrawell)**	**Mann-W**
Boron (ug/L)	MW-301 (bg)	2.054	Yes	Yes	Yes	No	0.01	No	(intrawell)	Mann-W
Boron (ug/L)	MW-302 (bg)	2.243	Yes	Yes	Yes	No	0.01	No	(intrawell)	Mann-W
Cadmium (ug/L)	MW-301 (bg)	0.9095	No	No	No	No	0.01	No	(intrawell)	Mann-W
Cadmium (ug/L)	**MW-302 (bg)**	**3.18**	**Yes**	**Yes**	**Yes**	**Yes**	**0.01**	**Yes**	**(intrawell)**	**Mann-W**
Calcium (mg/L)	MW-301 (bg)	2.163	Yes	Yes	Yes	No	0.01	No	(intrawell)	Mann-W
Calcium (mg/L)	MW-302 (bg)	0.6177	No	No	No	No	0.01	No	(intrawell)	Mann-W
Chloride (mg/L)	**MW-301 (bg)**	**3.665**	**Yes**	**Yes**	**Yes**	**Yes**	**0.01**	**Yes**	**(intrawell)**	**Mann-W**
Chloride (mg/L)	MW-302 (bg)	2.277	Yes	Yes	Yes	No	0.01	No	(intrawell)	Mann-W
Chromium (ug/L)	MW-301 (bg)	1.488	Yes	No	No	No	0.01	No	(intrawell)	Mann-W
Chromium (ug/L)	MW-302 (bg)	0.0...	No	No	No	No	0.01	No	(intrawell)	Mann-W
Cobalt (ug/L)	MW-301 (bg)	-1.449	No	No	No	No	0.01	No	(intrawell)	Mann-W
Cobalt (ug/L)	MW-302 (bg)	-1.872	No	No	No	No	0.01	No	(intrawell)	Mann-W
Field pH (Std. Units)	MW-301 (bg)	2.163	Yes	Yes	Yes	No	0.01	No	(intrawell)	Mann-W
Field pH (Std. Units)	MW-302 (bg)	1.511	Yes	No	No	No	0.01	No	(intrawell)	Mann-W
Fluoride (mg/L)	**MW-301 (bg)**	**3.451**	**Yes**	**Yes**	**Yes**	**Yes**	**0.01**	**Yes**	**(intrawell)**	**Mann-W**
Fluoride (mg/L)	**MW-302 (bg)**	**3.528**	**Yes**	**Yes**	**Yes**	**Yes**	**0.01**	**Yes**	**(intrawell)**	**Mann-W**
Lead (ug/L)	MW-301 (bg)	0.4545	No	No	No	No	0.01	No	(intrawell)	Mann-W
Lead (ug/L)	MW-302 (bg)	1.696	Yes	Yes	No	No	0.01	No	(intrawell)	Mann-W
Lithium (ug/L)	MW-301 (bg)	0.4543	No	No	No	No	0.01	No	(intrawell)	Mann-W
Lithium (ug/L)	MW-302 (bg)	0.2479	No	No	No	No	0.01	No	(intrawell)	Mann-W
Mercury (ug/L)	**MW-301 (bg)**	**3.51**	**Yes**	**Yes**	**Yes**	**Yes**	**0.01**	**Yes**	**(intrawell)**	**Mann-W**
Mercury (ug/L)	**MW-302 (bg)**	**3.51**	**Yes**	**Yes**	**Yes**	**Yes**	**0.01**	**Yes**	**(intrawell)**	**Mann-W**
Molybdenum (ug/L)	**MW-301 (bg)**	**2.99**	**Yes**	**Yes**	**Yes**	**Yes**	**0.01**	**Yes**	**(intrawell)**	**Mann-W**
Molybdenum (ug/L)	**MW-302 (bg)**	**3.534**	**Yes**	**Yes**	**Yes**	**Yes**	**0.01**	**Yes**	**(intrawell)**	**Mann-W**
Selenium (ug/L)	MW-301 (bg)	1.116	No	No	No	No	0.01	No	(intrawell)	Mann-W
Selenium (ug/L)	**MW-302 (bg)**	**2.937**	**Yes**	**Yes**	**Yes**	**Yes**	**0.01**	**Yes**	**(intrawell)**	**Mann-W**
Sulfate (mg/L)	MW-301 (bg)	0.6575	No	No	No	No	0.01	No	(intrawell)	Mann-W
Sulfate (mg/L)	MW-302 (bg)	0.9648	No	No	No	No	0.01	No	(intrawell)	Mann-W
Thallium (ug/L)	MW-301 (bg)	0.3401	No	No	No	No	0.01	No	(intrawell)	Mann-W
Thallium (ug/L)	MW-302 (bg)	1.213	No	No	No	No	0.01	No	(intrawell)	Mann-W
Total Dissolved Solids (mg/L)	**MW-301 (bg)**	**2.625**	**Yes**	**Yes**	**Yes**	**Yes**	**0.01**	**Yes**	**(intrawell)**	**Mann-W**
Total Dissolved Solids (mg/L)	MW-302 (bg)	0.656	No	No	No	No	0.01	No	(intrawell)	Mann-W
Total Radium (pCi/L)	MW-301 (bg)	-2.534	No	No	No	No	0.01	No	(intrawell)	Mann-W
Total Radium (pCi/L)	MW-302 (bg)	0.4887	No	No	No	No	0.01	No	(intrawell)	Mann-W

02/26/2024 - Classification: Internal - ECRM13238692

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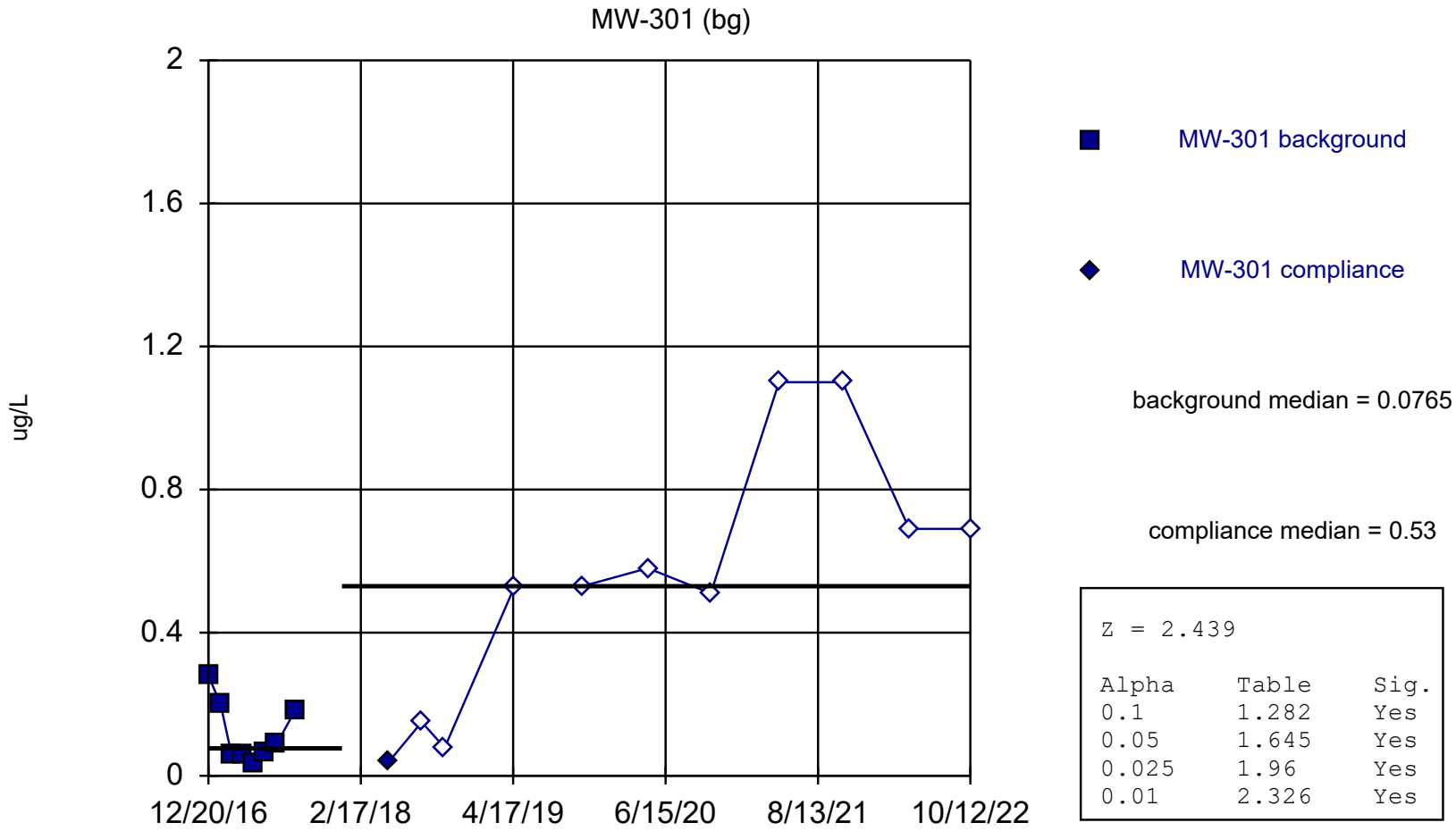
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Antimony Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Antimony (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	0.28 (J)	
1/23/2017	0.2 (J)	
2/23/2017	0.057 (J)	
3/28/2017	0.06 (J)	
4/26/2017	0.034 (J)	
5/25/2017	0.065 (J)	
6/28/2017	0.088 (J)	
8/17/2017	0.18 (J)	
5/8/2018		0.041 (J)
8/6/2018		<0.15 (U)
10/9/2018		<0.078 (U)
4/22/2019		<0.53 (U)
10/28/2019		<0.53 (U)
4/27/2020		<0.58 (U)
10/19/2020		<0.51 (U)
4/27/2021		<1.1 (U)
10/21/2021		<1.1 (U)
4/25/2022		<0.69 (U)
10/12/2022		<0.69 (U)

ND substitution: RL or RL/2 if <15% NDs.

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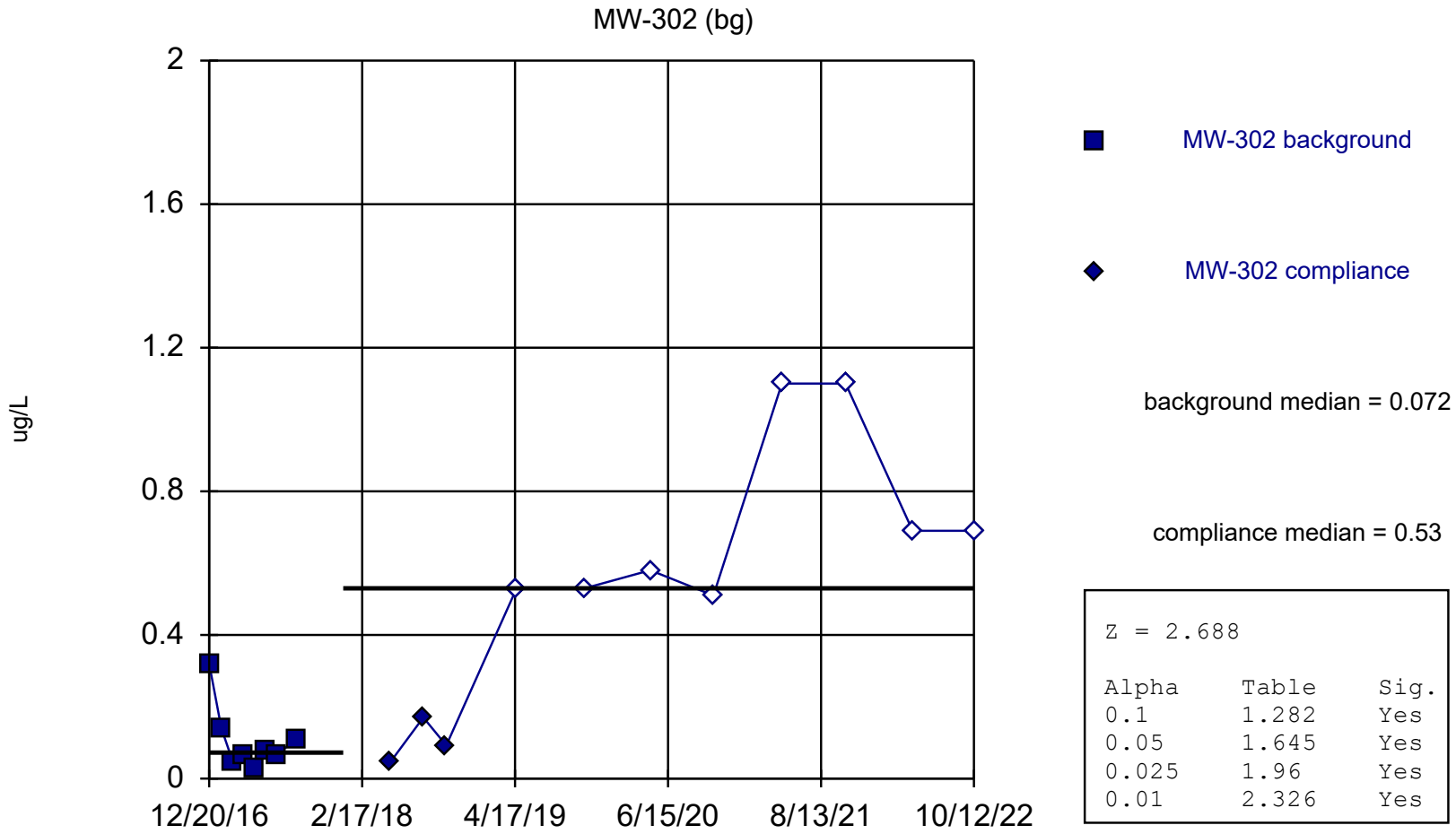
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Antimony Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Antimony (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

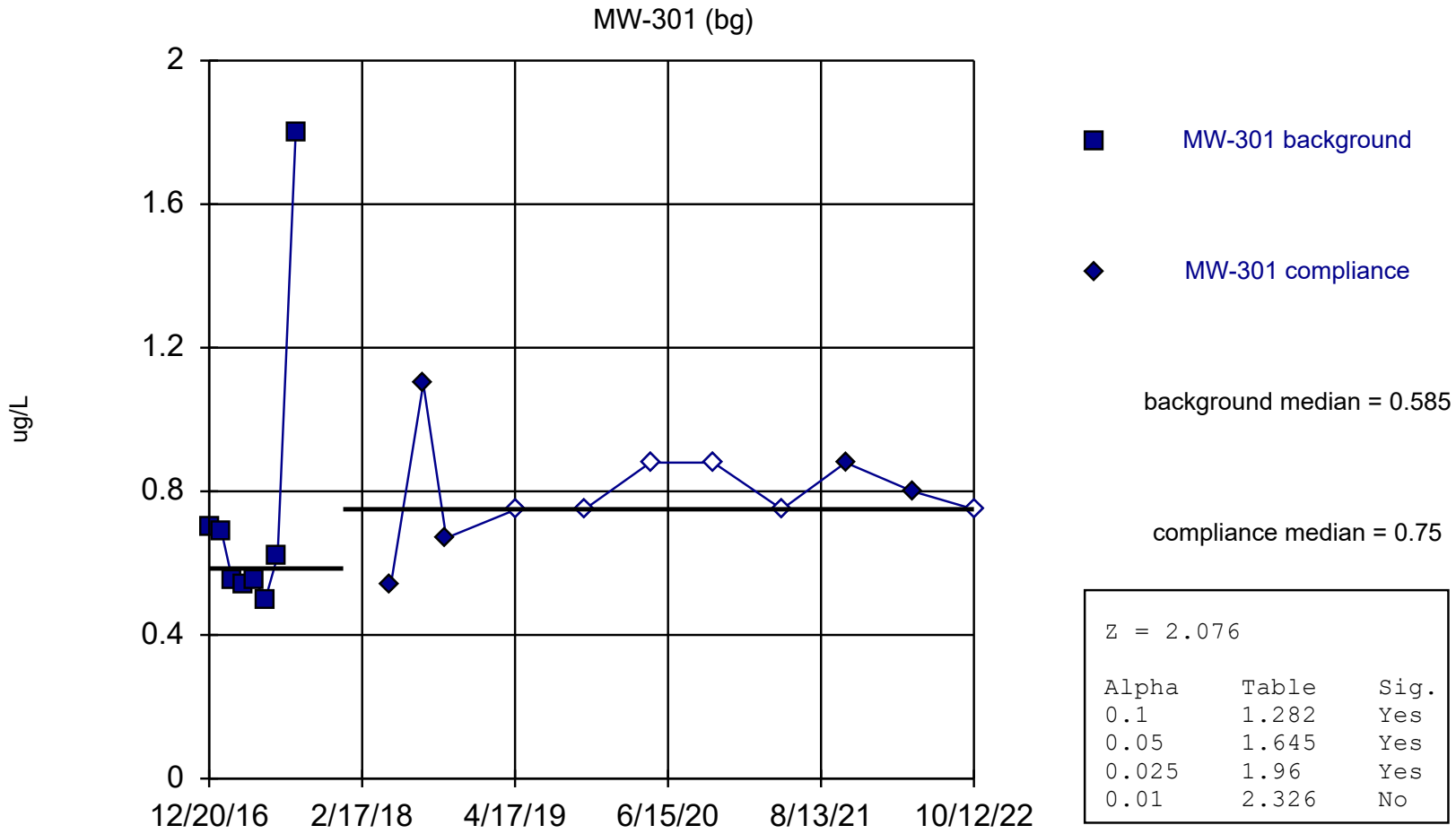
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	0.32 (J)	
1/23/2017	0.14 (J)	
2/23/2017	0.049 (J)	
3/28/2017	0.067 (J)	
4/26/2017	0.028 (J)	
5/25/2017	0.077 (J)	
6/28/2017	0.067 (J)	
8/17/2017	0.11 (J)	
5/8/2018		0.048 (J)
8/6/2018		0.17 (J)
10/9/2018		0.092 (J)
4/22/2019		<0.53 (U)
10/28/2019		<0.53 (U)
4/27/2020		<0.58 (U)
10/19/2020		<0.51 (U)
4/27/2021		<1.1 (U)
10/21/2021		<1.1 (U)
4/25/2022		<0.69 (U)
10/12/2022		<0.69 (U)

ND substitution: RL or RL/2 if <15% NDs.

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Z = 2.076

Alpha	Table	Sig.
0.1	1.282	Yes
0.05	1.645	Yes
0.025	1.96	Yes
0.01	2.326	No

Constituent: Arsenic Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Arsenic (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

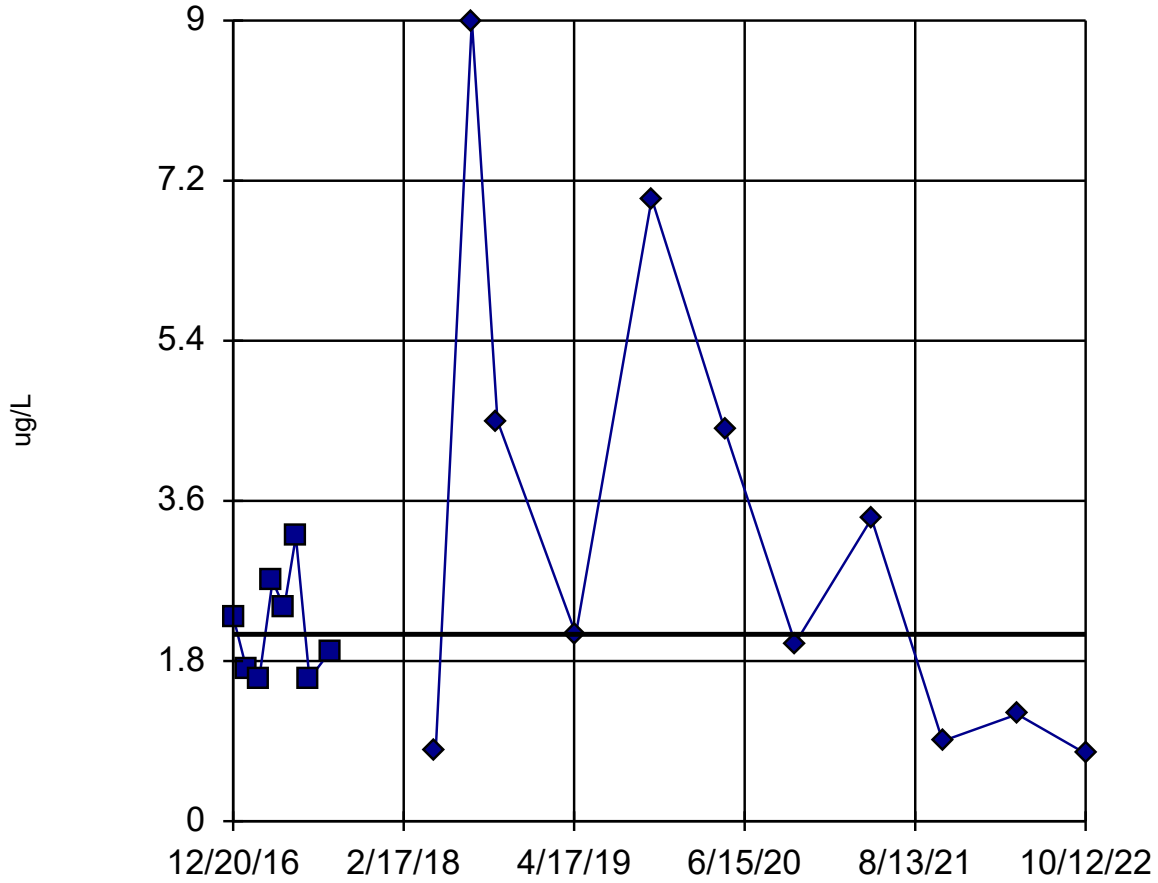
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	0.7 (J)	
1/23/2017	0.69 (J)	
2/23/2017	0.55 (J)	
3/28/2017	0.54 (J)	
4/26/2017	0.55 (J)	
5/25/2017	0.5 (J)	
6/28/2017	0.62 (J)	
8/17/2017	1.8	
5/8/2018		0.54 (J)
8/6/2018		1.1
10/9/2018		0.67 (J)
4/22/2019		<0.75 (U)
10/28/2019		<0.75 (U)
4/27/2020		<0.88 (U)
10/19/2020		<0.88 (U)
4/27/2021		<0.75 (U)
10/21/2021		0.88 (J)
4/25/2022		0.8 (J)
10/12/2022		<0.75 (U)

ND substitution: RL or RL/2 if <15% NDs.

Mann-Whitney (Wilcoxon Rank Sum)

MW-302 (bg)



MW-302 background

MW-302 compliance

background median = 2.1

compliance median = 2.1

Z = 0.2891

Alpha	Table	Sig.
0.1	1.282	No
0.05	1.645	No
0.025	1.96	No
0.01	2.326	No

Constituent: Arsenic Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

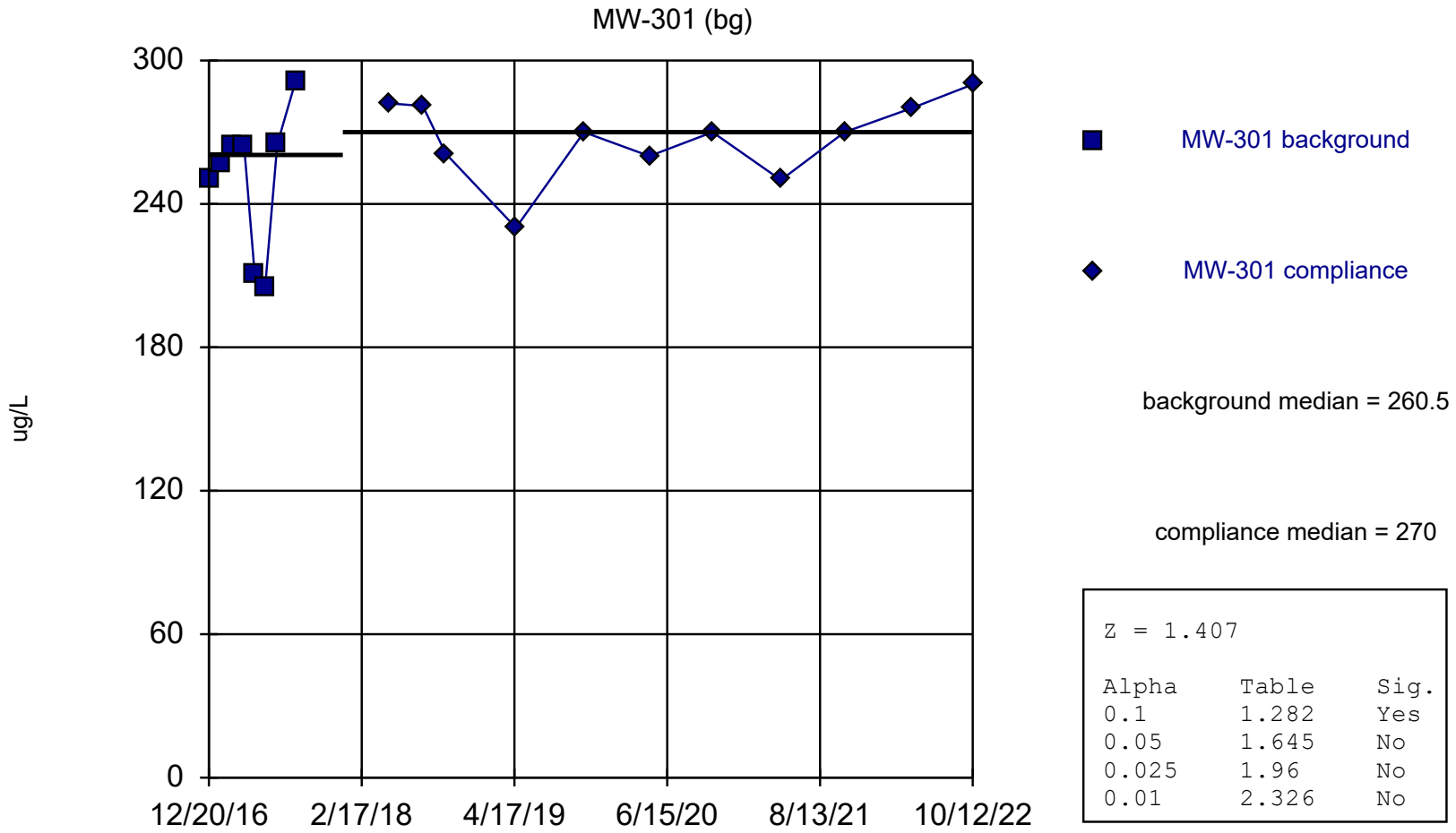
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Arsenic (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	2.3	
1/23/2017	1.7	
2/23/2017	1.6	
3/28/2017	2.7	
4/26/2017	2.4	
5/25/2017	3.2	
6/28/2017	1.6	
8/17/2017	1.9	
5/8/2018		0.79 (J)
8/6/2018		9
10/9/2018		4.5
4/22/2019		2.1
10/28/2019		7
4/27/2020		4.4
10/19/2020		2
4/27/2021		3.4
10/21/2021		0.9 (J)
4/25/2022		1.2 (J)
10/12/2022		0.76 (J)

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Barium Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

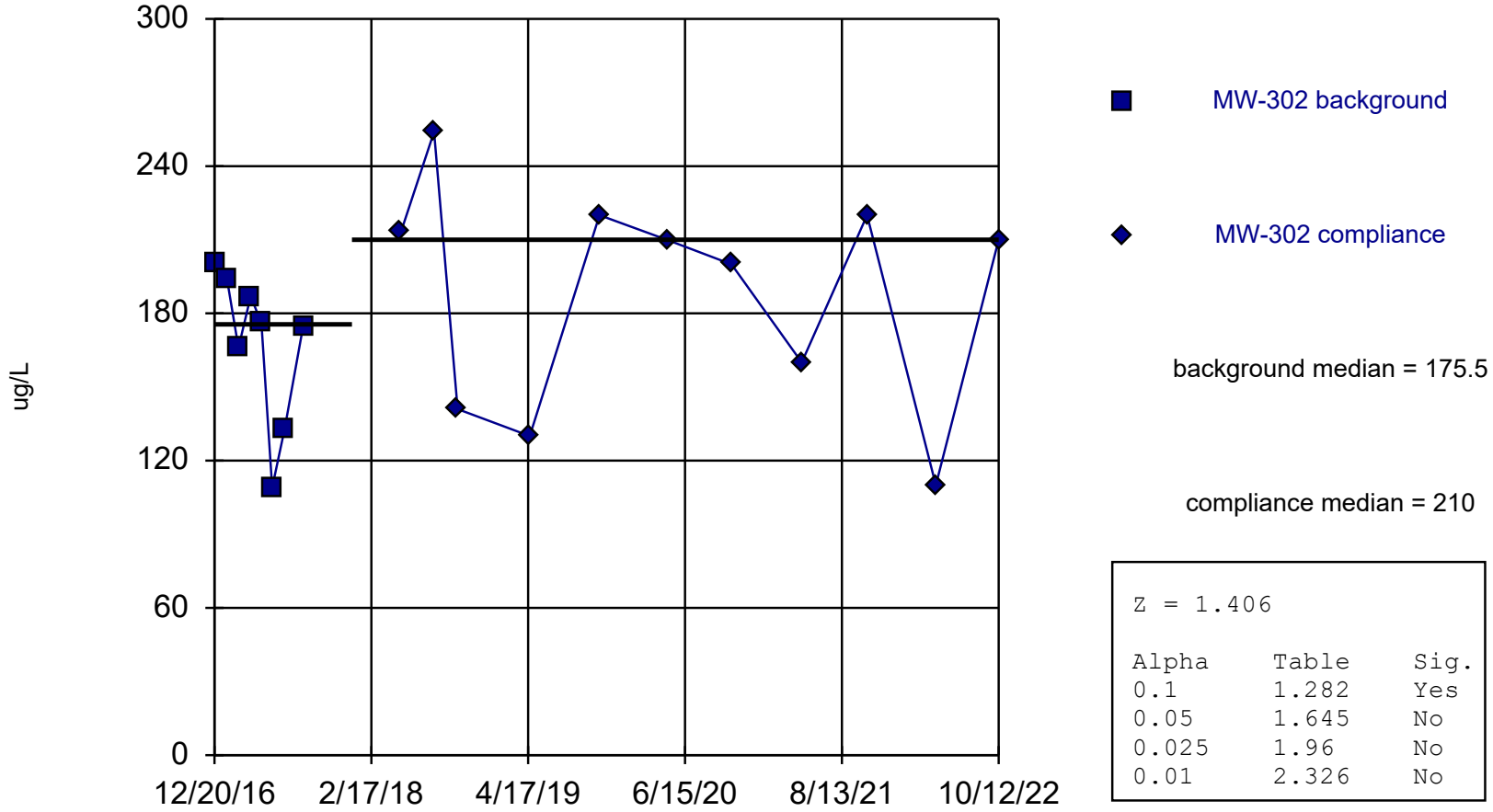
Constituent: Barium (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	250	
1/23/2017	257	
2/23/2017	264	
3/28/2017	264	
4/26/2017	211	
5/25/2017	205	
6/28/2017	265	
8/17/2017	291	
5/8/2018		282
8/6/2018		281
10/9/2018		261
4/22/2019		230
10/28/2019		270
4/27/2020		260
10/19/2020		270
4/27/2021		250
10/21/2021		270
4/25/2022		280
10/12/2022		290

Mann-Whitney (Wilcoxon Rank Sum)

MW-302 (bg)



Z = 1.406

Alpha	Table	Sig.
0.1	1.282	Yes
0.05	1.645	No
0.025	1.96	No
0.01	2.326	No

Constituent: Barium Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Barium (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	200	
1/23/2017	194	
2/23/2017	166	
3/28/2017	187	
4/26/2017	176	
5/25/2017	109	
6/28/2017	133	
8/17/2017	175	
5/8/2018		213
8/6/2018		254
10/9/2018		141
4/22/2019		130
10/28/2019		220
4/27/2020		210
10/19/2020		200
4/27/2021		160
10/21/2021		220
4/25/2022		110
10/12/2022		210

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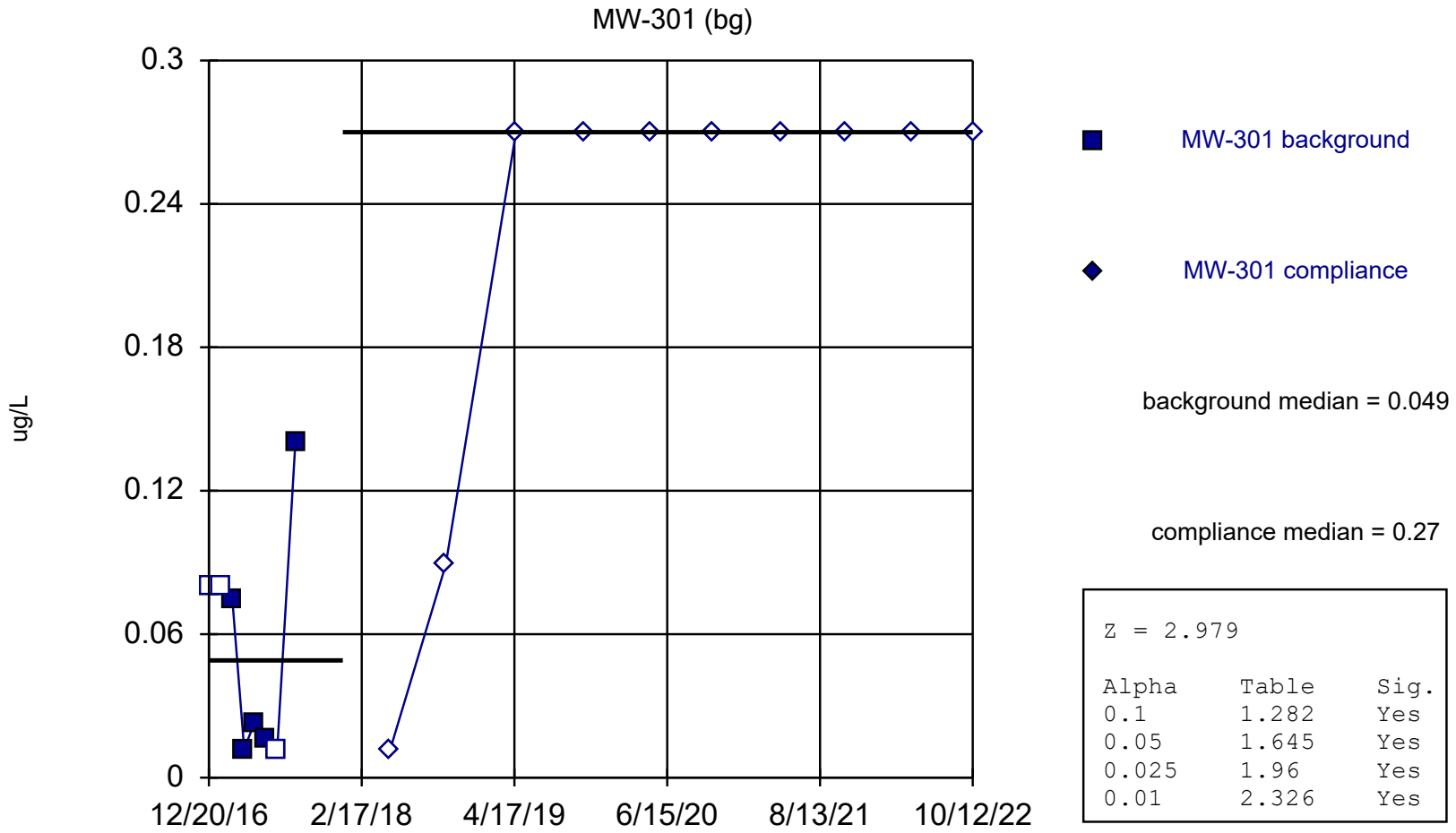
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Beryllium Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Beryllium (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

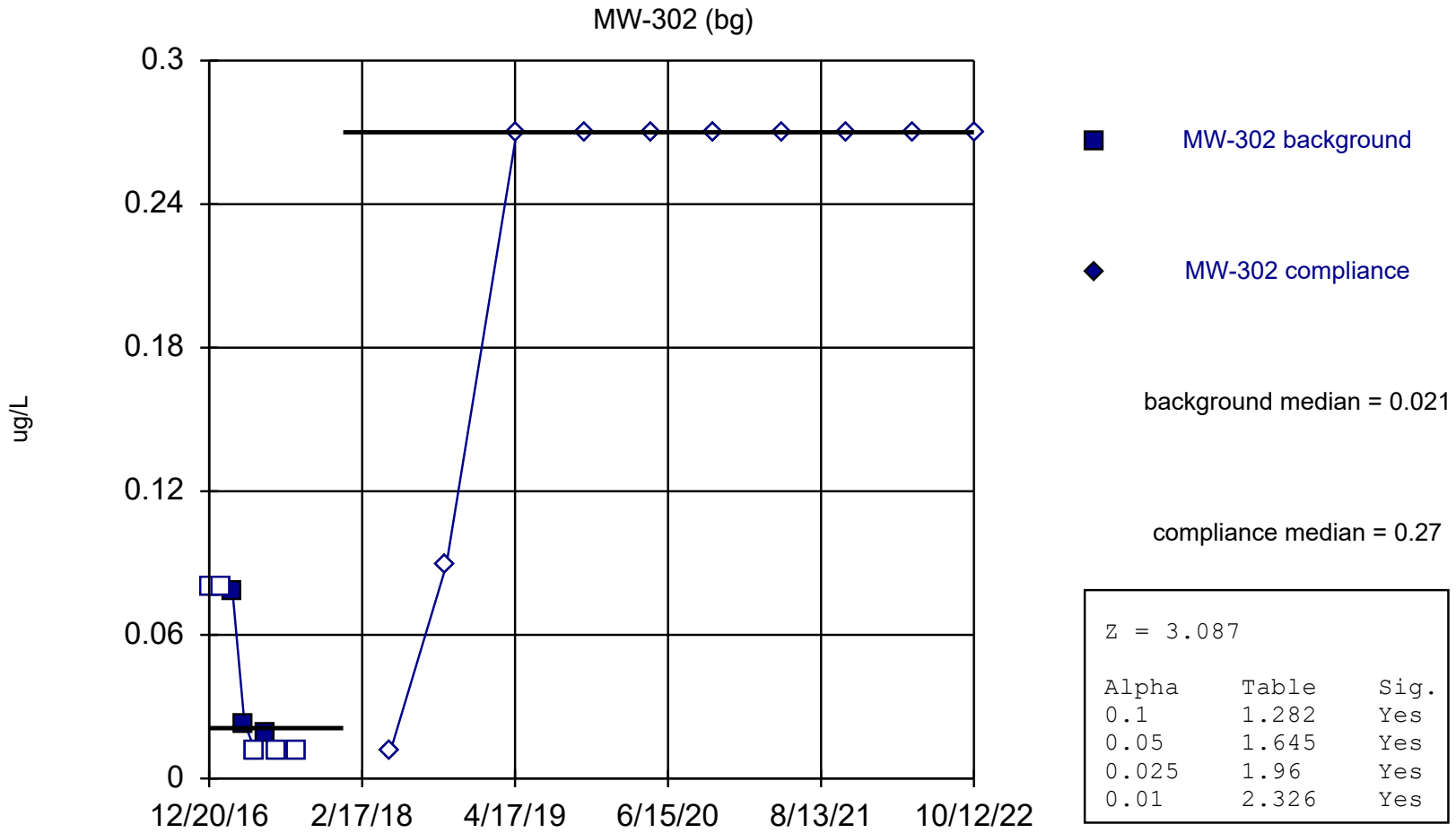
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	<0.08 (U)	
1/23/2017	<0.08 (U)	
2/23/2017	0.075 (J)	
3/28/2017	0.012 (J)	
4/26/2017	0.023 (J)	
5/25/2017	0.016 (J)	
6/28/2017	<0.012 (U)	
8/17/2017	0.14 (J)	
5/8/2018		<0.012 (U)
10/9/2018		<0.089 (U)
4/22/2019		<0.27 (U)
10/28/2019		<0.27 (U)
4/27/2020		<0.27 (U)
10/19/2020		<0.27 (U)
4/27/2021		<0.27 (U)
10/21/2021		<0.27 (U)
4/25/2022		<0.27 (U)
10/12/2022		<0.27 (U)

ND substitution: RL or RL/2 if <15% NDs.

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Beryllium Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Beryllium (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

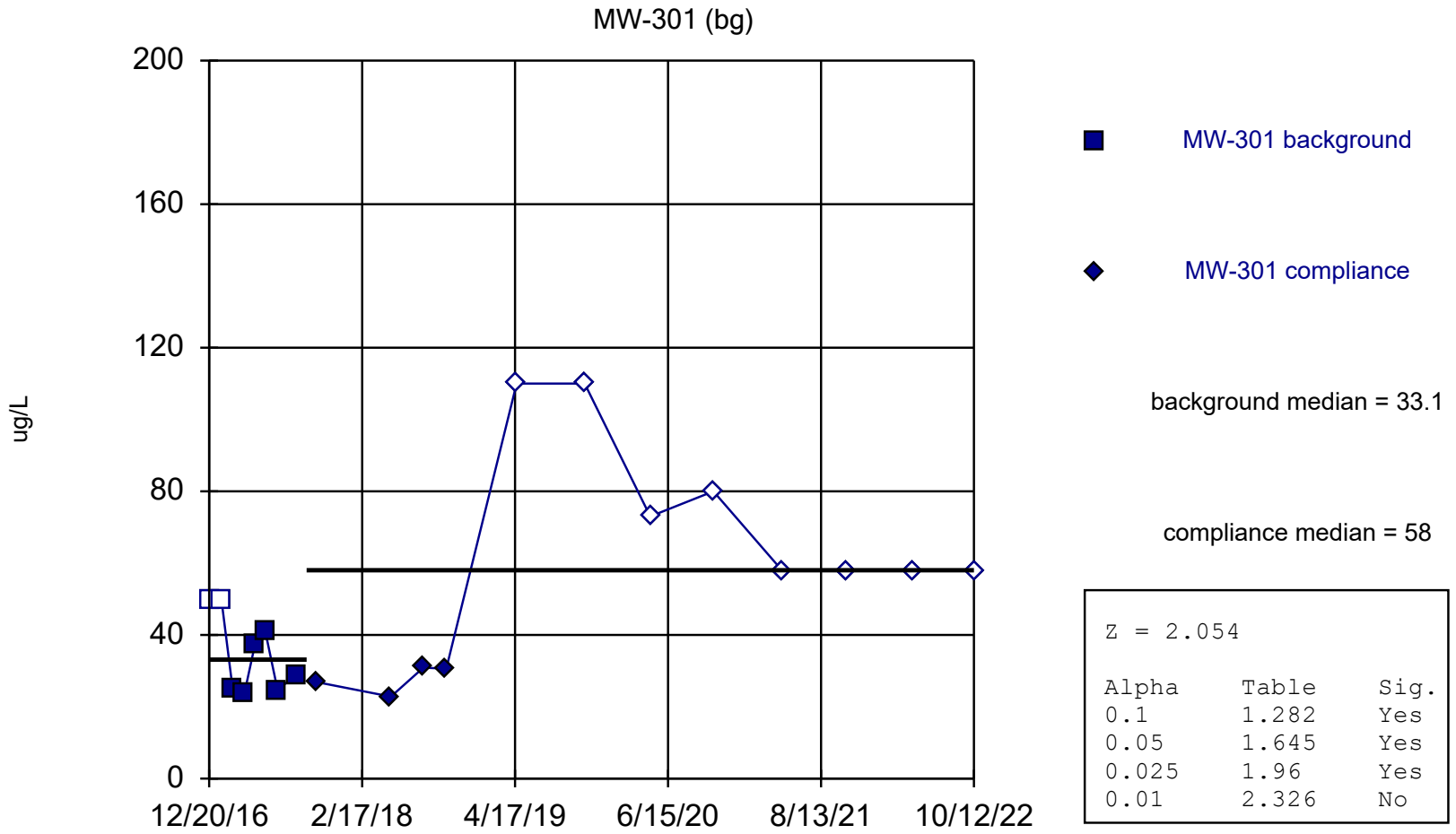
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	<0.08 (U)	
1/23/2017	<0.08 (U)	
2/23/2017	0.078 (J)	
3/28/2017	0.023 (J)	
4/26/2017	<0.012 (U)	
5/25/2017	0.019 (J)	
6/28/2017	<0.012 (U)	
8/17/2017	<0.012 (U)	
5/8/2018		<0.012 (U)
10/9/2018		<0.089 (U)
4/22/2019		<0.27 (U)
10/28/2019		<0.27 (U)
4/27/2020		<0.27 (U)
10/19/2020		<0.27 (U)
4/27/2021		<0.27 (U)
10/21/2021		<0.27 (U)
4/25/2022		<0.27 (U)
10/12/2022		<0.27 (U)

ND substitution: RL or RL/2 if <15% NDs.

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Boron Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Boron (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

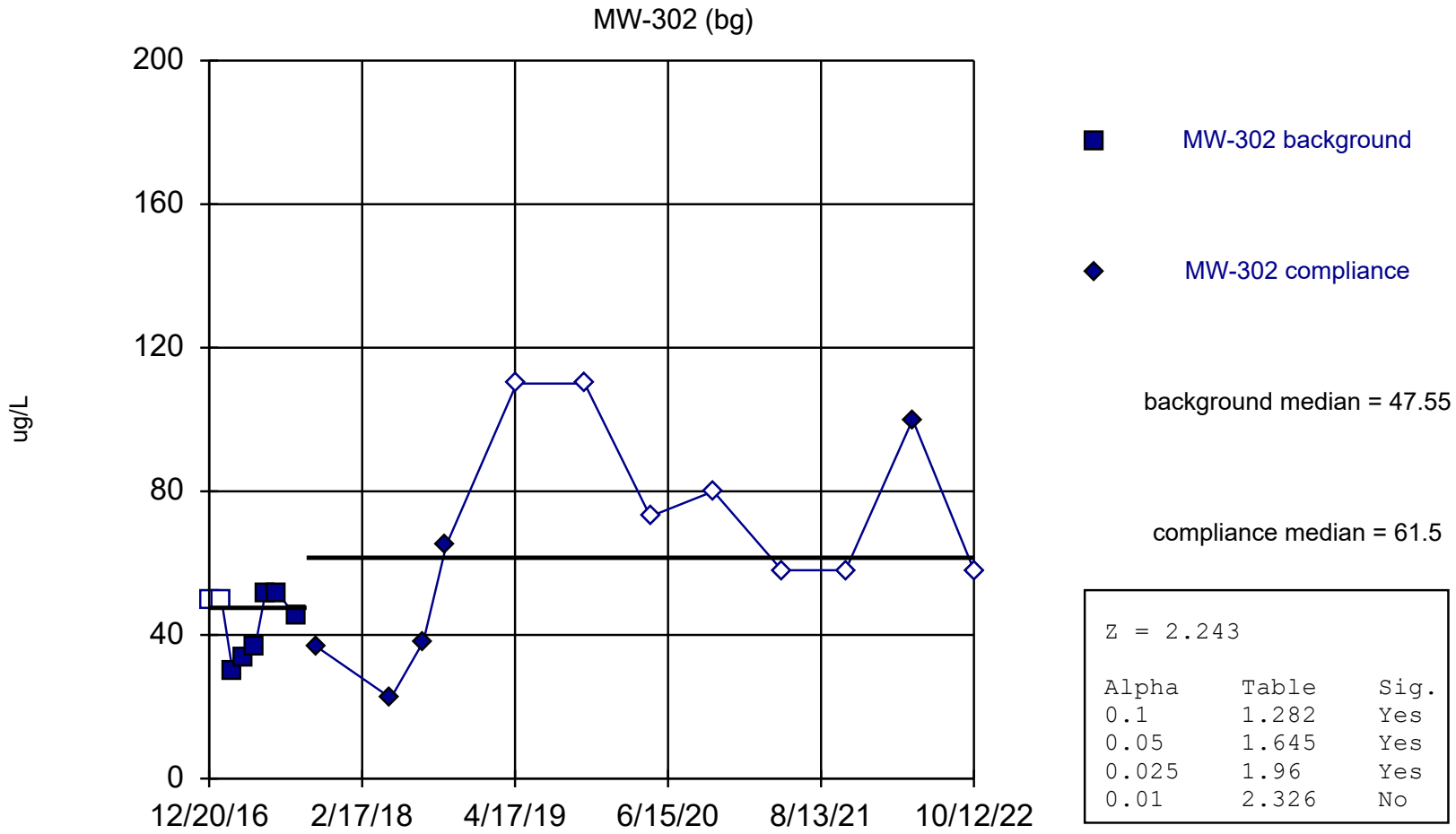
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	<50 (U)	
1/23/2017	<50 (U)	
2/23/2017	25.2 (J)	
3/28/2017	23.8 (J)	
4/26/2017	37.3 (J)	
5/25/2017	40.8 (J)	
6/28/2017	24.6 (J)	
8/17/2017	28.9 (J)	
10/17/2017		26.8 (J)
5/8/2018		22.8 (J)
8/6/2018		30.9 (J)
10/9/2018		30.6 (J)
4/22/2019		<110 (U)
10/28/2019		<110 (U)
4/27/2020		<73 (U)
10/19/2020		<80 (U)
4/27/2021		<58 (U)
10/21/2021		<58 (U)
4/25/2022		<58 (U)
10/12/2022		<58 (U)

ND substitution: RL or RL/2 if <15% NDs.

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Boron Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Boron (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	<50 (U)	
1/23/2017	<50 (U)	
2/23/2017	30.1 (J)	
3/28/2017	33.7 (J)	
4/26/2017	36.5 (J)	
5/25/2017	51.6 (J)	
6/28/2017	51.8 (J)	
8/17/2017	45.1 (J)	
10/17/2017		36.5 (J)
5/8/2018		22.4 (J)
8/6/2018		38.1 (J)
10/9/2018		65 (J)
4/22/2019		<110 (U)
10/28/2019		<110 (U)
4/27/2020		<73 (U)
10/19/2020		<80 (U)
4/27/2021		<58 (U)
10/21/2021		<58 (U)
4/25/2022		100
10/12/2022		<58 (U)

ND substitution: RL or RL/2 if <15% NDs.

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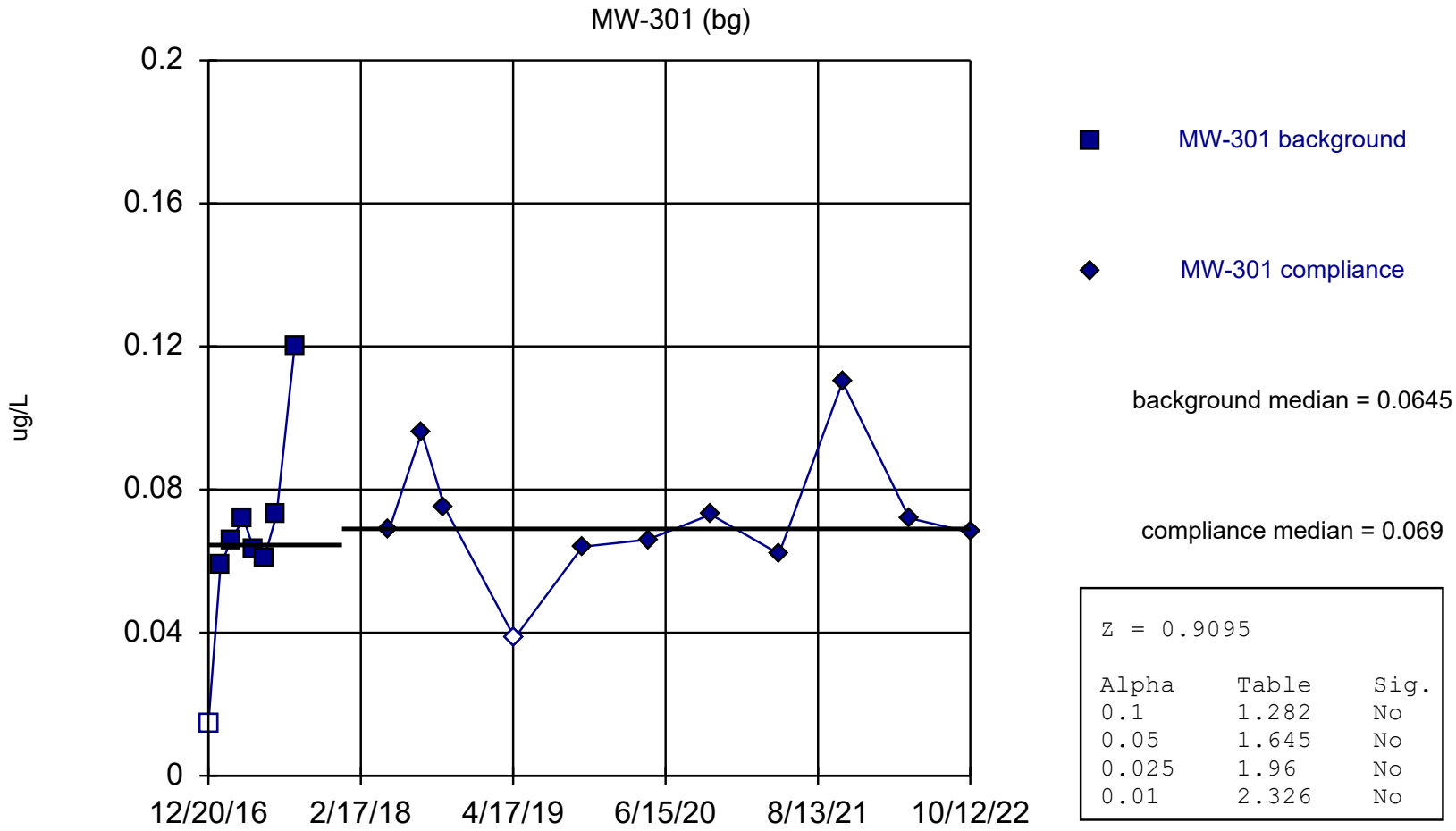
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Cadmium Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Cadmium (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

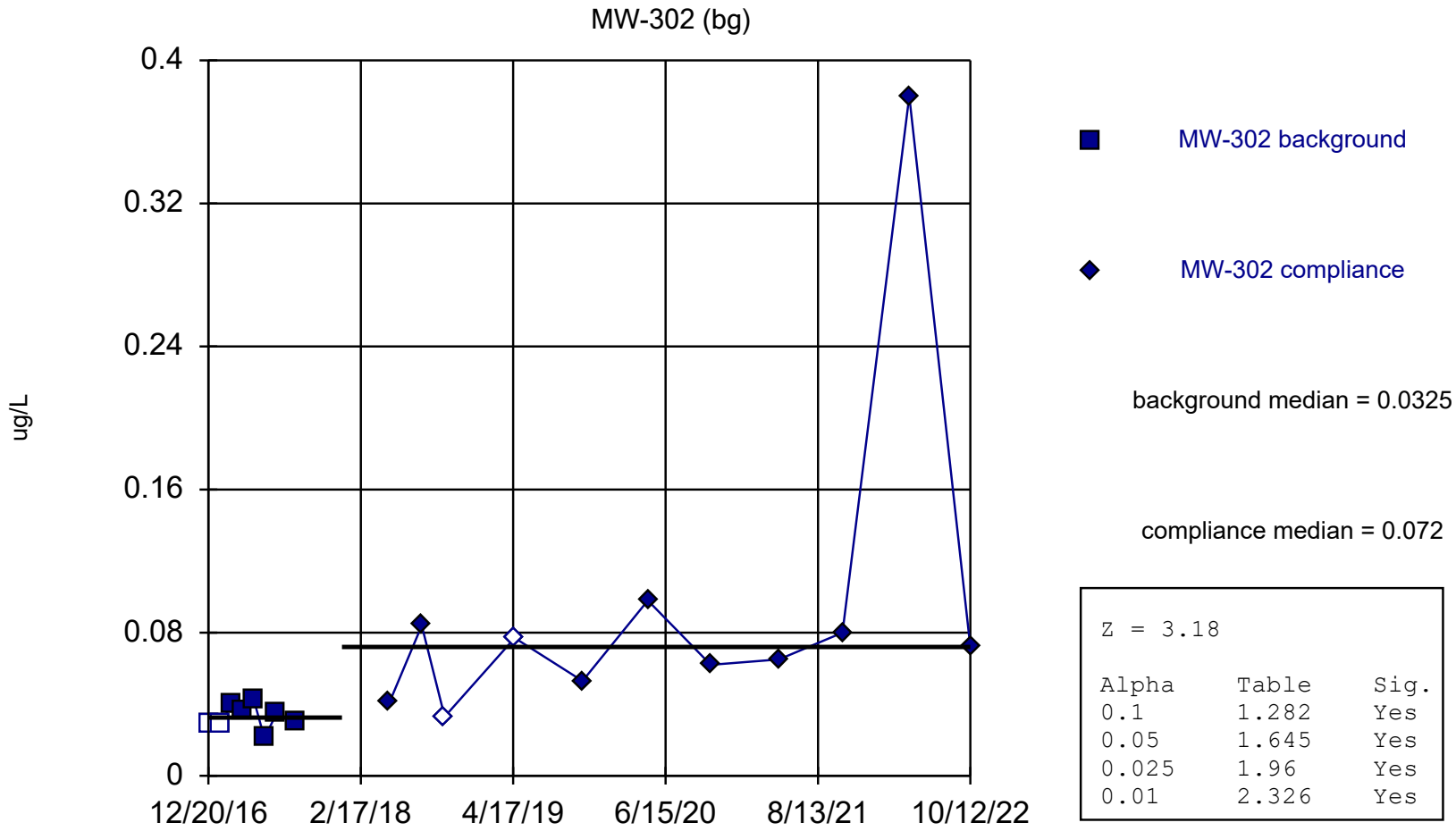
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	<0.029 (U)	
1/23/2017	0.059 (J)	
2/23/2017	0.066 (J)	
3/28/2017	0.072 (J)	
4/26/2017	0.063 (J)	
5/25/2017	0.061 (J)	
6/28/2017	0.073 (J)	
8/17/2017	0.12 (J)	
5/8/2018		0.069 (J)
8/6/2018		0.096 (J)
10/9/2018		0.075 (J)
4/22/2019		<0.077 (U)
10/28/2019		0.064 (J)
4/27/2020		0.066 (J)
10/19/2020		0.073 (J)
4/27/2021		0.062 (J)
10/21/2021		0.11
4/25/2022		0.072 (J)
10/12/2022		0.068 (J)

ND substitution: RL or RL/2 if <15% NDs.

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Cadmium Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

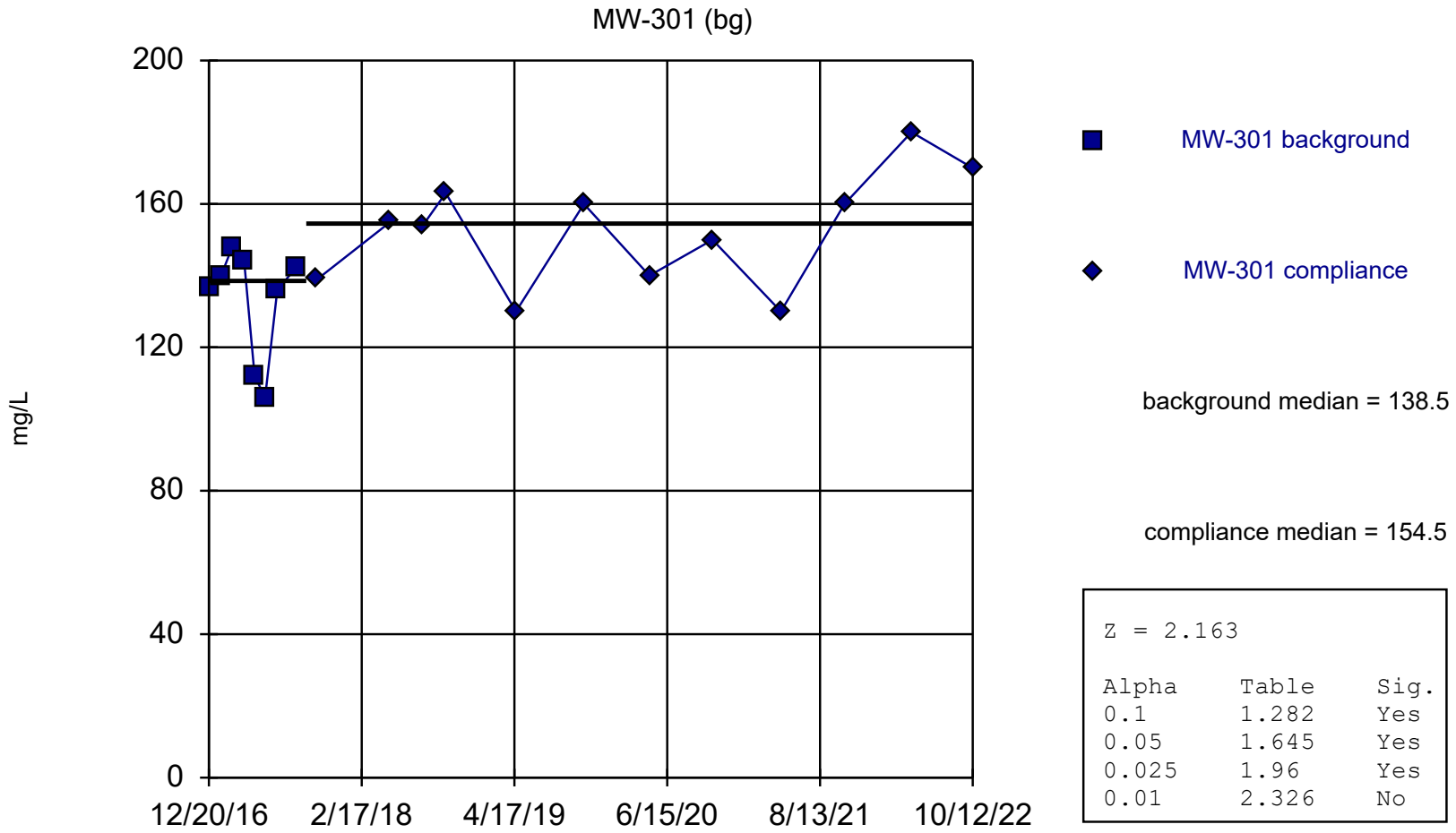
Constituent: Cadmium (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	<0.029 (U)	
1/23/2017	<0.029 (U)	
2/23/2017	0.04 (J)	
3/28/2017	0.036 (J)	
4/26/2017	0.042 (J)	
5/25/2017	0.021 (J)	
6/28/2017	0.035 (J)	
8/17/2017	0.03 (J)	
5/8/2018		0.041 (J)
8/6/2018		0.084 (J)
10/9/2018		<0.033 (U)
4/22/2019		<0.077 (U)
10/28/2019		0.053 (J)
4/27/2020		0.098 (J)
10/19/2020		0.062 (J)
4/27/2021		0.065 (J)
10/21/2021		0.08 (J)
4/25/2022		0.38
10/12/2022		0.072 (J)

ND substitution: RL or RL/2 if <15% NDs.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Calcium Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

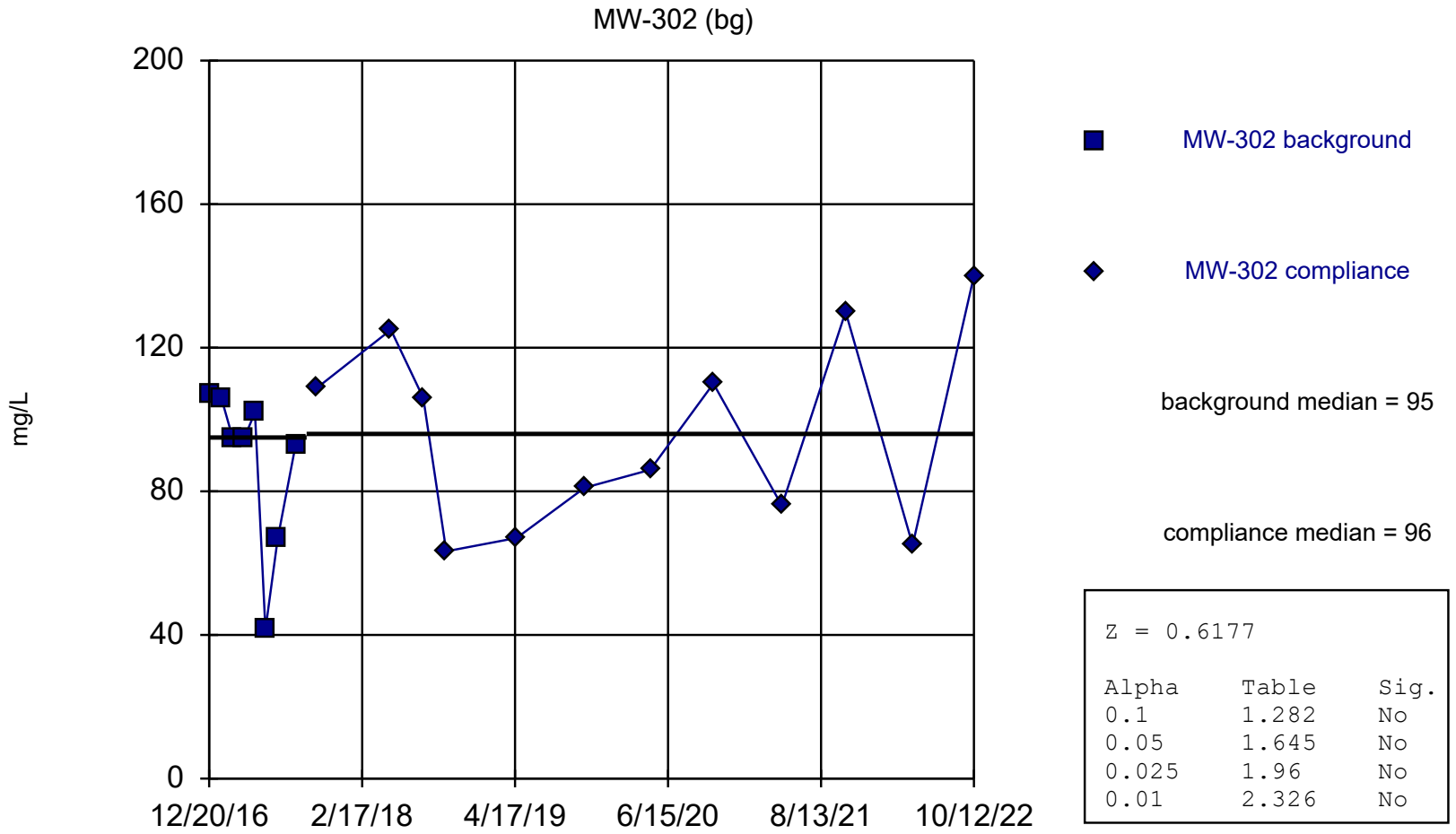
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Calcium (mg/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	137	
1/23/2017	140	
2/23/2017	148	
3/28/2017	144	
4/26/2017	112	
5/25/2017	106	
6/28/2017	136	
8/17/2017	142	
10/17/2017		139
5/8/2018		155
8/6/2018		154
10/9/2018		163
4/22/2019		130
10/28/2019		160
4/27/2020		140
10/19/2020		150
4/27/2021		130
10/21/2021		160
4/25/2022		180
10/12/2022		170

Mann-Whitney (Wilcoxon Rank Sum)



Z = 0.6177

Alpha	Table	Sig.
0.1	1.282	No
0.05	1.645	No
0.025	1.96	No
0.01	2.326	No

Constituent: Calcium Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

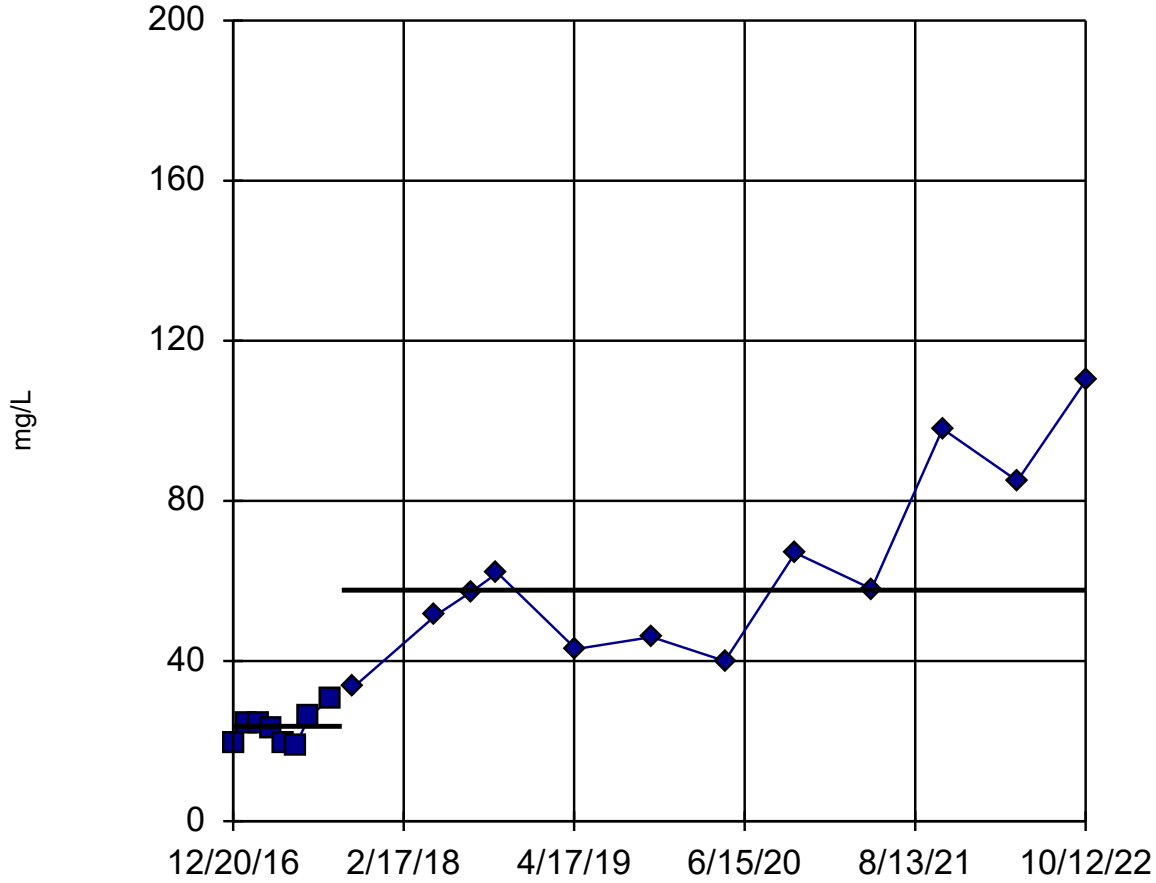
Constituent: Calcium (mg/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	107	
1/23/2017	106	
2/23/2017	95	
3/28/2017	95	
4/26/2017	102	
5/25/2017	41.4	
6/28/2017	66.7	
8/17/2017	93.1	
10/17/2017		109
5/8/2018		125
8/6/2018		106
10/9/2018		63.3
4/22/2019		67
10/28/2019		81
4/27/2020		86
10/19/2020		110
4/27/2021		76
10/21/2021		130
4/25/2022		65
10/12/2022		140

Mann-Whitney (Wilcoxon Rank Sum)

MW-301 (bg)



MW-301 background

MW-301 compliance

background median = 23.7

compliance median = 57.7

Z = 3.665

Alpha	Table	Sig.
0.1	1.282	Yes
0.05	1.645	Yes
0.025	1.96	Yes
0.01	2.326	Yes

Constituent: Chloride Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

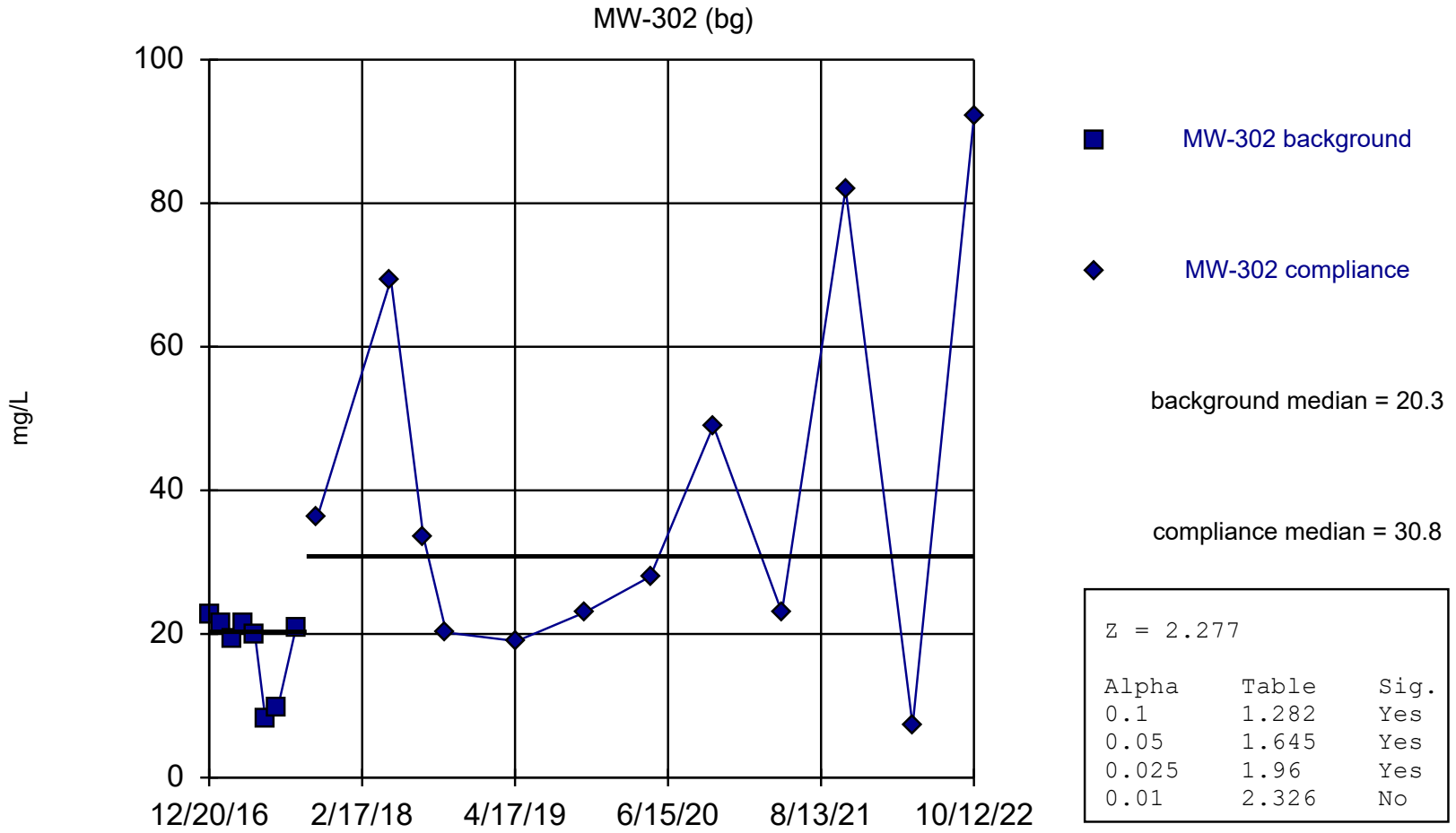
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Chloride (mg/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	19.5	
1/23/2017	24.1	
2/23/2017	24.4	
3/28/2017	23.3	
4/26/2017	19.2	
5/25/2017	19.1	
6/28/2017	26.2	
8/17/2017	30.4	
10/17/2017		33.6
5/8/2018		51.4
8/6/2018		57.4
10/9/2018		62
4/22/2019		43
10/28/2019		46
4/27/2020		40
10/19/2020		67
4/27/2021		58
10/21/2021		98
4/25/2022		85
10/12/2022		110

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Chloride Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

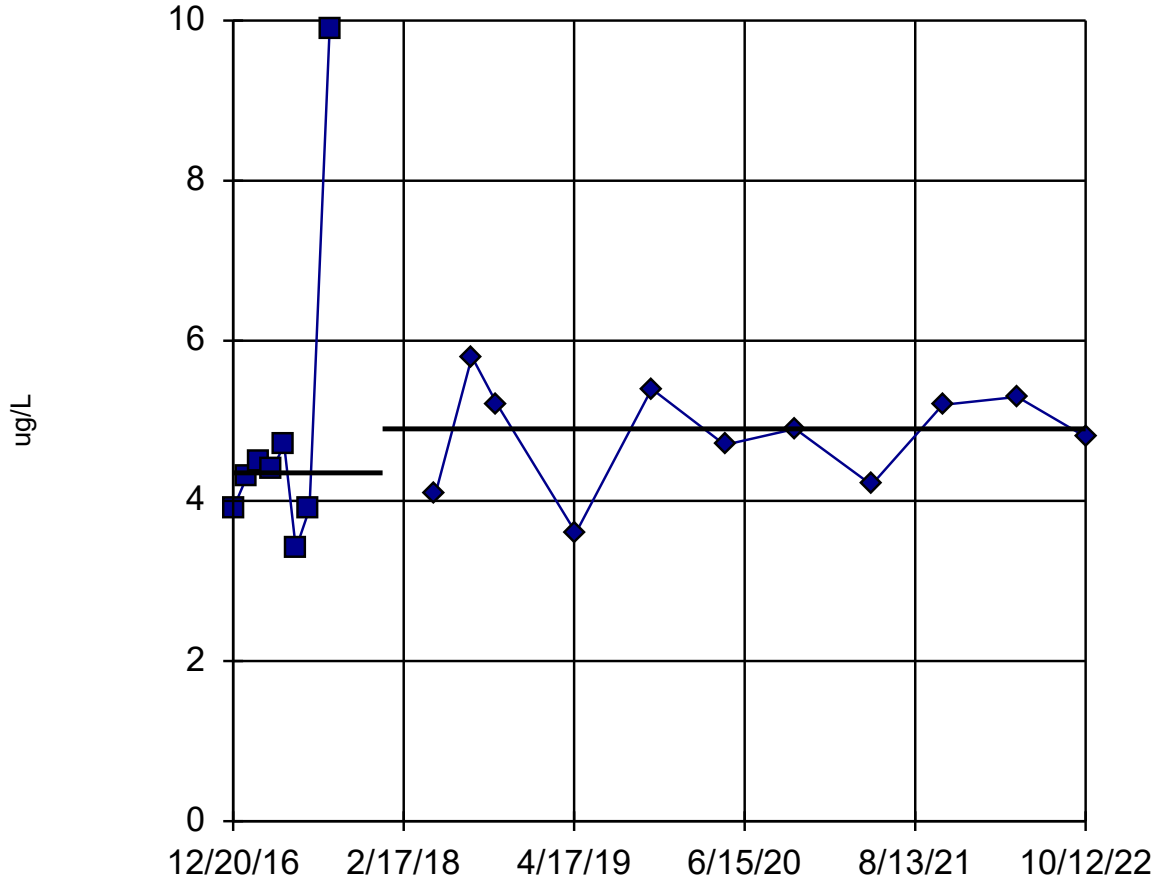
Constituent: Chloride (mg/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	22.6	
1/23/2017	21.4	
2/23/2017	19.2	
3/28/2017	21.6	
4/26/2017	19.9	
5/25/2017	8.1	
6/28/2017	9.6	
8/17/2017	20.7	
10/17/2017		36.4
5/8/2018		69.4
8/6/2018		33.6
10/9/2018		20.2
4/22/2019		19
10/28/2019		23
4/27/2020		28
10/19/2020		49
4/27/2021		23
10/21/2021		82
4/25/2022		7.2
10/12/2022		92

Mann-Whitney (Wilcoxon Rank Sum)

MW-301 (bg)



MW-301 background

MW-301 compliance

background median = 4.35

compliance median = 4.9

Z = 1.488

Alpha	Table	Sig.
0.1	1.282	Yes
0.05	1.645	No
0.025	1.96	No
0.01	2.326	No

Constituent: Chromium Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Chromium (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	3.9	
1/23/2017	4.3	
2/23/2017	4.5	
3/28/2017	4.4	
4/26/2017	4.7	
5/25/2017	3.4	
6/28/2017	3.9	
8/17/2017	9.9	
5/8/2018		4.1
8/6/2018		5.8
10/9/2018		5.2
4/22/2019		3.6 (J)
10/28/2019		5.4
4/27/2020		4.7 (J)
10/19/2020		4.9 (J)
4/27/2021		4.2 (J)
10/21/2021		5.2
4/25/2022		5.3
10/12/2022		4.8 (J)

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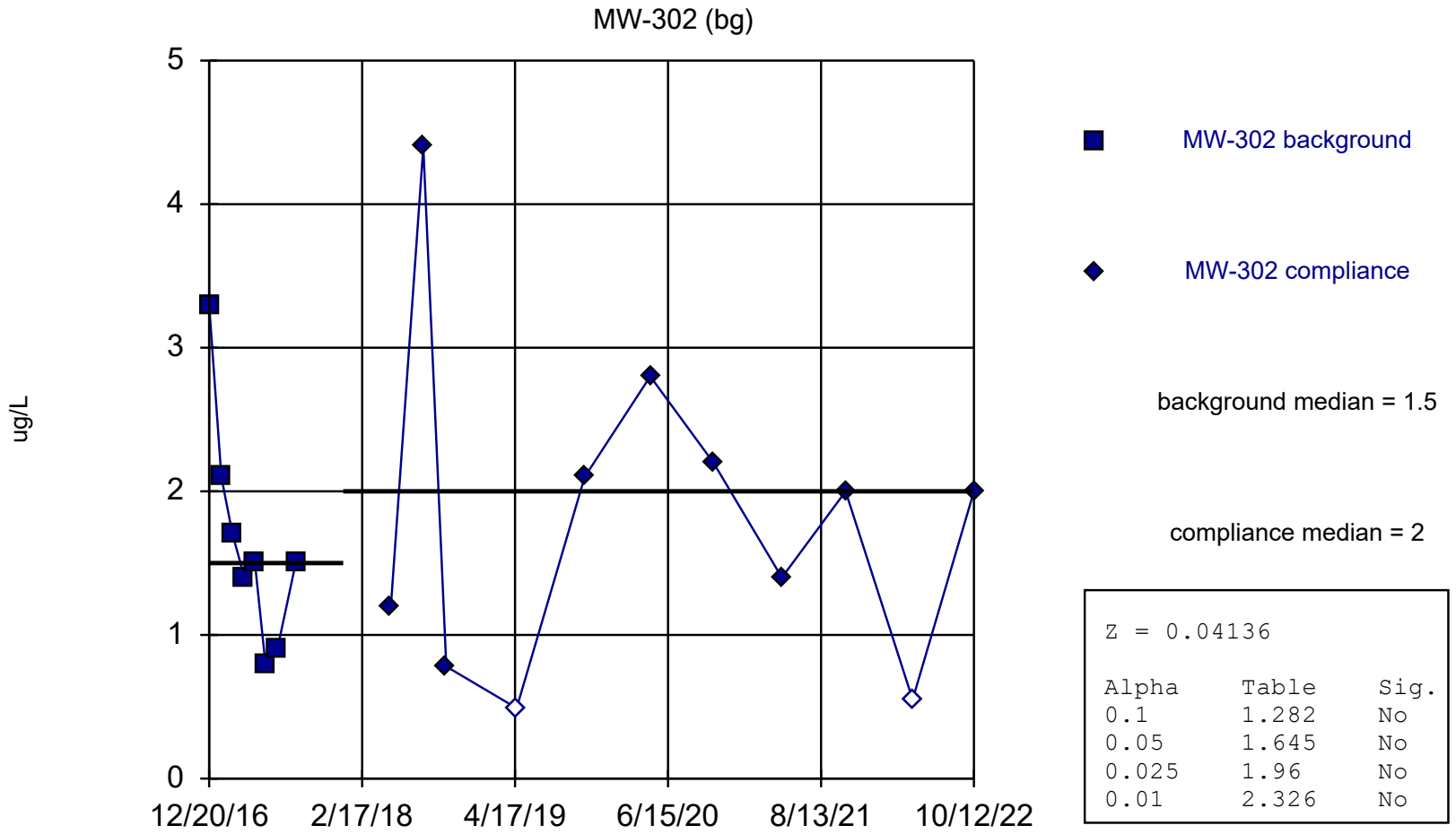
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Z = 0.04136

Alpha	Table	Sig.
0.1	1.282	No
0.05	1.645	No
0.025	1.96	No
0.01	2.326	No

Constituent: Chromium Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Chromium (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	3.3	
1/23/2017	2.1	
2/23/2017	1.7	
3/28/2017	1.4	
4/26/2017	1.5	
5/25/2017	0.8 (J)	
6/28/2017	0.91 (J)	
8/17/2017	1.5	
5/8/2018		1.2
8/6/2018		4.4
10/9/2018		0.78 (J)
4/22/2019		<0.98 (U)
10/28/2019		2.1 (J)
4/27/2020		2.8 (J)
10/19/2020		2.2 (J)
4/27/2021		1.4 (J)
10/21/2021		2 (J)
4/25/2022		<1.1 (U)
10/12/2022		2 (J)

ND substitution: RL or RL/2 if <15% NDs.

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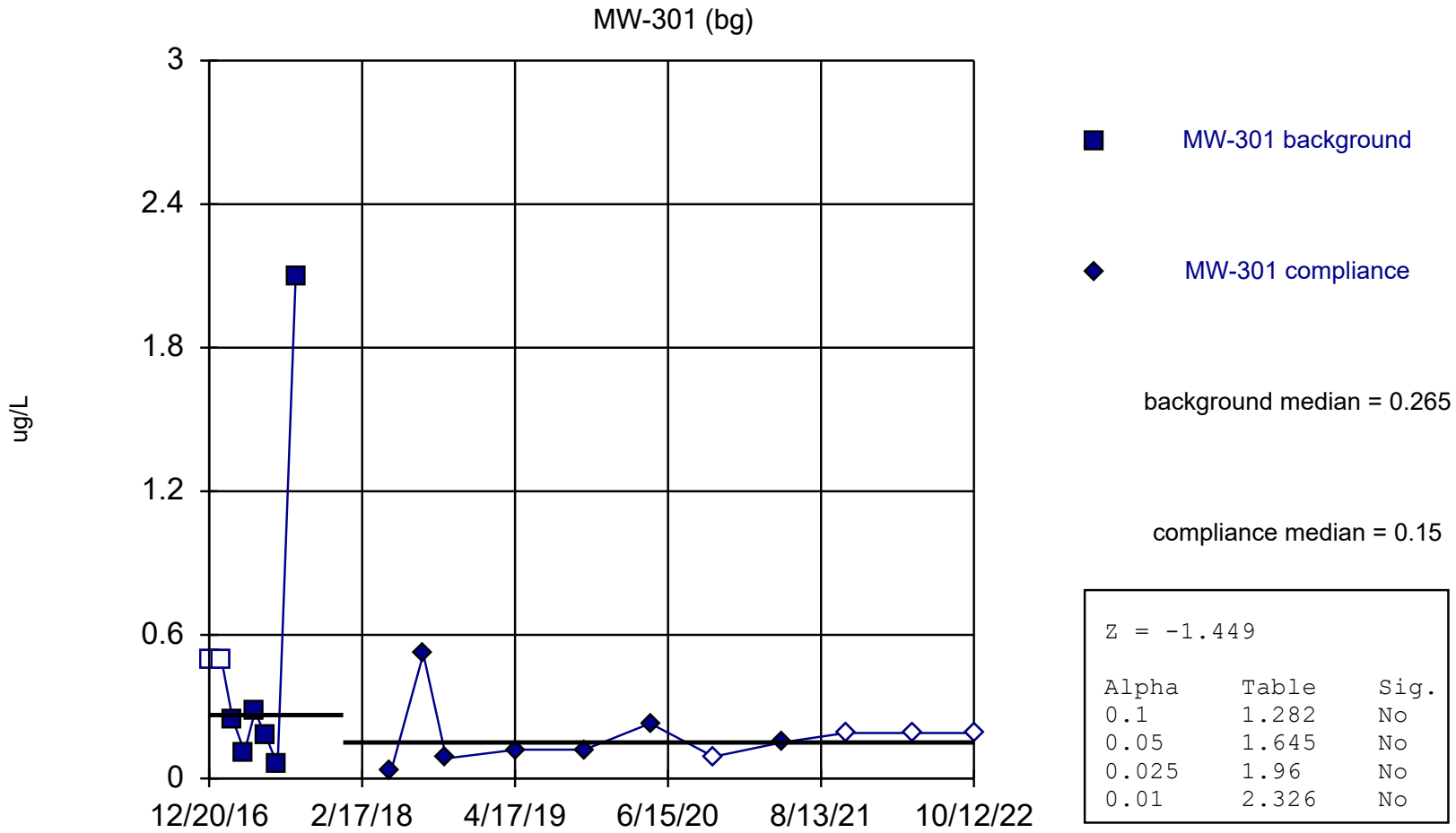
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Cobalt Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Cobalt (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

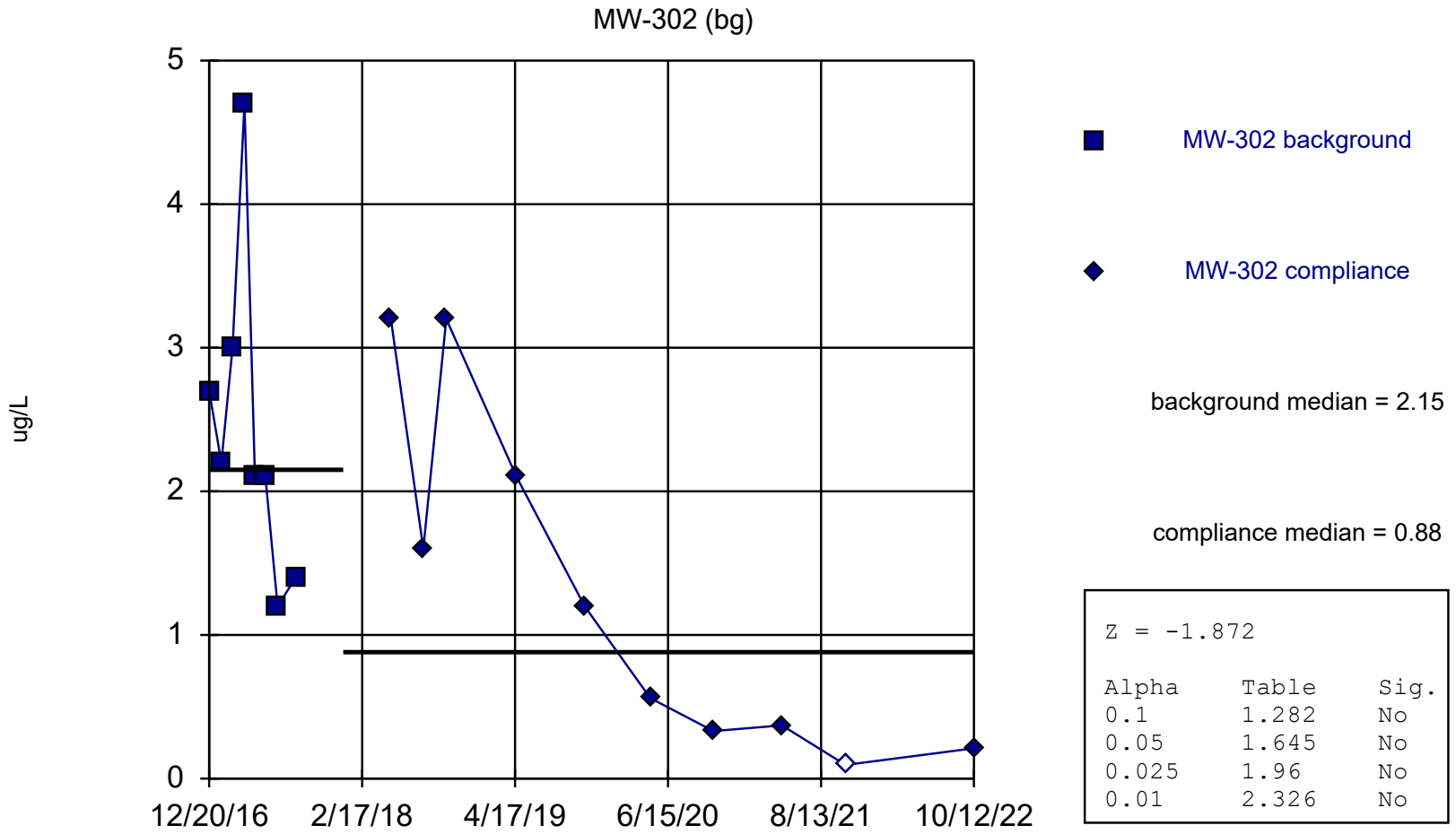
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	<0.5 (U)	
1/23/2017	<0.5 (U)	
2/23/2017	0.25 (J)	
3/28/2017	0.11 (J)	
4/26/2017	0.28 (J)	
5/25/2017	0.18 (J)	
6/28/2017	0.057 (J)	
8/17/2017	2.1	
5/8/2018		0.028 (J)
8/6/2018		0.52 (J)
10/9/2018		0.084 (J)
4/22/2019		0.12 (J)
10/28/2019		0.12 (J)
4/27/2020		0.23 (J)
10/19/2020		<0.091 (U)
4/27/2021		0.15 (J)
10/21/2021		<0.19 (U)
4/25/2022		<0.19 (U)
10/12/2022		<0.19 (U)

ND substitution: RL or RL/2 if <15% NDs.

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Cobalt Analysis Run 1/1/2023 8:44 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

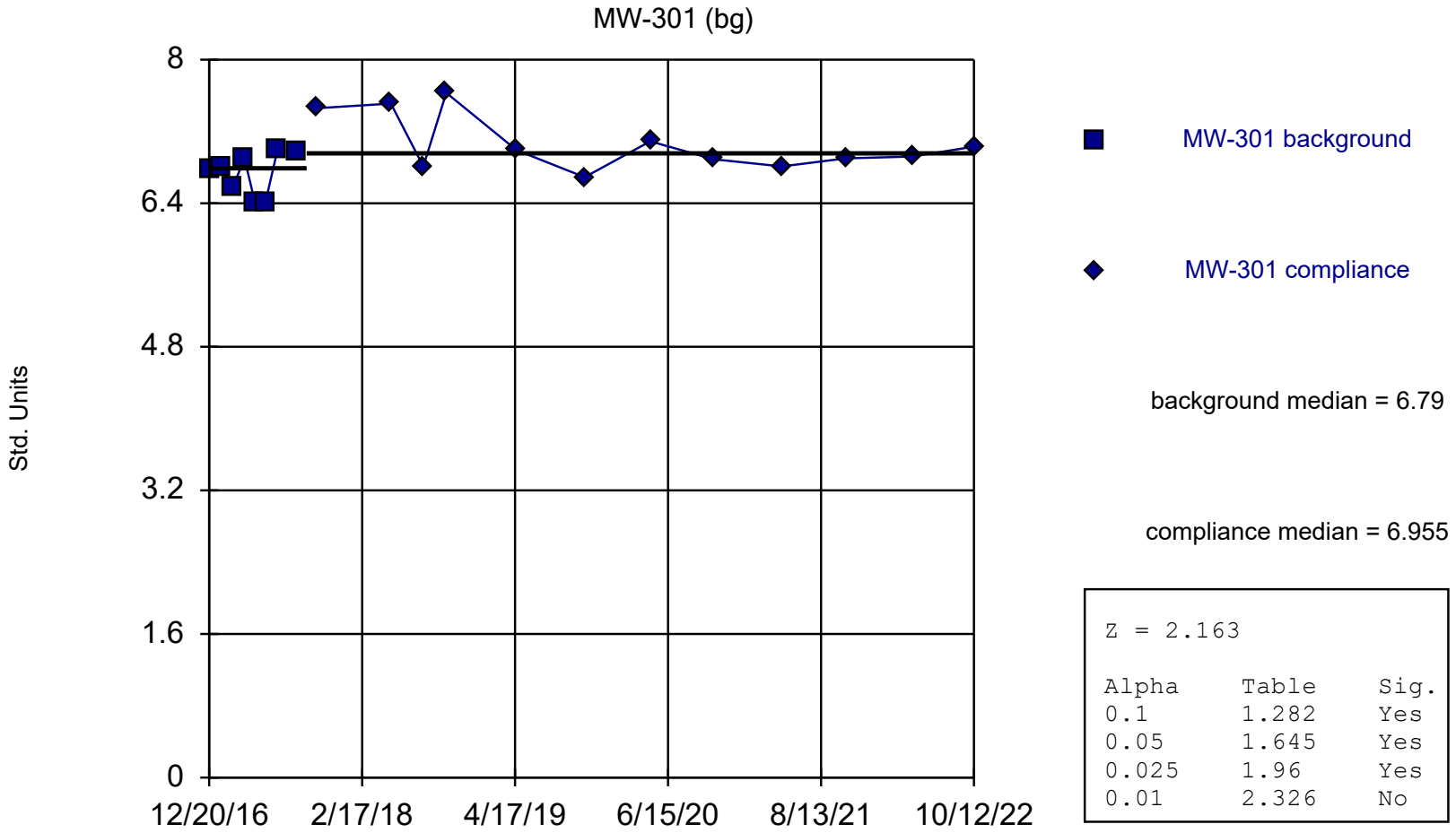
Constituent: Cobalt (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	2.7	
1/23/2017	2.2	
2/23/2017	3	
3/28/2017	4.7	
4/26/2017	2.1	
5/25/2017	2.1	
6/28/2017	1.2	
8/17/2017	1.4	
5/8/2018		3.2
8/6/2018		1.6
10/9/2018		3.2
4/22/2019		2.1
10/28/2019		1.2
4/27/2020		0.56
10/19/2020		0.33 (J)
4/27/2021		0.37 (J)
10/21/2021		<0.19 (U)
4/25/2022	31 (X)	
10/12/2022		0.21 (J)

ND substitution: RL or RL/2 if <15% NDs.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Field pH Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

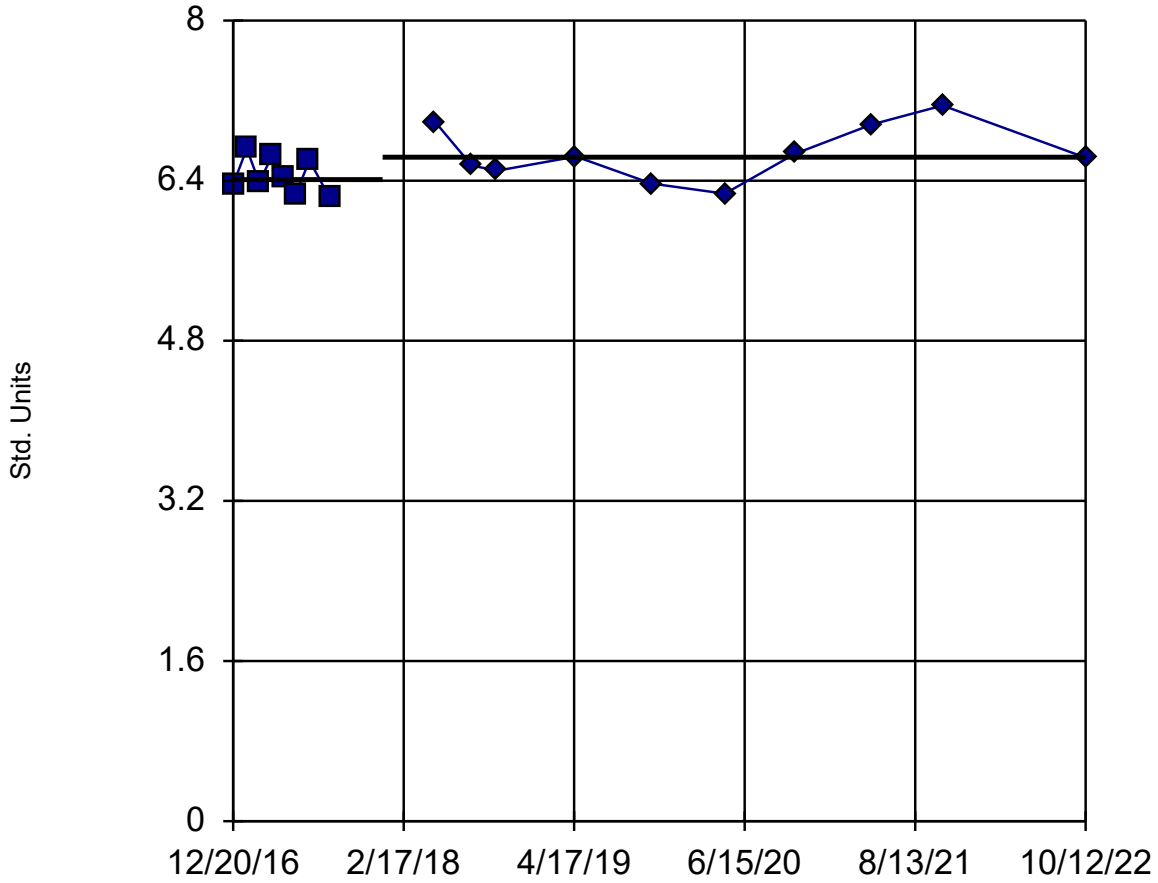
Constituent: Field pH (Std. Units) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	6.78	
1/23/2017	6.8	
2/23/2017	6.57	
3/28/2017	6.9	
4/26/2017	6.41	
5/25/2017	6.41	
6/28/2017	7	
8/17/2017	6.97	
10/17/2017		7.46
5/8/2018		7.51
8/6/2018		6.81
10/9/2018		7.63
4/22/2019		6.99
10/28/2019		6.69
4/27/2020		7.09
10/19/2020		6.89
4/27/2021		6.81
10/21/2021		6.9
4/25/2022		6.92
10/12/2022		7.03

Mann-Whitney (Wilcoxon Rank Sum)

MW-302 (bg)



MW-302 background

MW-302 compliance

background median = 6.41

compliance median = 6.635

Z = 1.511

Alpha	Table	Sig.
0.1	1.282	Yes
0.05	1.645	No
0.025	1.96	No
0.01	2.326	No

Constituent: Field pH Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Field pH (Std. Units) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	6.36	
1/23/2017	6.72	
2/23/2017	6.38	
3/28/2017	6.66	
4/26/2017	6.44	
5/25/2017	6.27	
6/28/2017	6.6	
8/17/2017	6.23	
10/17/2017	7.71 (X)	
5/8/2018		6.98
8/6/2018		6.55
10/9/2018		6.5
4/22/2019		6.64
10/28/2019		6.37
4/27/2020		6.27
10/19/2020		6.67
4/27/2021		6.96
10/21/2021		7.15
4/25/2022	5.35 (X)	
10/12/2022		6.63

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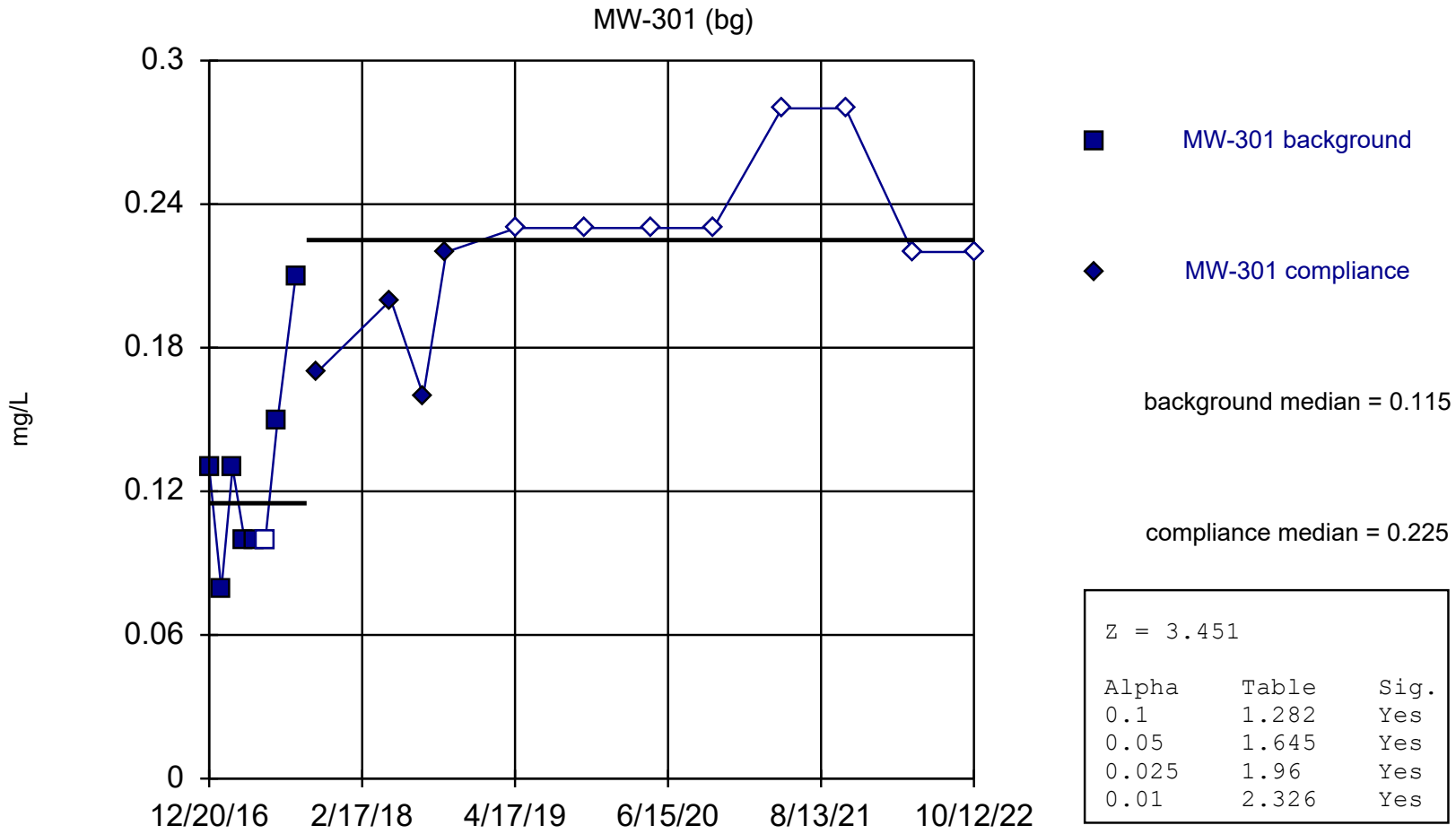
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Z = 3.451

Alpha	Table	Sig.
0.1	1.282	Yes
0.05	1.645	Yes
0.025	1.96	Yes
0.01	2.326	Yes

Constituent: Fluoride Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Fluoride (mg/L) Analysis Run 1/1/2023 8:46 PM View: PCS

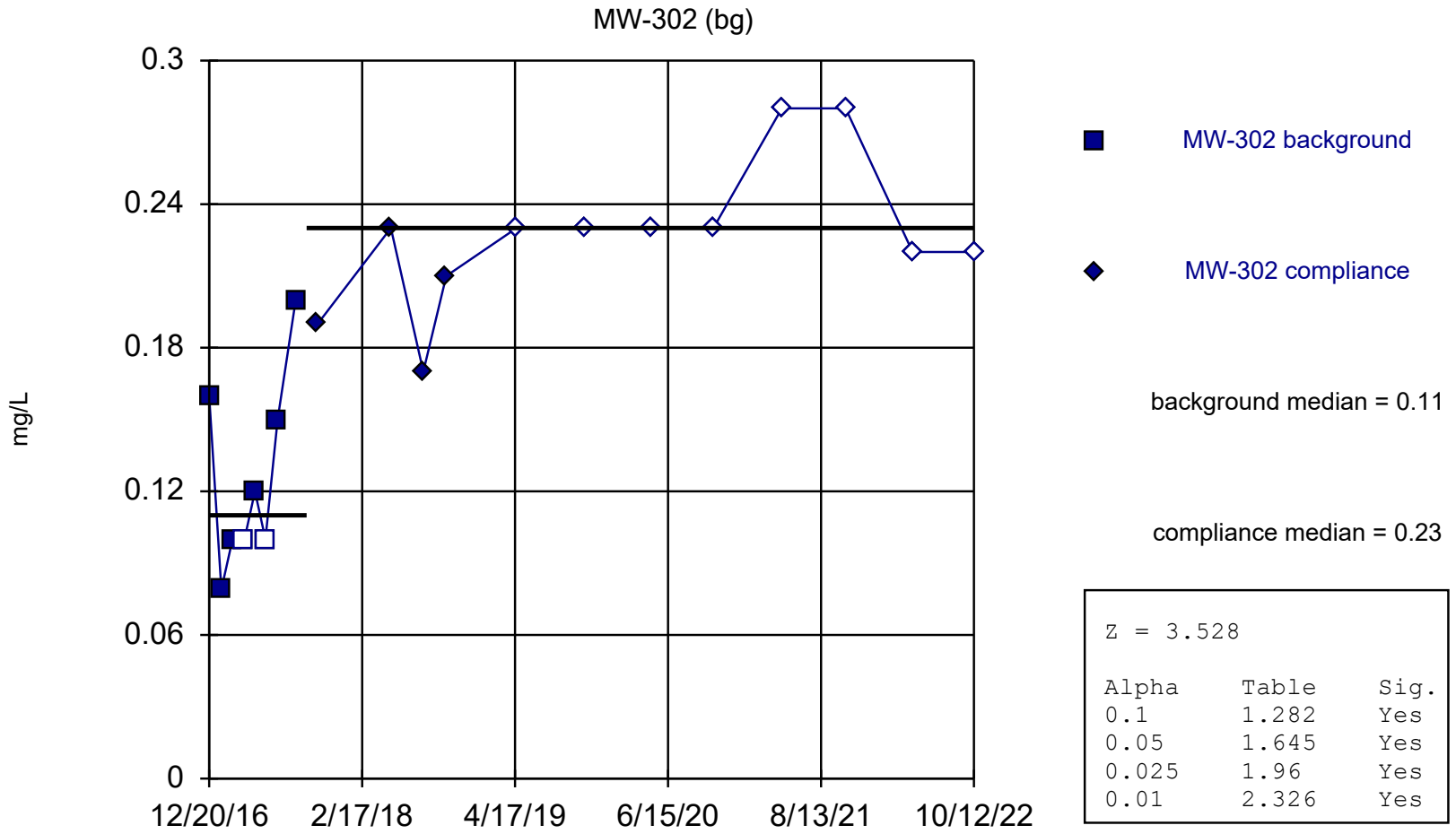
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	0.13 (J)	
1/23/2017	0.079 (J)	
2/23/2017	0.13 (J)	
3/28/2017	0.1 (J)	
4/26/2017	0.1 (J)	
5/25/2017	<0.1 (U)	
6/28/2017	0.15 (J)	
8/17/2017	0.21	
10/17/2017		0.17 (J)
5/8/2018		0.2 (J)
8/6/2018		0.16 (J)
10/9/2018		0.22
4/22/2019		<0.23 (U)
10/28/2019		<0.23 (U)
4/27/2020		<0.23 (U)
10/19/2020		<0.23 (U)
4/27/2021		<0.28 (U)
10/21/2021		<0.28 (U)
4/25/2022		<0.22 (U)
10/12/2022		<0.22 (U)

ND substitution: RL or RL/2 if <15% NDs.

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Z = 3.528

Alpha	Table	Sig.
0.1	1.282	Yes
0.05	1.645	Yes
0.025	1.96	Yes
0.01	2.326	Yes

Constituent: Fluoride Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Fluoride (mg/L) Analysis Run 1/1/2023 8:46 PM View: PCS

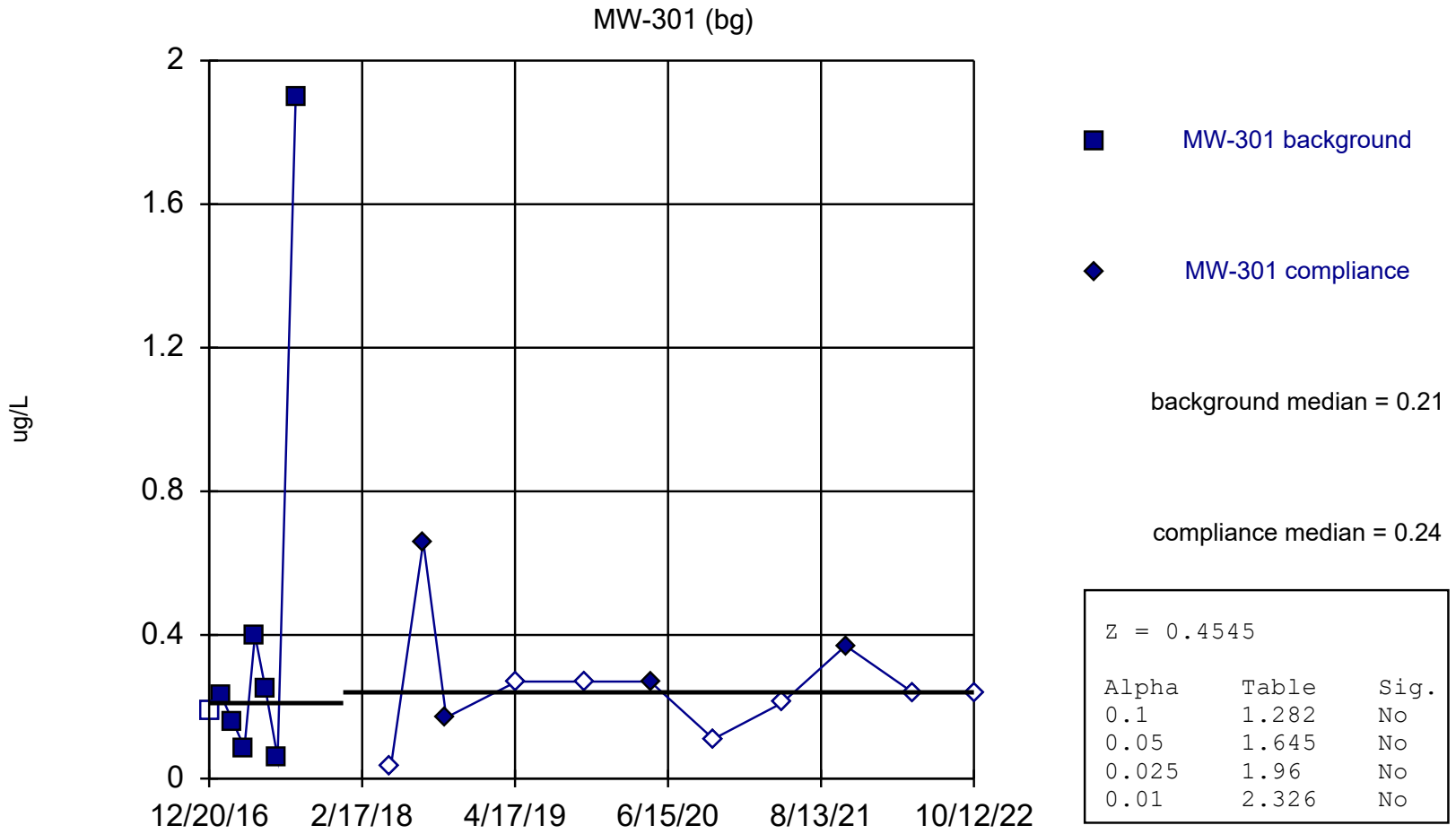
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	0.16 (J)	
1/23/2017	0.079 (J)	
2/23/2017	0.1 (J)	
3/28/2017	<0.1 (U)	
4/26/2017	0.12 (J)	
5/25/2017	<0.1 (U)	
6/28/2017	0.15 (J)	
8/17/2017	0.2 (J)	
10/17/2017		0.19 (J)
5/8/2018		0.23
8/6/2018		0.17 (J)
10/9/2018		0.21
4/22/2019		<0.23 (U)
10/28/2019		<0.23 (U)
4/27/2020		<0.23 (U)
10/19/2020		<0.23 (U)
4/27/2021		<0.28 (U)
10/21/2021		<0.28 (U)
4/25/2022		<0.22 (U)
10/12/2022		<0.22 (U)

ND substitution: RL or RL/2 if <15% NDs.

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Lead Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Lead (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

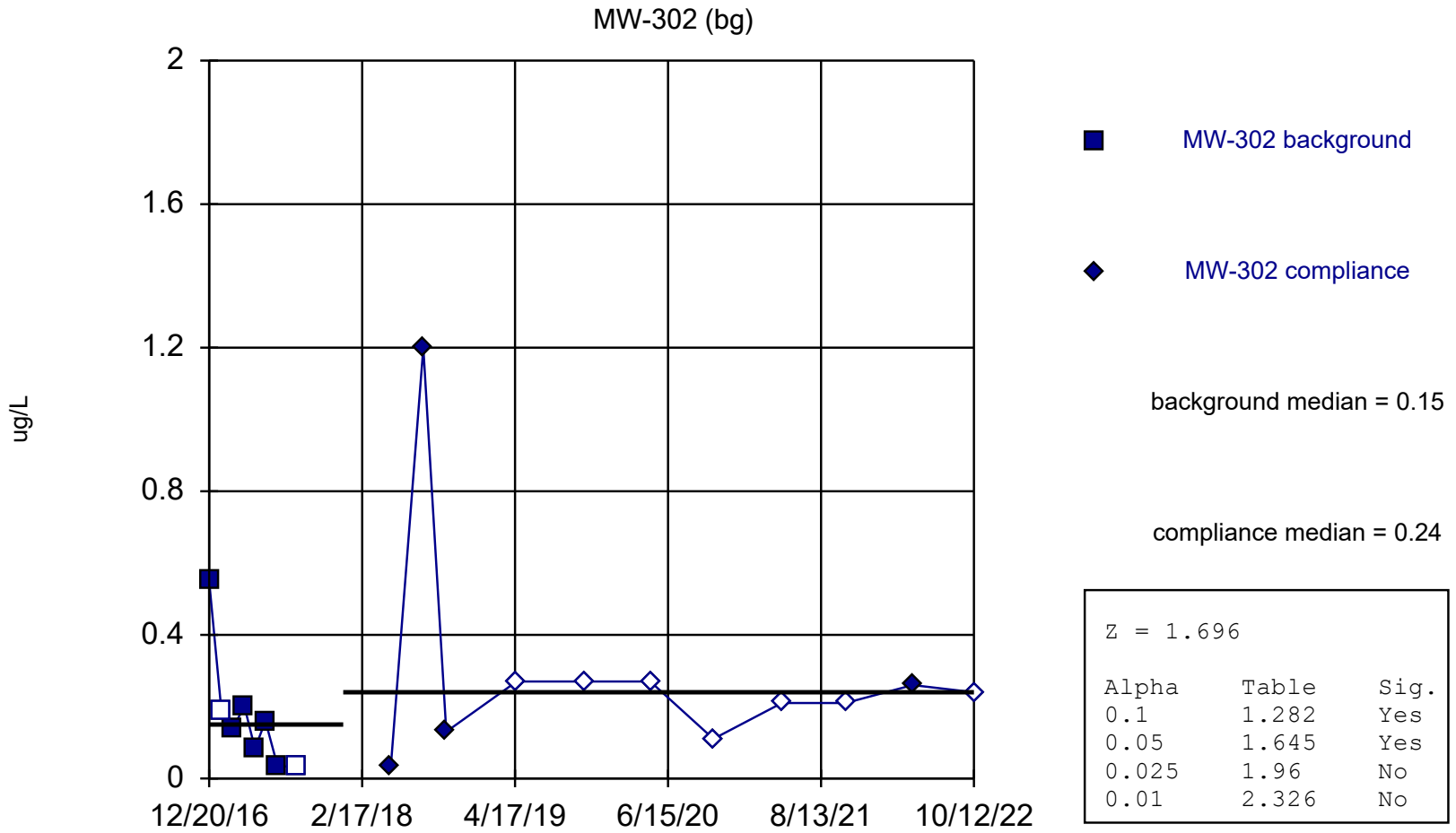
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	<0.19 (U)	
1/23/2017	0.23 (J)	
2/23/2017	0.16 (J)	
3/28/2017	0.086 (J)	
4/26/2017	0.4 (J)	
5/25/2017	0.25 (J)	
6/28/2017	0.058 (J)	
8/17/2017	1.9	
5/8/2018		<0.033 (U)
8/6/2018		0.66 (J)
10/9/2018		0.17 (J)
4/22/2019		<0.27 (U)
10/28/2019		<0.27 (U)
4/27/2020		0.27 (J)
10/19/2020		<0.11 (U)
4/27/2021		<0.21 (U)
10/21/2021		0.37 (J)
4/25/2022		<0.24 (U)
10/12/2022		<0.24 (U)

ND substitution: RL or RL/2 if <15% NDs.

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Lead Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Lead (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

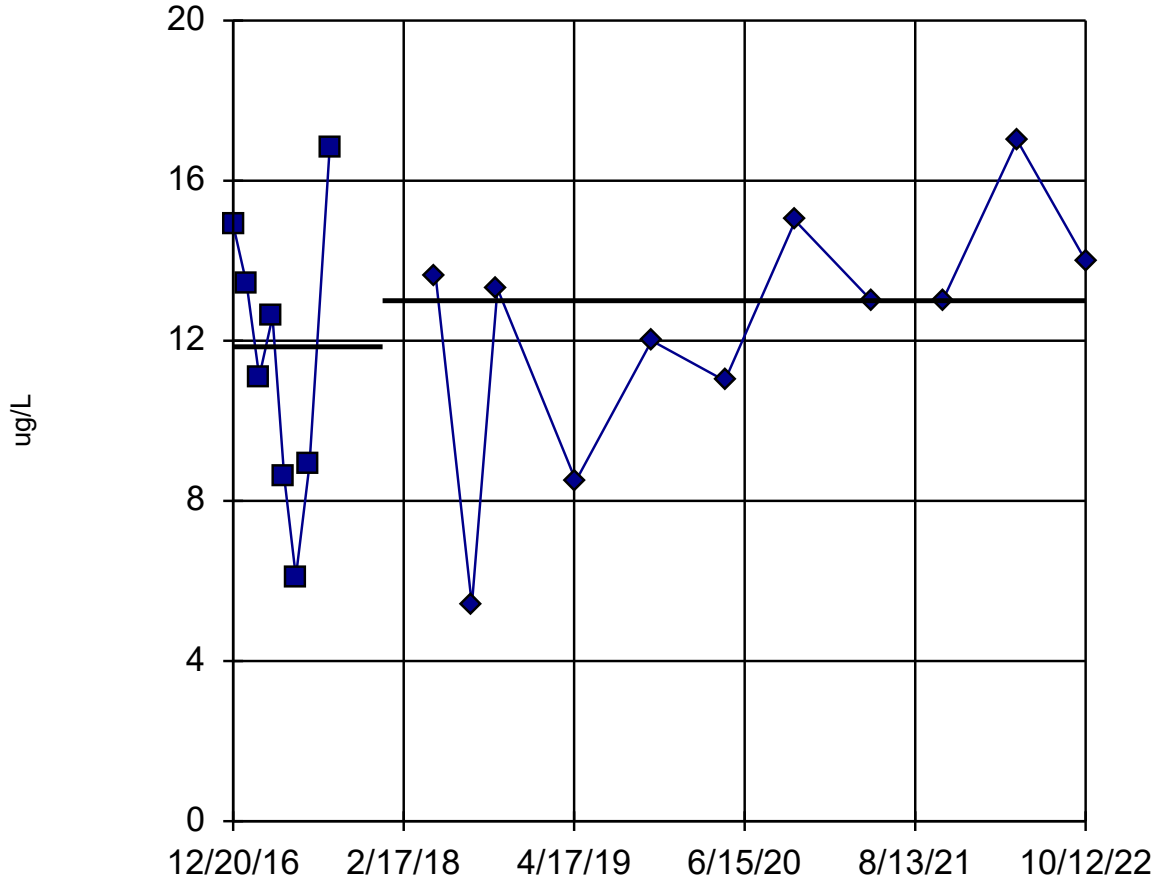
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	0.55 (J)	
1/23/2017	<0.19 (U)	
2/23/2017	0.14 (J)	
3/28/2017	0.2 (J)	
4/26/2017	0.083 (J)	
5/25/2017	0.16 (J)	
6/28/2017	0.034 (J)	
8/17/2017	<0.033 (U)	
5/8/2018		0.035 (J)
8/6/2018		1.2
10/9/2018		0.13 (J)
4/22/2019		<0.27 (U)
10/28/2019		<0.27 (U)
4/27/2020		<0.27 (U)
10/19/2020		<0.11 (U)
4/27/2021		<0.21 (U)
10/21/2021		<0.21 (U)
4/25/2022		0.26 (J)
10/12/2022		<0.24 (U)

ND substitution: RL or RL/2 if <15% NDs.

Mann-Whitney (Wilcoxon Rank Sum)

MW-301 (bg)



MW-301 background

MW-301 compliance

background median = 11.85

compliance median = 13

Z = 0.4543

Alpha	Table	Sig.
0.1	1.282	No
0.05	1.645	No
0.025	1.96	No
0.01	2.326	No

Constituent: Lithium Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

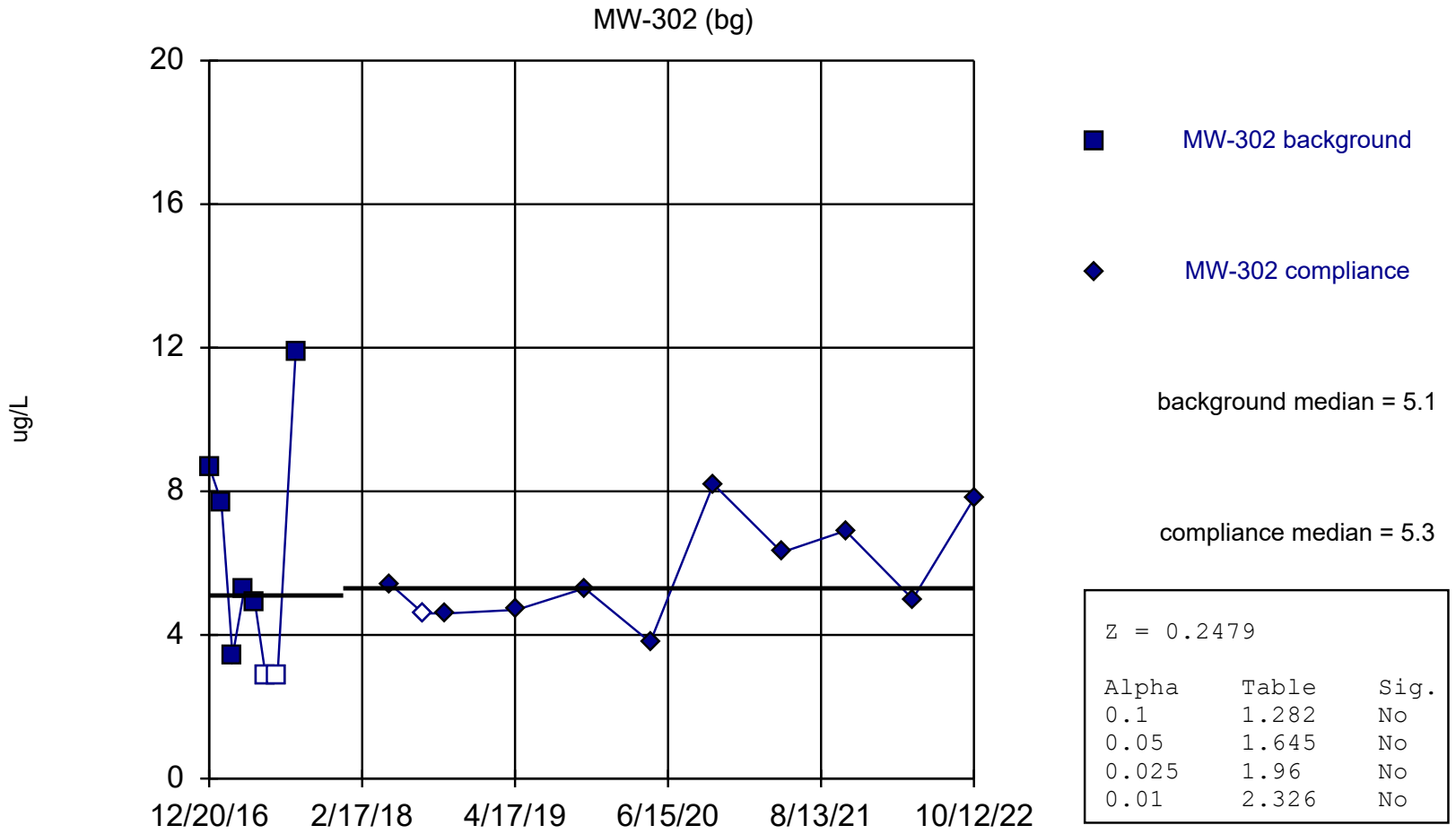
Constituent: Lithium (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	14.9	
1/23/2017	13.4	
2/23/2017	11.1	
3/28/2017	12.6	
4/26/2017	8.6 (J)	
5/25/2017	6.1 (J)	
6/28/2017	8.9 (J)	
8/17/2017	16.8	
5/8/2018		13.6
8/6/2018		5.4 (J)
10/9/2018		13.3
4/22/2019		8.5 (J)
10/28/2019		12
4/27/2020		11
10/19/2020		15
4/27/2021		13
10/21/2021		13
4/25/2022		17
10/12/2022		14

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Lithium Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Lithium (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

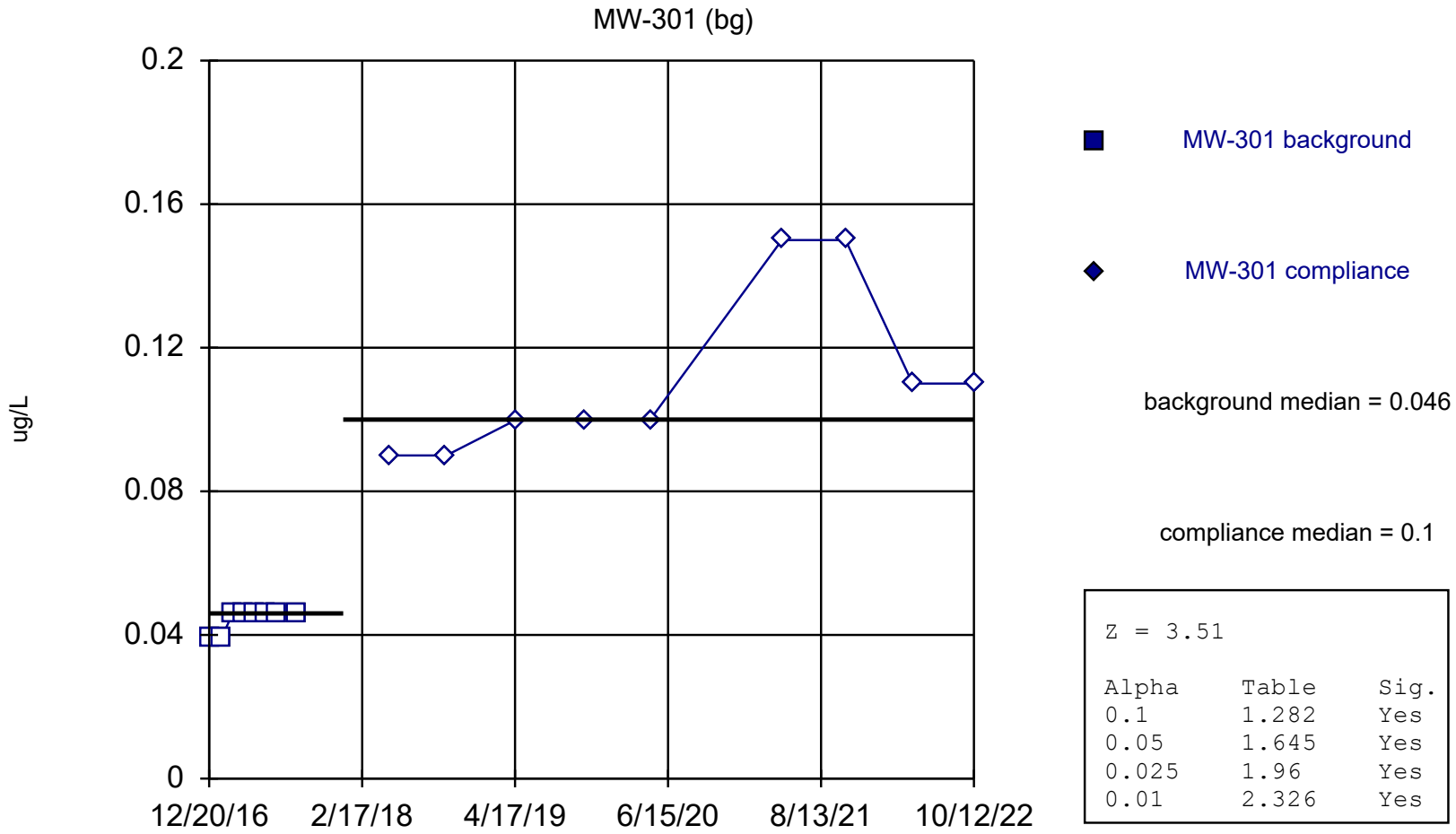
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	8.7 (J)	
1/23/2017	7.7 (J)	
2/23/2017	3.4 (J)	
3/28/2017	5.3 (J)	
4/26/2017	4.9 (J)	
5/25/2017	<2.9 (U)	
6/28/2017	<2.9 (U)	
8/17/2017	11.9	
5/8/2018		5.4 (J)
8/6/2018		<4.6 (U)
10/9/2018		4.6 (J)
4/22/2019		4.7 (J)
10/28/2019		5.3 (J)
4/27/2020		3.8 (J)
10/19/2020		8.2 (J)
4/27/2021		6.3 (J)
10/21/2021		6.9 (J)
4/25/2022		5 (J)
10/12/2022		7.8 (J)

ND substitution: RL or RL/2 if <15% NDs.

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Mercury Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Mercury (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

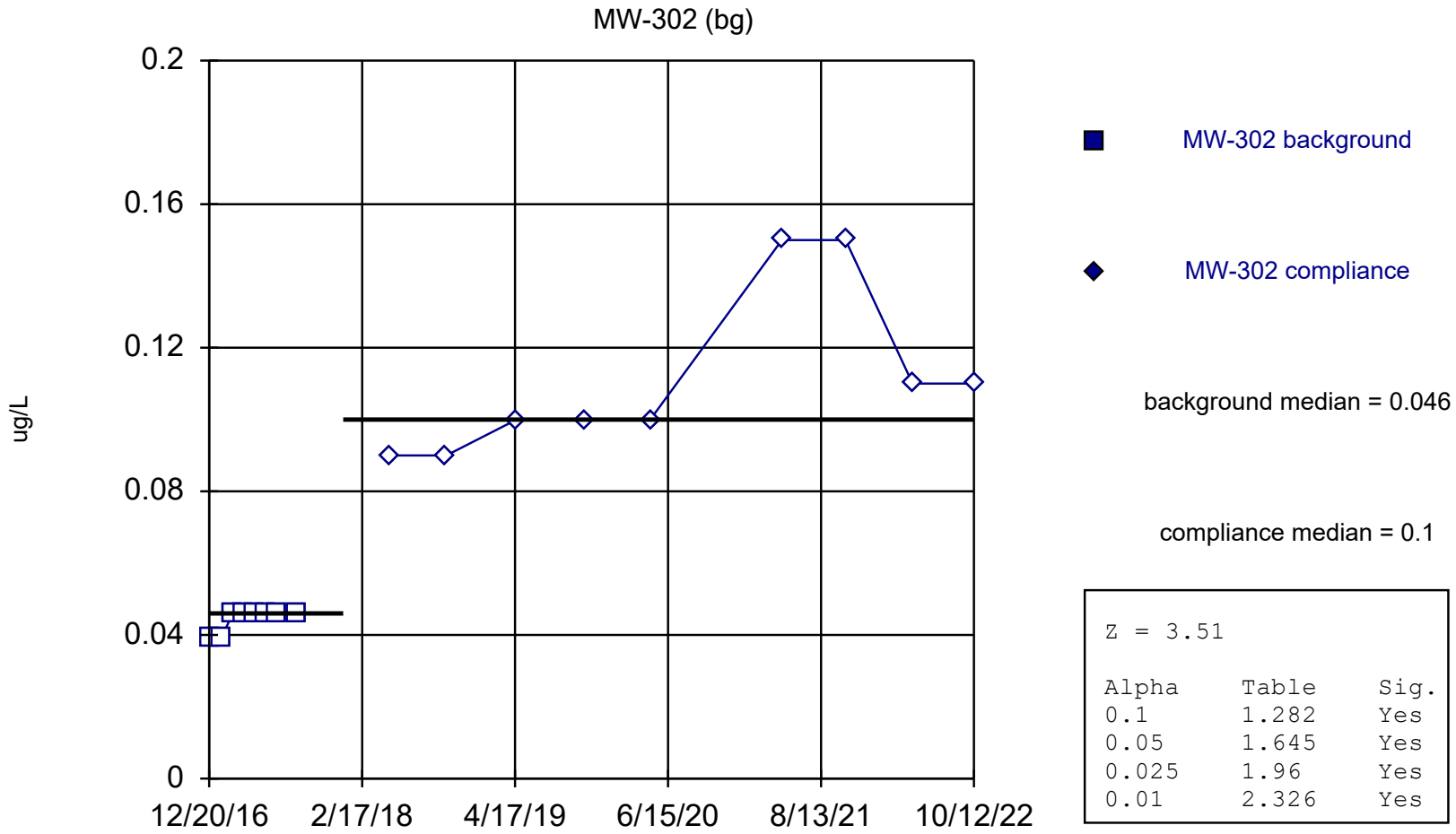
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	<0.039 (U)	
1/23/2017	<0.039 (U)	
2/23/2017	<0.046 (U)	
3/28/2017	<0.046 (U)	
4/26/2017	<0.046 (U)	
5/25/2017	<0.046 (U)	
6/28/2017	<0.046 (U)	
8/17/2017	<0.046 (U)	
5/8/2018		<0.09 (U)
10/9/2018		<0.09 (U)
4/22/2019		<0.1 (U)
10/28/2019		<0.1 (U)
4/27/2020		<0.1 (U)
4/27/2021		<0.15 (U)
10/21/2021		<0.15 (U)
4/25/2022		<0.11 (U)
10/12/2022		<0.11 (U)

ND substitution: RL or RL/2 if <15% NDs.

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Mercury Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Mercury (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

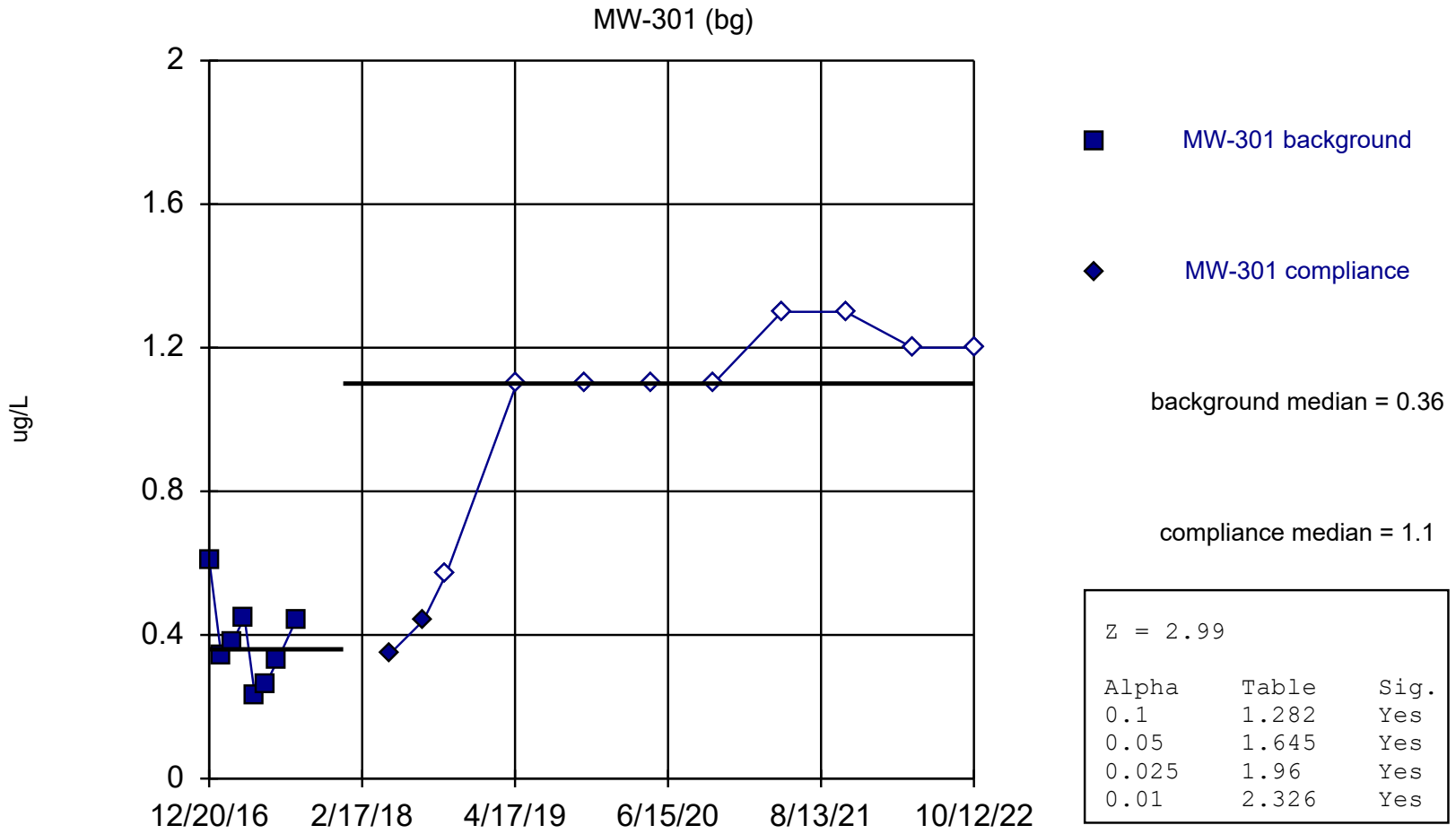
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	<0.039 (U)	
1/23/2017	<0.039 (U)	
2/23/2017	<0.046 (U)	
3/28/2017	<0.046 (U)	
4/26/2017	<0.046 (U)	
5/25/2017	<0.046 (U)	
6/28/2017	<0.046 (U)	
8/17/2017	<0.046 (U)	
5/8/2018		<0.09 (U)
10/9/2018		<0.09 (U)
4/22/2019		<0.1 (U)
10/28/2019		<0.1 (U)
4/27/2020		<0.1 (U)
4/27/2021		<0.15 (U)
10/21/2021		<0.15 (U)
4/25/2022		<0.11 (U)
10/12/2022		<0.11 (U)

ND substitution: RL or RL/2 if <15% NDs.

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Molybdenum Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Molybdenum (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

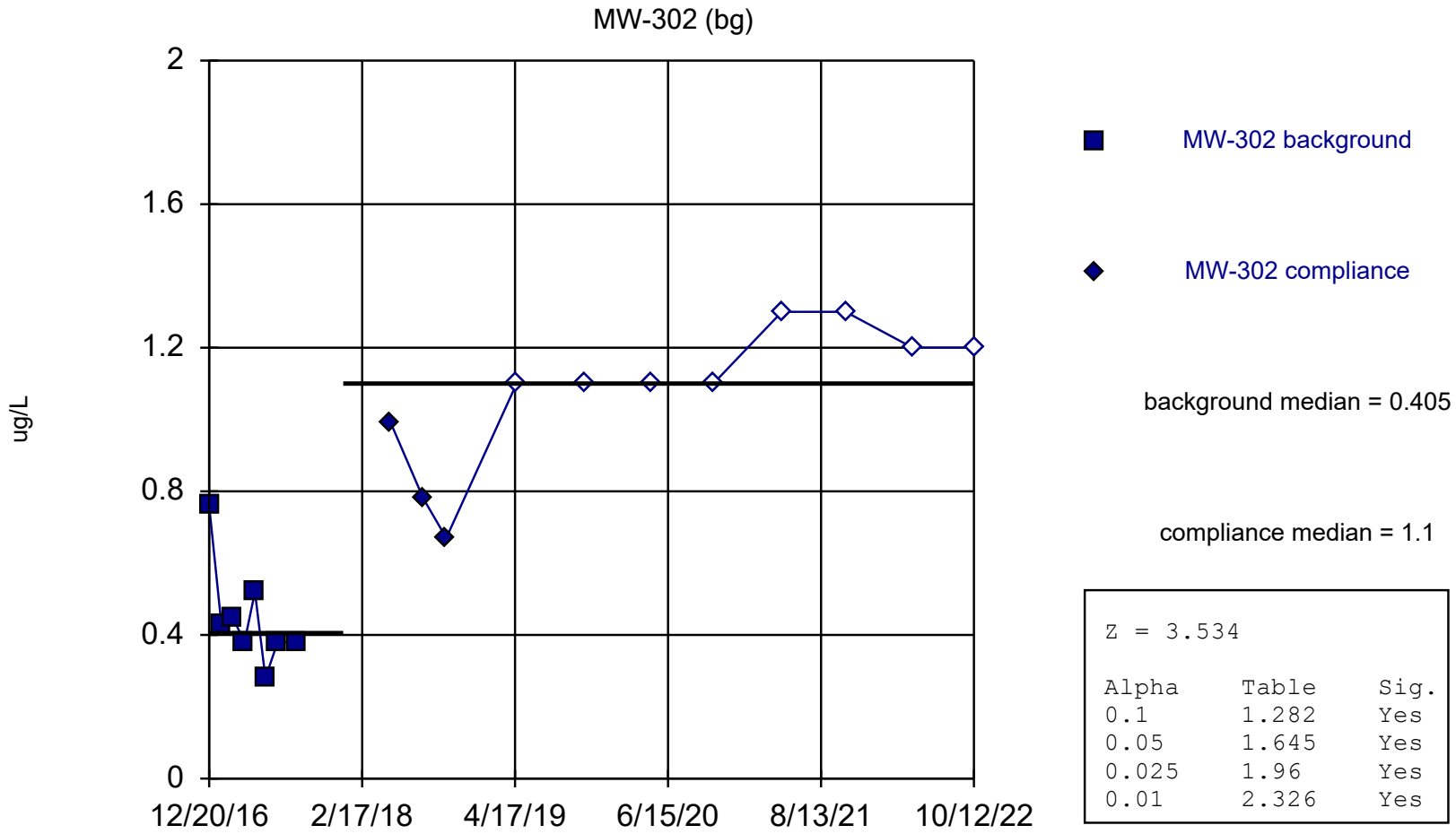
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	0.61 (J)	
1/23/2017	0.34 (J)	
2/23/2017	0.38 (J)	
3/28/2017	0.45 (J)	
4/26/2017	0.23 (J)	
5/25/2017	0.26 (J)	
6/28/2017	0.33 (J)	
8/17/2017	0.44 (J)	
5/8/2018		0.35 (J)
8/6/2018		0.44 (J)
10/9/2018		<0.57 (U)
4/22/2019		<1.1 (U)
10/28/2019		<1.1 (U)
4/27/2020		<1.1 (U)
10/19/2020		<1.1 (U)
4/27/2021		<1.3 (U)
10/21/2021		<1.3 (U)
4/25/2022		<1.2 (U)
10/12/2022		<1.2 (U)

ND substitution: RL or RL/2 if <15% NDs.

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Molybdenum Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Molybdenum (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

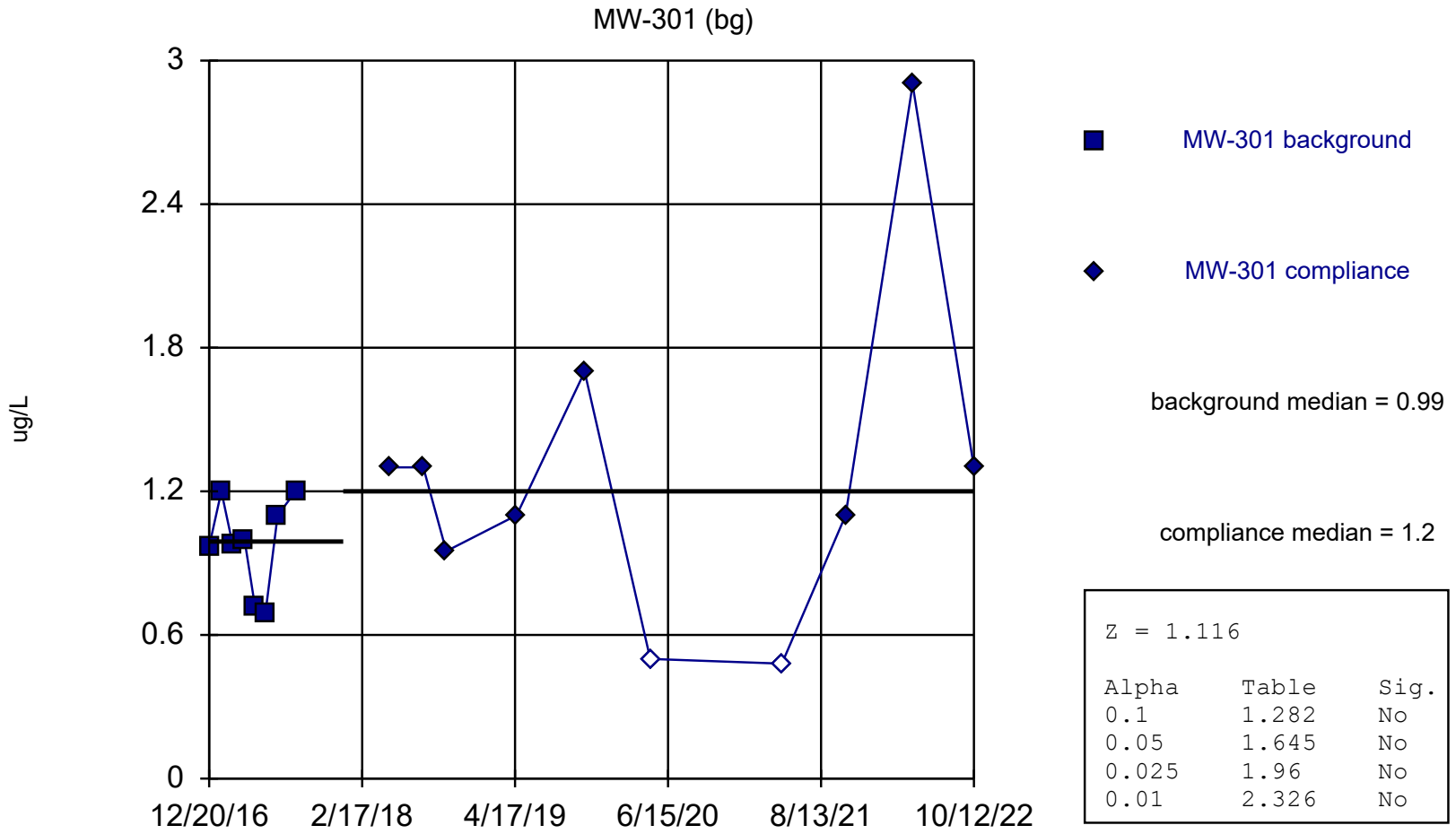
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	0.76 (J)	
1/23/2017	0.43 (J)	
2/23/2017	0.45 (J)	
3/28/2017	0.38 (J)	
4/26/2017	0.52 (J)	
5/25/2017	0.28 (J)	
6/28/2017	0.38 (J)	
8/17/2017	0.38 (J)	
5/8/2018		0.99 (J)
8/6/2018		0.78 (J)
10/9/2018		0.67 (J)
4/22/2019		<1.1 (U)
10/28/2019		<1.1 (U)
4/27/2020		<1.1 (U)
10/19/2020		<1.1 (U)
4/27/2021		<1.3 (U)
10/21/2021		<1.3 (U)
4/25/2022		<1.2 (U)
10/12/2022		<1.2 (U)

ND substitution: RL or RL/2 if <15% NDs.

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Z = 1.116

Alpha	Table	Sig.
0.1	1.282	No
0.05	1.645	No
0.025	1.96	No
0.01	2.326	No

Constituent: Selenium Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Selenium (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

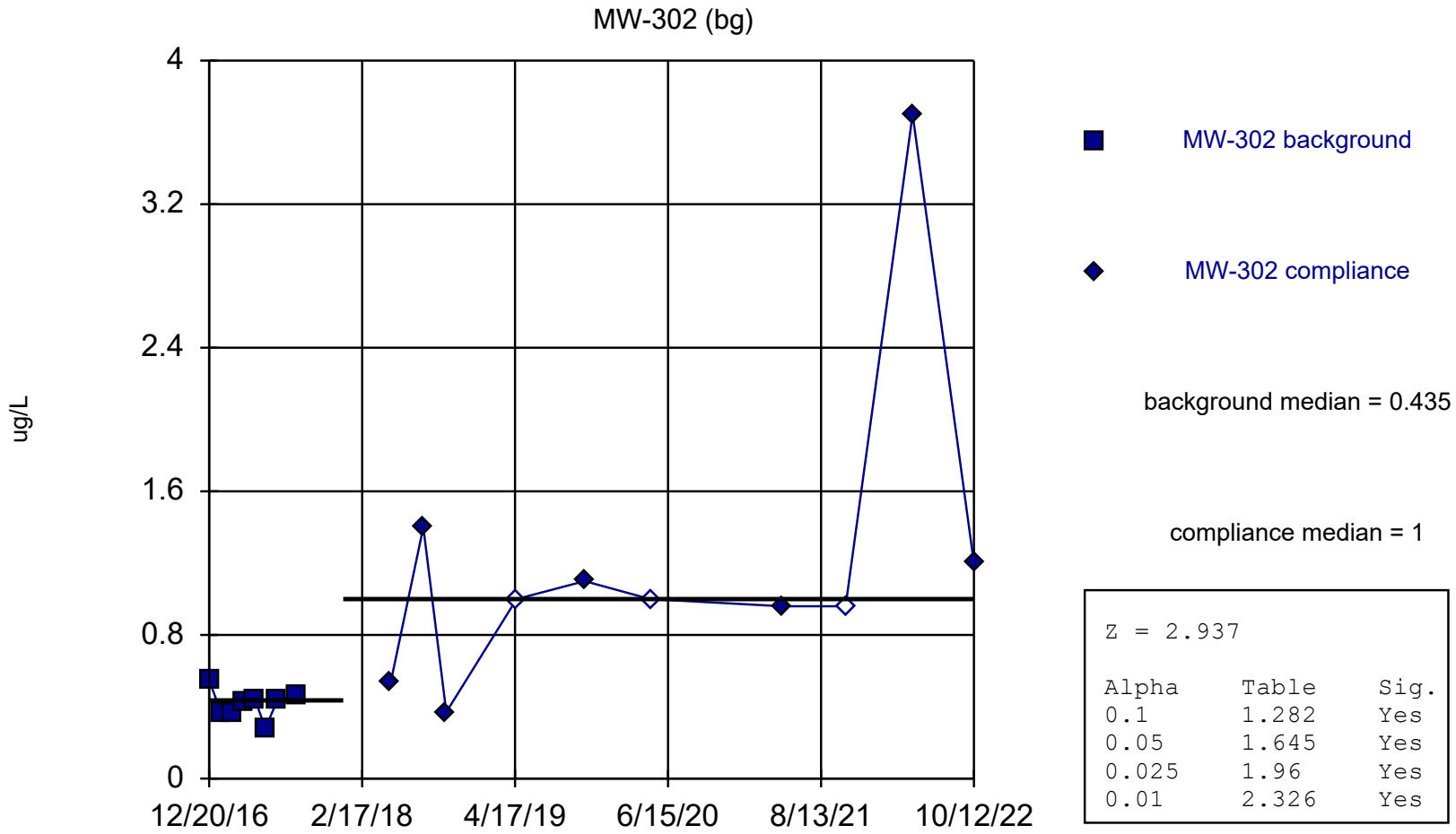
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	0.97 (J)	
1/23/2017	1.2	
2/23/2017	0.98 (J)	
3/28/2017	1	
4/26/2017	0.72 (J)	
5/25/2017	0.69 (J)	
6/28/2017	1.1	
8/17/2017	1.2	
5/8/2018		1.3
8/6/2018		1.3
10/9/2018		0.95 (J)
4/22/2019		1.1 (J)
10/28/2019		1.7 (J)
4/27/2020		<1 (U)
4/27/2021		<0.96 (U)
10/21/2021		1.1 (J)
4/25/2022		2.9 (J)
10/12/2022		1.3 (J)

ND substitution: RL or RL/2 if <15% NDs.

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Selenium Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Selenium (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

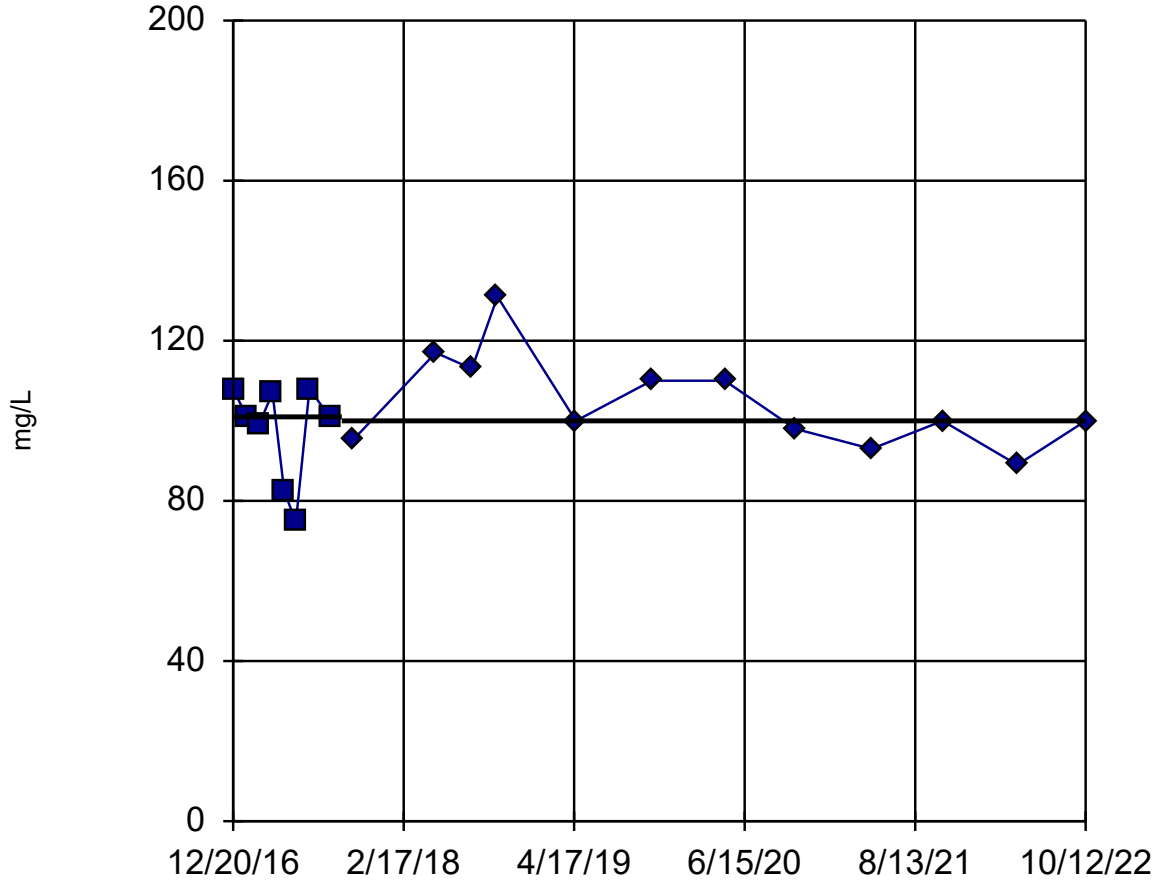
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	0.55 (J)	
1/23/2017	0.36 (J)	
2/23/2017	0.37 (J)	
3/28/2017	0.43 (J)	
4/26/2017	0.44 (J)	
5/25/2017	0.28 (J)	
6/28/2017	0.44 (J)	
8/17/2017	0.46 (J)	
5/8/2018		0.54 (J)
8/6/2018		1.4
10/9/2018		0.37 (J)
4/22/2019		<1 (U)
10/28/2019		1.1 (J)
4/27/2020		<1 (U)
4/27/2021		0.96 (J)
10/21/2021		<0.96 (U)
4/25/2022		3.7 (J)
10/12/2022		1.2 (J)

ND substitution: RL or RL/2 if <15% NDs.

Mann-Whitney (Wilcoxon Rank Sum)

MW-301 (bg)



MW-301 background

MW-301 compliance

background median = 101

compliance median = 100

Z = 0.6575

Alpha	Table	Sig.
0.1	1.282	No
0.05	1.645	No
0.025	1.96	No
0.01	2.326	No

Constituent: Sulfate Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

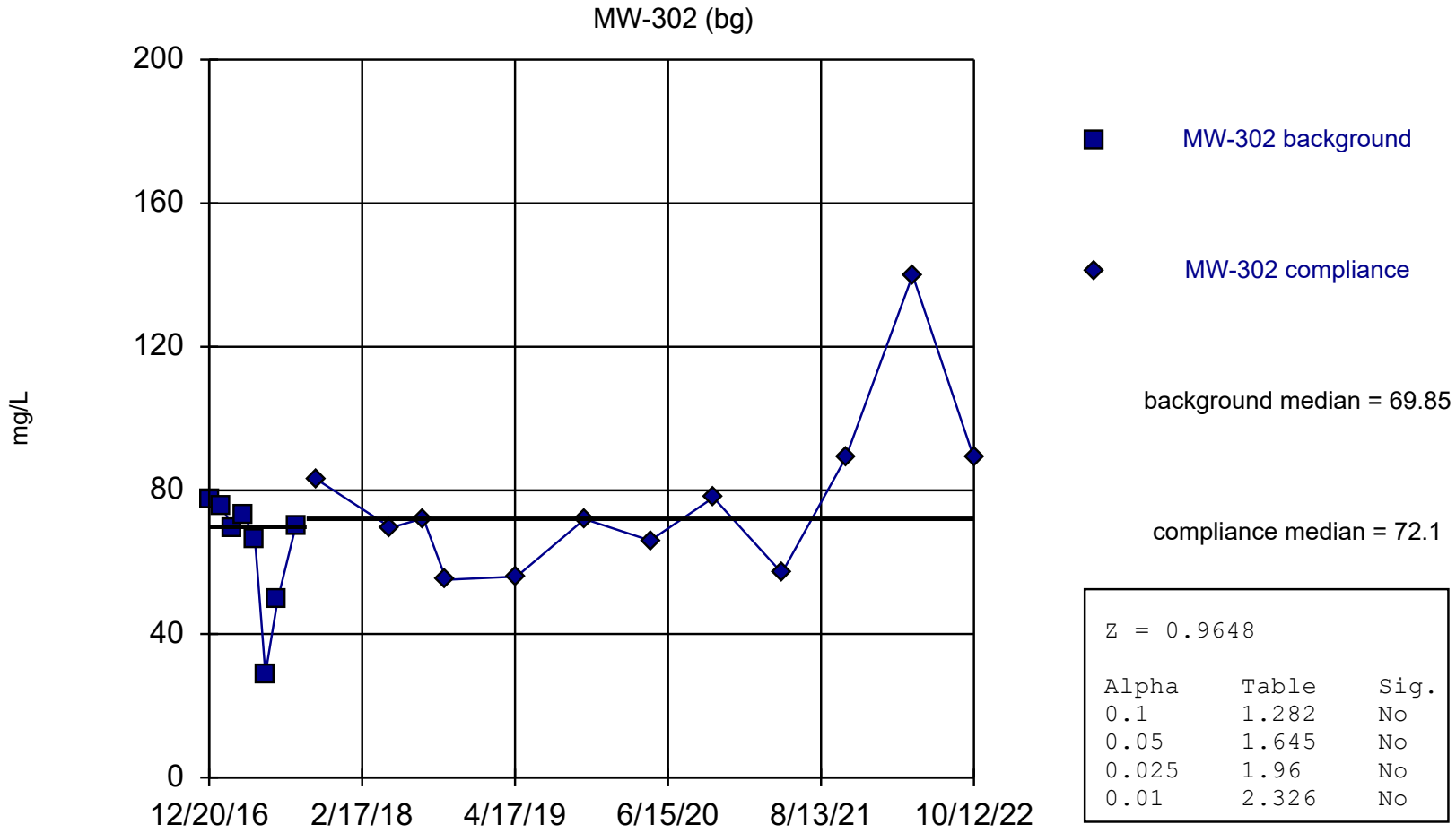
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	108	
1/23/2017	101	
2/23/2017	99.2	
3/28/2017	107	
4/26/2017	82.5	
5/25/2017	74.7	
6/28/2017	108	
8/17/2017	101	
10/17/2017		95.5
5/8/2018		117
8/6/2018		113
10/9/2018		131
4/22/2019		100
10/28/2019		110
4/27/2020		110
10/19/2020		98
4/27/2021		93
10/21/2021		100
4/25/2022		89
10/12/2022		100

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Sulfate Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	77.7	
1/23/2017	75.6	
2/23/2017	69.7	
3/28/2017	72.9	
4/26/2017	66.4	
5/25/2017	28.9	
6/28/2017	49.5	
8/17/2017	70	
10/17/2017		82.9
5/8/2018		69.6
8/6/2018		72.2
10/9/2018		55.1
4/22/2019		56
10/28/2019		72
4/27/2020		66
10/19/2020		78
4/27/2021		57
10/21/2021		89
4/25/2022		140
10/12/2022		89

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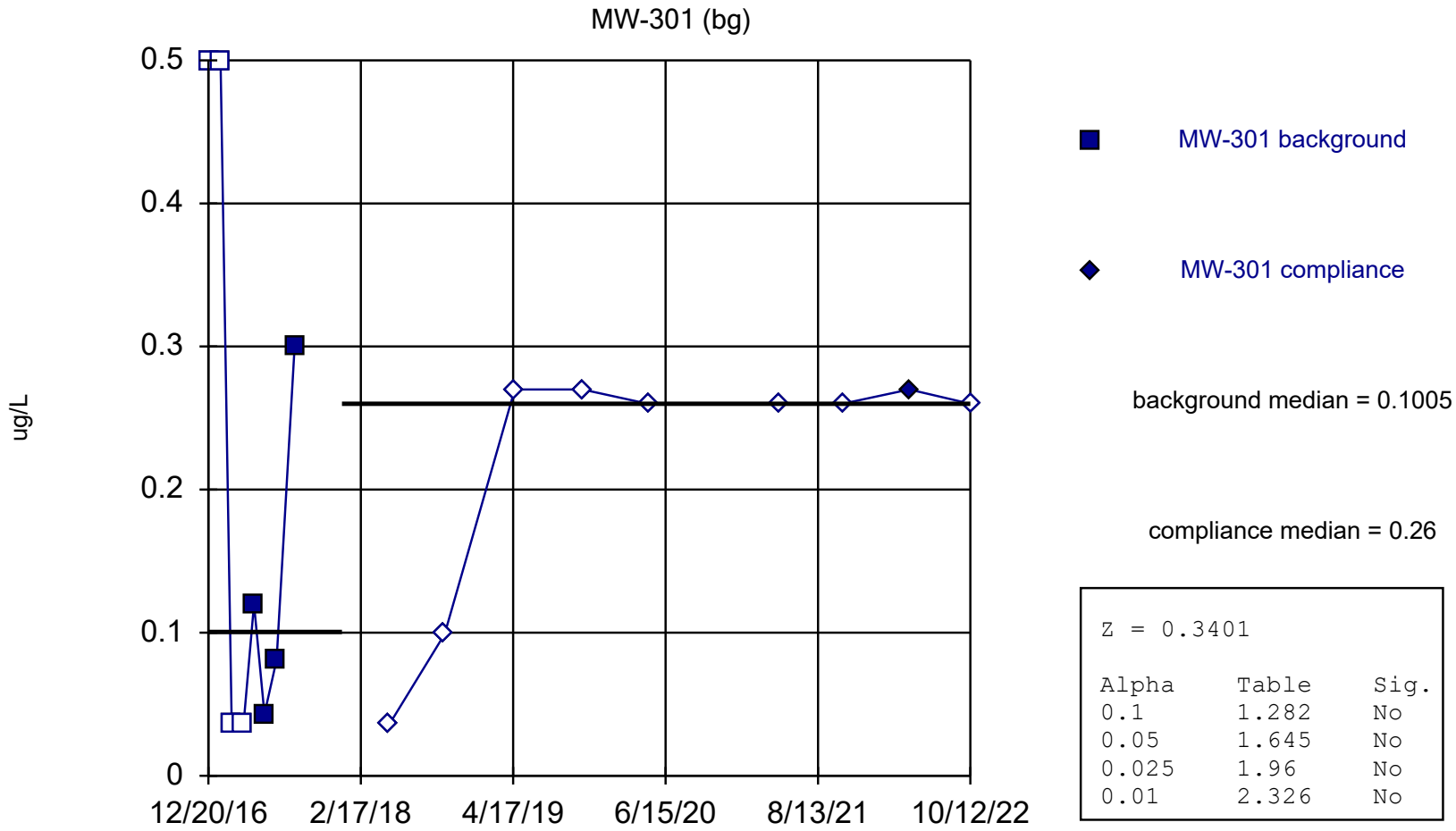
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Z = 0.3401

Alpha	Table	Sig.
0.1	1.282	No
0.05	1.645	No
0.025	1.96	No
0.01	2.326	No

Constituent: Thallium Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Thallium (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

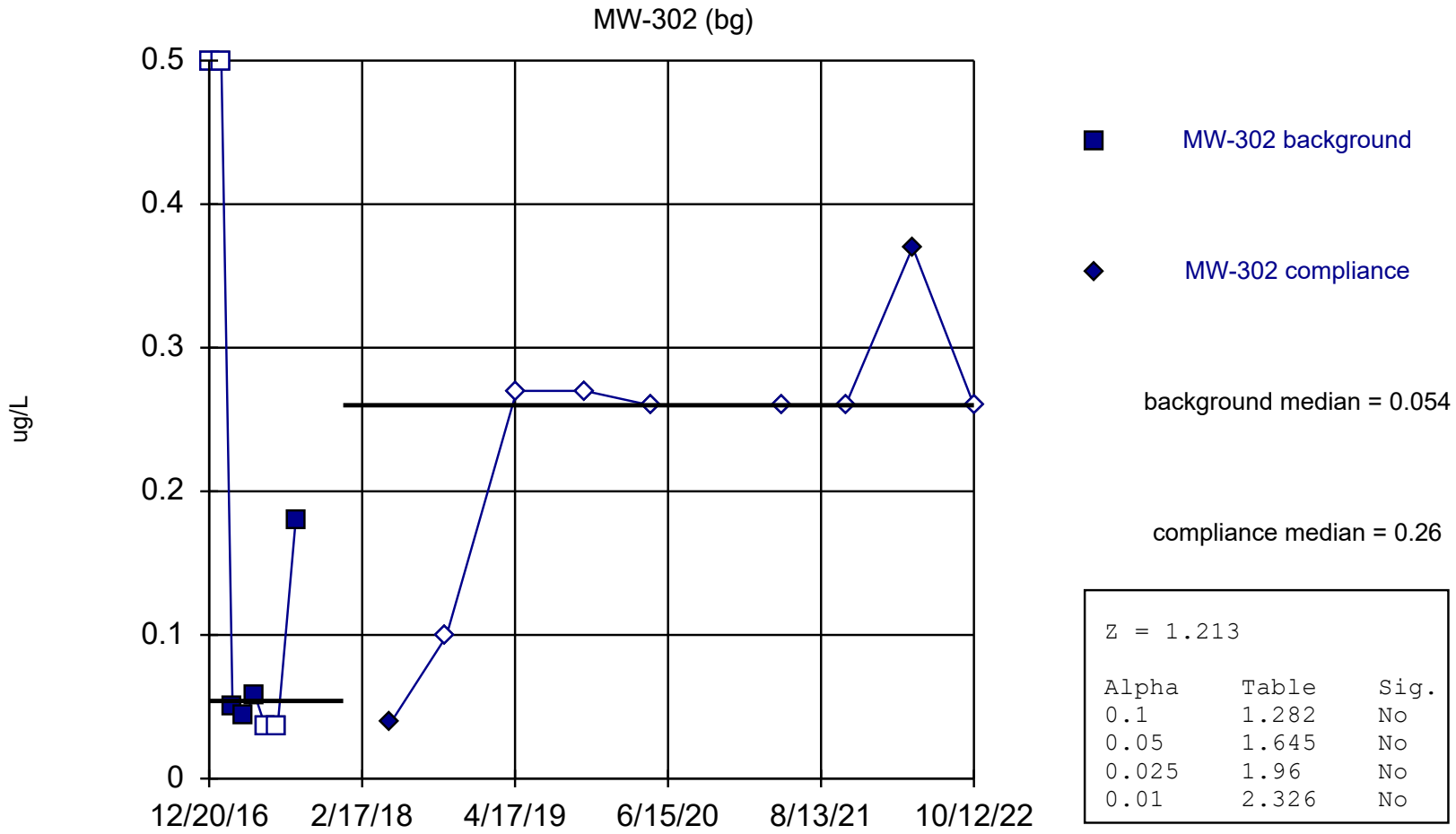
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	<0.5 (U)	
1/23/2017	<0.5 (U)	
2/23/2017	<0.036 (U)	
3/28/2017	<0.036 (U)	
4/26/2017	0.12 (J)	
5/25/2017	0.043 (J)	
6/28/2017	0.081 (J)	
8/17/2017	0.3 (J)	
5/8/2018		<0.036 (U)
10/9/2018		<0.099 (U)
4/22/2019		<0.27 (U)
10/28/2019		<0.27 (U)
4/27/2020		<0.26 (U)
4/27/2021		<0.26 (U)
10/21/2021		<0.26 (U)
4/25/2022		0.27 (J)
10/12/2022		<0.26 (U)

ND substitution: RL or RL/2 if <15% NDs.

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)



Z = 1.213

Alpha	Table	Sig.
0.1	1.282	No
0.05	1.645	No
0.025	1.96	No
0.01	2.326	No

Constituent: Thallium Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

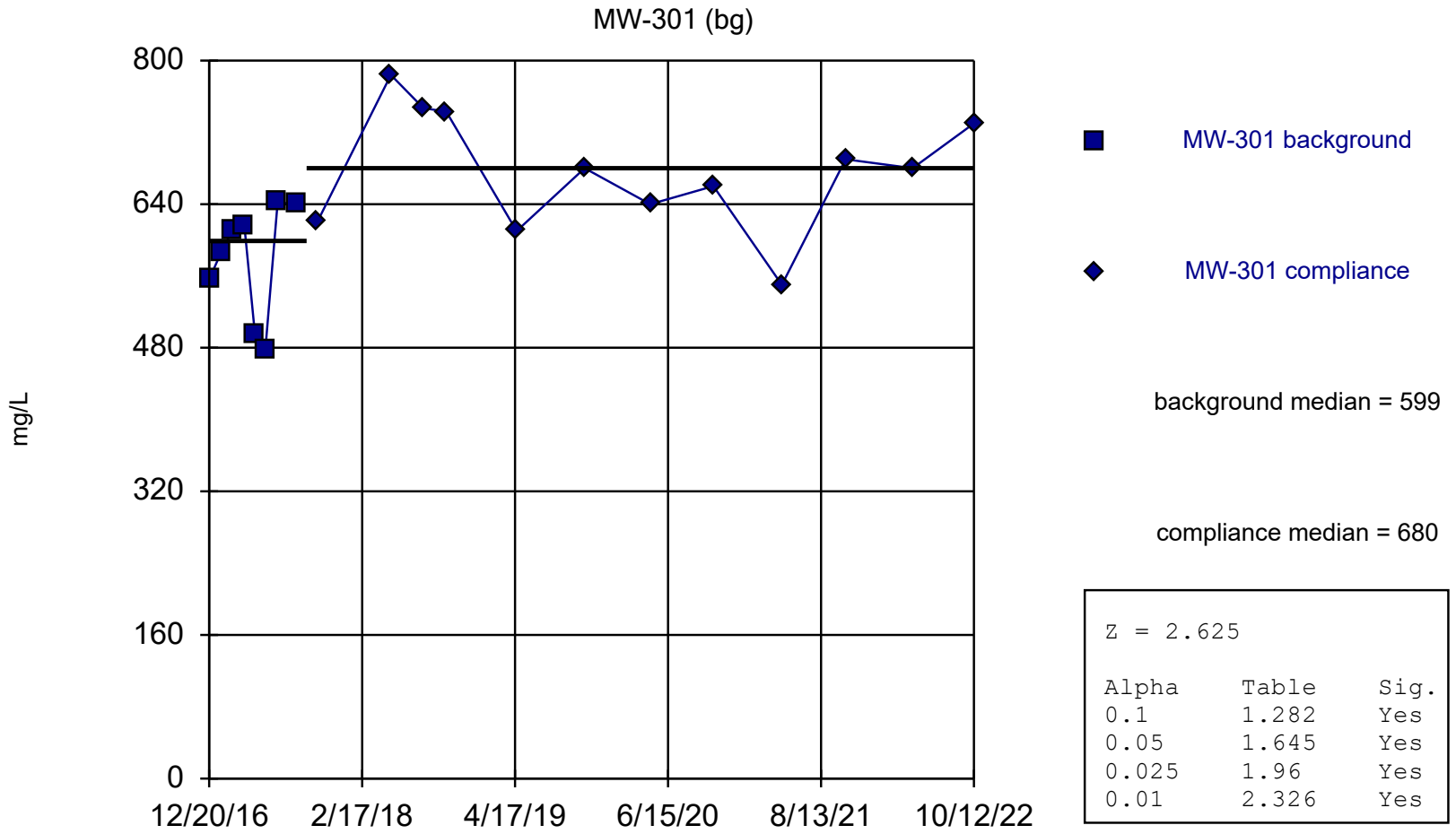
Constituent: Thallium (ug/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	<0.5 (U)	
1/23/2017	<0.5 (U)	
2/23/2017	0.05 (J)	
3/28/2017	0.044 (J)	
4/26/2017	0.058 (J)	
5/25/2017	<0.036 (U)	
6/28/2017	<0.036 (U)	
8/17/2017	0.18 (J)	
5/8/2018		0.039 (J)
10/9/2018		<0.099 (U)
4/22/2019		<0.27 (U)
10/28/2019		<0.27 (U)
4/27/2020		<0.26 (U)
4/27/2021		<0.26 (U)
10/21/2021		<0.26 (U)
4/25/2022		0.37 (J)
10/12/2022		<0.26 (U)

ND substitution: RL or RL/2 if <15% NDs.

Mann-Whitney (Wilcoxon Rank Sum)



Z = 2.625

Alpha	Table	Sig.
0.1	1.282	Yes
0.05	1.645	Yes
0.025	1.96	Yes
0.01	2.326	Yes

Constituent: Total Dissolved Solids Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

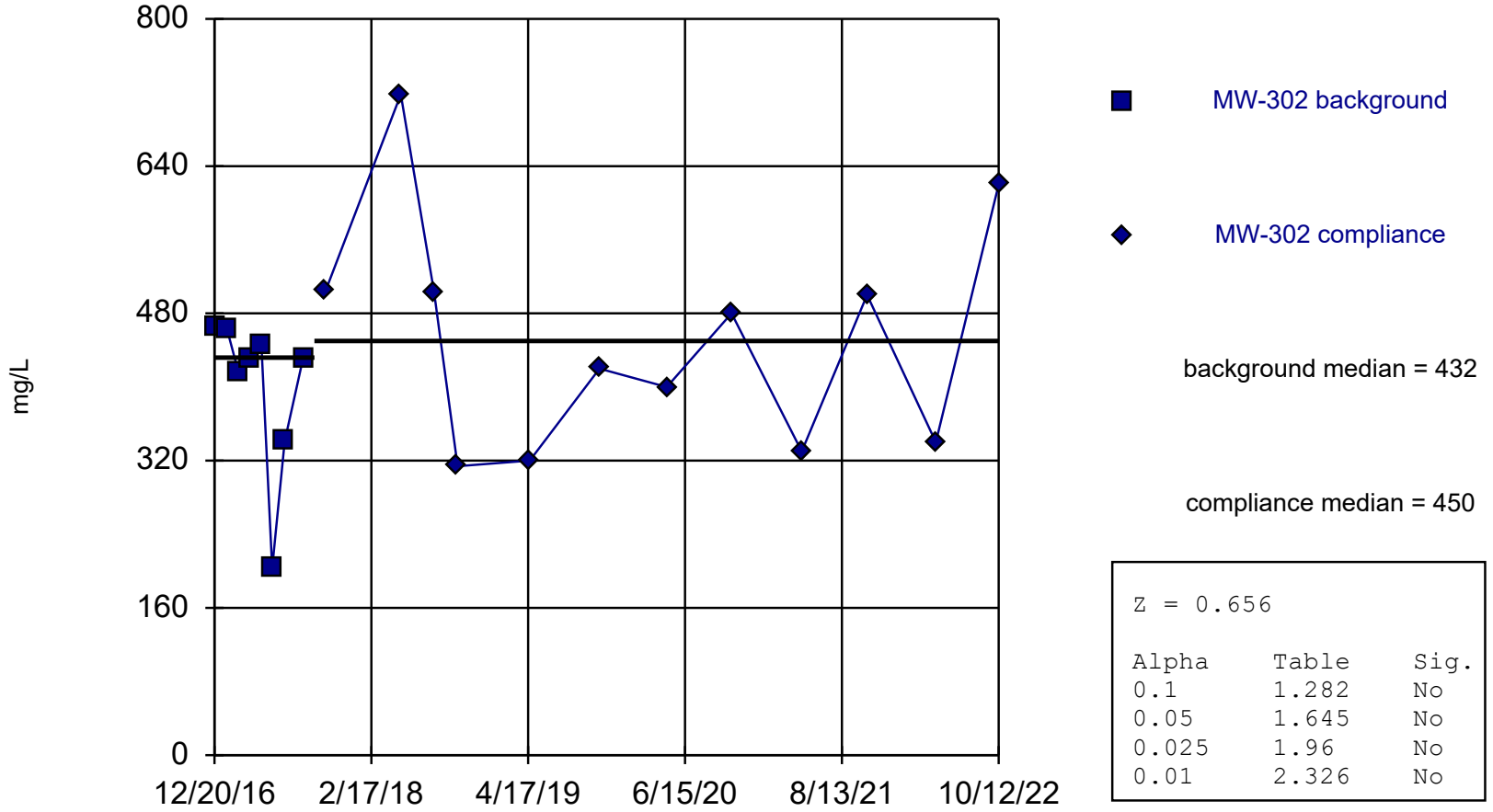
Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	556	
1/23/2017	587	
2/23/2017	611	
3/28/2017	615	
4/26/2017	495	
5/25/2017	479	
6/28/2017	642	
8/17/2017	640	
10/17/2017		621
5/8/2018		784
8/6/2018		747
10/9/2018		743
4/22/2019		610
10/28/2019		680 (B)
4/27/2020		640
10/19/2020		660
4/27/2021		550
10/21/2021		690
4/25/2022		680
10/12/2022		730

Mann-Whitney (Wilcoxon Rank Sum)

MW-302 (bg)



Z = 0.656

Alpha	Table	Sig.
0.1	1.282	No
0.05	1.645	No
0.025	1.96	No
0.01	2.326	No

Constituent: Total Dissolved Solids Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

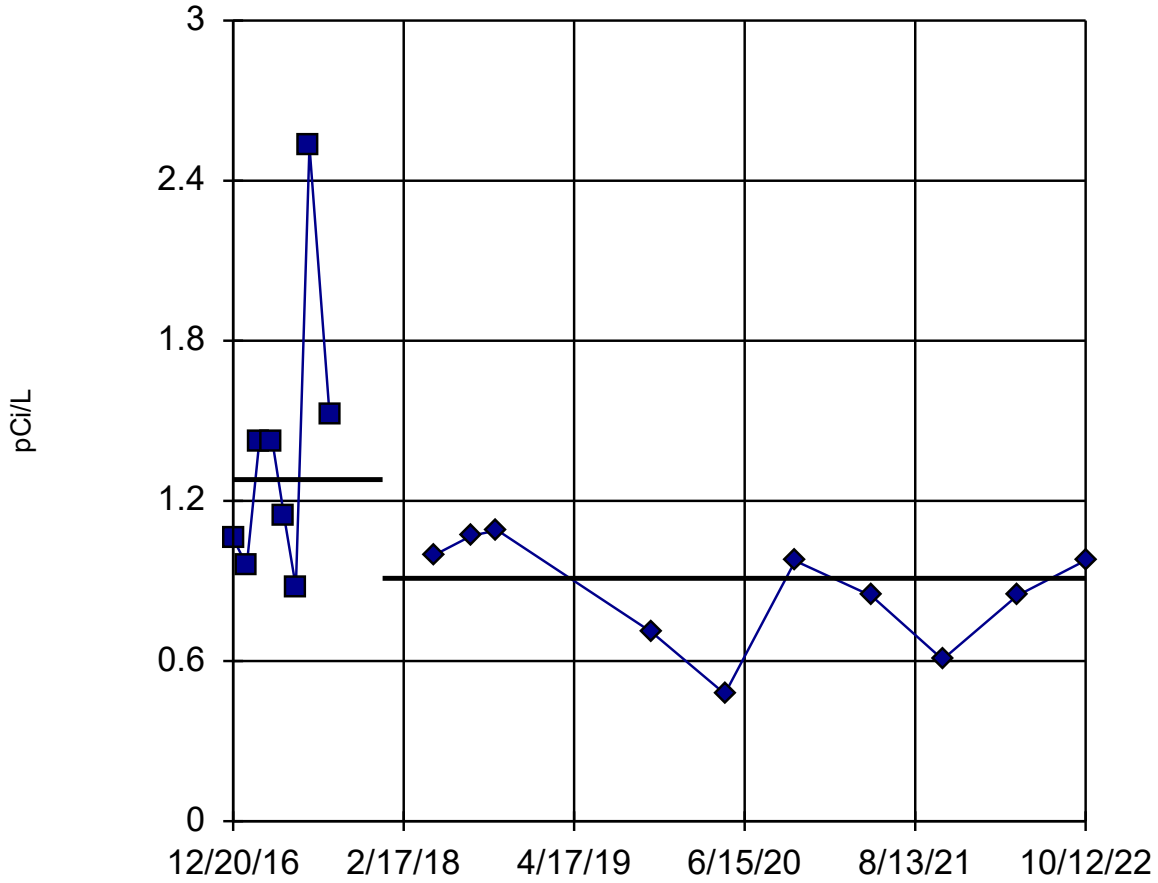
Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	465	
1/23/2017	463	
2/23/2017	416	
3/28/2017	432	
4/26/2017	445	
5/25/2017	203	
6/28/2017	341	
8/17/2017	432	
10/17/2017		505
5/8/2018		718
8/6/2018		503
10/9/2018		314
4/22/2019		320
10/28/2019		420 (B)
4/27/2020		400
10/19/2020		480
4/27/2021		330
10/21/2021		500
4/25/2022		340
10/12/2022		620

Mann-Whitney (Wilcoxon Rank Sum)

MW-301 (bg)



MW-301 background

MW-301 compliance

background median = 1.28

compliance median = 0.91

Z = -2.534

Alpha	Table	Sig.
0.1	1.282	No
0.05	1.645	No
0.025	1.96	No
0.01	2.326	No

Constituent: Total Radium Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

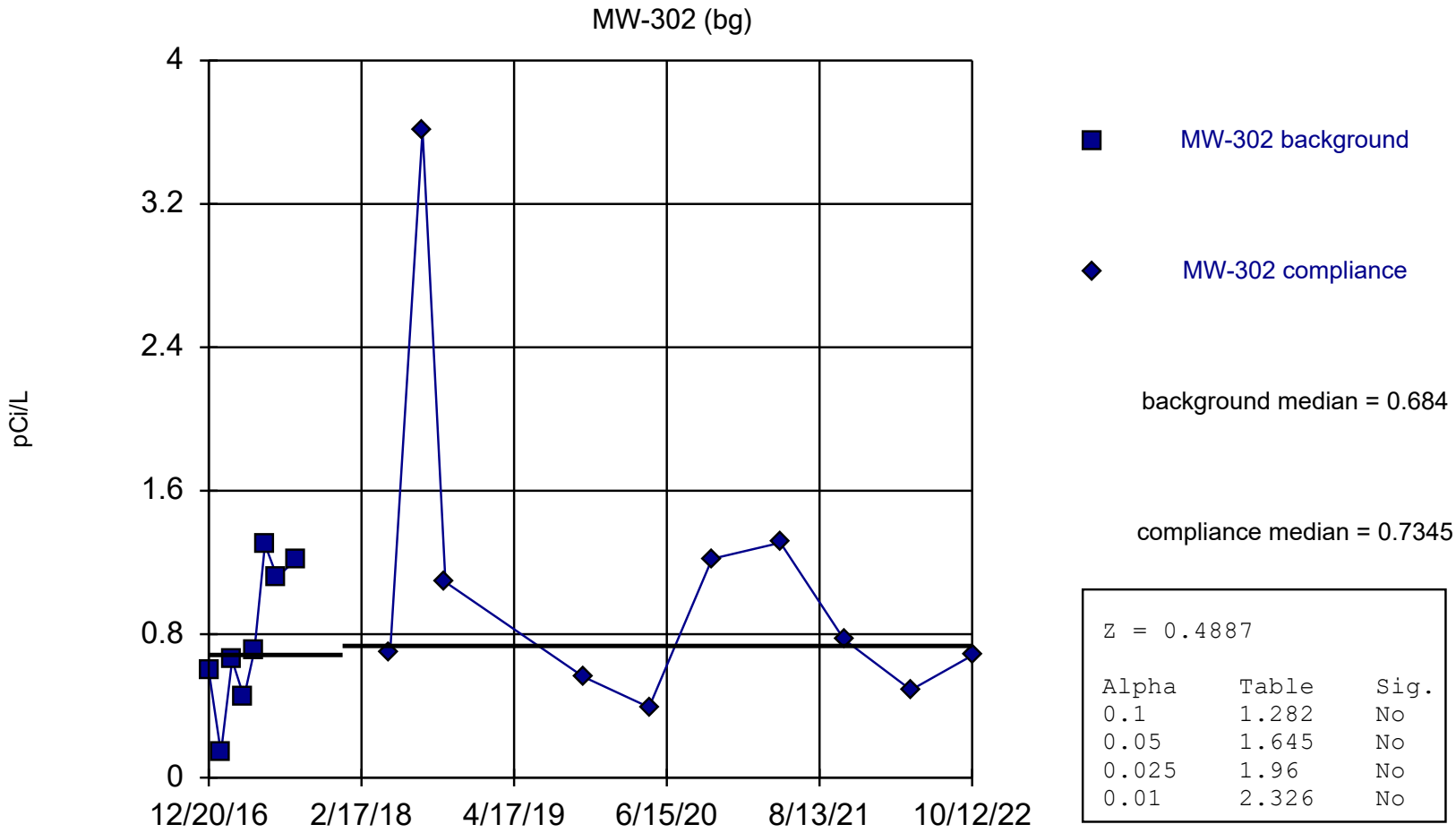
Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Total Radium (pCi/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301	MW-301
12/20/2016	1.06	
1/23/2017	0.957	
2/23/2017	1.42	
3/28/2017	1.42	
4/26/2017	1.14	
5/25/2017	0.877	
6/28/2017	2.53	
8/17/2017	1.52	
5/8/2018		1
8/6/2018		1.07
10/9/2018		1.09
10/28/2019		0.708
4/27/2020		0.477
10/19/2020		0.975
4/27/2021		0.844
10/21/2021		0.606
4/25/2022		0.845
10/12/2022		0.977

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Total Radium Analysis Run 1/1/2023 8:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Total Radium (pCi/L) Analysis Run 1/1/2023 8:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-302	MW-302
12/20/2016	0.597	
1/23/2017	0.138	
2/23/2017	0.655	
3/28/2017	0.447	
4/26/2017	0.713	
5/25/2017	1.3	
6/28/2017	1.12	
8/17/2017	1.21	
5/8/2018		0.699
8/6/2018		3.61
10/9/2018		1.09
10/28/2019		0.562
4/27/2020		0.392
10/19/2020		1.22
4/27/2021		1.31
10/21/2021		0.77
4/25/2022		0.489
10/12/2022		0.681

Attachment 4

Interwell Prediction Limit Analysis – Appendix III

Prediction Limit

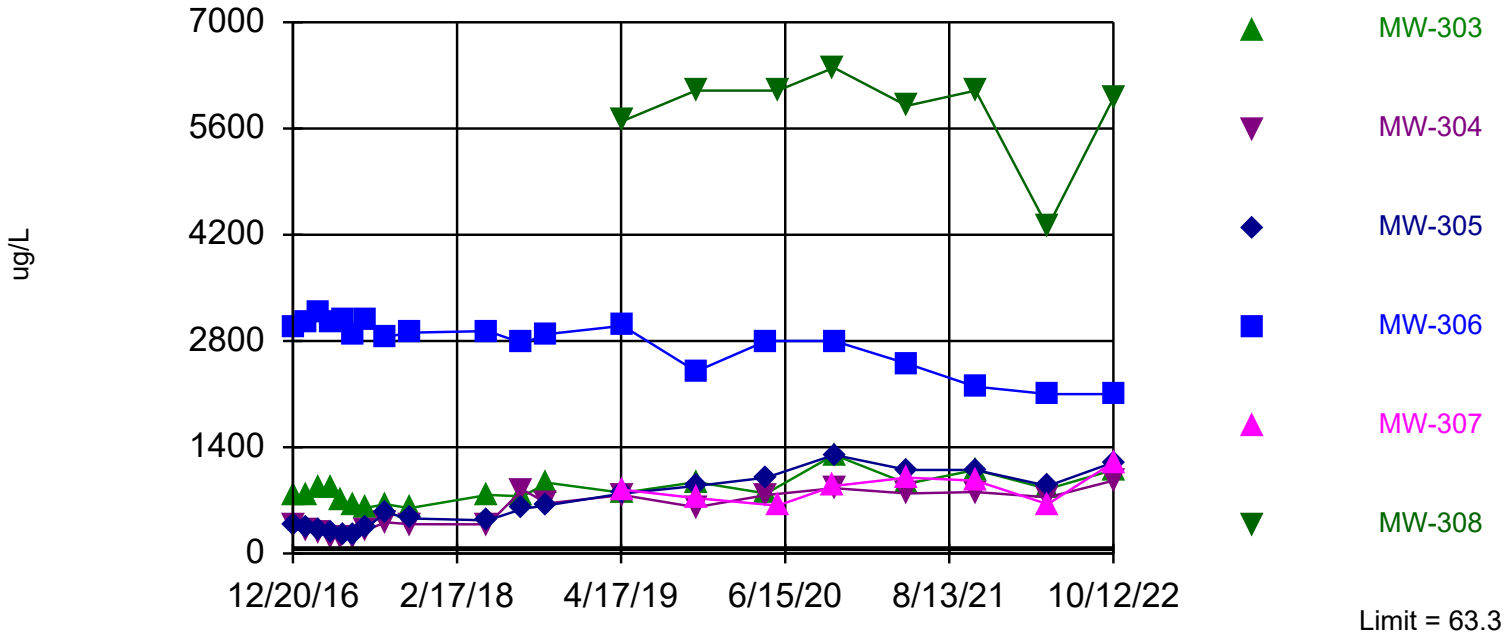
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020 Printed 1/1/2023, 8:11 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (ug/L)	**MW-303**	**63.3**	**10/12/2022**	**1100**	**Yes**	**40**	**MW-301,MW-302**	**3.509**	**0.3306**	**47.5**	**Kapla...**	**ln(x)**	**0.001254**	**Param Inter 1 of 2**
Boron (ug/L)	**MW-304**	**63.3**	**10/12/2022**	**960**	**Yes**	**40**	**MW-301,MW-302**	**3.509**	**0.3306**	**47.5**	**Kapla...**	**ln(x)**	**0.001254**	**Param Inter 1 of 2**
Boron (ug/L)	**MW-305**	**63.3**	**10/12/2022**	**1200**	**Yes**	**40**	**MW-301,MW-302**	**3.509**	**0.3306**	**47.5**	**Kapla...**	**ln(x)**	**0.001254**	**Param Inter 1 of 2**
Boron (ug/L)	**MW-306**	**63.3**	**10/12/2022**	**2100**	**Yes**	**40**	**MW-301,MW-302**	**3.509**	**0.3306**	**47.5**	**Kapla...**	**ln(x)**	**0.001254**	**Param Inter 1 of 2**
Boron (ug/L)	**MW-307**	**63.3**	**10/12/2022**	**1200**	**Yes**	**40**	**MW-301,MW-302**	**3.509**	**0.3306**	**47.5**	**Kapla...**	**ln(x)**	**0.001254**	**Param Inter 1 of 2**
Boron (ug/L)	**MW-308**	**63.3**	**10/12/2022**	**6000**	**Yes**	**40**	**MW-301,MW-302**	**3.509**	**0.3306**	**47.5**	**Kapla...**	**ln(x)**	**0.001254**	**Param Inter 1 of 2**
Calcium (mg/L)	MW-303	184	10/12/2022	120	No	40	MW-301,MW-302	119	33.85	0	None	No	0.001254	Param Inter 1 of 2
Calcium (mg/L)	MW-304	184	10/12/2022	130	No	40	MW-301,MW-302	119	33.85	0	None	No	0.001254	Param Inter 1 of 2
Calcium (mg/L)	MW-305	184	10/12/2022	140	No	40	MW-301,MW-302	119	33.85	0	None	No	0.001254	Param Inter 1 of 2
Calcium (mg/L)	MW-306	184	10/12/2022	57	No	40	MW-301,MW-302	119	33.85	0	None	No	0.001254	Param Inter 1 of 2
Calcium (mg/L)	MW-307	184	10/12/2022	21	No	40	MW-301,MW-302	119	33.85	0	None	No	0.001254	Param Inter 1 of 2
Calcium (mg/L)	MW-308	184	10/12/2022	52	No	40	MW-301,MW-302	119	33.85	0	None	No	0.001254	Param Inter 1 of 2
Field pH (Std. Units)	MW-303	7.42	10/12/2022	7.08	No	38	MW-301,MW-302	6.762	0.3397	0	None	No	0.001254	Param Inter 1 of 2
Field pH (Std. Units)	MW-304	7.42	10/12/2022	7.04	No	38	MW-301,MW-302	6.762	0.3397	0	None	No	0.001254	Param Inter 1 of 2
Field pH (Std. Units)	MW-305	7.42	10/12/2022	7.24	No	38	MW-301,MW-302	6.762	0.3397	0	None	No	0.001254	Param Inter 1 of 2
Field pH (Std. Units)	**MW-306**	**7.42**	**10/12/2022**	**7.68**	**Yes**	**38**	**MW-301,MW-302**	**6.762**	**0.3397**	**0**	**None**	**No**	**0.001254**	**Param Inter 1 of 2**
Field pH (Std. Units)	**MW-307**	**7.42**	**10/12/2022**	**9.13**	**Yes**	**38**	**MW-301,MW-302**	**6.762**	**0.3397**	**0**	**None**	**No**	**0.001254**	**Param Inter 1 of 2**
Field pH (Std. Units)	**MW-308**	**7.42**	**10/12/2022**	**9.14**	**Yes**	**38**	**MW-301,MW-302**	**6.762**	**0.3397**	**0**	**None**	**No**	**0.001254**	**Param Inter 1 of 2**
Fluoride (mg/L)	MW-303	0.280	10/12/2022	0.3J	No	40	MW-302,MW-301	n/a	n/a	47.5	n/a	n/a	0.001129	NP Inter (normality) ...
Fluoride (mg/L)	MW-304	0.280	10/12/2022	0.34J	No	40	MW-302,MW-301	n/a	n/a	47.5	n/a	n/a	0.001129	NP Inter (normality) ...
Fluoride (mg/L)	MW-305	0.280	10/12/2022	0.22ND	No	40	MW-302,MW-301	n/a	n/a	47.5	n/a	n/a	0.001129	NP Inter (normality) ...
Fluoride (mg/L)	MW-306	0.280	10/12/2022	0.22ND	No	40	MW-302,MW-301	n/a	n/a	47.5	n/a	n/a	0.001129	NP Inter (normality) ...
Fluoride (mg/L)	MW-307	0.280	10/12/2022	0.22ND	No	40	MW-302,MW-301	n/a	n/a	47.5	n/a	n/a	0.001129	NP Inter (normality) ...
Fluoride (mg/L)	MW-308	0.280	10/12/2022	0.22ND	No	40	MW-302,MW-301	n/a	n/a	47.5	n/a	n/a	0.001129	NP Inter (normality) ...
Sulfate (mg/L)	**MW-303**	**131**	**10/12/2022**	**160**	**Yes**	**40**	**MW-301,MW-302**	**86.89**	**22.92**	**0**	**None**	**No**	**0.001254**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-304**	**131**	**10/12/2022**	**220**	**Yes**	**40**	**MW-301,MW-302**	**86.89**	**22.92**	**0**	**None**	**No**	**0.001254**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-305**	**131**	**10/12/2022**	**330**	**Yes**	**40**	**MW-301,MW-302**	**86.89**	**22.92**	**0**	**None**	**No**	**0.001254**	**Param Inter 1 of 2**
Sulfate (mg/L)	MW-306	131	10/12/2022	110	No	40	MW-301,MW-302	86.89	22.92	0	None	No	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	MW-307	131	10/12/2022	50	No	40	MW-301,MW-302	86.89	22.92	0	None	No	0.001254	Param Inter 1 of 2
Sulfate (mg/L)	**MW-308**	**131**	**10/12/2022**	**180**	**Yes**	**40**	**MW-301,MW-302**	**86.89**	**22.92**	**0**	**None**	**No**	**0.001254**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	MW-303	810	10/12/2022	660	No	40	MW-301,MW-302	535.2	142.5	0	None	No	0.001254	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-304	810	10/12/2022	710	No	40	MW-301,MW-302	535.2	142.5	0	None	No	0.001254	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	**MW-305**	**810**	**10/12/2022**	**850**	**Yes**	**40**	**MW-301,MW-302**	**535.2**	**142.5**	**0**	**None**	**No**	**0.001254**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	MW-306	810	10/12/2022	380	No	40	MW-301,MW-302	535.2	142.5	0	None	No	0.001254	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-307	810	10/12/2022	110	No	40	MW-301,MW-302	535.2	142.5	0	None	No	0.001254	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-308	810	10/12/2022	370	No	40	MW-301,MW-302	535.2	142.5	0	None	No	0.001254	Param Inter 1 of 2

Exceeds Limit: MW-303, MW-304, MW-305, MW-306, MW-307, MW-308

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=3.509, Std. Dev.=0.3306, n=40, 47.5% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9433, critical = 0.919. Kappa = 1.932 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Boron Analysis Run 1/1/2023 8:09 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Prediction Limit

Constituent: Boron (ug/L) Analysis Run 1/1/2023 8:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

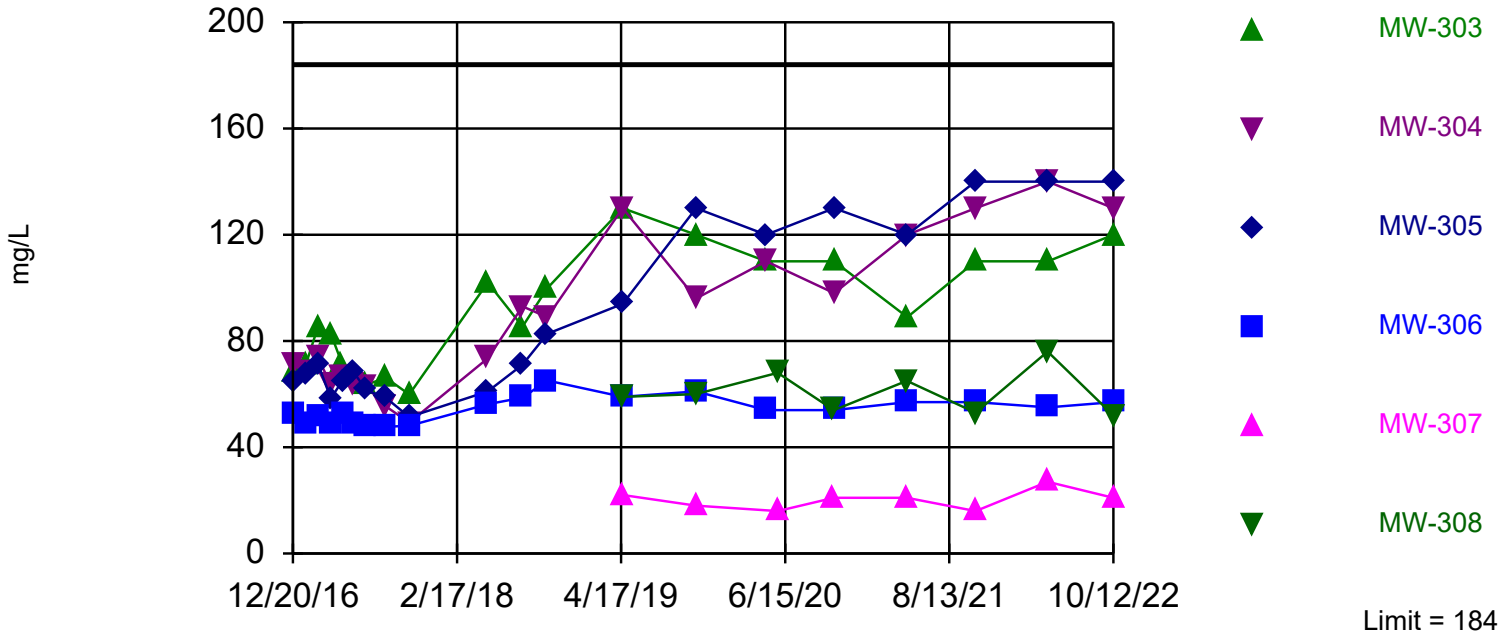
	MW-301 (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308
12/20/2016	<50 (U)	<50 (U)	767					
12/21/2016				372	363	2990		
1/23/2017	<50 (U)	<50 (U)	773					
1/24/2017				323	353	3050		
2/23/2017	25.2 (J)	30.1 (J)	851	277	316	3160		
3/28/2017	23.8 (J)	33.7 (J)	852	224	274	3060		
4/26/2017	37.3 (J)	36.5 (J)	705	218				
4/27/2017					229	3080		
5/25/2017	40.8 (J)	51.6 (J)	644	212	243	2890		
6/28/2017	24.6 (J)	51.8 (J)	603	310	342	3080		
8/17/2017	28.9 (J)	45.1 (J)	650	412	537	2850		
10/17/2017	26.8 (J)	36.5 (J)	598	386	462	2910		
5/8/2018	22.8 (J)	22.4 (J)	772	384	437	2930		
8/6/2018	30.9 (J)	38.1 (J)	753	841	589	2770		
10/9/2018	30.6 (J)	65 (J)	932	661	634	2890		
4/22/2019	<110 (U)	<110 (U)	800	770	790	3000		
4/23/2019							840	5700
10/28/2019	<110 (U)	<110 (U)					730	6100
10/29/2019			940	610	890	2400		
4/27/2020	<73 (U)	<73 (U)	790	770	1000	2800		
5/27/2020							630	6100
10/19/2020	<80 (U)	<80 (U)					890	6400
10/20/2020			1300	860	1300	2800		
4/26/2021							1000	5900
4/27/2021	<58 (U)	<58 (U)	920	790	1100	2500		
10/20/2021					1100	2200		
10/21/2021	<58 (U)	<58 (U)	1100	810			960	6100
4/25/2022	<58 (U)	100					650	4300
4/26/2022			850	740	890	2100		
10/12/2022	<58 (U)	<58 (U)	1100	960	1200	2100	1200	6000

ND substitution: RL or RL/2 if <15% NDs.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=119, Std. Dev.=33.85, n=40. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9634, critical = 0.919. Kappa = 1.932 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Calcium Analysis Run 1/1/2023 8:09 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/1/2023 8:11 PM View: PCS

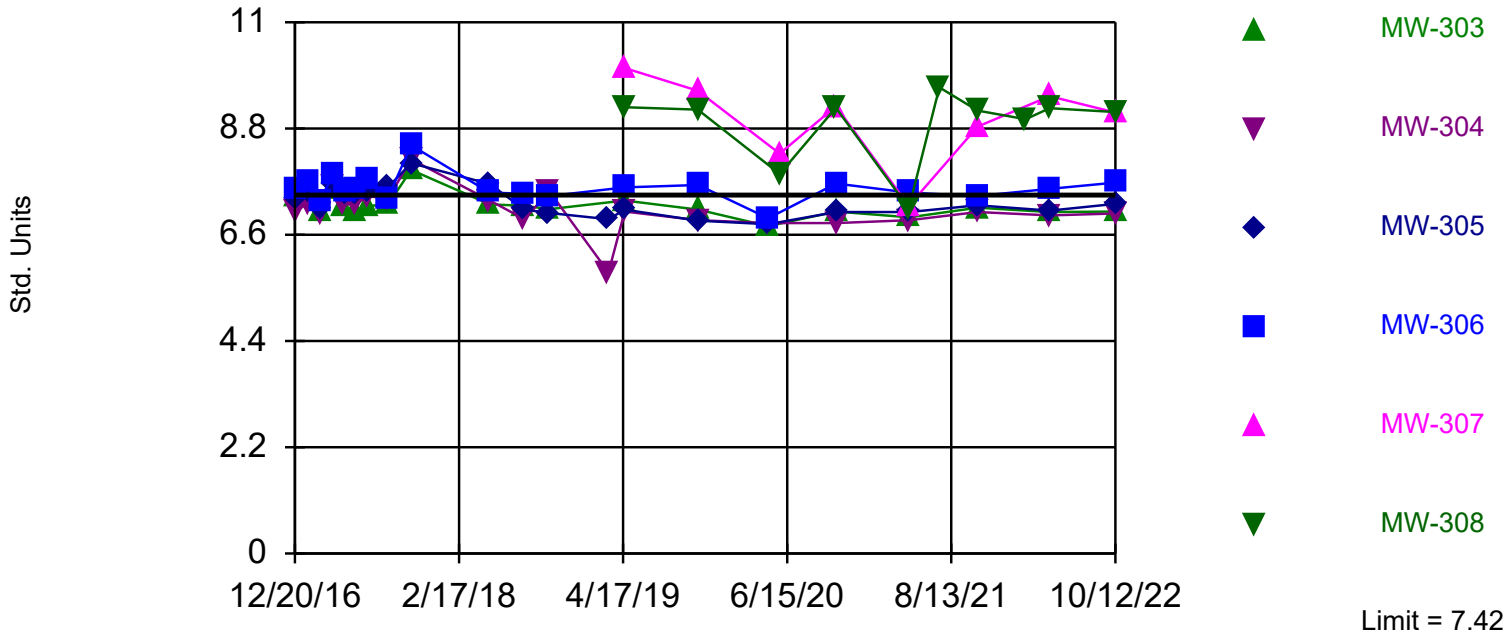
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308
12/20/2016	137	107	68.7					
12/21/2016				71	65.1	52.4		
1/23/2017	140	106	71.4					
1/24/2017				68.2	67.8	48.4		
2/23/2017	148	95	85.4	73.6	71.3	51.2		
3/28/2017	144	95	82.7	63.6	58.4	48.8		
4/26/2017	112	102	71.5	66.6				
4/27/2017					65	52.8		
5/25/2017	106	41.4	67.8	63.5	68.5	49.1		
6/28/2017	136	66.7	63.5	62.9	61.4	47.5		
8/17/2017	142	93.1	66.2	55.4	58.7	47.7		
10/17/2017	139	109	59.9	49.3	51.4	48.1		
5/8/2018	155	125	102	73.5	61	56.2		
8/6/2018	154	106	85.4	93	71.1	58.7		
10/9/2018	163	63.3	99.9	89	82.7	65.1		
4/22/2019	130	67	130	130	94	59		
4/23/2019							22	59
10/28/2019	160	81					18	60
10/29/2019			120	96	130	61		
4/27/2020	140	86	110	110	120	54		
5/27/2020							16	68
10/19/2020	150	110					21	54
10/20/2020			110	98	130	54		
4/26/2021							21	65
4/27/2021	130	76	89	120	120	57		
10/20/2021					140	57		
10/21/2021	160	130	110	130			16	53
4/25/2022	180	65					27	76
4/26/2022			110	140	140	55		
10/12/2022	170	140	120	130	140	57	21	52

Exceeds Limit: MW-306, MW-307, MW-308

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=6.762, Std. Dev.=0.3397, n=38. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9504, critical = 0.916. Kappa = 1.94 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Field pH Analysis Run 1/1/2023 8:09 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Prediction Limit

Constituent: Field pH (Std. Units) Analysis Run 1/1/2023 8:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308
12/20/2016	6.78	6.36	7.37					
12/21/2016				7.09	7.32	7.53		
1/23/2017	6.8	6.72	7.55					
1/24/2017				7.25	7.51	7.71		
2/23/2017	6.57	6.38	7.09	7.01	7.13	7.31		
3/28/2017	6.9	6.66	7.57	7.58	7.65	7.84		
4/26/2017	6.41	6.44	7.18	7.23				
4/27/2017					7.42	7.5		
5/25/2017	6.41	6.27	7.11	7.23	7.42	7.53		
6/28/2017	7	6.6	7.2	7.4	7.49	7.77		
8/17/2017	6.97	6.23	7.22	7.34	7.58	7.36		
10/17/2017	7.46	7.71 (X)	7.94	8.16	8.08	8.45		
5/8/2018	7.51	6.98	7.23	7.31	7.65	7.47		
8/6/2018	6.81	6.55	7.2	6.92	7.12	7.45		
10/9/2018	7.63	6.5	7.13	7.5	7.05	7.4		
3/11/2019				5.82	6.92			
4/22/2019	6.99	6.64	7.31	7.08	7.12	7.58		
4/23/2019							10.05	9.24
10/28/2019	6.69	6.37					9.58	9.19
10/29/2019			7.12	6.9	6.89	7.63		
4/27/2020	7.09	6.27	6.78	6.84	6.82	6.94		
5/27/2020							8.28	7.86
10/19/2020	6.89	6.67					9.26	9.23
10/20/2020			7.08	6.84	7.07	7.66		
4/26/2021							7.2	7.15
4/27/2021	6.81	6.96	6.96	6.9	7.07	7.47		
7/14/2021								9.65
10/20/2021					7.21	7.4		
10/21/2021	6.9	7.15	7.16	7.07			8.84	9.17
2/22/2022								8.99
4/25/2022	6.92	5.35 (X)					9.47	9.22
4/26/2022			7.07	7	7.1	7.55		
10/12/2022	7.03	6.63	7.08	7.04	7.24	7.68	9.13	9.14

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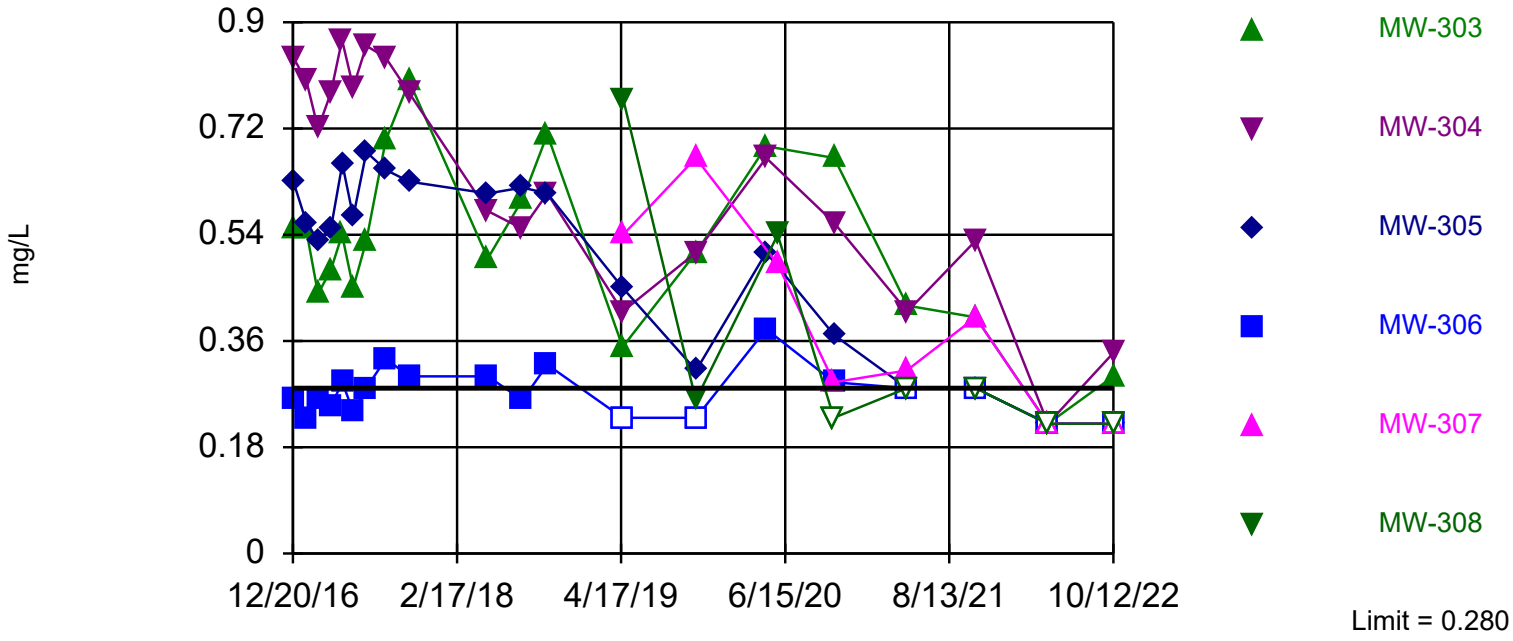
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell 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 40 background values. 47.5% NDs. Annual per-constituent alpha = 0.01347. Individual comparison alpha = 0.001129 (1 of 2). Comparing 6 points to limit. Seasonality was not detected with 95% confidence.

Constituent: Fluoride Analysis Run 1/1/2023 8:09 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/1/2023 8:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

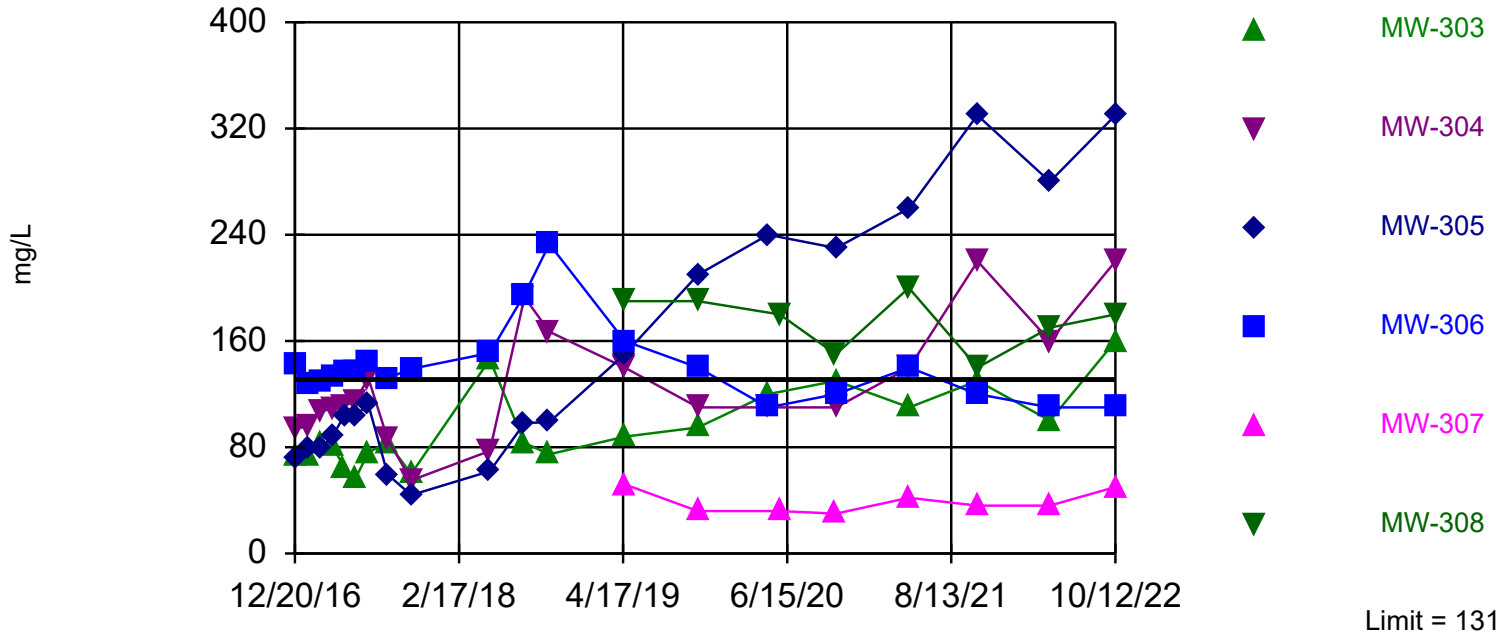
	MW-301 (bg)	MW-303	MW-302 (bg)	MW-304	MW-305	MW-306	MW-308	MW-307
12/20/2016	0.13 (J)	0.55	0.16 (J)					
12/21/2016				0.84	0.63	0.26		
1/23/2017	0.079 (J)	0.55	0.079 (J)					
1/24/2017				0.8	0.56	0.23		
2/23/2017	0.13 (J)	0.44	0.1 (J)	0.72	0.53	0.26		
3/28/2017	0.1 (J)	0.48	<0.1 (U)	0.78	0.55	0.25		
4/26/2017	0.1 (J)	0.54	0.12 (J)	0.87				
4/27/2017					0.66	0.29		
5/25/2017	<0.1 (U)	0.45	<0.1 (U)	0.79	0.57	0.24		
6/28/2017	0.15 (J)	0.53	0.15 (J)	0.86	0.68	0.28		
8/17/2017	0.21	0.7	0.2 (J)	0.84	0.65	0.33		
10/17/2017	0.17 (J)	0.8	0.19 (J)	0.78	0.63	0.3		
5/8/2018	0.2 (J)	0.5	0.23	0.58	0.61	0.3		
8/6/2018	0.16 (J)	0.6	0.17 (J)	0.55	0.62	0.26		
10/9/2018	0.22	0.71	0.21	0.61	0.61	0.32		
4/22/2019	<0.23 (U)	0.35 (J)	<0.23 (U)	0.41 (J)	0.45 (J)	<0.23 (U)		
4/23/2019							0.77	0.54
10/28/2019	<0.23 (U)		<0.23 (U)				0.26 (J)	0.67
10/29/2019		0.51		0.51	0.31 (J)	<0.23 (U)		
4/27/2020	<0.23 (U)	0.69	<0.23 (U)	0.67	0.51	0.38 (J)		
5/27/2020							0.54	0.49 (J)
10/19/2020	<0.23 (U)		<0.23 (U)				<0.23 (U)	0.29 (J)
10/20/2020		0.67		0.56	0.37 (J)	0.29 (J)		
4/26/2021							<0.28 (U)	0.31 (J)
4/27/2021	<0.28 (U)	0.42 (J)	<0.28 (U)	0.41 (J)	<0.28 (U)	<0.28 (U)		
10/20/2021					<0.28 (U)	<0.28 (U)		
10/21/2021	<0.28 (U)	0.4 (J)	<0.28 (U)	0.53			<0.28 (U)	0.4 (J)
4/25/2022	<0.22 (U)		<0.22 (U)				<0.22 (U)	<0.22 (U)
4/26/2022		<0.22 (U)		<0.22 (U)	<0.22 (U)	<0.22 (U)		
10/12/2022	<0.22 (U)	0.3 (J)	<0.22 (U)	0.34 (J)	<0.22 (U)	<0.22 (U)	<0.22 (U)	<0.22 (U)

ND substitution: RL or RL/2 if <15% NDs.

Exceeds Limit: MW-303, MW-304, MW-305, MW-308

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=86.89, Std. Dev.=22.92, n=40. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.986, critical = 0.919. Kappa = 1.932 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Sulfate Analysis Run 1/1/2023 8:09 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/1/2023 8:11 PM View: PCS

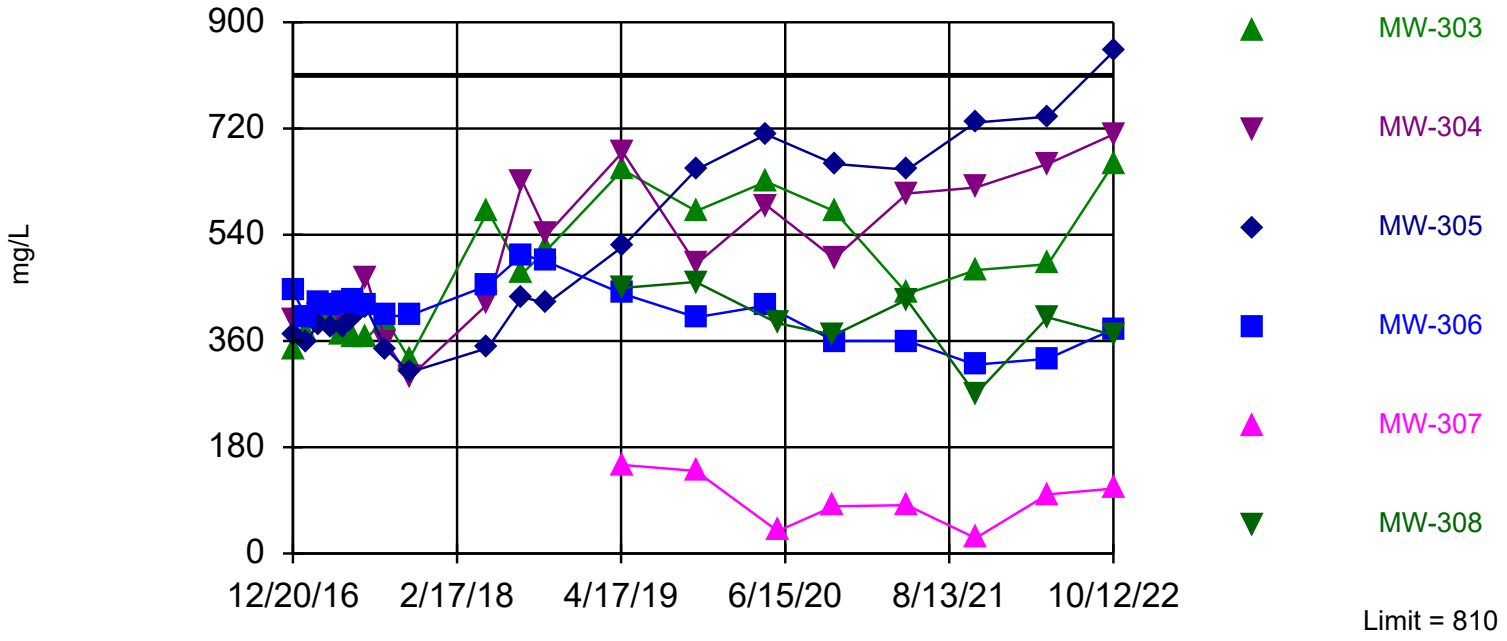
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308
12/20/2016	108	77.7	72.6					
12/21/2016				93.8	72.1	142		
1/23/2017	101	75.6	72.7					
1/24/2017				96.1	79.8	128		
2/23/2017	99.2	69.7	82.4	107	79	130		
3/28/2017	107	72.9	80.4	109	88.7	133		
4/26/2017	82.5	66.4	65.1	111				
4/27/2017					104	137		
5/25/2017	74.7	28.9	56	115	104	136		
6/28/2017	108	49.5	76.2	132	112	144		
8/17/2017	101	70	83.5	85.9	59.4	132		
10/17/2017	95.5	82.9	60	55.1	44	139		
5/8/2018	117	69.6	146	77.3	61.9	151		
8/6/2018	113	72.2	83.3	193	98.2	195		
10/9/2018	131	55.1	74.7	167	98.9	233		
4/22/2019	100	56	88	140	150	160		
4/23/2019							52	190
10/28/2019	110	72					32	190
10/29/2019			95	110	210	140		
4/27/2020	110	66	120	110	240	110		
5/27/2020							32	180
10/19/2020	98	78					30	150
10/20/2020			130	110	230	120		
4/26/2021							42	200
4/27/2021	93	57	110	140	260	140		
10/20/2021					330	120		
10/21/2021	100	89	130	220			36	140
4/25/2022	89	140					36	170
4/26/2022			100	160	280	110		
10/12/2022	100	89	160	220	330	110	50	180

Exceeds Limit: MW-305

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=535.2, Std. Dev.=142.5, n=40. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9667, critical = 0.919. Kappa = 1.932 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Total Dissolved Solids Analysis Run 1/1/2023 8:09 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/1/2023 8:11 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308
12/20/2016	556	465	346					
12/21/2016				396	370	444		
1/23/2017	587	463	375					
1/24/2017				399	359	398		
2/23/2017	611	416	413	402	389	423		
3/28/2017	615	432	414	411	383	421		
4/26/2017	495	445	372	406				
4/27/2017					383	426		
5/25/2017	479	203	367	418	400	430		
6/28/2017	642	341	365	468	416	421		
8/17/2017	640	432	397	359	347	402		
10/17/2017	621	505	329	298	307	403		
5/8/2018	784	718	580	423	348	454		
8/6/2018	747	503	475	630	434	506		
10/9/2018	743	314	515	541	424	494		
4/22/2019	610	320	650	680	520	440		
4/23/2019							150	450
10/28/2019	680 (B)	420 (B)					140 (B)	460 (B)
10/29/2019			580	490	650	400		
4/27/2020	640	400	630	590	710	420		
5/27/2020							38	390
10/19/2020	660	480					80	370
10/20/2020			580	500	660	360		
4/26/2021							82	430
4/27/2021	550	330	440	610	650	360		
10/20/2021					730	320		
10/21/2021	690	500	480	620			26 (J)	270
4/25/2022	680	340					100	400
4/26/2022			490	660	740	330		
10/12/2022	730	620	660	710	850	380	110	370

Prediction Limit

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020 Printed 1/1/2023, 7:58 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride (mg/L)	n/a	32.6	n/a	6 future	n/a	16	MW-301,MW-302	20.58	5.49	0	None	No	0.001254	Param Inter 1 of 2

Prediction Limit

Interwell Parametric

Background Data Summary: Mean=20.58, Std. Dev.=5.49, n=16. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8884, critical = 0.844. Kappa = 2.187 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Assumes 6 future values.

Constituent: Chloride Analysis Run 1/1/2023 7:57 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/1/2023 7:58 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-302 (bg)
12/20/2016	19.5	22.6
1/23/2017	24.1	21.4
2/23/2017	24.4	19.2
3/28/2017	23.3	21.6
4/26/2017	19.2	19.9
5/25/2017	19.1	8.1
6/28/2017	26.2	9.6
8/17/2017	30.4	20.7

Attachment 5

Interwell Tolerance Limit Analysis – Appendix IV

Tolerance Limit

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020 Printed 1/1/2023, 8:43 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (ug/L)	MW-303	1.10	10/12/2022	<0.69 (U)	No	38	MW-301,MW-302	47.37	n/a	n/a	0.02528	NP Inter(normal...
Antimony (ug/L)	MW-304	1.10	10/12/2022	1.1	No	38	MW-301,MW-302	47.37	n/a	n/a	0.02528	NP Inter(normal...
Antimony (ug/L)	MW-305	1.10	10/12/2022	0.72	No	38	MW-301,MW-302	47.37	n/a	n/a	0.02528	NP Inter(normal...
Antimony (ug/L)	MW-306	1.10	10/12/2022	<0.69 (U)	No	38	MW-301,MW-302	47.37	n/a	n/a	0.02528	NP Inter(normal...
Antimony (ug/L)	MW-307	1.10	10/12/2022	0.7	No	38	MW-301,MW-302	47.37	n/a	n/a	0.02528	NP Inter(normal...
Antimony (ug/L)	MW-308	1.10	10/12/2022	<0.69 (U)	No	38	MW-301,MW-302	47.37	n/a	n/a	0.02528	NP Inter(normal...
Arsenic (ug/L)	**MW-303**	**9.00**	**10/12/2022**	**42**	**Yes**	**38**	**MW-301,MW-302**	**15.79**	**n/a**	**n/a**	**0.02528**	**NP Inter(normal...**
Arsenic (ug/L)	**MW-304**	**9.00**	**10/12/2022**	**19**	**Yes**	**38**	**MW-301,MW-302**	**15.79**	**n/a**	**n/a**	**0.02528**	**NP Inter(normal...**
Arsenic (ug/L)	**MW-305**	**9.00**	**10/12/2022**	**12**	**Yes**	**38**	**MW-301,MW-302**	**15.79**	**n/a**	**n/a**	**0.02528**	**NP Inter(normal...**
Arsenic (ug/L)	MW-306	9.00	10/12/2022	<0.75 (U)	No	38	MW-301,MW-302	15.79	n/a	n/a	0.02528	NP Inter(normal...
Arsenic (ug/L)	MW-307	9.00	10/12/2022	6.1	No	38	MW-301,MW-302	15.79	n/a	n/a	0.02528	NP Inter(normal...
Arsenic (ug/L)	**MW-308**	**9.00**	**10/12/2022**	**39**	**Yes**	**38**	**MW-301,MW-302**	**15.79**	**n/a**	**n/a**	**0.02528**	**NP Inter(normal...**
Barium (ug/L)	MW-303	333	10/12/2022	130	No	38	MW-301,MW-302	0	None	No	0.008512	Inter
Barium (ug/L)	MW-304	333	10/12/2022	120	No	38	MW-301,MW-302	0	None	No	0.008512	Inter
Barium (ug/L)	MW-305	333	10/12/2022	160	No	38	MW-301,MW-302	0	None	No	0.008512	Inter
Barium (ug/L)	MW-306	333	10/12/2022	60	No	38	MW-301,MW-302	0	None	No	0.008512	Inter
Barium (ug/L)	MW-307	333	10/12/2022	58	No	38	MW-301,MW-302	0	None	No	0.008512	Inter
Barium (ug/L)	MW-308	333	10/12/2022	41	No	38	MW-301,MW-302	0	None	No	0.008512	Inter
Beryllium (ug/L)	MW-303	0.270	10/12/2022	<0.27 (U)	No	36	MW-301,MW-302	77.78	n/a	n/a	0.02821	NP Inter(NDs)
Beryllium (ug/L)	MW-304	0.270	10/12/2022	<0.27 (U)	No	36	MW-301,MW-302	77.78	n/a	n/a	0.02821	NP Inter(NDs)
Beryllium (ug/L)	MW-305	0.270	10/12/2022	<0.27 (U)	No	36	MW-301,MW-302	77.78	n/a	n/a	0.02821	NP Inter(NDs)
Beryllium (ug/L)	MW-306	0.270	10/12/2022	<0.27 (U)	No	36	MW-301,MW-302	77.78	n/a	n/a	0.02821	NP Inter(NDs)
Beryllium (ug/L)	MW-307	0.270	10/12/2022	<0.27 (U)	No	36	MW-301,MW-302	77.78	n/a	n/a	0.02821	NP Inter(NDs)
Beryllium (ug/L)	MW-308	0.270	10/12/2022	<0.27 (U)	No	36	MW-301,MW-302	77.78	n/a	n/a	0.02821	NP Inter(NDs)
Cadmium (ug/L)	MW-303	0.380	10/12/2022	<0.055 (U)	No	38	MW-301,MW-302	15.79	n/a	n/a	0.02528	NP Inter(normal...
Cadmium (ug/L)	MW-304	0.380	10/12/2022	<0.055 (U)	No	38	MW-301,MW-302	15.79	n/a	n/a	0.02528	NP Inter(normal...
Cadmium (ug/L)	MW-305	0.380	10/12/2022	<0.055 (U)	No	38	MW-301,MW-302	15.79	n/a	n/a	0.02528	NP Inter(normal...
Cadmium (ug/L)	MW-306	0.380	10/12/2022	0.065	No	38	MW-301,MW-302	15.79	n/a	n/a	0.02528	NP Inter(normal...
Cadmium (ug/L)	MW-307	0.380	10/12/2022	<0.055 (U)	No	38	MW-301,MW-302	15.79	n/a	n/a	0.02528	NP Inter(normal...
Cadmium (ug/L)	MW-308	0.380	10/12/2022	<0.055 (U)	No	38	MW-301,MW-302	15.79	n/a	n/a	0.02528	NP Inter(normal...
Chromium (ug/L)	MW-303	7.52	10/12/2022	<1.1 (U)	No	38	MW-301,MW-302	5.263	None	No	0.008512	Inter
Chromium (ug/L)	MW-304	7.52	10/12/2022	<1.1 (U)	No	38	MW-301,MW-302	5.263	None	No	0.008512	Inter
Chromium (ug/L)	MW-305	7.52	10/12/2022	<1.1 (U)	No	38	MW-301,MW-302	5.263	None	No	0.008512	Inter
Chromium (ug/L)	MW-306	7.52	10/12/2022	<1.1 (U)	No	38	MW-301,MW-302	5.263	None	No	0.008512	Inter
Chromium (ug/L)	MW-307	7.52	10/12/2022	<1.1 (U)	No	38	MW-301,MW-302	5.263	None	No	0.008512	Inter
Chromium (ug/L)	MW-308	7.52	10/12/2022	<1.1 (U)	No	38	MW-301,MW-302	5.263	None	No	0.008512	Inter
Cobalt (ug/L)	MW-303	6.12	10/12/2022	0.43	No	37	MW-301,MW-302	18.92	Kapla...	ln(x)	0.008512	Inter
Cobalt (ug/L)	MW-304	6.12	10/12/2022	0.65	No	37	MW-301,MW-302	18.92	Kapla...	ln(x)	0.008512	Inter
Cobalt (ug/L)	MW-305	6.12	10/12/2022	0.63	No	37	MW-301,MW-302	18.92	Kapla...	ln(x)	0.008512	Inter
Cobalt (ug/L)	MW-306	6.12	10/12/2022	<0.19 (U)	No	37	MW-301,MW-302	18.92	Kapla...	ln(x)	0.008512	Inter
Cobalt (ug/L)	MW-307	6.12	10/12/2022	<0.19 (U)	No	37	MW-301,MW-302	18.92	Kapla...	ln(x)	0.008512	Inter
Cobalt (ug/L)	MW-308	6.12	10/12/2022	<0.19 (U)	No	37	MW-301,MW-302	18.92	Kapla...	ln(x)	0.008512	Inter
Fluoride (mg/L)	MW-303	0.280	10/12/2022	0.3	No	40	MW-301,MW-302	47.5	n/a	n/a	0.02266	NP Inter(normal...
Fluoride (mg/L)	MW-304	0.280	10/12/2022	0.34	No	40	MW-301,MW-302	47.5	n/a	n/a	0.02266	NP Inter(normal...
Fluoride (mg/L)	MW-305	0.280	10/12/2022	<0.22 (U)	No	40	MW-301,MW-302	47.5	n/a	n/a	0.02266	NP Inter(normal...
Fluoride (mg/L)	MW-306	0.280	10/12/2022	<0.22 (U)	No	40	MW-301,MW-302	47.5	n/a	n/a	0.02266	NP Inter(normal...
Fluoride (mg/L)	MW-307	0.280	10/12/2022	<0.22 (U)	No	40	MW-301,MW-302	47.5	n/a	n/a	0.02266	NP Inter(normal...
Fluoride (mg/L)	MW-308	0.280	10/12/2022	<0.22 (U)	No	40	MW-301,MW-302	47.5	n/a	n/a	0.02266	NP Inter(normal...
Lead (ug/L)	MW-303	1.16	10/12/2022	0.58	No	38	MW-301,MW-302	44.74	Kapla...	ln(x)	0.008512	Inter
Lead (ug/L)	MW-304	1.16	10/12/2022	<0.24 (U)	No	38	MW-301,MW-302	44.74	Kapla...	ln(x)	0.008512	Inter

02/26/2024 - Classification: Internal - ECRM13238692

Tolerance Limit

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020 Printed 1/1/2023, 8:43 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	%NDs	ND Adj.	Transform	Alpha	Method
Lead (ug/L)	MW-305	1.16	10/12/2022	<0.24 (U)	No	38	MW-301,MW-302	44.74	Kapla...	ln(x)	0.008512	Inter
Lead (ug/L)	MW-306	1.16	10/12/2022	<0.24 (U)	No	38	MW-301,MW-302	44.74	Kapla...	ln(x)	0.008512	Inter
Lead (ug/L)	MW-307	1.16	10/12/2022	<0.24 (U)	No	38	MW-301,MW-302	44.74	Kapla...	ln(x)	0.008512	Inter
Lead (ug/L)	MW-308	1.16	10/12/2022	<0.24 (U)	No	38	MW-301,MW-302	44.74	Kapla...	ln(x)	0.008512	Inter
Lithium (ug/L)	MW-303	18.2	10/12/2022	18	No	38	MW-301,MW-302	7.895	None	No	0.008512	Inter
Lithium (ug/L)	MW-304	18.2	10/12/2022	15	No	38	MW-301,MW-302	7.895	None	No	0.008512	Inter
Lithium (ug/L)	**MW-305**	**18.2**	**10/12/2022**	**19**	**Yes**	**38**	**MW-301,MW-302**	**7.895**	**None**	**No**	**0.008512**	**Inter**
Lithium (ug/L)	MW-306	18.2	10/12/2022	<2.5 (U)	No	38	MW-301,MW-302	7.895	None	No	0.008512	Inter
Lithium (ug/L)	MW-307	18.2	10/12/2022	13	No	38	MW-301,MW-302	7.895	None	No	0.008512	Inter
Lithium (ug/L)	**MW-308**	**18.2**	**10/12/2022**	**42**	**Yes**	**38**	**MW-301,MW-302**	**7.895**	**None**	**No**	**0.008512**	**Inter**
Mercury (ug/L)	MW-303	0.110	10/12/2022	<0.11 (U)	No	34	MW-301,MW-302	100	n/a	n/a	0.03152	NP Inter(NDs)
Mercury (ug/L)	MW-304	0.110	10/12/2022	<0.11 (U)	No	34	MW-301,MW-302	100	n/a	n/a	0.03152	NP Inter(NDs)
Mercury (ug/L)	MW-305	0.110	10/12/2022	<0.11 (U)	No	34	MW-301,MW-302	100	n/a	n/a	0.03152	NP Inter(NDs)
Mercury (ug/L)	MW-306	0.110	10/12/2022	<0.11 (U)	No	34	MW-301,MW-302	100	n/a	n/a	0.03152	NP Inter(NDs)
Mercury (ug/L)	MW-307	0.110	10/12/2022	<0.11 (U)	No	34	MW-301,MW-302	100	n/a	n/a	0.03152	NP Inter(NDs)
Mercury (ug/L)	MW-308	0.110	10/12/2022	<0.11 (U)	No	34	MW-301,MW-302	100	n/a	n/a	0.03152	NP Inter(NDs)
Molybdenum (ug/L)	**MW-303**	**1.30**	**10/12/2022**	**15**	**Yes**	**38**	**MW-301,MW-302**	**44.74**	**n/a**	**n/a**	**0.02528**	**NP Inter(normal...**
Molybdenum (ug/L)	**MW-304**	**1.30**	**10/12/2022**	**27**	**Yes**	**38**	**MW-301,MW-302**	**44.74**	**n/a**	**n/a**	**0.02528**	**NP Inter(normal...**
Molybdenum (ug/L)	**MW-305**	**1.30**	**10/12/2022**	**78**	**Yes**	**38**	**MW-301,MW-302**	**44.74**	**n/a**	**n/a**	**0.02528**	**NP Inter(normal...**
Molybdenum (ug/L)	**MW-306**	**1.30**	**10/12/2022**	**210**	**Yes**	**38**	**MW-301,MW-302**	**44.74**	**n/a**	**n/a**	**0.02528**	**NP Inter(normal...**
Molybdenum (ug/L)	**MW-307**	**1.30**	**10/12/2022**	**7.2**	**Yes**	**38**	**MW-301,MW-302**	**44.74**	**n/a**	**n/a**	**0.02528**	**NP Inter(normal...**
Molybdenum (ug/L)	**MW-308**	**1.30**	**10/12/2022**	**63**	**Yes**	**38**	**MW-301,MW-302**	**44.74**	**n/a**	**n/a**	**0.02528**	**NP Inter(normal...**
Selenium (ug/L)	MW-303	2.9	10/12/2022	<0.96 (U)	No	36	MW-301,MW-302	13.89	None	ln(x)	0.008512	Inter
Selenium (ug/L)	MW-304	2.9	10/12/2022	<0.96 (U)	No	36	MW-301,MW-302	13.89	None	ln(x)	0.008512	Inter
Selenium (ug/L)	MW-305	2.9	10/12/2022	<0.96 (U)	No	36	MW-301,MW-302	13.89	None	ln(x)	0.008512	Inter
Selenium (ug/L)	MW-306	2.9	10/12/2022	<0.96 (U)	No	36	MW-301,MW-302	13.89	None	ln(x)	0.008512	Inter
Selenium (ug/L)	MW-307	2.9	10/12/2022	2.4	No	36	MW-301,MW-302	13.89	None	ln(x)	0.008512	Inter
Selenium (ug/L)	MW-308	2.9	10/12/2022	<0.96 (U)	No	36	MW-301,MW-302	13.89	None	ln(x)	0.008512	Inter
Thallium (ug/L)	MW-303	0.500	10/12/2022	<0.26 (U)	No	34	MW-301,MW-302	67.65	n/a	n/a	0.03152	NP Inter(NDs)
Thallium (ug/L)	MW-304	0.500	10/12/2022	<0.26 (U)	No	34	MW-301,MW-302	67.65	n/a	n/a	0.03152	NP Inter(NDs)
Thallium (ug/L)	MW-305	0.500	10/12/2022	<0.26 (U)	No	34	MW-301,MW-302	67.65	n/a	n/a	0.03152	NP Inter(NDs)
Thallium (ug/L)	MW-306	0.500	10/12/2022	<0.26 (U)	No	34	MW-301,MW-302	67.65	n/a	n/a	0.03152	NP Inter(NDs)
Thallium (ug/L)	MW-307	0.500	10/12/2022	<0.26 (U)	No	34	MW-301,MW-302	67.65	n/a	n/a	0.03152	NP Inter(NDs)
Thallium (ug/L)	MW-308	0.500	10/12/2022	<0.26 (U)	No	34	MW-301,MW-302	67.65	n/a	n/a	0.03152	NP Inter(NDs)
Total Radium (pCi/L)	MW-303	2.91	10/12/2022	0.783	No	36	MW-301,MW-302	0	None	ln(x)	0.008512	Inter
Total Radium (pCi/L)	MW-304	2.91	10/12/2022	0.811	No	36	MW-301,MW-302	0	None	ln(x)	0.008512	Inter
Total Radium (pCi/L)	MW-305	2.91	10/12/2022	0.539	No	36	MW-301,MW-302	0	None	ln(x)	0.008512	Inter
Total Radium (pCi/L)	MW-306	2.91	10/12/2022	0.356	No	36	MW-301,MW-302	0	None	ln(x)	0.008512	Inter
Total Radium (pCi/L)	MW-307	2.91	10/12/2022	0.362	No	36	MW-301,MW-302	0	None	ln(x)	0.008512	Inter
Total Radium (pCi/L)	MW-308	2.91	10/12/2022	0.514	No	36	MW-301,MW-302	0	None	ln(x)	0.008512	Inter

02/26/2024 - Classification: Internal - ECRM13238692

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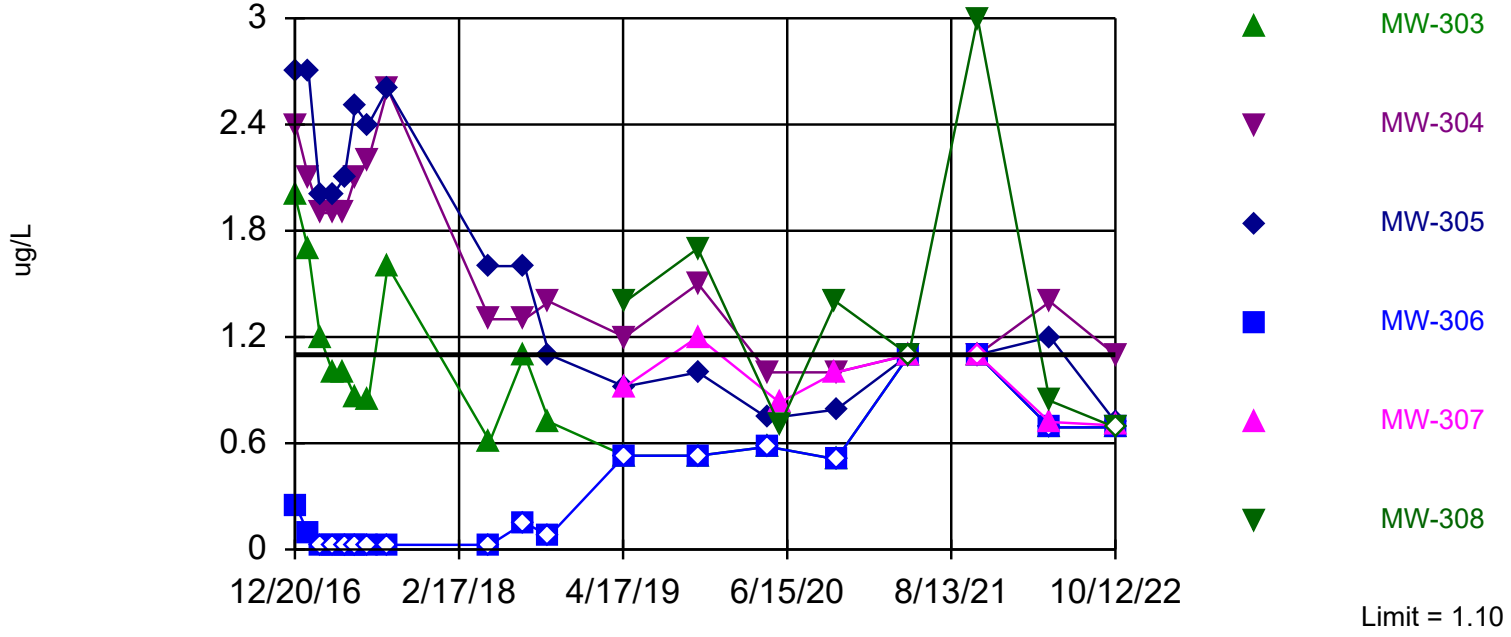
Hollow symbols indicate censored values.

Within Limit

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Most recent observation is compared with limit. Limit is highest of 38 background values. 47.37% NDs. 88.48% coverage at alpha=0.01; 92.38% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1424.

Constituent: Antimony Analysis Run 1/1/2023 8:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tolerance Limit

Constituent: Antimony (ug/L) Analysis Run 1/1/2023 8:43 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-302 (bg)	MW-303	MW-306	MW-305	MW-304	MW-308	MW-307
12/20/2016	0.28 (J)	0.32 (J)	2					
12/21/2016				0.25 (J)	2.7	2.4		
1/23/2017	0.2 (J)	0.14 (J)	1.7					
1/24/2017				0.091 (J)	2.7	2.1		
2/23/2017	0.057 (J)	0.049 (J)	1.2	<0.026 (U)	2	1.9		
3/28/2017	0.06 (J)	0.067 (J)	1	<0.026 (U)	2	1.9		
4/26/2017	0.034 (J)	0.028 (J)	1			1.9		
4/27/2017				<0.026 (U)	2.1			
5/25/2017	0.065 (J)	0.077 (J)	0.86 (J)	<0.026 (U)	2.5	2.1		
6/28/2017	0.088 (J)	0.067 (J)	0.84 (J)	<0.026 (U)	2.4	2.2		
8/17/2017	0.18 (J)	0.11 (J)	1.6	<0.026 (U)	2.6	2.6		
5/8/2018	0.041 (J)	0.048 (J)	0.61 (J)	<0.026 (U)	1.6	1.3		
8/6/2018	<0.15 (U)	0.17 (J)	1.1	<0.15 (U)	1.6	1.3		
10/9/2018	<0.078 (U)	0.092 (J)	0.72 (J)	<0.078 (U)	1.1	1.4		
4/22/2019	<0.53 (U)	<0.53 (U)	<0.53 (U)	<0.53 (U)	0.92 (J)	1.2		
4/23/2019							1.4	0.92 (J)
10/28/2019	<0.53 (U)	<0.53 (U)					1.7	1.2
10/29/2019			<0.53 (U)	<0.53 (U)	1	1.5		
4/27/2020	<0.58 (U)	<0.58 (U)	<0.58 (U)	<0.58 (U)	0.74 (J)	1		
5/27/2020							0.7 (J)	0.83 (J)
10/19/2020	<0.51 (U)	<0.51 (U)					1.4	1
10/20/2020			<0.51 (U)	<0.51 (U)	0.79 (J)	1		
4/26/2021							<1.1 (U)	<1.1 (U)
4/27/2021	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)		
10/20/2021				<1.1 (U)	<1.1 (U)			
10/21/2021	<1.1 (U)	<1.1 (U)	<1.1 (U)			1.1 (J)	3	<1.1 (U)
4/25/2022	<0.69 (U)	<0.69 (U)					0.84 (J)	0.72 (J)
4/26/2022			<0.69 (U)	<0.69 (U)	1.2 (J)	1.4 (J)		
10/12/2022	<0.69 (U)	<0.69 (U)	<0.69 (U)	<0.69 (U)	0.72 (J)	1.1 (J)	<0.69 (U)	0.7 (J)

ND substitution: RL or RL/2 if <15% NDs.

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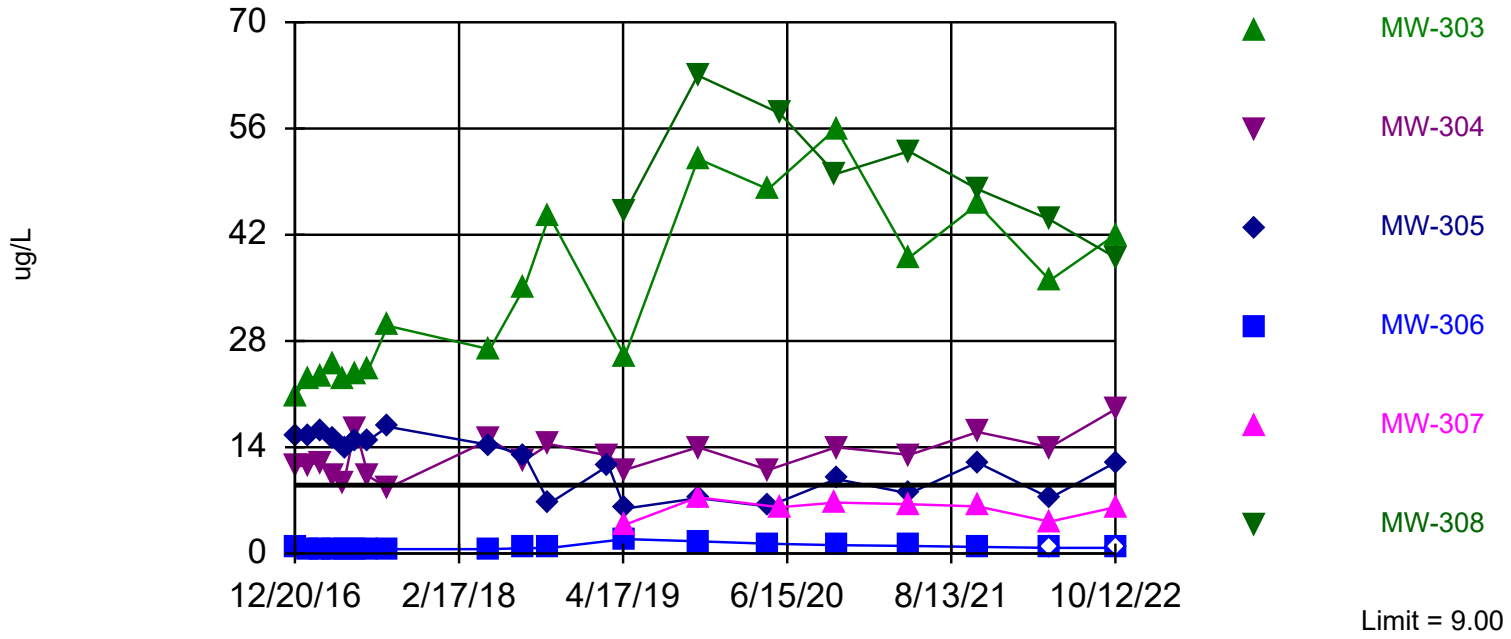
Hollow symbols indicate censored values.

Exceeds Limit: MW-303, MW-304, MW-305, MW-308

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Most recent observation is compared with limit. Limit is highest of 38 background values. 15.79% NDs. 88.48% coverage at alpha=0.01; 92.38% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1424.

Constituent: Arsenic Analysis Run 1/1/2023 8:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tolerance Limit

Constituent: Arsenic (ug/L) Analysis Run 1/1/2023 8:43 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

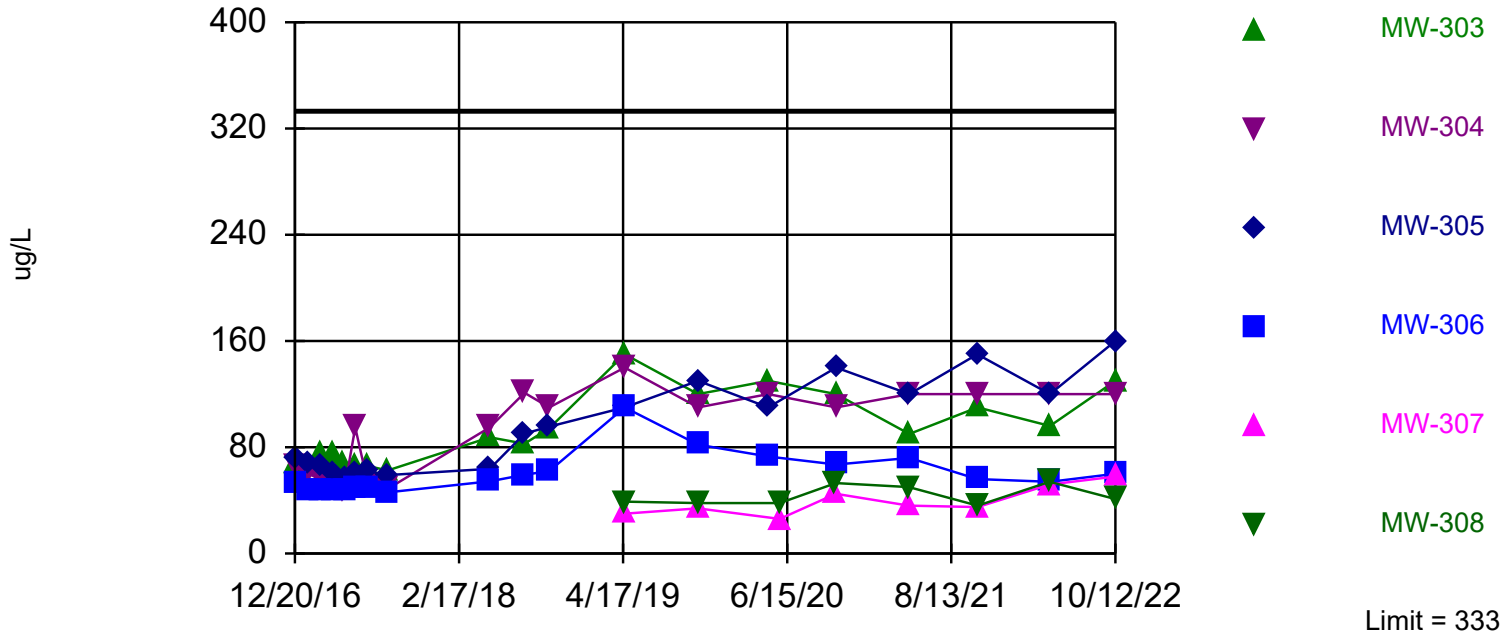
	MW-301 (bg)	MW-303	MW-302 (bg)	MW-305	MW-306	MW-304	MW-308	MW-307
12/20/2016	0.7 (J)	20.8	2.3					
12/21/2016				15.4	0.82 (J)	11.4		
1/23/2017	0.69 (J)	23.1	1.7					
1/24/2017				15.4	0.58 (J)	11.7		
2/23/2017	0.55 (J)	23.4	1.6	16	0.5 (J)	12		
3/28/2017	0.54 (J)	25	2.7	15.2	0.61 (J)	10.1		
4/26/2017	0.55 (J)	22.9	2.4			9.4		
4/27/2017				13.9	0.55 (J)			
5/25/2017	0.5 (J)	23.6	3.2	14.7	0.6 (J)	16.6		
6/28/2017	0.62 (J)	24.2	1.6	14.9	0.59 (J)	10.2		
8/17/2017	1.8	30	1.9	16.7	0.57 (J)	8.6		
5/8/2018	0.54 (J)	26.9	0.79 (J)	14.3	0.58 (J)	15		
8/6/2018	1.1	35.1	9	13	0.7 (J)	12.3		
10/9/2018	0.67 (J)	44.5	4.5	6.6	0.72 (J)	14.4		
3/11/2019				11.6		12.9		
4/22/2019	<0.75 (U)	26	2.1	5.9	1.9 (J)	11		
4/23/2019							45	3.8
10/28/2019	<0.75 (U)		7				63	7.4
10/29/2019		52		7.3	1.6 (J)	14		
4/27/2020	<0.88 (U)	48	4.4	6.2	1.3 (J)	11		
5/27/2020							58	6.1
10/19/2020	<0.88 (U)		2				50	6.7
10/20/2020		56		9.8	1.1 (J)	14		
4/26/2021							53	6.5
4/27/2021	<0.75 (U)	39	3.4	7.9	1 (J)	13		
10/20/2021				12	0.87 (J)			
10/21/2021	0.88 (J)	46	0.9 (J)			16	48	6.2
4/25/2022	0.8 (J)		1.2 (J)				44	4.2
4/26/2022		36		7.3	<0.75 (U)	14		
10/12/2022	<0.75 (U)	42	0.76 (J)	12	<0.75 (U)	19	39	6.1

ND substitution: RL or RL/2 if <15% NDs.

Within Limit

Tolerance Limit

Interwell Parametric



95% coverage. Most recent observation is compared with limit. Background Data Summary: Mean=220, Std. Dev.=52.54, n=38. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9216, critical = 0.916. Report alpha = 0.05.

Constituent: Barium Analysis Run 1/1/2023 8:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tolerance Limit

Constituent: Barium (ug/L) Analysis Run 1/1/2023 8:43 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-302 (bg)	MW-303	MW-306	MW-305	MW-304	MW-308	MW-307
12/20/2016	250	200	68.8					
12/21/2016				53	71.4	65.3		
1/23/2017	257	194	66					
1/24/2017				47.4	67.4	59.8		
2/23/2017	264	166	75.4	47.7	65.3	56.4		
3/28/2017	264	187	74.6	47.2	60.1	51.6		
4/26/2017	211	176	67.6			46.6		
4/27/2017				47.8	56.5			
5/25/2017	205	109	66.6	50.1	60.7	95		
6/28/2017	265	133	65.8	48.8	61.9	51.1		
8/17/2017	291	175	62.5	46.1	59	48.7		
5/8/2018	282	213	87.5	54.4	63.7	95		
8/6/2018	281	254	82.7	59.3	90.3	121		
10/9/2018	261	141	94.3	62.1	95.6	110		
4/22/2019	230	130	150	110	110	140		
4/23/2019							39	30
10/28/2019	270	220					38	34
10/29/2019			120	82	130	110		
4/27/2020	260	210	130	73	110	120		
5/27/2020							38	26
10/19/2020	270	200					53	45
10/20/2020			120	67	140	110		
4/26/2021							50	36
4/27/2021	250	160	90	72	120	120		
10/20/2021				56	150			
10/21/2021	270	220	110			120	36	35
4/25/2022	280	110					54	52
4/26/2022			96	54	120	120		
10/12/2022	290	210	130	60	160	120	41	58

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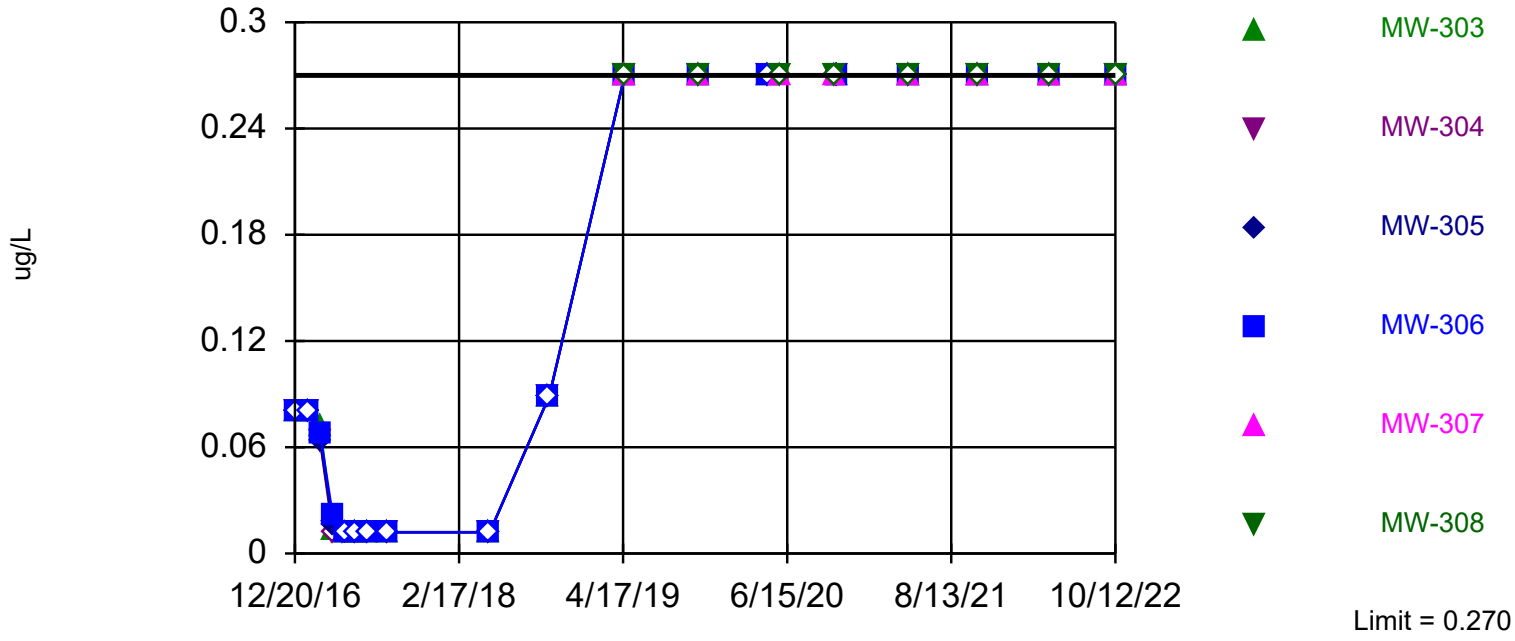
Hollow symbols indicate censored values.

Within Limit

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Most recent observation is compared with limit. Limit is highest of 36 background values. 77.78% NDs. 88.09% coverage at alpha=0.01; 91.99% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1578.

Constituent: Beryllium Analysis Run 1/1/2023 8:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tolerance Limit

Constituent: Beryllium (ug/L) Analysis Run 1/1/2023 8:43 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-303	MW-302 (bg)	MW-305	MW-306	MW-304	MW-307	MW-308
12/20/2016	<0.08 (U)	<0.08 (U)	<0.08 (U)					
12/21/2016				<0.08 (U)	<0.08 (U)	<0.08 (U)		
1/23/2017	<0.08 (U)	<0.08 (U)	<0.08 (U)					
1/24/2017				<0.08 (U)	<0.08 (U)	<0.08 (U)		
2/23/2017	0.075 (J)	0.072 (J)	0.078 (J)	0.064 (J)	0.068 (J)	0.064 (J)		
3/28/2017	0.012 (J)	0.013 (J)	0.023 (J)	0.016 (J)	0.021 (J)	<0.012 (U)		
4/26/2017	0.023 (J)	<0.012 (U)	<0.012 (U)			<0.012 (U)		
4/27/2017				<0.012 (U)	<0.012 (U)			
5/25/2017	0.016 (J)	<0.012 (U)	0.019 (J)	<0.012 (U)	<0.012 (U)	<0.012 (U)		
6/28/2017	<0.012 (U)	<0.012 (U)	<0.012 (U)	<0.012 (U)	<0.012 (U)	<0.012 (U)		
8/17/2017	0.14 (J)	<0.012 (U)	<0.012 (U)	<0.012 (U)	<0.012 (U)	<0.012 (U)		
5/8/2018	<0.012 (U)	<0.012 (U)	<0.012 (U)	<0.012 (U)	<0.012 (U)	<0.012 (U)		
10/9/2018	<0.089 (U)	<0.089 (U)	<0.089 (U)	<0.089 (U)	<0.089 (U)	<0.089 (U)		
4/22/2019	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)		
4/23/2019							<0.27 (U)	<0.27 (U)
10/28/2019	<0.27 (U)		<0.27 (U)				<0.27 (U)	<0.27 (U)
10/29/2019		<0.27 (U)		<0.27 (U)	<0.27 (U)	<0.27 (U)		
4/27/2020	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)		
5/27/2020							<0.27 (U)	<0.27 (U)
10/19/2020	<0.27 (U)		<0.27 (U)				<0.27 (U)	<0.27 (U)
10/20/2020		<0.27 (U)		<0.27 (U)	<0.27 (U)	<0.27 (U)		
4/26/2021							<0.27 (U)	<0.27 (U)
4/27/2021	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)		
10/20/2021				<0.27 (U)	<0.27 (U)			
10/21/2021	<0.27 (U)	<0.27 (U)	<0.27 (U)			<0.27 (U)	<0.27 (U)	<0.27 (U)
4/25/2022	<0.27 (U)		<0.27 (U)				<0.27 (U)	<0.27 (U)
4/26/2022		<0.27 (U)		<0.27 (U)	<0.27 (U)	<0.27 (U)		
10/12/2022	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)

ND substitution: RL or RL/2 if <15% NDs.

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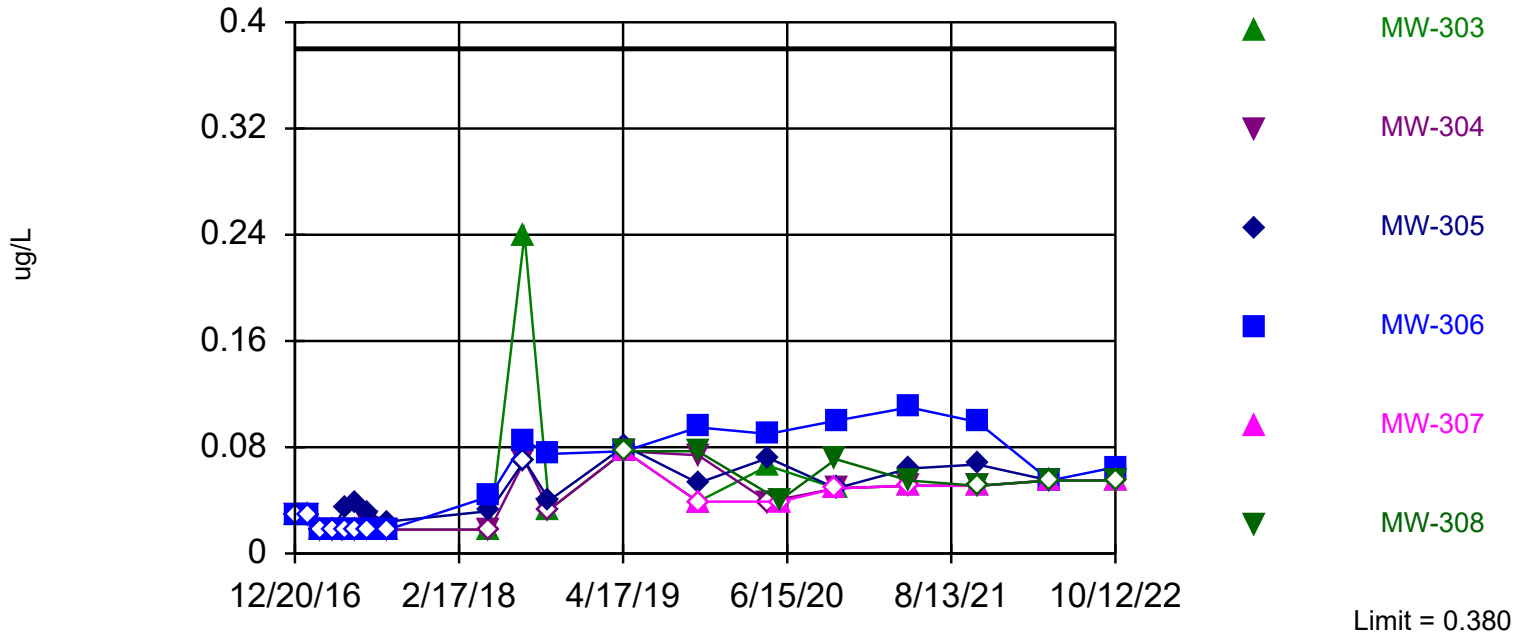
Hollow symbols indicate censored values.

Within Limit

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Most recent observation is compared with limit. Limit is highest of 38 background values. 15.79% NDs. 88.48% coverage at alpha=0.01; 92.38% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1424.

Constituent: Cadmium Analysis Run 1/1/2023 8:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tolerance Limit

Constituent: Cadmium (ug/L) Analysis Run 1/1/2023 8:43 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-302 (bg)	MW-303	MW-306	MW-305	MW-304	MW-308	MW-307
12/20/2016	<0.029 (U)	<0.029 (U)	<0.029 (U)					
12/21/2016				<0.029 (U)	<0.029 (U)	<0.029 (U)		
1/23/2017	0.059 (J)	<0.029 (U)	<0.029 (U)					
1/24/2017				<0.029 (U)	<0.029 (U)	<0.029 (U)		
2/23/2017	0.066 (J)	0.04 (J)	<0.018 (U)	<0.018 (U)	<0.018 (U)	<0.018 (U)		
3/28/2017	0.072 (J)	0.036 (J)	<0.018 (U)	<0.018 (U)	<0.018 (U)	<0.018 (U)		
4/26/2017	0.063 (J)	0.042 (J)	<0.018 (U)			<0.018 (U)		
4/27/2017				<0.018 (U)	0.034 (J)			
5/25/2017	0.061 (J)	0.021 (J)	<0.018 (U)	<0.018 (U)	0.038 (J)	0.018 (J)		
6/28/2017	0.073 (J)	0.035 (J)	<0.018 (U)	<0.018 (U)	0.03 (J)	0.023 (J)		
8/17/2017	0.12 (J)	0.03 (J)	<0.018 (U)	<0.018 (U)	0.024 (J)	<0.018 (U)		
5/8/2018	0.069 (J)	0.041 (J)	<0.018 (U)	0.043 (J)	0.032 (J)	<0.018 (U)		
8/6/2018	0.096 (J)	0.084 (J)	0.24 (J)	0.085 (J)	<0.07 (U)	<0.07 (U)		
10/9/2018	0.075 (J)	<0.033 (U)	<0.033 (U)	0.075 (J)	0.04 (J)	<0.033 (U)		
4/22/2019	<0.077 (U)	<0.077 (U)	<0.077 (U)	<0.077 (U)	0.081 (J)	<0.077 (U)		
4/23/2019							<0.077 (U)	<0.077 (U)
10/28/2019	0.064 (J)	0.053 (J)					0.077 (J)	<0.039 (U)
10/29/2019			<0.039 (U)	0.095 (J)	0.053 (J)	0.074 (J)		
4/27/2020	0.066 (J)	0.098 (J)	0.066 (J)	0.09 (J)	0.072 (J)	<0.039 (U)		
5/27/2020							0.04 (J)	<0.039 (U)
10/19/2020	0.073 (J)	0.062 (J)					0.071 (J)	<0.049 (U)
10/20/2020			<0.049 (U)	0.1	<0.049 (U)	<0.049 (U)		
4/26/2021							0.055 (J)	<0.051 (U)
4/27/2021	0.062 (J)	0.065 (J)	<0.051 (U)	0.11	0.064 (J)	<0.051 (U)		
10/20/2021				0.099 (J)	0.067 (J)			
10/21/2021	0.11	0.08 (J)	<0.051 (U)			<0.051 (U)	<0.051 (U)	<0.051 (U)
4/25/2022	0.072 (J)	0.38					<0.055 (U)	<0.055 (U)
4/26/2022			<0.055 (U)	<0.055 (U)	<0.055 (U)	<0.055 (U)		
10/12/2022	0.068 (J)	0.072 (J)	<0.055 (U)	0.065 (J)	<0.055 (U)	<0.055 (U)	<0.055 (U)	<0.055 (U)

ND substitution: RL or RL/2 if <15% NDs.

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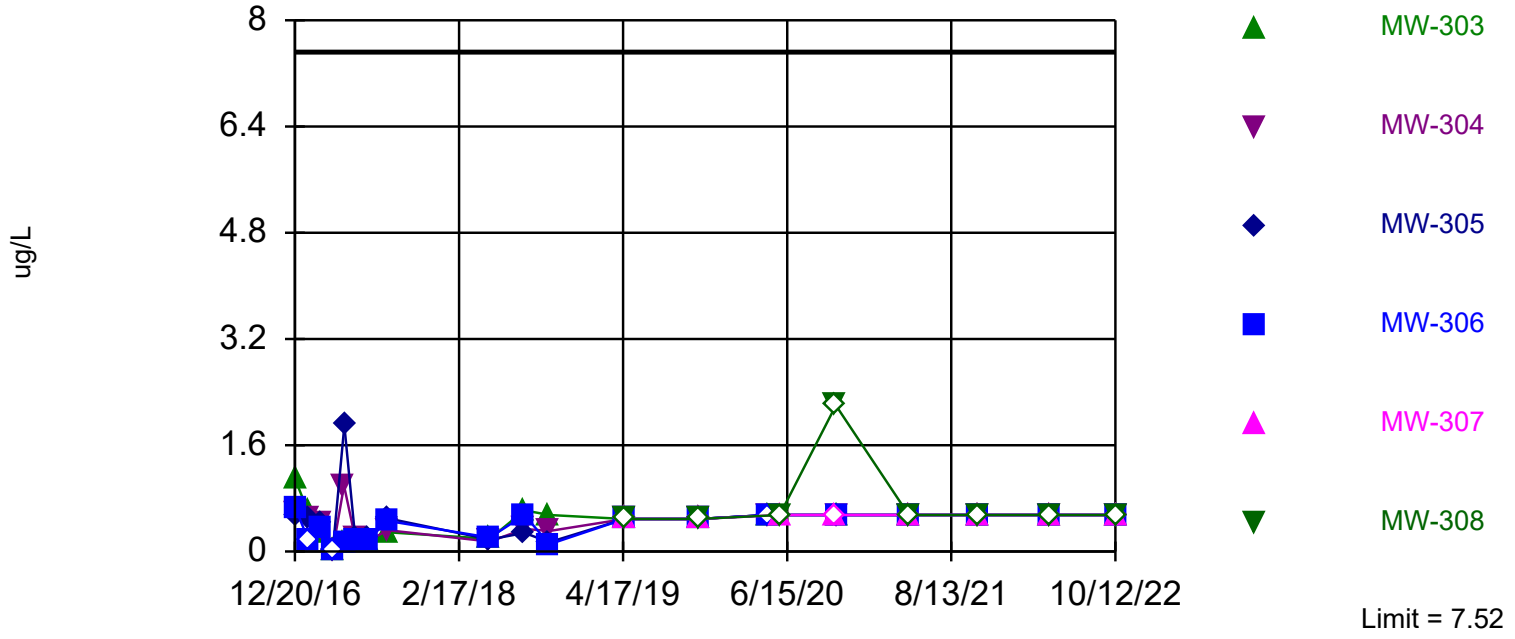
Hollow symbols indicate censored values.

Within Limit

Tolerance Limit

Interwell Parametric



95% coverage. Most recent observation is compared with limit. Background Data Summary: Mean=3.298, Std. Dev.=1.969, n=38, 5.263% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9164, critical = 0.916. Report alpha = 0.05.

Constituent: Chromium Analysis Run 1/1/2023 8:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tolerance Limit

Constituent: Chromium (ug/L) Analysis Run 1/1/2023 8:43 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-302 (bg)	MW-303	MW-306	MW-305	MW-304	MW-308	MW-307
12/20/2016	3.9	3.3	1.1					
12/21/2016				0.65 (J)	0.55 (J)	0.58 (J)		
1/23/2017	4.3	2.1	0.6 (J)					
1/24/2017				<0.34 (U)	0.49 (J)	0.5 (J)		
2/23/2017	4.5	1.7	0.28 (J)	0.34 (J)	0.44 (J)	0.41 (J)		
3/28/2017	4.4	1.4	<0.054 (U)	<0.054 (U)	<0.054 (U)	<0.054 (U)		
4/26/2017	4.7	1.5	0.14 (J)			0.99 (J)		
4/27/2017				0.14 (J)	1.9			
5/25/2017	3.4	0.8 (J)	0.21 (J)	0.16 (J)	0.2 (J)	0.2 (J)		
6/28/2017	3.9	0.91 (J)	0.18 (J)	0.18 (J)	0.2 (J)	0.16 (J)		
8/17/2017	9.9	1.5	0.29 (J)	0.46 (J)	0.5 (J)	0.32 (J)		
5/8/2018	4.1	1.2	0.19 (J)	0.21 (J)	0.18 (J)	0.15 (J)		
8/6/2018	5.8	4.4	0.62 (J)	0.55 (J)	0.28 (J)	0.34 (J)		
10/9/2018	5.2	0.78 (J)	0.55 (J)	0.11 (J)	0.14 (J)	0.31 (J)		
4/22/2019	3.6 (J)	<0.98 (U)	<0.98 (U)	<0.98 (U)	<0.98 (U)	<0.98 (U)		
4/23/2019							<0.98 (U)	<0.98 (U)
10/28/2019	5.4	2.1 (J)					<0.98 (U)	<0.98 (U)
10/29/2019			<0.98 (U)	<0.98 (U)	<0.98 (U)	<0.98 (U)		
4/27/2020	4.7 (J)	2.8 (J)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)		
5/27/2020							<1.1 (U)	<1.1 (U)
10/19/2020	4.9 (J)	2.2 (J)					<4.4 (U)	<1.1 (U)
10/20/2020			<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)		
4/26/2021							<1.1 (U)	<1.1 (U)
4/27/2021	4.2 (J)	1.4 (J)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)		
10/20/2021				<1.1 (U)	<1.1 (U)			
10/21/2021	5.2	2 (J)	<1.1 (U)			<1.1 (U)	<1.1 (U)	<1.1 (U)
4/25/2022	5.3	<1.1 (U)					<1.1 (U)	<1.1 (U)
4/26/2022			<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)		
10/12/2022	4.8 (J)	2 (J)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)	<1.1 (U)

ND substitution: RL or RL/2 if <15% NDs.

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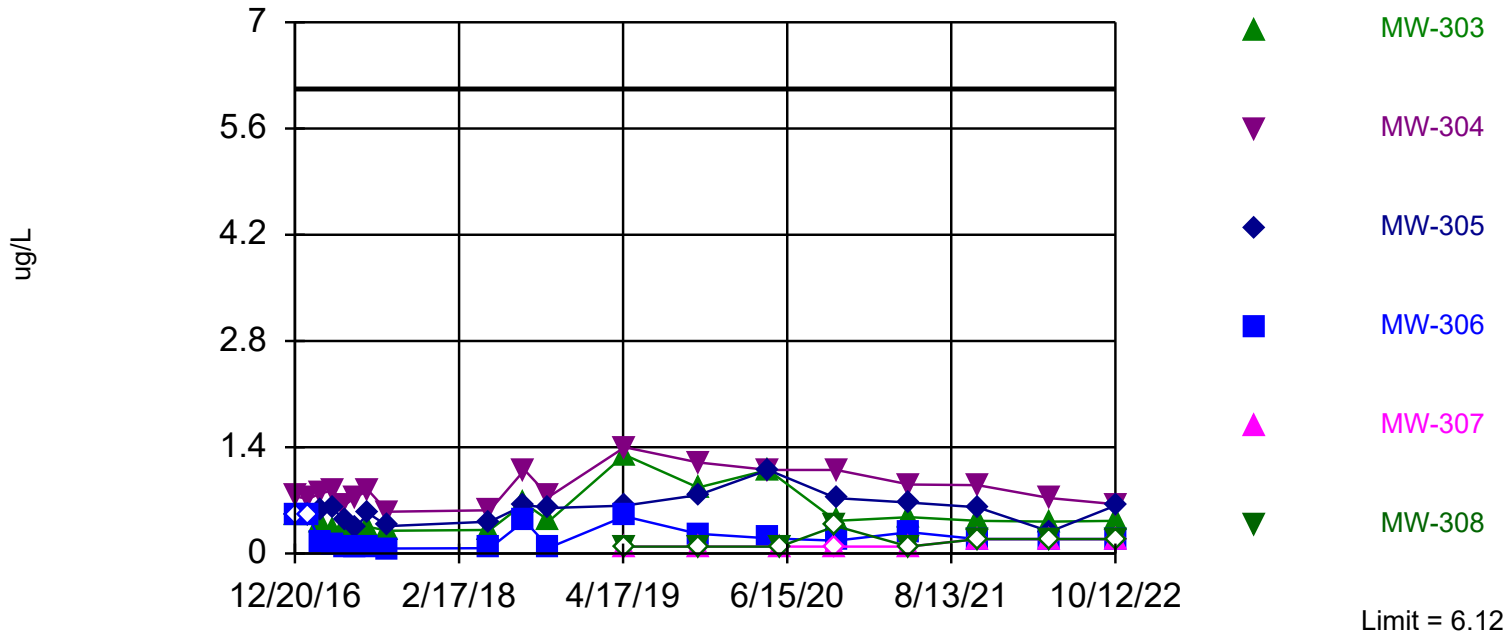
Hollow symbols indicate censored values.

Within Limit

Tolerance Limit

Interwell Parametric



95% coverage. Most recent observation is compared with limit. Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-1.279, Std. Dev.=1.438, n=37, 18.92% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9384, critical = 0.914. Report alpha = 0.05.

Constituent: Cobalt Analysis Run 1/1/2023 8:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tolerance Limit

Constituent: Cobalt (ug/L) Analysis Run 1/1/2023 8:43 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-303	MW-302 (bg)	MW-305	MW-306	MW-304	MW-307	MW-308
12/20/2016	<0.5 (U)	<0.5 (U)	2.7					
12/21/2016				<0.5 (U)	<0.5 (U)	0.75 (J)		
1/23/2017	<0.5 (U)	<0.5 (U)	2.2					
1/24/2017				<0.5 (U)	<0.5 (U)	0.72 (J)		
2/23/2017	0.25 (J)	0.4 (J)	3	0.56 (J)	0.16 (J)	0.79 (J)		
3/28/2017	0.11 (J)	0.3 (J)	4.7	0.6 (J)	0.11 (J)	0.83 (J)		
4/26/2017	0.28 (J)	0.3 (J)	2.1			0.63 (J)		
4/27/2017				0.43 (J)	0.077 (J)			
5/25/2017	0.18 (J)	0.3 (J)	2.1	0.34 (J)	0.068 (J)	0.74 (J)		
6/28/2017	0.057 (J)	0.35 (J)	1.2	0.53 (J)	0.078 (J)	0.83 (J)		
8/17/2017	2.1	0.3 (J)	1.4	0.36 (J)	0.065 (J)	0.55 (J)		
5/8/2018	0.028 (J)	0.31 (J)	3.2	0.42 (J)	0.071 (J)	0.57 (J)		
8/6/2018	0.52 (J)	0.66 (J)	1.6	0.64 (J)	0.43 (J)	1.1		
10/9/2018	0.084 (J)	0.43 (J)	3.2	0.6 (J)	0.079 (J)	0.75 (J)		
4/22/2019	0.12 (J)	1.3	2.1	0.63	0.49 (J)	1.4		
4/23/2019							0.091 (J)	<0.091 (U)
10/28/2019	0.12 (J)		1.2				<0.091 (U)	<0.091 (U)
10/29/2019		0.87		0.77	0.26 (J)	1.2		
4/27/2020	0.23 (J)	1.1	0.56	1.1	0.2 (J)	1.1		
5/27/2020							<0.091 (U)	<0.091 (U)
10/19/2020	<0.091 (U)		0.33 (J)				<0.091 (U)	<0.36 (U)
10/20/2020		0.43 (J)		0.73	0.17 (J)	1.1		
4/26/2021							<0.091 (U)	<0.091 (U)
4/27/2021	0.15 (J)	0.48 (J)	0.37 (J)	0.67	0.28 (J)	0.91		
10/20/2021				0.61	<0.19 (U)			
10/21/2021	<0.19 (U)	0.43 (J)	<0.19 (U)			0.9	<0.19 (U)	<0.19 (U)
4/25/2022	<0.19 (U)		31 (X)				<0.19 (U)	<0.19 (U)
4/26/2022		0.42 (J)		0.29 (J)	<0.19 (U)	0.73		
10/12/2022	<0.19 (U)	0.43 (J)	0.21 (J)	0.63	<0.19 (U)	0.65	<0.19 (U)	<0.19 (U)

ND substitution: RL or RL/2 if <15% NDs.

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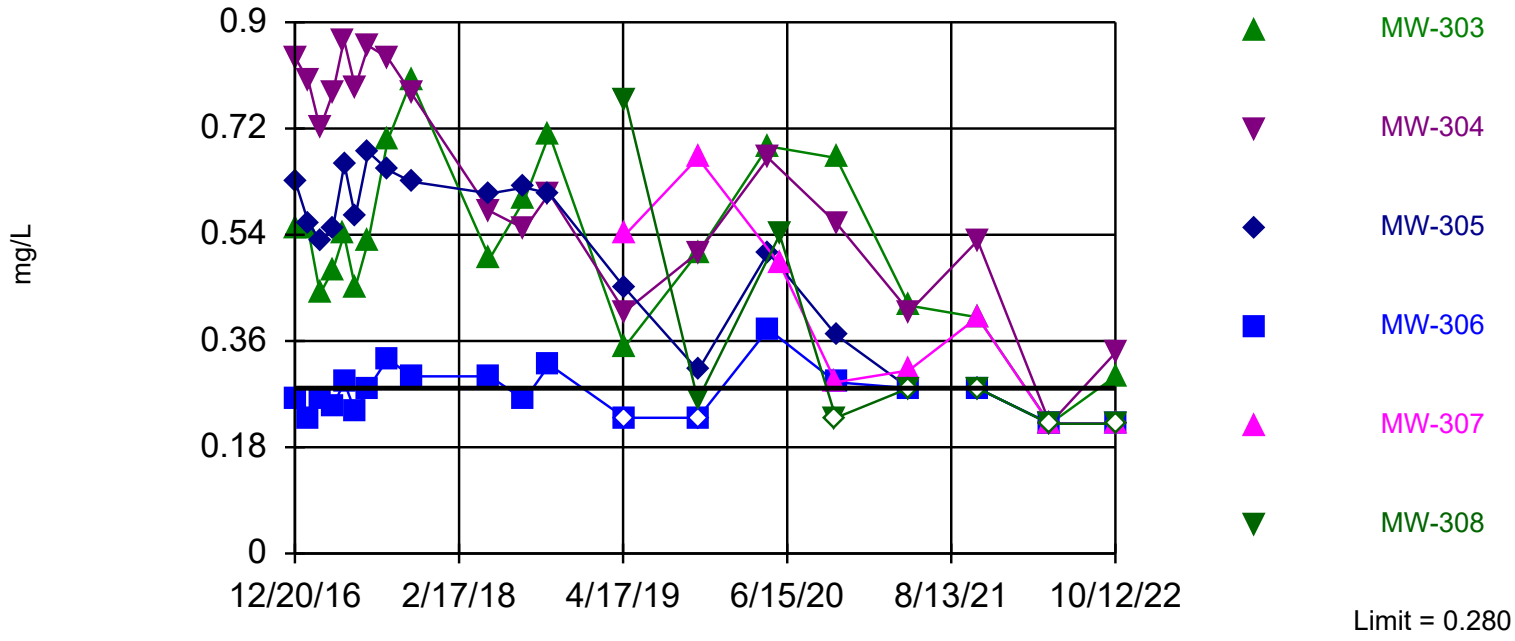
Hollow symbols indicate censored values.

Within Limit

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Most recent observation is compared with limit. Limit is highest of 40 background values. 47.5% NDs. 89.26% coverage at alpha=0.01; 92.77% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1285.

Constituent: Fluoride Analysis Run 1/1/2023 8:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tolerance Limit

Constituent: Fluoride (mg/L) Analysis Run 1/1/2023 8:43 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-303	MW-302 (bg)	MW-304	MW-305	MW-306	MW-308	MW-307
12/20/2016	0.13 (J)	0.55	0.16 (J)					
12/21/2016				0.84	0.63	0.26		
1/23/2017	0.079 (J)	0.55	0.079 (J)					
1/24/2017				0.8	0.56	0.23		
2/23/2017	0.13 (J)	0.44	0.1 (J)	0.72	0.53	0.26		
3/28/2017	0.1 (J)	0.48	<0.1 (U)	0.78	0.55	0.25		
4/26/2017	0.1 (J)	0.54	0.12 (J)	0.87				
4/27/2017					0.66	0.29		
5/25/2017	<0.1 (U)	0.45	<0.1 (U)	0.79	0.57	0.24		
6/28/2017	0.15 (J)	0.53	0.15 (J)	0.86	0.68	0.28		
8/17/2017	0.21	0.7	0.2 (J)	0.84	0.65	0.33		
10/17/2017	0.17 (J)	0.8	0.19 (J)	0.78	0.63	0.3		
5/8/2018	0.2 (J)	0.5	0.23	0.58	0.61	0.3		
8/6/2018	0.16 (J)	0.6	0.17 (J)	0.55	0.62	0.26		
10/9/2018	0.22	0.71	0.21	0.61	0.61	0.32		
4/22/2019	<0.23 (U)	0.35 (J)	<0.23 (U)	0.41 (J)	0.45 (J)	<0.23 (U)		
4/23/2019							0.77	0.54
10/28/2019	<0.23 (U)		<0.23 (U)				0.26 (J)	0.67
10/29/2019		0.51		0.51	0.31 (J)	<0.23 (U)		
4/27/2020	<0.23 (U)	0.69	<0.23 (U)	0.67	0.51	0.38 (J)		
5/27/2020							0.54	0.49 (J)
10/19/2020	<0.23 (U)		<0.23 (U)				<0.23 (U)	0.29 (J)
10/20/2020		0.67		0.56	0.37 (J)	0.29 (J)		
4/26/2021							<0.28 (U)	0.31 (J)
4/27/2021	<0.28 (U)	0.42 (J)	<0.28 (U)	0.41 (J)	<0.28 (U)	<0.28 (U)		
10/20/2021					<0.28 (U)	<0.28 (U)		
10/21/2021	<0.28 (U)	0.4 (J)	<0.28 (U)	0.53			<0.28 (U)	0.4 (J)
4/25/2022	<0.22 (U)		<0.22 (U)				<0.22 (U)	<0.22 (U)
4/26/2022		<0.22 (U)		<0.22 (U)	<0.22 (U)	<0.22 (U)		
10/12/2022	<0.22 (U)	0.3 (J)	<0.22 (U)	0.34 (J)	<0.22 (U)	<0.22 (U)	<0.22 (U)	<0.22 (U)

ND substitution: RL or RL/2 if <15% NDs.

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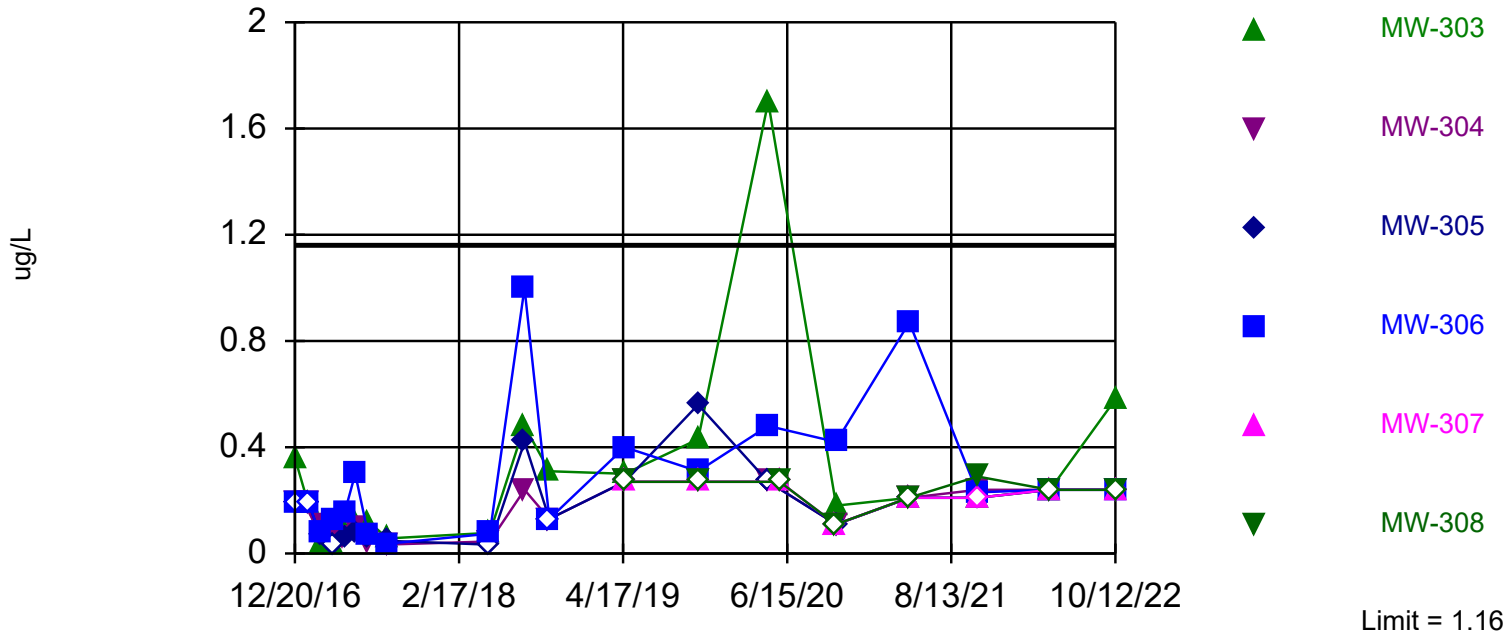
Hollow symbols indicate censored values.

Within Limit

Tolerance Limit

Interwell Parametric



95% coverage. Most recent observation is compared with limit. Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-2.124, Std. Dev.=1.062, n=38, 44.74% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9293, critical = 0.916. Report alpha = 0.05.

Constituent: Lead Analysis Run 1/1/2023 8:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tolerance Limit

Constituent: Lead (ug/L) Analysis Run 1/1/2023 8:43 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-302 (bg)	MW-303	MW-306	MW-305	MW-304	MW-308	MW-307
12/20/2016	<0.19 (U)	0.55 (J)	0.36 (J)					
12/21/2016				<0.19 (U)	<0.19 (U)	<0.19 (U)		
1/23/2017	0.23 (J)	<0.19 (U)	<0.19 (U)					
1/24/2017				<0.19 (U)	<0.19 (U)	<0.19 (U)		
2/23/2017	0.16 (J)	0.14 (J)	0.037 (J)	0.075 (J)	0.07 (J)	0.11 (J)		
3/28/2017	0.086 (J)	0.2 (J)	<0.033 (U)	0.13 (J)	<0.033 (U)	0.043 (J)		
4/26/2017	0.4 (J)	0.083 (J)	0.095 (J)			0.061 (J)		
4/27/2017				0.15 (J)	0.058 (J)			
5/25/2017	0.25 (J)	0.16 (J)	0.12 (J)	0.3 (J)	0.08 (J)	0.1 (J)		
6/28/2017	0.058 (J)	0.034 (J)	0.12 (J)	0.068 (J)	0.061 (J)	0.042 (J)		
8/17/2017	1.9	<0.033 (U)	0.057 (J)	0.037 (J)	0.048 (J)	0.034 (J)		
5/8/2018	<0.033 (U)	0.035 (J)	0.078 (J)	0.075 (J)	<0.033 (U)	0.045 (J)		
8/6/2018	0.66 (J)	1.2	0.48 (J)	1	0.42 (J)	0.24 (J)		
10/9/2018	0.17 (J)	0.13 (J)	0.31 (J)	<0.13 (U)	<0.13 (U)	<0.13 (U)		
4/22/2019	<0.27 (U)	<0.27 (U)	0.3 (J)	0.4 (J)	<0.27 (U)	<0.27 (U)		
4/23/2019							<0.27 (U)	<0.27 (U)
10/28/2019	<0.27 (U)	<0.27 (U)					<0.27 (U)	<0.27 (U)
10/29/2019			0.43 (J)	0.31 (J)	0.56	0.27 (J)		
4/27/2020	0.27 (J)	<0.27 (U)	1.7	0.48 (J)	<0.27 (U)	<0.27 (U)		
5/27/2020							<0.27 (U)	<0.27 (U)
10/19/2020	<0.11 (U)	<0.11 (U)					<0.11 (U)	<0.11 (U)
10/20/2020			0.18 (J)	0.42 (J)	<0.11 (U)	<0.11 (U)		
4/26/2021							<0.21 (U)	<0.21 (U)
4/27/2021	<0.21 (U)	<0.21 (U)	<0.21 (U)	0.87	<0.21 (U)	<0.21 (U)		
10/20/2021				0.23 (J)	<0.21 (U)			
10/21/2021	0.37 (J)	<0.21 (U)	<0.21 (U)			0.24 (J)	0.29 (J)	<0.21 (U)
4/25/2022	<0.24 (U)	0.26 (J)					<0.24 (U)	<0.24 (U)
4/26/2022			<0.24 (U)	<0.24 (U)	<0.24 (U)	<0.24 (U)		
10/12/2022	<0.24 (U)	<0.24 (U)	0.58	<0.24 (U)	<0.24 (U)	<0.24 (U)	<0.24 (U)	<0.24 (U)

ND substitution: RL or RL/2 if <15% NDs.

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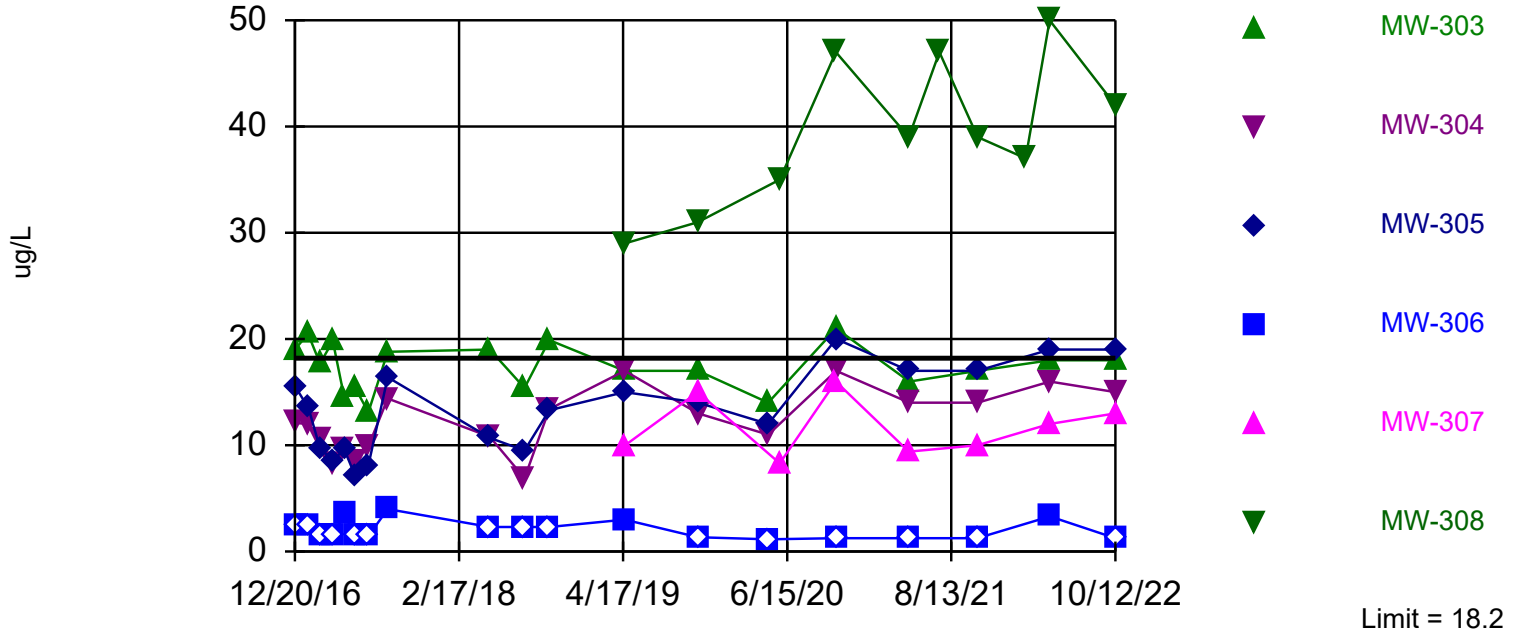
Hollow symbols indicate censored values.

Exceeds Limit: MW-305, MW-308

Tolerance Limit

Interwell Parametric



95% coverage. Most recent observation is compared with limit. Background Data Summary: Mean=8.771, Std. Dev.=4.393, n=38, 7.895% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9455, critical = 0.916. Report alpha = 0.05.

Constituent: Lithium Analysis Run 1/1/2023 8:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tolerance Limit

Constituent: Lithium (ug/L) Analysis Run 1/1/2023 8:43 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-303	MW-302 (bg)	MW-305	MW-306	MW-304	MW-307	MW-308
12/20/2016	14.9	19	8.7 (J)					
12/21/2016				15.5	<4.9 (U)	12.1		
1/23/2017	13.4	20.5	7.7 (J)					
1/24/2017				13.5	<4.9 (U)	12		
2/23/2017	11.1	17.7	3.4 (J)	9.7 (J)	<2.9 (U)	10.6		
3/28/2017	12.6	19.8	5.3 (J)	8.6 (J)	<2.9 (U)	8.2 (J)		
4/26/2017	8.6 (J)	14.6	4.9 (J)			9.6 (J)		
4/27/2017				9.6 (J)	3.5 (J)			
5/25/2017	6.1 (J)	15.4	<2.9 (U)	7.1 (J)	<2.9 (U)	8.6 (J)		
6/28/2017	8.9 (J)	13.1	<2.9 (U)	8.1 (J)	<2.9 (U)	9.9 (J)		
8/17/2017	16.8	18.8	11.9	16.4	4 (J)	14.4		
5/8/2018	13.6	19	5.4 (J)	10.7	<4.6 (U)	10.8		
8/6/2018	5.4 (J)	15.4	<4.6 (U)	9.5 (J)	<4.6 (U)	6.9 (J)		
10/9/2018	13.3	19.9	4.6 (J)	13.3	<4.6 (U)	13.4		
4/22/2019	8.5 (J)	17	4.7 (J)	15	3 (J)	17		
4/23/2019							10	29
10/28/2019	12		5.3 (J)				15	31
10/29/2019		17		14	<2.7 (U)	13		
4/27/2020	11	14	3.8 (J)	12	<2.3 (U)	11		
5/27/2020							8.3 (J)	35
10/19/2020	15		8.2 (J)				16	47
10/20/2020		21		20	<2.5 (U)	17		
4/26/2021							9.4 (J)	39
4/27/2021	13	16	6.3 (J)	17	<2.5 (U)	14		
7/14/2021								47
10/20/2021				17	<2.5 (U)			
10/21/2021	13	17	6.9 (J)			14	10	39
2/22/2022								37
4/25/2022	17		5 (J)				12	50
4/26/2022		18		19	3.3 (J)	16		
10/12/2022	14	18	7.8 (J)	19	<2.5 (U)	15	13	42

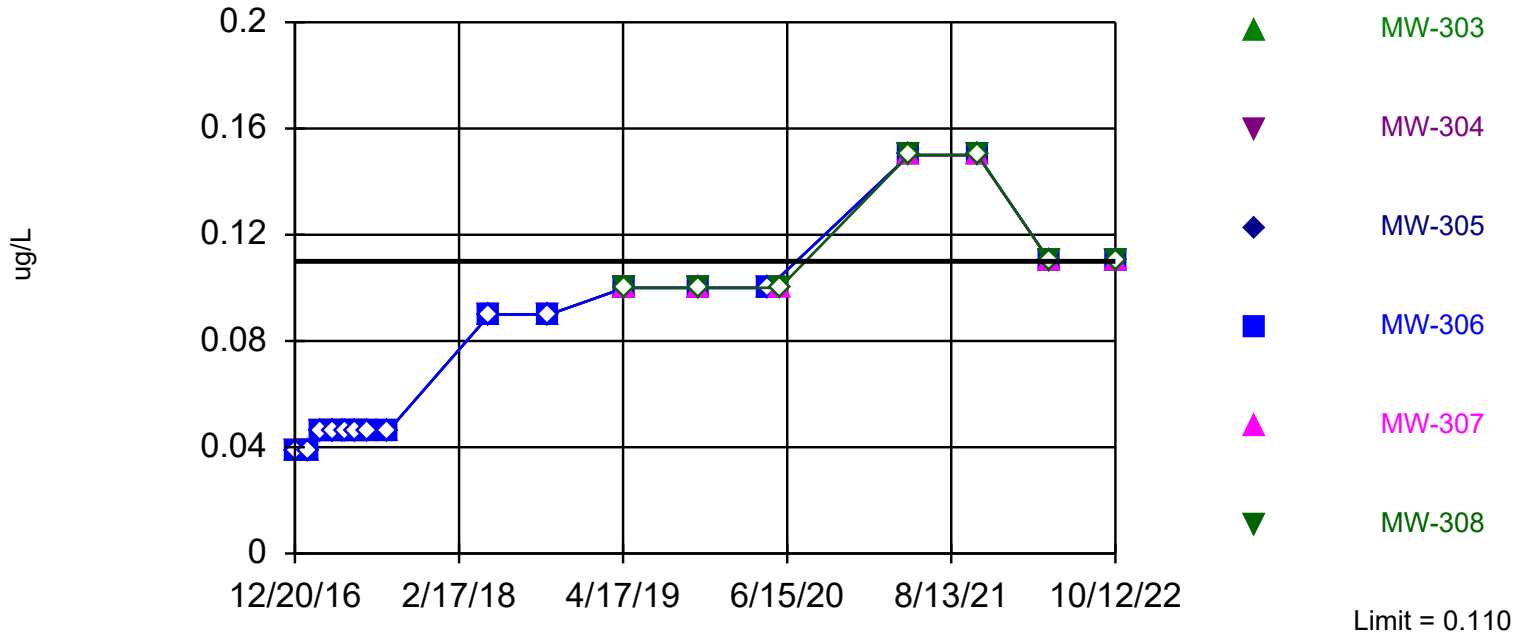
ND substitution: RL or RL/2 if <15% NDs.

Sanitas™ v.9.6.36 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Most recent observation is compared with limit. All background values were censored; limit is most recent reporting limit. 87.3% coverage at alpha=0.01; 91.6% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.1748.

Constituent: Mercury Analysis Run 1/1/2023 8:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tolerance Limit

Constituent: Mercury (ug/L) Analysis Run 1/1/2023 8:43 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

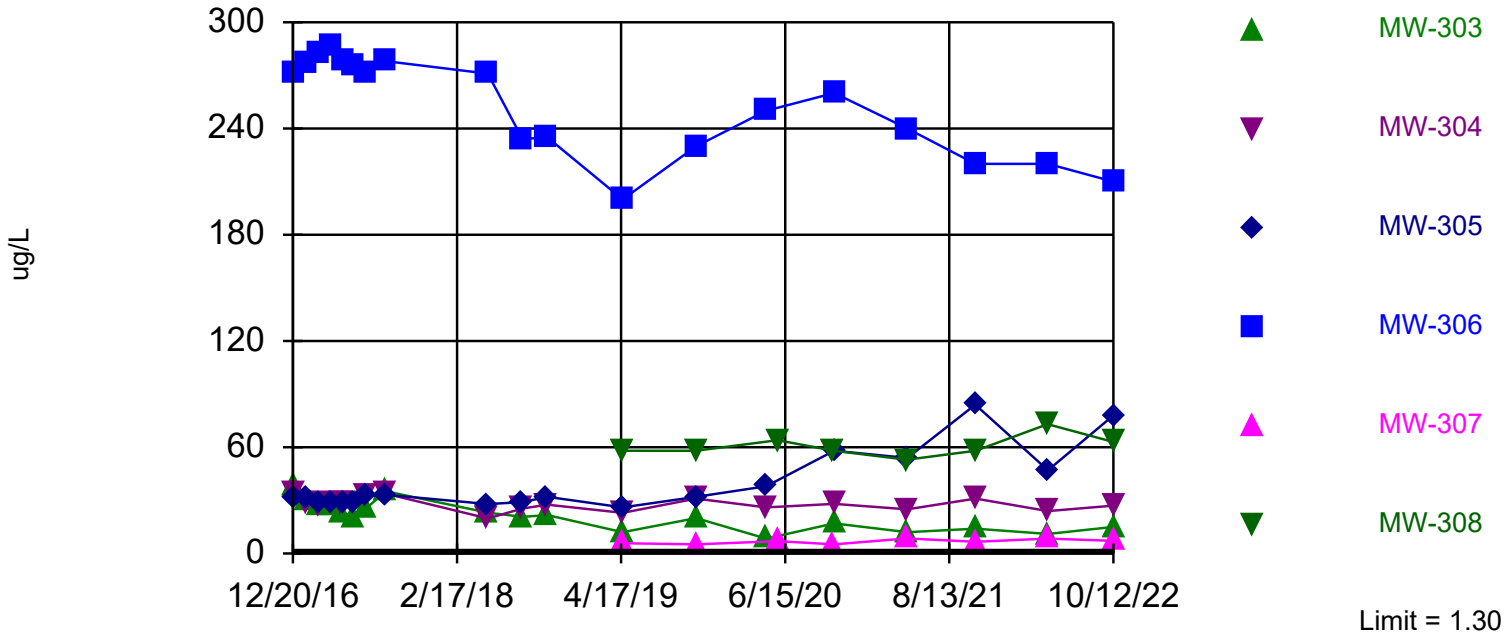
	MW-301 (bg)	MW-303	MW-302 (bg)	MW-304	MW-305	MW-306	MW-308	MW-307
12/20/2016	<0.039 (U)	<0.039 (U)	<0.039 (U)					
12/21/2016				<0.039 (U)	<0.039 (U)	<0.039 (U)		
1/23/2017	<0.039 (U)	<0.039 (U)	<0.039 (U)					
1/24/2017				<0.039 (U)	<0.039 (U)	<0.039 (U)		
2/23/2017	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)		
3/28/2017	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)		
4/26/2017	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)				
4/27/2017					<0.046 (U)	<0.046 (U)		
5/25/2017	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)		
6/28/2017	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)		
8/17/2017	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)	<0.046 (U)		
5/8/2018	<0.09 (U)	<0.09 (U)	<0.09 (U)	<0.09 (U)	<0.09 (U)	<0.09 (U)		
10/9/2018	<0.09 (U)	<0.09 (U)	<0.09 (U)	<0.09 (U)	<0.09 (U)	<0.09 (U)		
4/22/2019	<0.1 (U)	<0.1 (U)	<0.1 (U)	<0.1 (U)	<0.1 (U)	<0.1 (U)		
4/23/2019							<0.1 (U)	<0.1 (U)
10/28/2019	<0.1 (U)		<0.1 (U)				<0.1 (U)	<0.1 (U)
10/29/2019		<0.1 (U)		<0.1 (U)	<0.1 (U)	<0.1 (U)		
4/27/2020	<0.1 (U)	<0.1 (U)	<0.1 (U)	<0.1 (U)	<0.1 (U)	<0.1 (U)		
5/27/2020							<0.1 (U)	<0.1 (U)
4/26/2021							<0.15 (U)	<0.15 (U)
4/27/2021	<0.15 (U)	<0.15 (U)	<0.15 (U)	<0.15 (U)	<0.15 (U)	<0.15 (U)		
10/20/2021					<0.15 (U)	<0.15 (U)		
10/21/2021	<0.15 (U)	<0.15 (U)	<0.15 (U)	<0.15 (U)			<0.15 (U)	<0.15 (U)
4/25/2022	<0.11 (U)		<0.11 (U)				<0.11 (U)	<0.11 (U)
4/26/2022		<0.11 (U)		<0.11 (U)	<0.11 (U)	<0.11 (U)		
10/12/2022	<0.11 (U)	<0.11 (U)	<0.11 (U)	<0.11 (U)	<0.11 (U)	<0.11 (U)	<0.11 (U)	<0.11 (U)

ND substitution: RL or RL/2 if <15% NDs.

Exceeds Limit: MW-303, MW-304, MW-305, MW-306, MW-307, MW-308

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Most recent observation is compared with limit. Limit is highest of 38 background values. 44.74% NDs. 88.48% coverage at alpha=0.01; 92.38% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1424.

Constituent: Molybdenum Analysis Run 1/1/2023 8:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tolerance Limit

Constituent: Molybdenum (ug/L) Analysis Run 1/1/2023 8:43 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-302 (bg)	MW-303	MW-306	MW-305	MW-304	MW-308	MW-307
12/20/2016	0.61 (J)	0.76 (J)	37.8					
12/21/2016				272	30.7	33.5		
1/23/2017	0.34 (J)	0.43 (J)	30.5					
1/24/2017				277	31	29.3		
2/23/2017	0.38 (J)	0.45 (J)	26.7	282	29	27.5		
3/28/2017	0.45 (J)	0.38 (J)	26.7	287	28.3	28.4		
4/26/2017	0.23 (J)	0.52 (J)	23.2			28.3		
4/27/2017				278	28.3			
5/25/2017	0.26 (J)	0.28 (J)	20.6	275	28.2	28.5		
6/28/2017	0.33 (J)	0.38 (J)	25.6	272	32.2	32.6		
8/17/2017	0.44 (J)	0.38 (J)	35.2	278	33.2	33.8		
5/8/2018	0.35 (J)	0.99 (J)	23.1	271	27.9	19.8		
8/6/2018	0.44 (J)	0.78 (J)	20.7	234	29	25.4		
10/9/2018	<0.57 (U)	0.67 (J)	21.7	235	32	27.6		
4/22/2019	<1.1 (U)	<1.1 (U)	12	200	26	23		
4/23/2019							58	5.8
10/28/2019	<1.1 (U)	<1.1 (U)					58	5.2
10/29/2019			20	230	32	31		
4/27/2020	<1.1 (U)	<1.1 (U)	8.4	250	38	26		
5/27/2020							64	7
10/19/2020	<1.1 (U)	<1.1 (U)					58	5.2
10/20/2020			17	260	58	28		
4/26/2021							53	8.5
4/27/2021	<1.3 (U)	<1.3 (U)	12	240	54	25		
10/20/2021				220	84			
10/21/2021	<1.3 (U)	<1.3 (U)	14			31	58	6.6
4/25/2022	<1.2 (U)	<1.2 (U)					73	8.4
4/26/2022			11	220	47	24		
10/12/2022	<1.2 (U)	<1.2 (U)	15	210	78	27	63	7.2

ND substitution: RL or RL/2 if <15% NDs.

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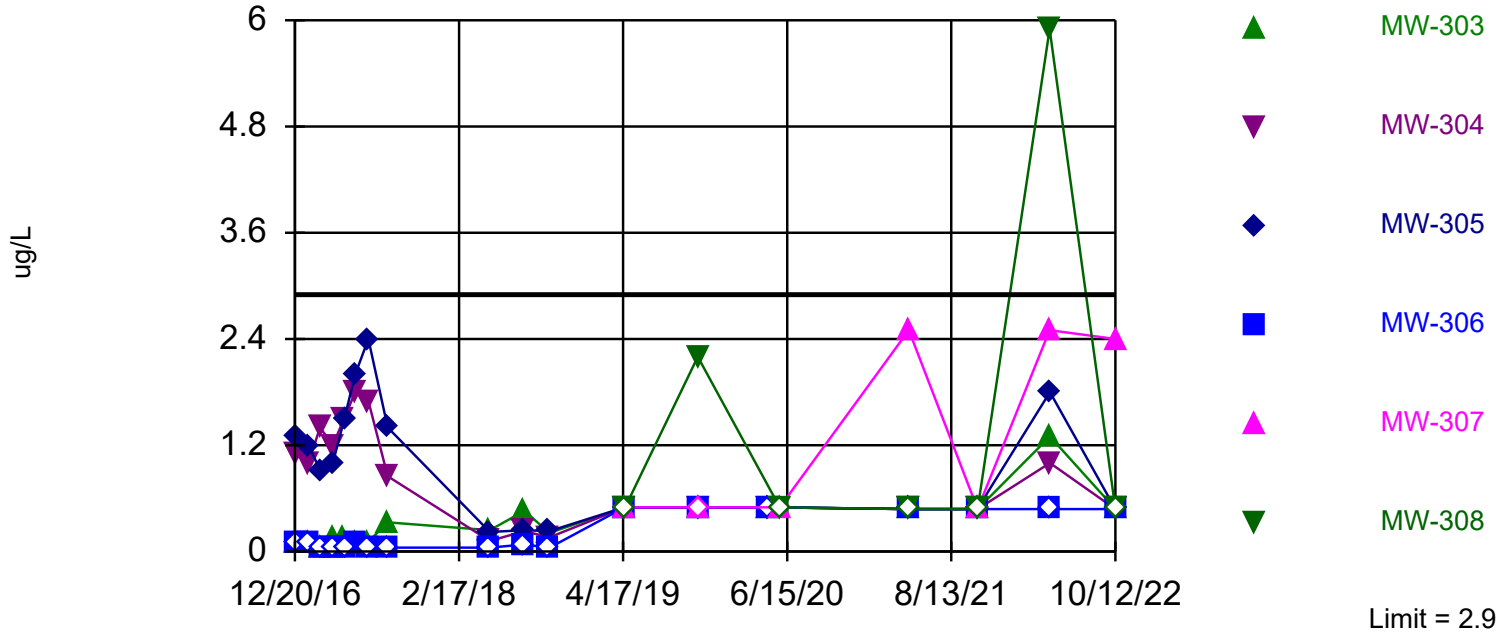
Hollow symbols indicate censored values.

Within Limit

Tolerance Limit

Interwell Parametric



95% coverage. Most recent observation is compared with limit. Background Data Summary (based on natural log transformation): Mean=-0.2276, Std. Dev.=0.5983, n=36, 13.89% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9386, critical = 0.912. Report alpha = 0.05.

Constituent: Selenium Analysis Run 1/1/2023 8:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tolerance Limit

Constituent: Selenium (ug/L) Analysis Run 1/1/2023 8:43 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-303	MW-302 (bg)	MW-304	MW-305	MW-306	MW-307	MW-308
12/20/2016	0.97 (J)	<0.18 (U)	0.55 (J)					
12/21/2016				1.1	1.3	<0.18 (U)		
1/23/2017	1.2	<0.18 (U)	0.36 (J)					
1/24/2017				1 (J)	1.2	<0.18 (U)		
2/23/2017	0.98 (J)	<0.086 (U)	0.37 (J)	1.4	0.92 (J)	<0.086 (U)		
3/28/2017	1	0.14 (J)	0.43 (J)	1.2	1	<0.086 (U)		
4/26/2017	0.72 (J)	0.15 (J)	0.44 (J)	1.5				
4/27/2017					1.5	<0.086 (U)		
5/25/2017	0.69 (J)	0.11 (J)	0.28 (J)	1.8	2	0.091 (J)		
6/28/2017	1.1	0.11 (J)	0.44 (J)	1.7	2.4	<0.086 (U)		
8/17/2017	1.2	0.33 (J)	0.46 (J)	0.85 (J)	1.4	<0.086 (U)		
5/8/2018	1.3	0.24 (J)	0.54 (J)	0.12 (J)	0.22 (J)	<0.086 (U)		
8/6/2018	1.3	0.46 (J)	1.4	0.23 (J)	0.24 (J)	<0.16 (U)		
10/9/2018	0.95 (J)	0.21 (J)	0.37 (J)	0.16 (J)	0.23 (J)	<0.085 (U)		
4/22/2019	1.1 (J)	<1 (U)	<1 (U)	<1 (U)	<1 (U)	<1 (U)		
4/23/2019							<1 (U)	<1 (U)
10/28/2019	1.7 (J)		1.1 (J)				<1 (U)	2.2 (J)
10/29/2019		<1 (U)		<1 (U)	<1 (U)	<1 (U)		
4/27/2020	<1 (U)	<1 (U)	<1 (U)	<1 (U)	<1 (U)	<1 (U)		
5/27/2020							<1 (U)	<1 (U)
4/26/2021							2.5 (J)	<0.96 (U)
4/27/2021	<0.96 (U)	<0.96 (U)	0.96 (J)	<0.96 (U)	<0.96 (U)	<0.96 (U)		
10/20/2021					<0.96 (U)	<0.96 (U)		
10/21/2021	1.1 (J)	<0.96 (U)	<0.96 (U)	<0.96 (U)			<0.96 (U)	<0.96 (U)
4/25/2022	2.9 (J)		3.7 (J)				2.5 (J)	5.9
4/26/2022		1.3 (J)		1 (J)	1.8 (J)	<0.96 (U)		
10/12/2022	1.3 (J)	<0.96 (U)	1.2 (J)	<0.96 (U)	<0.96 (U)	<0.96 (U)	2.4 (J)	<0.96 (U)

ND substitution: RL or RL/2 if <15% NDs.

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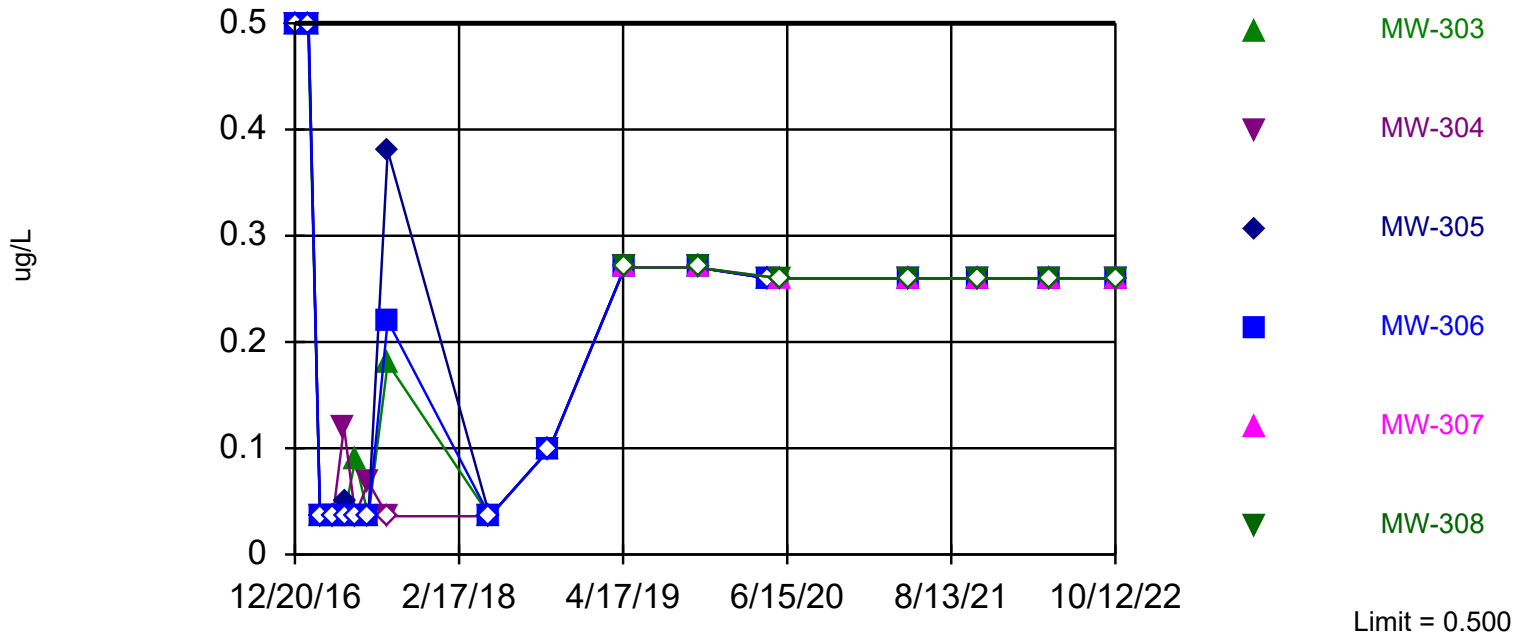
Hollow symbols indicate censored values.

Within Limit

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Most recent observation is compared with limit. Limit is highest of 34 background values. 67.65% NDs. 87.3% coverage at alpha=0.01; 91.6% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.1748.

Constituent: Thallium Analysis Run 1/1/2023 8:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tolerance Limit

Constituent: Thallium (ug/L) Analysis Run 1/1/2023 8:43 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-303	MW-302 (bg)	MW-304	MW-305	MW-306	MW-308	MW-307
12/20/2016	<0.5 (U)	<0.5 (U)	<0.5 (U)					
12/21/2016				<0.5 (U)	<0.5 (U)	<0.5 (U)		
1/23/2017	<0.5 (U)	<0.5 (U)	<0.5 (U)					
1/24/2017				<0.5 (U)	<0.5 (U)	<0.5 (U)		
2/23/2017	<0.036 (U)	<0.036 (U)	0.05 (J)	<0.036 (U)	<0.036 (U)	<0.036 (U)		
3/28/2017	<0.036 (U)	<0.036 (U)	0.044 (J)	<0.036 (U)	<0.036 (U)	<0.036 (U)		
4/26/2017	0.12 (J)	<0.036 (U)	0.058 (J)	0.12 (J)				
4/27/2017					0.051 (J)	<0.036 (U)		
5/25/2017	0.043 (J)	0.089 (J)	<0.036 (U)	0.037 (J)	<0.036 (U)	<0.036 (U)		
6/28/2017	0.081 (J)	<0.036 (U)	<0.036 (U)	0.068 (J)	<0.036 (U)	<0.036 (U)		
8/17/2017	0.3 (J)	0.18 (J)	0.18 (J)	<0.036 (U)	0.38 (J)	0.22 (J)		
5/8/2018	<0.036 (U)	<0.036 (U)	0.039 (J)	<0.036 (U)	<0.036 (U)	<0.036 (U)		
10/9/2018	<0.099 (U)	<0.099 (U)	<0.099 (U)	<0.099 (U)	<0.099 (U)	<0.099 (U)		
4/22/2019	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)	<0.27 (U)		
4/23/2019							<0.27 (U)	<0.27 (U)
10/28/2019	<0.27 (U)		<0.27 (U)				<0.27 (U)	<0.27 (U)
10/29/2019		<0.27 (U)		<0.27 (U)	<0.27 (U)	<0.27 (U)		
4/27/2020	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)		
5/27/2020							<0.26 (U)	<0.26 (U)
4/26/2021							<0.26 (U)	<0.26 (U)
4/27/2021	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)		
10/20/2021					<0.26 (U)	<0.26 (U)		
10/21/2021	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)			<0.26 (U)	<0.26 (U)
4/25/2022	0.27 (J)		0.37 (J)				<0.26 (U)	<0.26 (U)
4/26/2022		<0.26 (U)		<0.26 (U)	<0.26 (U)	<0.26 (U)		
10/12/2022	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)	<0.26 (U)

ND substitution: RL or RL/2 if <15% NDs.

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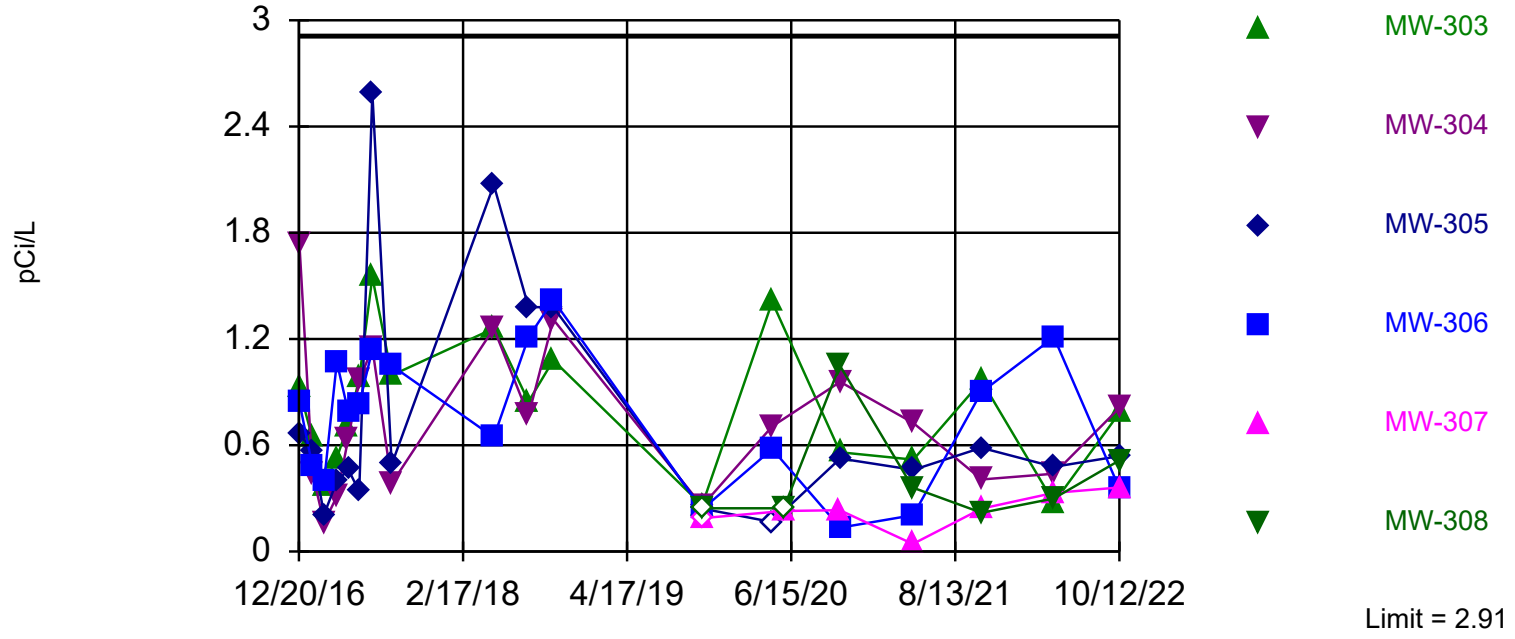
Hollow symbols indicate censored values.

Within Limit

Tolerance Limit

Interwell Parametric



95% coverage. Most recent observation is compared with limit. Background Data Summary (based on natural log transformation): Mean=-0.1291, Std. Dev.=0.5553, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9451, critical = 0.912. Report alpha = 0.05.

Constituent: Total Radium Analysis Run 1/1/2023 8:41 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Tolerance Limit

Constituent: Total Radium (pCi/L) Analysis Run 1/1/2023 8:43 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-303	MW-302 (bg)	MW-304	MW-305	MW-306	MW-307	MW-308
12/20/2016	1.06	0.925	0.597					
12/21/2016				1.74	0.665	0.843		
1/23/2017	0.957	0.647	0.138					
1/24/2017				0.439	0.567	0.481		
2/23/2017	1.42	0.375	0.655	0.162	0.209	0.391		
3/28/2017	1.42	0.53	0.447	0.311	0.396	1.07		
4/26/2017	1.14	0.71	0.713	0.632				
4/27/2017					0.463	0.785		
5/25/2017	0.877	0.977	1.3	0.964	0.339	0.831		
6/28/2017	2.53	1.55	1.12	1.15	2.59	1.14		
8/17/2017	1.52	0.995	1.21	0.384	0.492	1.05		
5/8/2018	1	1.26	0.699	1.26	2.07	0.645		
8/6/2018	1.07	0.847	3.61	0.768	1.38	1.21		
10/9/2018	1.09	1.08	1.09	1.31	1.38	1.42		
10/28/2019	0.708		0.562				<0.377 (U)	<0.488 (U)
10/29/2019		<0.522 (U)		<0.513 (U)	<0.484 (U)	<0.476 (U)		
4/27/2020	0.477	1.41	0.392	0.707	<0.333 (U)	0.578		
5/27/2020							<0.458 (U)	<0.488 (U)
10/19/2020	0.975		1.22				0.233	1.05
10/20/2020		0.56		0.958	0.525	0.135		
4/26/2021							0.043	0.361
4/27/2021	0.844	0.519	1.31	0.726	0.461	0.205		
10/20/2021					0.586	0.899		
10/21/2021	0.606	0.963	0.77	0.407			0.242	0.219
4/25/2022	0.845		0.489				0.331	0.299
4/26/2022		0.276		0.439	0.478	1.21		
10/12/2022	0.977	0.783	0.681	0.811	0.539	0.356	0.362	0.514

ND substitution: RL or RL/2 if <15% NDs.

E3 Confidence Interval Evaluation – April 2023 Event

02/26/2024 - Classification: Internal - ECRM13238692

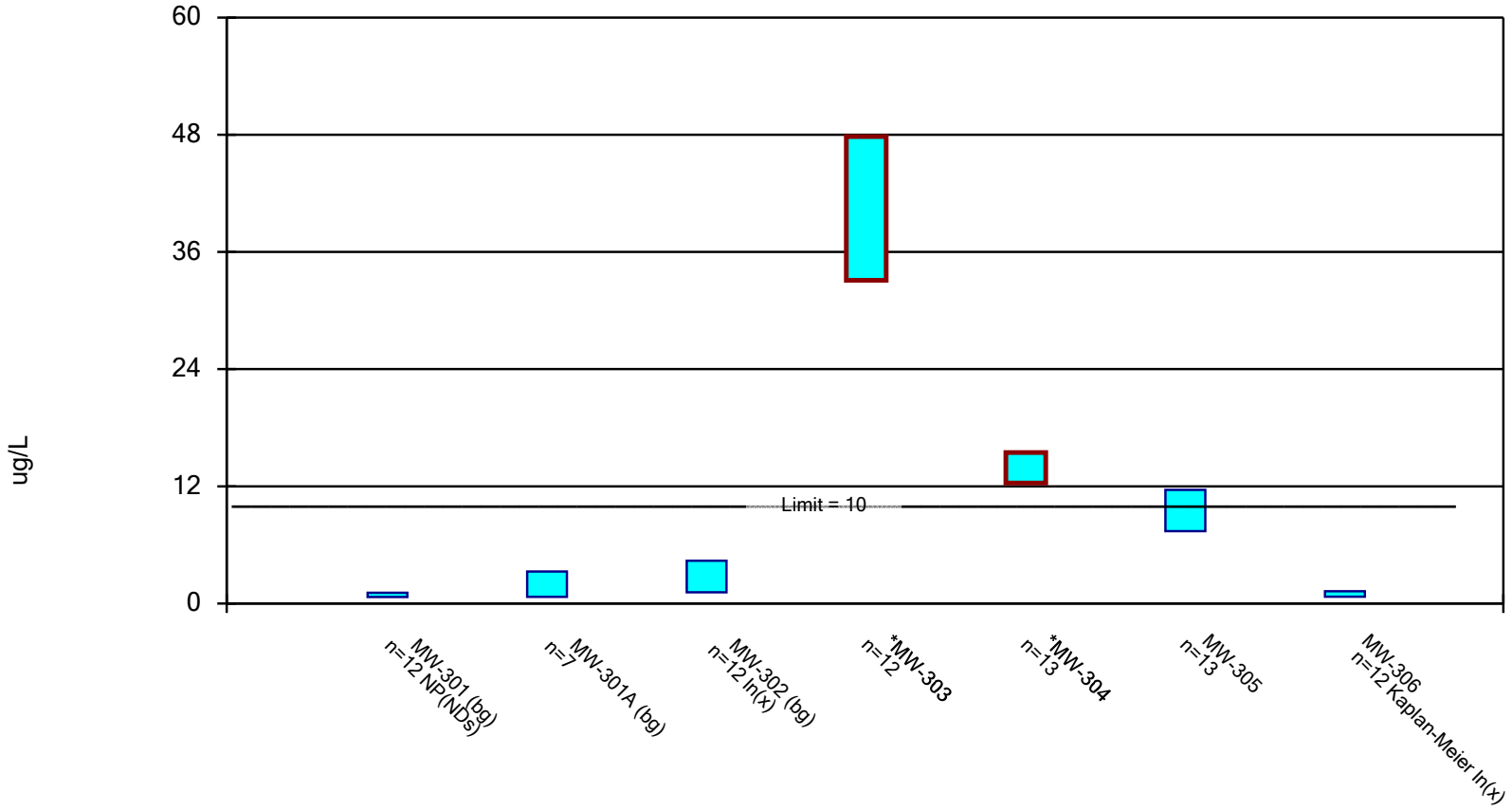
Confidence Interval

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020 Printed 8/18/2023, 9:32 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (ug/L)	MW-301 (bg)	1.1	0.67	10	No	12	58.33	None	No	0.01	NP (NDs)
Arsenic (ug/L)	MW-301A (bg)	3.27	0.679	10	No	7	14.29	None	No	0.01	Param.
Arsenic (ug/L)	MW-302 (bg)	4.383	1.14	10	No	12	8.333	None	ln(x)	0.01	Param.
Arsenic (ug/L)	**MW-303**	**47.81**	**33.1**	**10**	**Yes**	**12**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (ug/L)	**MW-304**	**15.46**	**12.33**	**10**	**Yes**	**13**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (ug/L)	MW-305	11.64	7.41	10	No	13	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-306	1.26	0.6964	10	No	12	25	Kapla...	ln(x)	0.01	Param.
Arsenic (ug/L)	MW-306A	2.7	0.75	10	No	7	100	None	No	0.008	NP (NDs)
Arsenic (ug/L)	MW-307	7.4	3.8	10	No	9	0	None	No	0.002	NP (normality)
Arsenic (ug/L)	**MW-308**	**56.73**	**42.38**	**10**	**Yes**	**9**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (ug/L)	**MW-309**	**113**	**43.18**	**10**	**Yes**	**9**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (ug/L)	MW-309A	2.7	0.77	10	No	7	42.86	None	No	0.008	NP (normality)
Arsenic (ug/L)	**MW-310**	**30.8**	**21.42**	**10**	**Yes**	**9**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (ug/L)	MW-310A	2.7	0.75	10	No	7	100	None	No	0.008	NP (NDs)
Arsenic (ug/L)	MW-312	14.5	6.097	10	No	4	0	None	No	0.01	Param.
Lithium (ug/L)	MW-301 (bg)	15.15	10.15	40	No	12	0	None	No	0.01	Param.
Lithium (ug/L)	MW-301A (bg)	13	2.5	40	No	7	71.43	None	No	0.008	NP (NDs)
Lithium (ug/L)	MW-302 (bg)	6.6	4.336	40	No	12	16.67	Kapla...	ln(x)	0.01	Param.
Lithium (ug/L)	MW-303	18.9	15.82	40	No	12	0	None	No	0.01	Param.
Lithium (ug/L)	MW-304	15.87	11.31	40	No	12	0	None	No	0.01	Param.
Lithium (ug/L)	MW-305	18.42	12.66	40	No	12	0	None	No	0.01	Param.
Lithium (ug/L)	MW-306	13	2.3	40	No	12	83.33	None	No	0.01	NP (NDs)
Lithium (ug/L)	MW-306A	7.245	4.441	40	No	7	14.29	None	No	0.01	Param.
Lithium (ug/L)	MW-307	14.15	8.12	40	No	9	11.11	None	No	0.01	Param.
Lithium (ug/L)	MW-308	47.28	34.35	40	No	11	0	None	No	0.01	Param.
Lithium (ug/L)	MW-309	19	13	40	No	9	0	None	No	0.002	NP (normality)
Lithium (ug/L)	MW-309A	7.501	4.299	40	No	7	14.29	None	No	0.01	Param.
Lithium (ug/L)	MW-310	17.05	12.95	40	No	9	0	None	No	0.01	Param.
Lithium (ug/L)	MW-310A	6.484	3.23	40	No	7	14.29	None	No	0.01	Param.
Molybdenum (ug/L)	MW-301 (bg)	1.3	0.44	100	No	12	83.33	None	No	0.01	NP (NDs)
Molybdenum (ug/L)	MW-301A (bg)	3.386	2.214	100	No	7	14.29	None	No	0.01	Param.
Molybdenum (ug/L)	MW-302 (bg)	1.3	0.78	100	No	12	75	None	No	0.01	NP (NDs)
Molybdenum (ug/L)	MW-303	19.36	11.79	100	No	12	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-304	28.5	22.8	100	No	12	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-305	57.12	30.44	100	No	12	0	None	ln(x)	0.01	Param.
Molybdenum (ug/L)	**MW-306**	**248.4**	**213.3**	**100**	**Yes**	**12**	**0**	**None**	**No**	**0.01**	**Param.**
Molybdenum (ug/L)	MW-306A	20.48	10.83	100	No	7	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-307	21	5.2	100	No	9	0	None	No	0.002	NP (normality)
Molybdenum (ug/L)	MW-308	88	53	100	No	9	0	None	No	0.002	NP (normality)
Molybdenum (ug/L)	MW-309	22.32	17.68	100	No	9	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-309A	11.05	7.718	100	No	7	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-310	63.22	41	100	No	9	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-310A	22.68	16.75	100	No	7	0	None	No	0.01	Param.

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 8/18/2023 9:30 AM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Confidence Interval

Constituent: Arsenic (ug/L) Analysis Run 8/18/2023 9:32 AM View: PCS

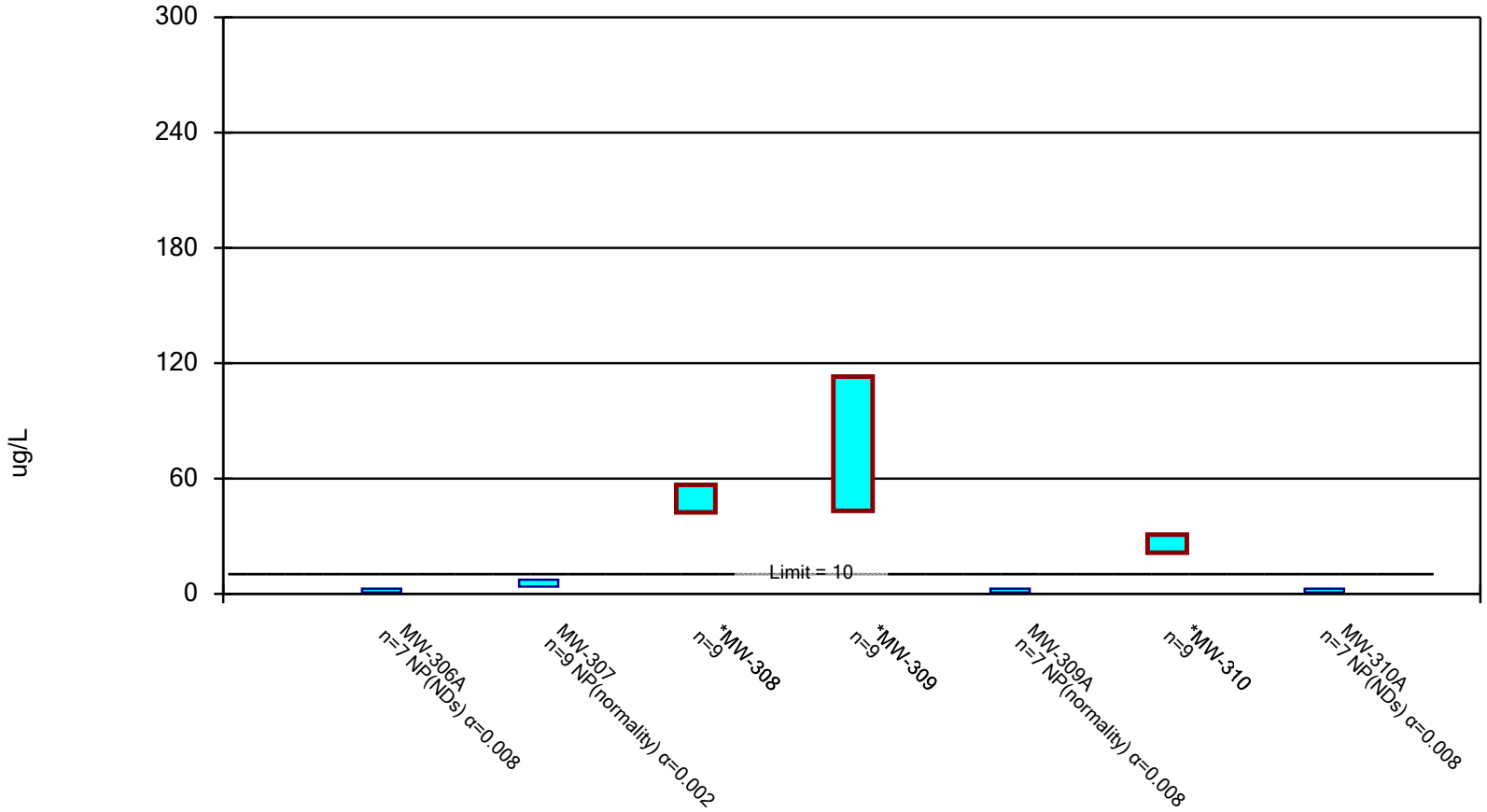
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306
5/8/2018	0.54 (J)		0.79 (J)	26.9	15	14.3	0.58 (J)
8/6/2018	1.1		9	35.1	12.3	13	0.7 (J)
10/9/2018	0.67 (J)		4.5	44.5	14.4	6.6	0.72 (J)
3/11/2019					12.9	11.6	
4/22/2019	<0.75 (U)		2.1	26	11	5.9	1.9 (J)
10/28/2019	<0.75 (U)		7				
10/29/2019				52	14	7.3	1.6 (J)
4/27/2020	<0.88 (U)		4.4	48	11	6.2	1.3 (J)
9/15/2020		3.7					
10/19/2020	<0.88 (U)		2				
10/20/2020				56	14	9.8	1.1 (J)
10/21/2020		1.9 (J)					
4/27/2021	<0.75 (U)		3.4	39	13	7.9	1 (J)
4/28/2021		0.87 (J)					
10/20/2021						12	0.87 (J)
10/21/2021	0.88 (J)		0.9 (J)	46	16		
10/22/2021		1.4 (J)					
4/25/2022	0.8 (J)		1.2 (J)				
4/26/2022				36	14	7.3	<0.75 (U)
4/29/2022		3.3					
10/12/2022	<0.75 (U)		0.76 (J)	42	19	12	<0.75 (U)
10/13/2022		1.3 (J)					
4/19/2023				34	14	9.9 (J)	<2.7 (U)
4/20/2023	<2.7 (U)	<2.7 (U)	<2.7 (U)				
Mean	0.9542	1.974	3.117	40.46	13.89	9.523	1.164
Std. Dev.	0.5664	1.09	2.668	9.373	2.104	2.842	0.6269
Upper Lim.	1.1	3.27	4.383	47.81	15.46	11.64	1.26
Lower Lim.	0.67	0.679	1.14	33.1	12.33	7.41	0.6964

ND substitution: RL or RL/2 if <15% NDs.

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 8/18/2023 9:30 AM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Confidence Interval

Constituent: Arsenic (ug/L) Analysis Run 8/18/2023 9:32 AM View: PCS

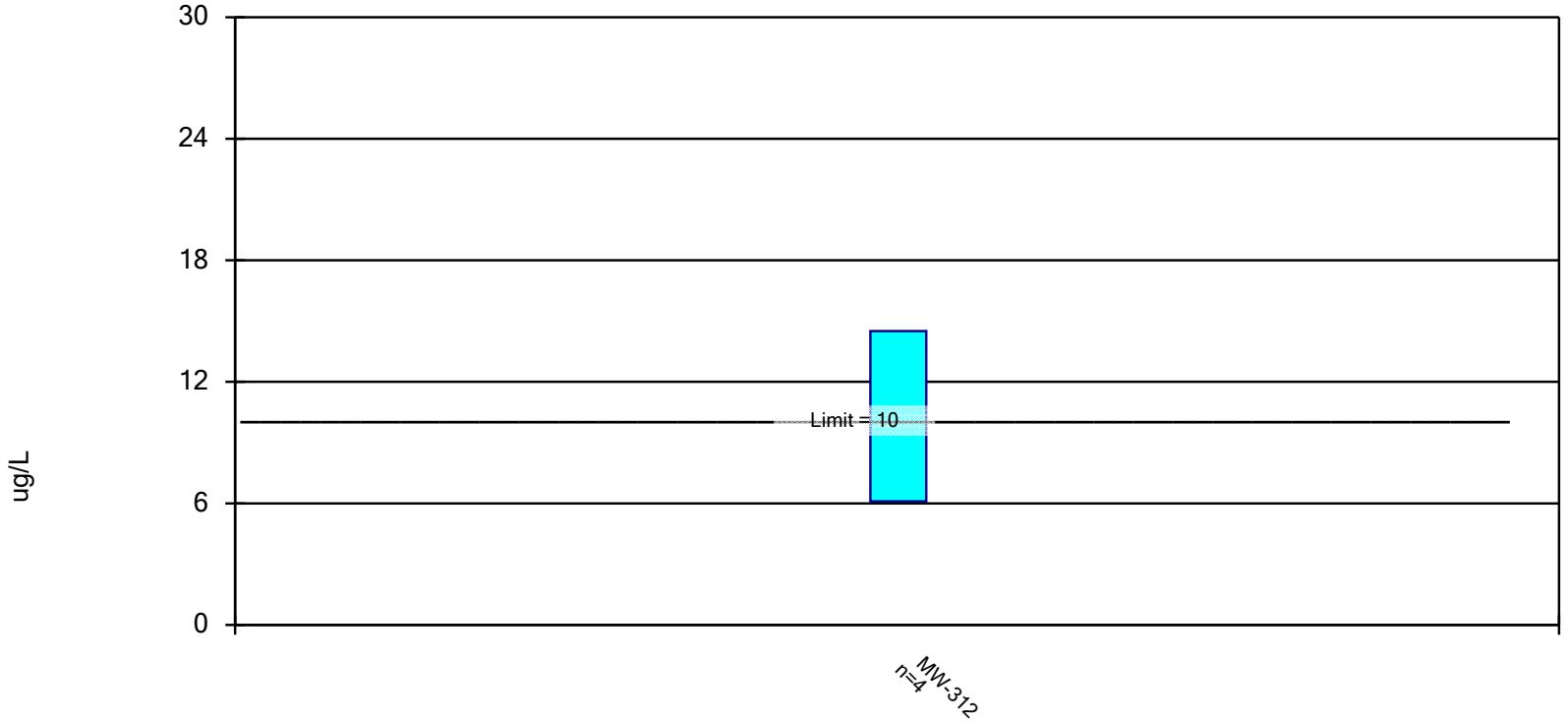
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-306A	MW-307	MW-308	MW-309	MW-309A	MW-310	MW-310A
4/23/2019		3.8	45				
10/28/2019		7.4	63				
10/29/2019				140		31	
1/9/2020				110		28	
4/27/2020				75		23	
5/27/2020		6.1	58				
9/15/2020	<0.88 (U)				<0.88 (U)		<0.88 (U)
10/19/2020		6.7	50				
10/20/2020	<0.88 (U)						
10/21/2020				89	<0.88 (U)	36	<0.88 (U)
4/26/2021		6.5	53				
4/27/2021	<0.75 (U)			100	0.98 (J)	25	<0.75 (U)
10/20/2021	<0.75 (U)						
10/21/2021		6.2	48	75			
10/22/2021					0.87 (J)	25	<0.75 (U)
4/25/2022		4.2	44				
4/26/2022	<0.75 (U)				0.79 (J)		
4/27/2022				39		20	<0.75 (U)
10/12/2022	<0.75 (U)	6.1	39	47	0.77 (J)	23	<0.75 (U)
4/19/2023	<2.7 (U)			28	<2.7 (U)	24	<2.7 (U)
4/20/2023		6.2 (J)	46				
Mean	1.066	5.911	49.56	78.11	1.124	26.11	1.066
Std. Dev.	0.7233	1.162	7.435	36.18	0.6982	4.859	0.7233
Upper Lim.	2.7	7.4	56.73	113	2.7	30.8	2.7
Lower Lim.	0.75	3.8	42.38	43.18	0.77	21.42	0.75

ND substitution: RL or RL/2 if <15% NDs.

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 8/18/2023 9:30 AM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Confidence Interval

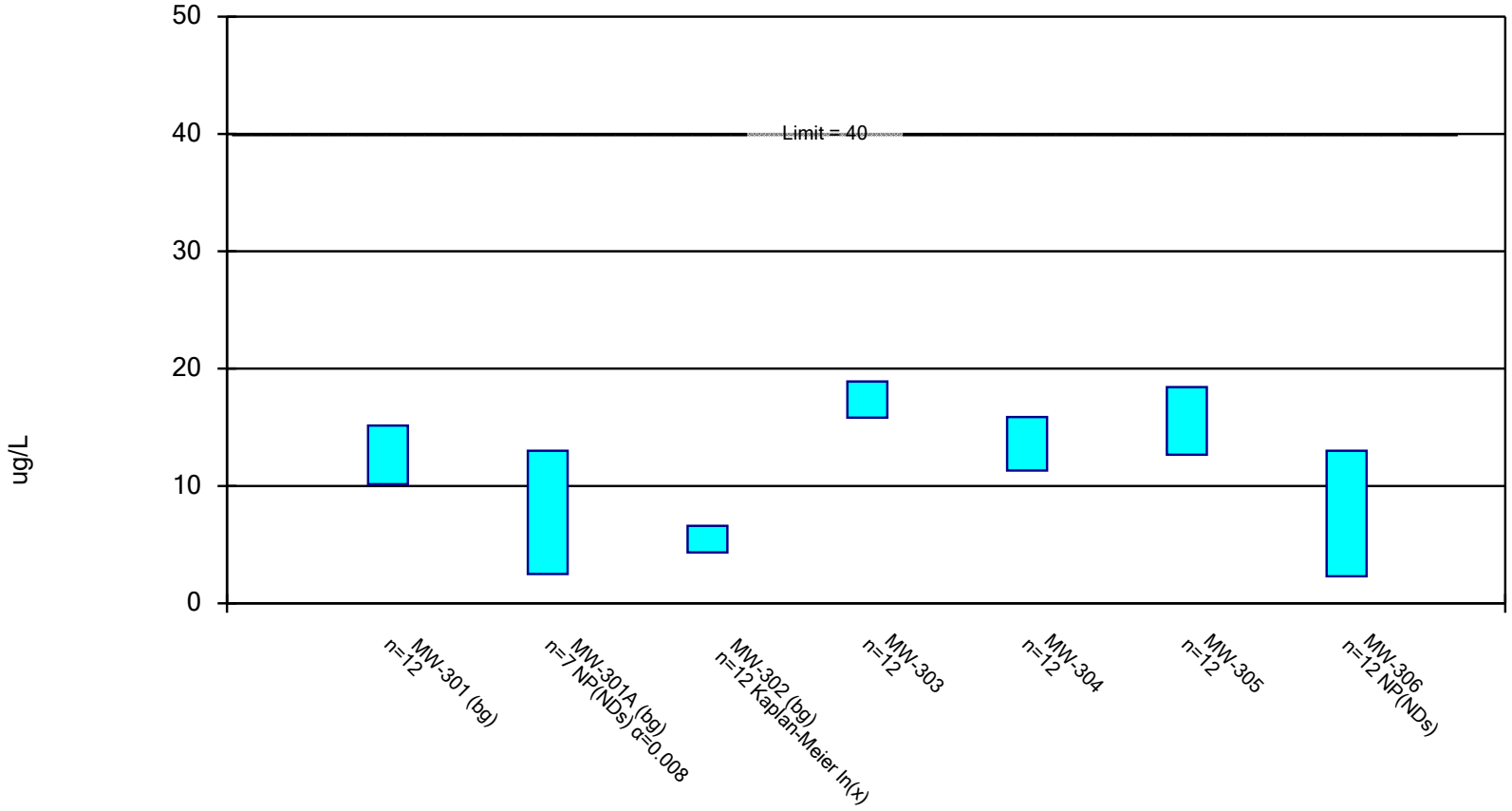
Constituent: Arsenic (ug/L) Analysis Run 8/18/2023 9:32 AM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-312
5/25/2022	10
7/15/2022	13
10/12/2022	9.2
4/19/2023	9 (J)
Mean	10.3
Std. Dev.	1.851
Upper Lim.	14.5
Lower Lim.	6.097

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 8/18/2023 9:30 AM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Confidence Interval

Constituent: Lithium (ug/L) Analysis Run 8/18/2023 9:32 AM View: PCS

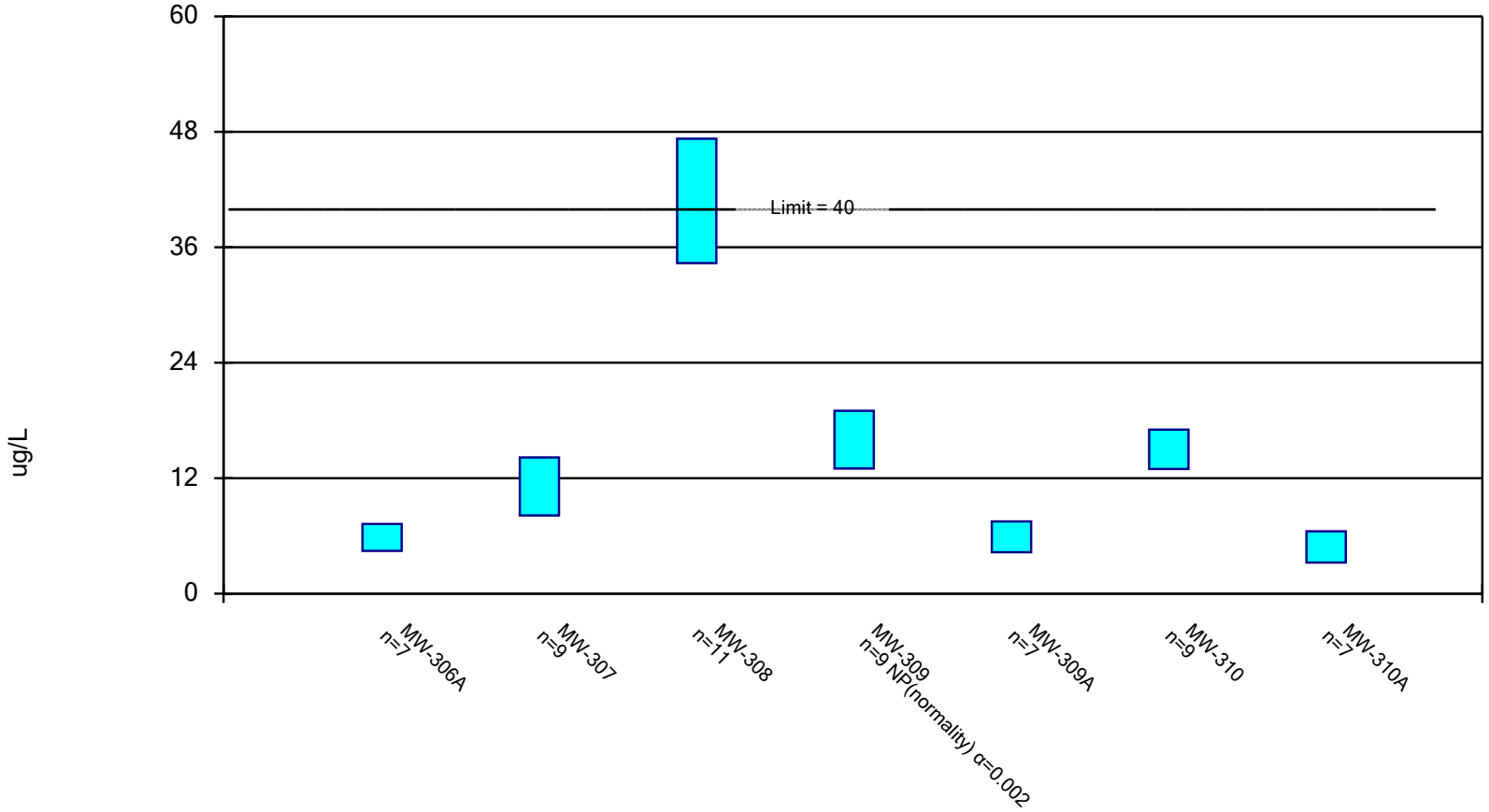
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306
5/8/2018	13.6		5.4 (J)	19	10.8	10.7	<4.6 (U)
8/6/2018	5.4 (J)		<4.6 (U)	15.4	6.9 (J)	9.5 (J)	<4.6 (U)
10/9/2018	13.3		4.6 (J)	19.9	13.4	13.3	<4.6 (U)
4/22/2019	8.5 (J)		4.7 (J)	17	17	15	3 (J)
10/28/2019	12		5.3 (J)				
10/29/2019				17	13	14	<2.7 (U)
4/27/2020	11		3.8 (J)	14	11	12	<2.3 (U)
9/15/2020		4.2 (J)					
10/19/2020	15		8.2 (J)				
10/20/2020				21	17	20	<2.5 (U)
10/21/2020		4.1 (J)					
4/27/2021	13		6.3 (J)	16	14	17	<2.5 (U)
4/28/2021		<2.5 (U)					
10/20/2021						17	<2.5 (U)
10/21/2021	13		6.9 (J)	17	14		
10/22/2021		<2.5 (U)					
4/25/2022	17		5 (J)				
4/26/2022				18	16	19	3.3 (J)
4/29/2022		<2.5 (U)					
10/12/2022	14		7.8 (J)	18	15	19	<2.5 (U)
10/13/2022		<2.5 (U)					
4/19/2023				16 (J)	15 (J)	20 (J)	<13 (U)
4/20/2023	16 (J)	<13 (U)	<13 (U)				
Mean	12.65	4.471	6.3	17.36	13.59	15.54	4.008
Std. Dev.	3.191	3.84	2.508	1.964	2.908	3.669	2.972
Upper Lim.	15.15	13	6.6	18.9	15.87	18.42	13
Lower Lim.	10.15	2.5	4.336	15.82	11.31	12.66	2.3

ND substitution: RL or RL/2 if <15% NDs.

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 8/18/2023 9:30 AM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Confidence Interval

Constituent: Lithium (ug/L) Analysis Run 8/18/2023 9:32 AM View: PCS

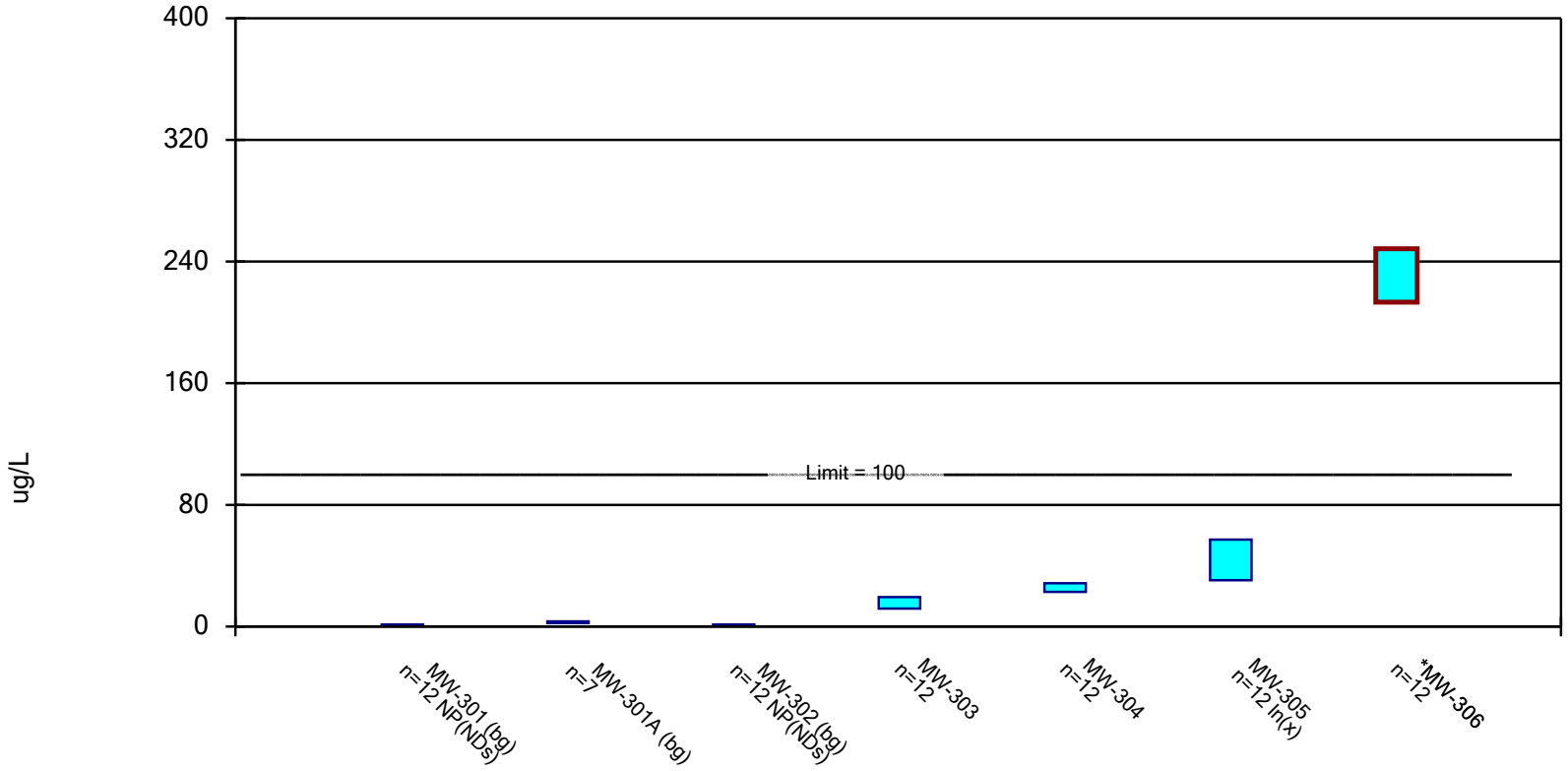
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-306A	MW-307	MW-308	MW-309	MW-309A	MW-310	MW-310A
4/23/2019		10	29				
10/28/2019		15	31				
10/29/2019				15		15	
1/9/2020				15		14	
4/27/2020				13		11	
5/27/2020		8.3 (J)	35				
9/15/2020	4.1 (J)				4.1 (J)		3.2 (J)
10/19/2020		16	47				
10/20/2020	6.3 (J)						
10/21/2020				19	5.9 (J)	18	5.3 (J)
4/26/2021		9.4 (J)	39				
4/27/2021	5.8 (J)			15	5.8 (J)	15	4.9 (J)
7/14/2021			47				
10/20/2021	5.3 (J)						
10/21/2021		10	39	15			
10/22/2021					4.9 (J)	14	3.5 (J)
2/22/2022			37				
4/25/2022		12	50				
4/26/2022	7.8 (J)				8.4 (J)		
4/27/2022				16		18	6.6 (J)
10/12/2022	5.1 (J)	13	42	15	5.7 (J)	15	4 (J)
4/19/2023	<13 (U)			16 (J)	<13 (U)	15 (J)	<13 (U)
4/20/2023		<13 (U)	53				
Mean	5.843	11.13	40.82	15.44	5.9	15	4.857
Std. Dev.	1.18	3.121	7.757	1.59	1.348	2.121	1.37
Upper Lim.	7.245	14.15	47.28	19	7.501	17.05	6.484
Lower Lim.	4.441	8.12	34.35	13	4.299	12.95	3.23

ND substitution: RL or RL/2 if <15% NDs.

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 8/18/2023 9:31 AM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Confidence Interval

Constituent: Molybdenum (ug/L) Analysis Run 8/18/2023 9:32 AM View: PCS

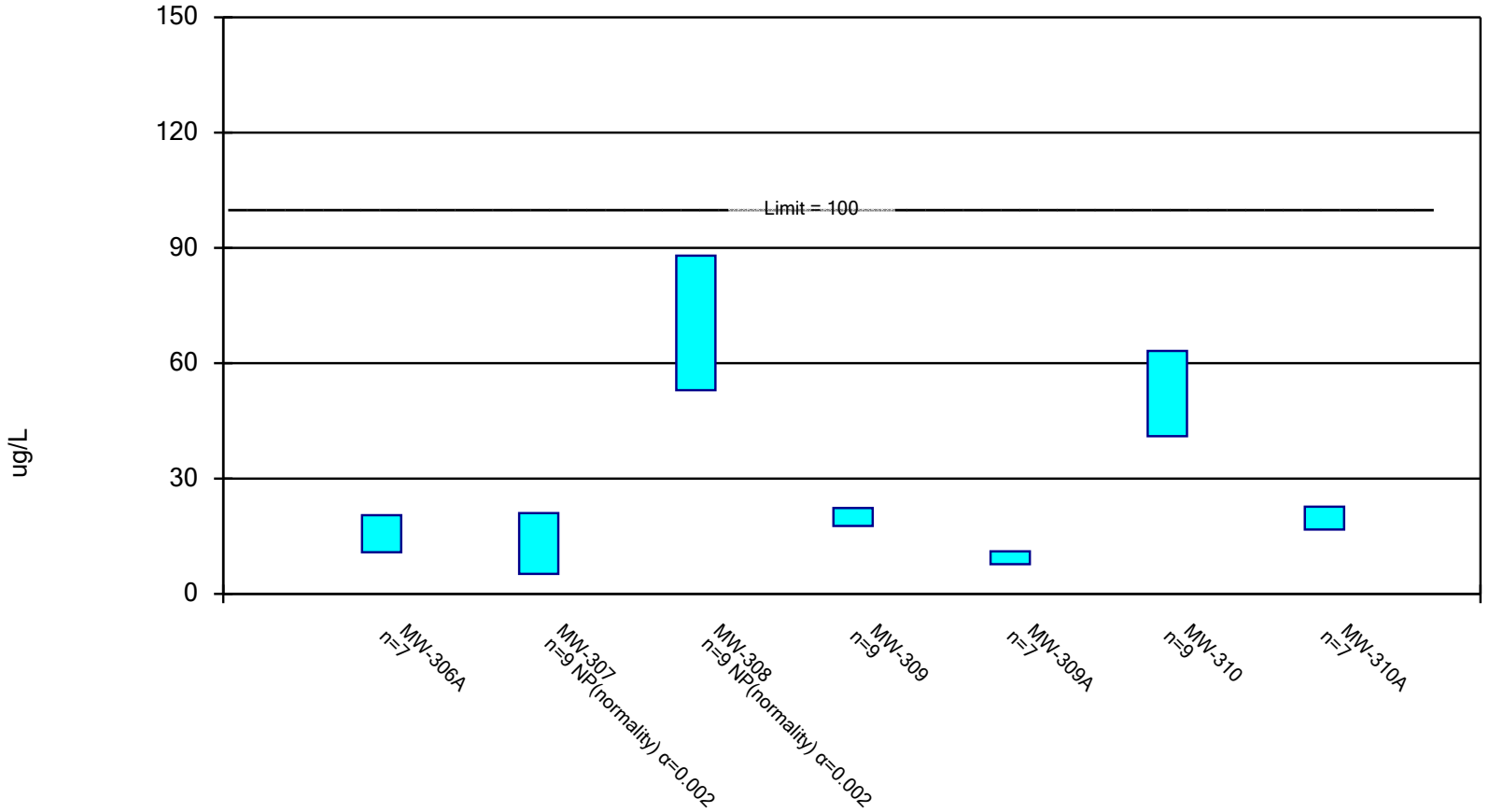
Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-301 (bg)	MW-301A (bg)	MW-302 (bg)	MW-303	MW-304	MW-305	MW-306
5/8/2018	0.35 (J)		0.99 (J)	23.1	19.8	27.9	271
8/6/2018	0.44 (J)		0.78 (J)	20.7	25.4	29	234
10/9/2018	<0.57 (U)		0.67 (J)	21.7	27.6	32	235
4/22/2019	<1.1 (U)		<1.1 (U)	12	23	26	200
10/28/2019	<1.1 (U)		<1.1 (U)				
10/29/2019				20	31	32	230
4/27/2020	<1.1 (U)		<1.1 (U)	8.4	26	38	250
9/15/2020		2.1					
10/19/2020	<1.1 (U)		<1.1 (U)				
10/20/2020				17	28	58	260
10/21/2020		3.1					
4/27/2021	<1.3 (U)		<1.3 (U)	12	25	54	240
4/28/2021		3.1					
10/20/2021						84	220
10/21/2021	<1.3 (U)		<1.3 (U)	14	31		
10/22/2021		3.1					
4/25/2022	<1.2 (U)		<1.2 (U)				
4/26/2022				11	24	47	220
4/29/2022		2.5					
10/12/2022	<1.2 (U)		<1.2 (U)	15	27	78	210
10/13/2022		3.4					
4/19/2023				12	20	35	200
4/20/2023	<4.6 (U)	<4.6 (U)	<4.6 (U)				
Mean	1.28	2.8	1.37	15.58	25.65	45.08	230.8
Std. Dev.	1.097	0.4933	1.035	4.82	3.629	19.68	22.39
Upper Lim.	1.3	3.386	1.3	19.36	28.5	57.12	248.4
Lower Lim.	0.44	2.214	0.78	11.79	22.8	30.44	213.3

ND substitution: RL or RL/2 if <15% NDs.

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 8/18/2023 9:31 AM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Confidence Interval

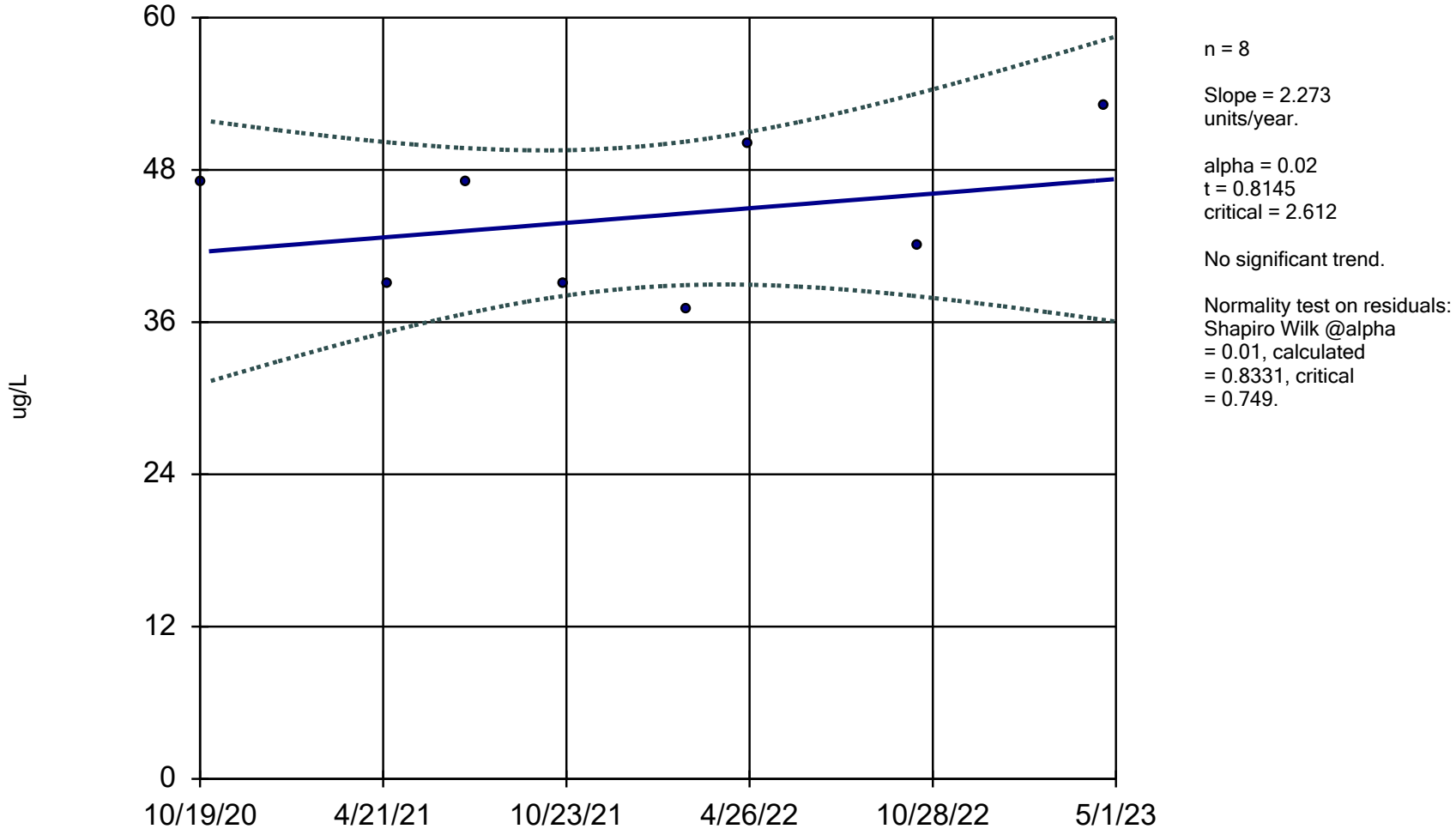
Constituent: Molybdenum (ug/L) Analysis Run 8/18/2023 9:32 AM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-306A	MW-307	MW-308	MW-309	MW-309A	MW-310	MW-310A
4/23/2019		5.8	58				
10/28/2019		5.2	58				
10/29/2019				19		60	
1/9/2020				18		59	
4/27/2020				19		55	
5/27/2020		7	64				
9/15/2020	8.6				8.5		20
10/19/2020		5.2	58				
10/20/2020	13						
10/21/2020				21	7.1	71	21
4/26/2021		8.5	53				
4/27/2021	16			17	9.1	43	24
10/20/2021	15						
10/21/2021		6.6	58	24			
10/22/2021					11	45	20
4/25/2022		8.4	73				
4/26/2022	17				11		
4/27/2022				18		45	19
10/12/2022	19	7.2	63	23	9	58	18
4/19/2023	21			21	10	33	16
4/20/2023		21	88				
Mean	15.66	8.322	63.67	20	9.386	52.11	19.71
Std. Dev.	4.061	4.907	10.74	2.398	1.404	11.5	2.498
Upper Lim.	20.48	21	88	22.32	11.05	63.22	22.68
Lower Lim.	10.83	5.2	53	17.68	7.718	41	16.75

Linear Regression and 95% Confidence Band

MW-308



n = 8

Slope = 2.273 units/year.

alpha = 0.02
t = 0.8145
critical = 2.612

No significant trend.

Normality test on residuals:
Shapiro Wilk @alpha = 0.01, calculated = 0.8331, critical = 0.749.

Constituent: Lithium Analysis Run 8/14/2023 1:45 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Linear Regression

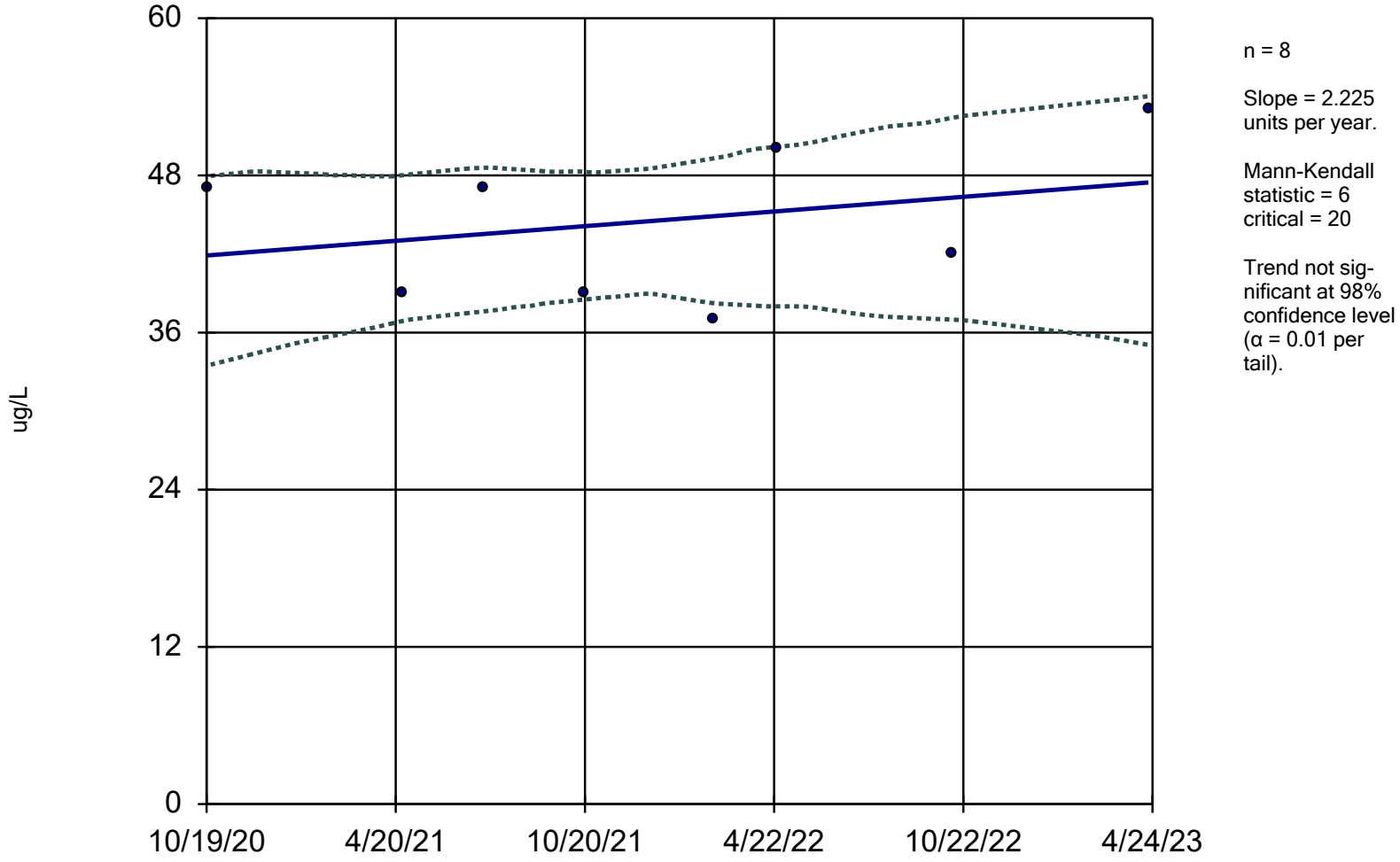
Constituent: Lithium (ug/L) Analysis Run 8/14/2023 1:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	LCL	UCL
10/19/2020	47	31.11	51.94
4/26/2021	39	35.22	50.18
7/14/2021	47	36.67	49.71
10/21/2021	39	38.07	49.54
2/22/2022	37	38.92	50.24
4/25/2022	50	38.95	50.98
10/12/2022	42	38.04	54
4/20/2023	53	36.16	58.25

Sen's Slope and 95% Confidence Band

MW-308



Constituent: Lithium Analysis Run 8/14/2023 1:46 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

Sen's Slope Estimator

Constituent: Lithium (ug/L) Analysis Run 8/14/2023 1:47 PM View: PCS

Prairie Creek Generating Station Client: SCS Engineers Data: PCS - Chem-export-Dec2020

	MW-308	LCL	UCL
10/19/2020	47	33.47	47.92
4/26/2021	39	36.86	48
7/14/2021	47	37.61	48.58
10/21/2021	39	38.52	48.26
2/22/2022	37	38.23	49.29
4/25/2022	50	38	50.18
10/12/2022	42	36.98	52.39
4/20/2023	53	35.06	54.03

02/26/2024 - Classification: Internal - ECRM13238692