

2023 Annual Groundwater Monitoring and Corrective Action Report

Burlington Generating Station
Burlington, Iowa

Prepared for:

Alliant Energy



SCS ENGINEERS

25223066.00 | January 31, 2024

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OVERVIEW OF CURRENT STATUS

Burlington Generating Station, Impoundments 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 the Burlington Generating Station (BGS) impoundments is a multi-unit system. 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 an SSI over background for one or more constituents listed in Appendix III to this part pursuant to §257.94(e):	
	(A) Identify those constituents listed in Appendix III to this part and the names of the monitoring wells associated with such an increase; and	<p>SSIs initially determined on January 15, 2018, based on October 2017 monitoring results. In October 2022, April 2023, and August 2023 events, SSIs for compliance wells at the waste boundary included the following; see Table 5 for complete results.</p> <p><u>October 2022</u> None. Compliance wells could not be sampled due to dewatering.</p> <p><u>April 2023</u> Boron: MW-301, MW-302, MW-306, MW-307, MW-308, MW-309 Calcium: MW-302, Field pH: MW-306, MW-307 Sulfate: MW-301, MW-302, MW-305 TDS: MW-301, MW-302</p>

Category	Rule Requirement	Site Status
		<p><u>August 2023</u> Boron: MW-301, MW-302, MW-304, MW-306, MW-307, MW-308, MW-309 Calcium: MW-302, MW-304, Field pH: MW-306, MW-307 Sulfate: MW-301, MW-302, MW-304, MW-305, MW-307, MW-308 TDS: MW-301, MW-304</p>
	(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 (GPS)	<p>(iv) If it was determined that there was an SSL above the GPS for one or more constituents listed in Appendix IV to this part pursuant to §257.95(g) include all of the following:</p> <p>(A) Identify those constituents listed in Appendix IV to this part and the names of the monitoring wells associated with such an increase;</p>	<p>Lithium: Initially determined to be at SSL above GPS in January 2019 at monitoring wells MW-302, MW-303, MW-304, MW-306, MW-307, and MW-308. In October 2022, April 2023, and August 2023 events, concentrations determined to be at SSL above the GPS at compliance wells as follows:</p> <p><u>October 2022</u> None. Compliance wells could not be sampled due to dewatering.</p> <p><u>April 2023</u> MW-302, MW-304, MW-307, MW-308</p> <p><u>August 2023</u> MW-302, MW-304, MW-307, MW-308</p> <p>Molybdenum: Initially determined to be at SSL above GPS in January 2019 at monitoring wells MW-301, MW-302, MW-304, MW-307, and MW-308. In October 2022, April 2023, and August 2023 events, concentrations determined to be at SSL above the GPS at compliance wells as follows:</p> <p><u>October 2022</u> None. Compliance wells could not be sampled due to dewatering.</p>

Category	Rule Requirement	Site Status
		<p><u>April 2023</u> MW-307</p> <p><u>August 2023</u> None</p>
	(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	<p>October 14, 2020</p> <p>A public meeting was held prior to remedy selection on July 26, 2023.</p>
	(D) Provide the date when the assessment of corrective measures was completed for the CCR unit.	<p>September 12, 2019 - Original Assessment of Corrective Measures (ACM)</p> <p>November 25, 2020 – Addendum No. 1 to ACM</p>
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 complete as of December 31, 2023.
Corrective Action	(vi) Whether remedial activities were initiated or are ongoing pursuant to §257.98 during the current annual reporting period.	Remedial activities will be implemented within 90 days following the publication of the Select of Remedy Report on December 31, 2023.

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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 Code of Federal Regulations (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 Burlington Generating Station (BGS) 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 the BGS impoundments is a multi-unit system. The BGS facility includes four existing CCR units:

- BGS Ash Seal Pond (existing CCR surface impoundment)
- BGS Main Ash Pond (existing CCR surface impoundment)
- BGS Economizer Ash Pond (existing CCR surface impoundment)
- BGS Upper Ash Pond (existing CCR surface impoundment)

The multi-unit 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 2 upgradient background monitoring wells, 9 downgradient compliance wells at the waste boundary, 2 supplemental background wells, and 7 additional downgradient delineation wells (**Figure 2** and **Table 1**).

During 2023, ash pond closure activities were ongoing at BGS. IPL intends to close the BGS Ash Seal Pond, Main Ash Pond, Upper Ash Pond, and Economizer Ash Pond through the removal and consolidation of CCR material with the installation of a final cover over the CCR that will remain in place in accordance with the CCR Closure Plan and other local, state, and federal requirements.

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 sections:

- Geologic and hydrogeologic setting
- CCR Rule monitoring system

2.1 GEOLOGIC AND HYDROGEOLOGIC SETTING

2.1.1 Regional Information

The uppermost geologic formation beneath the Burlington plant that meets the definition of the “uppermost aquifer,” as defined under 40 CFR 257.53, is the surficial alluvial aquifer. The alluvial aquifer is comprised of Mississippi River valley clay, silt, sand, and sand and gravel deposits. This deposit is present along the edges of the entire Mississippi River valley in southeastern Iowa. A map of the regional glacial geology in the area is included in **Appendix A**.

Regionally, the uppermost bedrock is Mississippian Limestone. A bedrock geology map of the area is located in **Appendix A**. The limestone bedrock is also an aquifer and is likely hydraulically connected to the alluvial aquifer above. Locally, the Mississippian Limestone is absent in some areas due to erosion, and where it is absent the uppermost bedrock is the Devonian-Mississippian Aquaclude (shale, siltstone, and mudstone).

The regional groundwater flow direction is generally east, from the bedrock uplands west of the site toward the Mississippi River. A map of regional flow in the Mississippian aquifer is included in **Appendix A**.

2.1.2 Site Information

Monitoring wells MW-301 through MW-311 were installed in December 2015 through March 2016 as the initial monitoring system for the CCR units. The wells were installed to intersect the surficial alluvium aquifer at the site. The unconsolidated material at these well locations is generally clay and silt to approximately 20 feet below ground surface, and these fine-grained sediments are underlain by sand or silty sand. The total boring depths were between 24 and 34 feet, and bedrock was not encountered in any boring. Boring logs, well construction, and development documentation for MW-301 through MW-311 are included in **Appendix B**.

Monitoring wells MW-312 and MW-313 were installed in May 2019 as delineation wells to assess the downgradient extent of groundwater impacts. Both wells were installed near the Mississippi River. Both monitoring wells are screened near the top of the alluvial sands, below a confining clay layer. The total boring depths were 26 feet at MW-312 and 32 feet at MW-313. Boring logs, well construction, and development documentation for MW-312 and MW-313 are included in **Appendix B**.

Monitoring wells MW-302A, MW-307A, and MW-313A were installed in June and July 2020 as additional delineation wells to assess the downgradient vertical extent of groundwater impacts. They were installed as nested wells with MW-302, MW-307, and MW-313. Monitoring well MW-310A was installed in nest with upgradient well MW-310 to provide additional background groundwater information. The boring for well MW-310A encountered bedrock at 25 feet and the well is screened in Mississippian mudstone. The three downgradient delineation wells are screened in the alluvial sands. Total boring depths ranged from 50 to 62 feet. Boring logs, well construction, and development documentation for MW-302A, MW-307A, MW-310A, and MW-313A are included in **Appendix B**.

Monitoring wells MW-307B and MW-313B were installed in May 2021 as additional delineation wells to provide information on vertical groundwater flow and the vertical distribution of target groundwater quality parameters. Each new well was installed adjacent to pre-existing well pairs (MW-307/MW-307A and MW-313/MW-313A). Total boring depths ranged from 75 to 85 feet. Boring logs, well construction, and development documentation for MW-307B and MW-313B are included in **Appendix B**.

Monitoring well MW-314 was installed in February 2022 as a supplemental background monitoring well to evaluate background conditions in the shallow groundwater at a location side-gradient from the CCR units, but in the same hydrogeologic environment as the compliance and delineation wells. Total boring depth of MW-314 is 24 feet. Boring log, well construction, and development documentation for MW-314 are included in **Appendix B**.

Shallow groundwater at the site generally flows to the east and southeast, toward the Mississippi River. The shallow potentiometric surface elevations and groundwater flow direction in April 2023

are shown on **Figure 3**. In April 2023, shallow groundwater flow was to the northwest, away from the river, which is different than the typical previous observations at the site where shallow groundwater flows to the east/southeast. This was caused by the relatively high stage of the river in the spring season and dewatering wells that were active during the sampling event. Shallow groundwater flow in July 2023 was to the east/southeast toward the river, consistent with previous observations, as shown on **Figure 4**. The shallow groundwater flow direction during October 2023 was to the east/southeast and is shown on **Figure 5**.

The deep potentiometric surface elevations and groundwater flow directions in April, July, and October 2023 are shown on **Figures 6, 7, and 8**, respectively. The April 2023 deep potentiometric surface shows a flow direction to the northwest, which is atypical and likely influenced by the groundwater dewatering activities. The August and October 2023 deep potentiometric surface maps both show a typical south-southeast flow direction.

The groundwater elevation data for the CCR monitoring wells are provided in **Table 3**. Estimated horizontal gradients and flow velocities are provided in **Table 4A**. Calculated vertical gradients for the nested wells are provided in **Table 4B**.

2.2 CCR RULE MONITORING SYSTEM

The groundwater monitoring system initially established in accordance with the CCR Rule consists of two upgradient (background) monitoring wells and nine downgradient monitoring wells. The background wells include MW-310 and MW-311. The nine downgradient wells include MW-301, MW-302, MW-303, MW-304, MW-305, MW-306, MW-307, MW-308, and MW-309. The CCR Rule wells are installed in the upper portion of the alluvial aquifer. Well depths range from approximately 19 to 35 feet, measured from the top of the well casing.

Temporary monitoring wells TW-101 and TW-102 were installed during the dewatering activities on site and used for groundwater elevation monitoring only. Water levels were collected from these wells and incorporated into the April 2023 water table maps.

As described in **Section 2.1.2**, two supplemental background wells and nine downgradient delineation wells have been added to support the assessment of the nature and extent of lithium and molybdenum impacts in groundwater.

Although piezometer MW-310A is located upgradient of the CCR units, this supplemental background well has not been used in the statistical evaluation of background conditions because it is not installed in the same hydrostratigraphic unit as the downgradient wells. MW-310A is installed in a low permeability mudstone bedrock, and the other monitoring wells are installed in the overlying alluvial aquifer.

Supplemental background monitoring well MW-314 is located approximately 3,300 feet south of the CCR units and is not currently being used in the statistical analysis of background conditions.

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 of the site location is provided on **Figure 1**. A map with an aerial image showing the 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 made to the 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;

Three groundwater sampling events were completed in 2023. The two semiannual sampling events were completed in April 2023 and October 2023 as required by the assessment monitoring program. A supplemental sampling event was conducted in August 2023 (July 31 to August 3, 2023) because the April results for several wells indicated changes in concentration for some parameters, beyond the typical variability previously observed. Some metals concentrations showed increases or decreases compared to historical results. Changes in concentrations were likely associated with operation of the dewatering system installed to facilitate the ash pond closure construction and groundwater dewatering activities. Supplemental samples were collected from 20 monitoring wells from the entire network. 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 programs is included in **Table 2**.

Groundwater samples collected in the April, August, and October 2023 sampling events were analyzed for both Appendix III and Appendix IV constituents. Samples from the compliance wells at the waste boundary were analyzed for the full list of Appendix III and Appendix IV constituents. Samples 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.

The validation and evaluation of the October 2022 monitoring event data were completed and transmitted to IPL on February 27, 2023. The April 2023 monitoring event validation and evaluation were transmitted on September 5, 2023, and the event and evaluation of the August 2023 supplemental event was transmitted on December 18, 2023. The validation and evaluation of the October 2023 monitoring event data were in progress at the end of 2023 and will be transmitted to IPL in 2024; therefore, the October 2023 monitoring results will be included in the 2024 annual report. The October 2023 groundwater elevation data is included in this report.

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

During the October 2022 sampling event, shallow groundwater sampling was impacted by the dewatering well system that was in place to facilitate the ash pond closure construction activities. The active dewatering prevented 12 monitoring wells from being sampled because either they were dry or they did not contain enough water to obtain a sample. The wells that could not be sampled included the two upgradient background monitoring wells, the nine downgradient compliance wells at the waste boundary, and one delineation well. Samples were collected from the other six delineation wells and two supplemental background wells, and were analyzed for the full Appendix III and Appendix IV parameter lists.

All wells were sampled during the April 2023 sampling event, except for supplemental well MW-314, which was inaccessible due to flooding. The April results for several wells indicated changes in concentration for some parameters, beyond the typical variability previously observed. Some metals concentrations showed increases or decreases compared to historical results. Changes in concentrations were likely associated with operation of the dewatering system installed to facilitate the ash pond closure construction. The dewatering system started operation in 2022 and lowered the water table near the ash ponds. The dewatering wells around the Ash Seal Pond were turned off on April 10, 2023, shortly before the April groundwater sampling event. Dewatering wells around the Upper Ash Pond remained active during the April sampling event. Upper Ash Pond dewatering wells were turned off in a phased manner in late June 2023 and the system was turned off entirely on June 29, 2023. Dewatering may affect monitoring well sample results due to changes in groundwater flow direction, changes in redox conditions, and/or changes in the amount of suspended sediment in the wells.

The August 2023 results for several wells also indicated changes in concentration for some parameters, beyond the typical variability observed prior to dewatering activities. Some metals concentrations showed increases or decreases compared to historical results. Changes in concentrations were likely associated with operation of the dewatering system installed to facilitate the ash pond closure construction.

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.

An Assessment of Corrective Measures (ACM) was initiated for the BGS CCR Units on April 15, 2019. The ACM was completed on September 12, 2019, and an addendum to the ACM was completed on November 25, 2020. The selection of remedy is in progress. The ACM was initiated in response to the detection of lithium and molybdenum at a statistically significant level (SSL) exceeding the Groundwater Protection Standards (GPS). Assessment monitoring continued during the ACM and will continue during the selection of remedy and implementation of the corrective action program.

In accordance with the Unified Guidance for Statistical Analysis of Groundwater Monitoring Data at Resource Conservation and Recovery Act (RCRA) Facilities (U.S. Environmental Protection Agency [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 the Appendix IV parameters that have been detected at a concentration exceeding the GPS in at least one sample result since assessment monitoring was initiated, which include arsenic, cobalt, lithium, and molybdenum. The LCLs were calculated with Sanitas™ using historical concentrations measured since assessment monitoring began in August 2018. The LCL evaluations completed in 2023 for the October 2022, April 2023, and August 2023 events, are provided in **Appendix E**.

Based on the LCL evaluation, SSLs above the GPS were identified for the following parameters in compliance wells:

- Lithium: MW-302, MW-304, MW-307, MW-308
- Molybdenum: MW-307

SSLs above the GPS have been identified previously for these parameters and wells. No SSLs above the GPS were identified for arsenic or cobalt.

The first occurrence of cobalt exceeding the GPS in a downgradient well was in the April 2023 event (two wells) and it was exceeded for the second time in the August 2023 event (four wells). Additional monitoring will indicate whether this was a short-term variation associated with the dewatering activities or a longer-term shift in concentrations to an SSL above the GPS.

Because concentrations of arsenic in the upgradient background wells exceed the Environmental Protection Agency's (EPA's) maximum contaminant level (MCL), the GPS for arsenic is established based on background conditions. Consistent with the single-sample GPS approach outlined in the Section 7.4 of the Unified Guidance, the GPS was established based on a background upper tolerance limit (UTL). To evaluate compliance with the background GPS, the LCL for the mean (or median if non-parametric) is compared to the background GPS. The UTL calculation completed using Sanitas™ for the October 2021 monitoring event was included as an appendix to the 2022 Annual Groundwater and Corrective Action Report.

For parameters other than arsenic, the comparison to background was based on a prediction limit approach, comparing the results to interwell upper prediction limits (UPLs) based on background monitoring results from the upgradient wells (MW-310 and MW-311). The interwell UPLs were most recently updated in August 2021 using background data collected through April 2021. The August 2021 interwell UPL update was included as an appendix to the 2021 Annual Groundwater Monitoring Report.

The Unified Guidance for Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities (U.S. EPA, 2009; Section 5.3.1) recommends periodic updating of background (i.e., UPLs and UTLs) for both intrawell and interwell analyses. For semiannual monitoring, an update interval of 2 to 3 years is recommended; therefore, the next update to UPLs and UTLs is scheduled for 2024.

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 has transitioned out of the selection of remedy process, and the selected remedy will be implemented within 90 days of the Selection of Remedy Report published December 31, 2023, with assessment monitoring continuing.

Summary of Key Actions Completed:

Groundwater-Related Activities:

- Prepared 2022 Annual Groundwater Monitoring and Corrective Action Report (January 2023).
- Continued development of MODFLOW model. Encoded the river and stream shapefiles as boundary conditions in MODFLOW and implemented gridding (January 2023).
- Completed statistical evaluation of the October 2022 assessment monitoring event and prepared groundwater monitoring results letter (February 2023).
- Continued MODFLOW model development by adding boundaries and rivers/streams. Began building geologic surfaces (March 2023).
- Extended monitoring well casings for MW-306, MW-307, MW-307A, MW-307B, and MW-308 due to change in grade as part of pond closure project (May 2023).
- Evaluated existing dewatering wells for potential re-use as groundwater extraction wells for the groundwater corrective action (June 2023).
- Completed two semiannual assessment monitoring events (April and October 2023).

- Re-developed wells that had gone dry during dewatering system operations, and collected groundwater levels (July 2023).
- Completed one supplemental assessment monitoring event (August 2023).
- Completed statistical evaluation of the April 2023 assessment monitoring event and prepared a monitoring results letter (September 2023).
- Prepared a groundwater monitoring results letter for August 2023 supplemental sampling event (December 2023).
- Prepared semiannual progress reports for the Selection of Remedy process (March and September 2023).
- Held a public meeting to discuss ACM Addendum No. 2 on June 26, 2023.
- Completed the Selection of Remedy Report on December 31, 2023 (SCS, 2023). The selected remedy is consolidation and capping of CCR with groundwater collection.

Closure-Related Activities:

- Evaluated abandonment options for the dewatering wells (February 2023).
- Removal of CCR materials from the Upper Ash Pond and groundwater dewatering around the Upper Ash Pond was completed in July 2023. Subsequent abandonment of dewatering wells was completed in August 2023.
- Removal of accessible CCR material from Ash Seal Pond and dewatering of groundwater around the Ash Seal Pond was completed in April 2023. Subsequent abandonment of dewatering wells was completed in August 2023.
- The final cover system constructed over the remaining CCR within the Ash Seal Pond was finished in October 2023.
- The final cover system constructed over the remaining CCR in the Main Ash Pond was finished in October 2023.
- CCR placement into the Economizer Pond closure area was finished in June 2023.
- The final cover system constructed over the remaining CCR in the Economizer Pond was finished in October 2023.
- Restoration activities were initiated and will continue into 2024 for pond closure activities.

Description of Any Problems Encountered:

- Supplemental background well MW-314 was flooded and could not be sampled during the April 2023 event.

- For the August 2023 event, concentrations of mercury at MW-307 and MW-314 and for thallium at MW-302 and MW-314 were abnormally high when compared to historical results. Neither compound is typically detected, but in the original laboratory report, mercury values at MW-307 and MW-314 exceeded the individual UPL and thallium concentrations exceeded the GPS.

Discussion of Actions to Resolve the Problems:

- MW-314 was sampled in the August 2023 sampling event since it was unable to be sampled in the April 2023 event.
- SCS requested that the laboratory re-run analysis for mercury and thallium. The results of the re-runs were non-detect. The laboratory report was revised and the re-run issue was reflected in the revised laboratory report case narrative section. The lab indicated that the abnormally high concentrations of these parameters may be attributed to possible carry-over from previous samples run in the laboratory. The initial and re-analyses were presented in the August 2023 results letter.

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

- Complete statistical evaluation and determination of any SSLs exceeding the GPS for the October 2023 monitoring event and prepare groundwater monitoring results letter (February 2024).
- Complete statistical evaluation and determination of any SSLs exceeding the GPS for the April 2024 monitoring event and prepare groundwater monitoring results letter (August 2024).
- Complete two semiannual assessment monitoring events (April and October 2024).
- Establish and implement a corrective action groundwater monitoring program.
- Perform leach tests and associated sample collection.
- Installation of additional wells to assist with pumping test.
- Conduct pumping test for remedy design.
- Complete a MODFLOW model to support the design of the groundwater collection portion of the selected remedy.
- Update conceptual site model based on additional findings during remedy design.
- Evaluate installation of head wells in the Main Ash and Economizer Pond Closure Areas.
- Evaluate pumping head wells to remove potentially perched water as part of the design of the selected remedy.
- Continue other design activities for the selected remedy.

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. BGS 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. BGS 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 has been 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).

The 2023 assessment monitoring results, background UPLs, and GPSs established for BGS 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. The results for the supplemental parameters are included in **Table 5** and in the laboratory reports in **Appendix C**.

3.5.6 §257.95(g)(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 evaluation 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 certification demonstrating the need for a 90-day deadline extension was completed on July 10, 2019, and was included in the 2019 annual groundwater monitoring and corrective action report. The ACM was completed on September 12, 2019. Addendum No. 1 to the ACM was completed on November 25, 2020. The Selection of Remedy Report was completed on December 31, 2023.

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 REFERENCES

SCS Engineers, Selection of Remedy, Burlington Generating Station, December 31, 2023.

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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- 2 CCR Rule Groundwater Samples Summary
- 3 Groundwater Elevation Summary
- 4A Horizontal Gradients and Flow Velocity Table
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- 5 Groundwater Analytical Results Summary - Assessment Monitoring - 2023
- 6 Groundwater Field Data Summary

**Table 1. Groundwater Monitoring Well Network
Burlington Generating Station / SCS Engineers Project #25223066.00**

Monitoring Well	Location in Monitoring Network	Role in Monitoring Network
MW-301	Downgradient	Compliance
MW-302	Downgradient	Compliance
MW-302A	Downgradient, deeper	Delineation
MW-303	Downgradient	Compliance
MW-304	Downgradient	Compliance
MW-305	Downgradient	Compliance
MW-306	Downgradient	Compliance
MW-307	Downgradient	Compliance
MW-307A	Downgradient, deeper	Delineation
MW-307B	Downgradient, deeper	Delineation
MW-308	Downgradient	Compliance
MW-309	Downgradient	Compliance
MW-310	Upgradient	Background
MW-310A	Upgradient, deeper	Supplemental Background
MW-311	Upgradient	Background
MW-312	Downgradient	Delineation
MW-313	Downgradient	Delineation
MW-313A	Downgradient, deeper	Delineation
MW-313B	Downgradient, deeper	Delineation
MW-314	Sidegradient	Supplemental Background

Created by: NDK
 Last revision by: NLB
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Date: 9/19/2022
 Date: 7/28/2023
 Date: 10/2/2023

**Table 2. CCR Rule Groundwater Samples Summary
Burlington Generating Station
SCS Engineers Project #25223066.00**

Sample Dates	Compliance Wells		Delineation Well	Compliance wells					Delineation Wells		Compliance Wells		Background Wells			Delineation Wells				Background Well
	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-306	MW-307	MW-307A	MW-307B	MW-308	MW-309	MW-310	MW-310A	MW-311	MW-312	MW-313	MW-313A	MW-313B	MW-314
4/24-27/2023	A	A	A-NE	A	A	A	A	A	A-NE	A-NE	A	A	A	A-NE	A	A-NE	A-NE	A-NE	A-NE	--
8/1-3/2023	A-S	A-S	A-S	A-S	A-S	A-S	A-S	A-S	A-S	A-S	A-S	A-S	A-S	A-S	A-S	A-S	A-S	A-S	A-S	A-S
10/2-5/2023	A	A	A-NE	A	A	A	A	A	A-NE	A-NE	A	A	A	A-NE	A	A-NE	A-NE	A-NE	A-NE	A-NE
Total Samples	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2

Abbreviations:

A = Assessment Monitoring Program

A-S = Supplemental Sampling Event for Assessment Monitoring Program

A-NE = Assessment monitoring for nature and extent, wells sampled for select App IV and selection-of-remedy parameters

-- = Not Sampled

Created by: NDK Date: 9/19/2022
 Last revision by: NLB Date: 1/19/2024
 Checked by: RM Date: 1/19/2024

Table 3. Groundwater Elevation Summary
Burlington Generating Station / SCS Engineers Project #25223066.00

Well Number	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-306	MW-307	MW-307A	MW-307B	MW-308	MW-309	MW-310	MW-310A	MW-311	MW-312	MW-313	MW-313A	MW-313B	MW-314
Top of Casing Elevation (feet amsl)	538.38	535.69	535.89	533.60	534.42	533.28	539.42	539.96	539.32	539.65	540.26	536.42	531.99	532.53	532.32	536.43	535.82	536.03	536.14	526.58
Screen Length (ft)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Total Depth (ft from top of casing)	31.90	29.95	62.55	28.59	25.27	29.43	36.91	31.64	65.03	83.00	33.37	27.31	18.76	48.8	22.63	27.70	32.97	63.38	72.0	25.47
Top of Well Screen Elevation (ft)	511.48	510.74	478.34	510.01	514.15	508.85	507.51	513.32	476.19	458.65	511.89	514.11	518.23	488.73	514.69	513.80	507.85	477.65	469.14	506.11
Measurement Date																				
April 20, 2016	522.63	521.91	NI	521.76	521.78	521.96	521.74	522.38	NI	NI	521.93	522.09	525.43	NI	523.72	NM	NM	NI	NI	NI
June 6 & 7, 2016	521.07	521.21	NI	521.26	521.28	521.48	521.43	521.75	NI	NI	521.43	521.39	524.13	NI	521.80	NM	NM	NI	NI	NI
August 16 & 17, 2016	521.81	521.35	NI	521.31	521.37	521.46	521.53	521.91	NI	NI	521.56	521.70	524.84	NI	522.92	NM	NM	NI	NI	NI
October 3, 2016	527.48	527.54	NI	527.57	527.57	527.71	527.67	527.81	NI	NI	527.62	527.57	527.58	NI	527.34	NM	NM	NI	NI	NI
January 9 & 10, 2017	525.38	525.50	NI	525.56	525.62	525.74	525.67	525.81	NI	NI	525.65	525.57	525.78	NI	525.16	NM	NM	NI	NI	NI
April 3 & 4, 2017	523.08	522.84	NI	522.81	522.87	523.03	523.07	523.14	NI	NI	523.07	523.10	525.52	NI	524.01	NM	NM	NI	NI	NI
June 12 & 13, 2017	523.21	522.84	NI	522.80	522.90	522.78	522.87	523.17	NI	NI	522.90	522.91	524.94	NI	523.55	NM	NM	NI	NI	NI
August 15 & 16, 2017	519.96	519.39	NI	519.30	519.23	519.93	519.82	520.16	NI	NI	519.80	519.93	523.89	NI	521.12	NM	NM	NI	NI	NI
October 16, 2017	522.13	522.20	NI	522.23	522.32	522.48	522.72	522.55	NI	NI	522.46	522.67	525.49	NI	523.44	NM	NM	NI	NI	NI
May 8 & 9, 2018	525.51	525.81	NI	525.80	525.85	526.06	526.00	526.06	NI	NI	525.62	525.54	525.79	NI	525.08	NM	NM	NI	NI	NI
August 13 & 14, 2018	520.19	519.87	NI	519.78	519.81	520.29	520.14	520.46	NI	NI	520.22	520.22	523.69	NI	521.06	NM	NM	NI	NI	NI
October 9 & 10, 2018	528.01	528.08	NI	528.78	528.82	528.97	528.95	529.08	NI	NI	528.98	528.93	529.00	NI	528.49	NM	NM	NI	NI	NI
March 11, 2019	523.38	522.83	NI	522.74	522.80	NM	523.21	523.49	NI	NI	523.13	NM	NM	NI	NM	NM	NM	NI	NI	NI
April 3, 2019	528.15	528.21	NI	528.22	528.27	528.36	528.40	528.63	NI	NI	528.39	528.40	528.62	NI	528.20	NM	NM	NI	NI	NI
June 6, 2019	530.70	531.02	NI	531.00	531.04	TOC	531.19	531.38	NI	NI	531.15	531.08	531.48	NI	531.07	531.08	531.05	NI	NI	NI
October 10 & 11, 2019	526.80	526.88	NI	526.87	526.97	527.03	527.22	527.45	NI	NI	527.08	527.02	526.25	NI	526.68	526.97	526.97	NI	NI	NI
June 2-4, 2020	523.94	523.98	NI	523.97	524.02	524.12	524.45	524.62	NI	NI	524.10	524.06	525.36	NI	524.05	524.05	524.02	NI	NI	NI
September 9, 2020	519.90	519.79	519.71	519.73	519.83	520.00	520.14	520.41	519.97	NI	520.11	520.13	524.13	509.16	520.87	519.85	519.83	519.76	NI	NI
October 14-16 & 19, 2020	519.26	518.94	518.79	518.78	518.69	519.00	519.05	519.33	519.00	NI	519.02	519.28	523.81	489.84	520.59	518.68	518.70	518.61	NI	NI
March 1-3, 2021	521.10	520.21	520.14	520.09	520.15	520.48	520.65	521.01	520.52	NI	520.70	520.75	--	487.06	522.89	520.12	520.18	520.02	NI	NI
April 19 - 20, 2021	522.87	522.27	522.25	522.13	522.24	522.31	522.52	522.89	522.39	NI	522.57	522.72	525.46	521.12	523.89	522.20	522.23	522.11	NI	NI
July 1, 2021	NM	NM	NM	NM	NM	NM	NM	NM	NM	520.12	NM	NM	NM	NM	NM	NM	NM	NM	519.51	NI
September 21-22, 2021	NM	NM	NM	NM	518.29	NM	NM	NM	NM	NM	NM	NM	524.42	NM	NM	NM	NM	NM	NM	NI
October 11-14, 2021	519.40	518.75	518.64	518.58	518.68	519.18	519.15	519.55	519.09	519.13	519.25	519.43	524.69	521.83	522.00	518.78	518.72	518.62	518.72	NI
February 22, 2022	NM	519.03	NM	NM	NM	NM	NM	519.74	519.32	519.37	NM	NM	NM	NM	NM	NM	518.91	518.81	518.88	NI
April 4-6, 2022	522.99	522.34	522.28	522.20	522.41	522.60	522.63	522.91	522.47	522.37	522.61	522.74	525.44	522.58	523.78	522.51	522.48	522.38	522.45	522.27
October 17, 2022	DRY	DRY	506.87	DRY	DRY	DRY	DRY	DRY	508.27	508.35	DRY	DRY	DRY	512.84	DRY	DRY	512.08	511.86	511.91	517.58
October 20, 2022	DRY	DRY	506.87	DRY	DRY	DRY	DRY	DRY	508.27	508.35	DRY	DRY	DRY	512.84	DRY	DRY	512.08	511.86	511.91	517.58
April 24-27, 2023	524.21	525.56	525.51	525.42	525.20	517.35	522.20	519.61	520.77	520.77	521.08	523.02	518.44	509.69	522.07	524.68	524.37	524.29	524.39	NM
July 31, 2023	518.30	518.26	518.20	518.15	518.20	518.16	518.16	518.37	519.70	518.25	518.38	518.34	520.39	517.83	518.63	518.13	518.19	518.08	518.14	518.31
August 1-3, 2023	518.33	518.19	518.09	517.91	518.19	518.03	518.07	518.04	519.42	518.20	518.22	518.22	520.29	490.83	518.28	517.93	518.09	518.00	518.01	518.28
October 2-5, 2023	518.33	518.19	518.12	518.06	518.08	518.00	518.13	518.30	519.61	518.14	520.25	518.42	520.39	517.75	518.68	518.03	518.18	518.05	518.12	518.02
Bottom of Well Elevation (ft)	506.48	505.74	473.34	505.01	509.15	503.85	500.01	505.32	471.19	453.65	503.83	509.11	513.23	483.73	509.69	508.73	502.85	472.65	464.14	501.11

Notes:
 NM = not measured
 TOC = top of casing
 NI = not installed

Created by: MDB Date: 6/15/2016
 Last revision by: EMS Date: 12/8/2023
 Checked by: RM Date: 12/20/2023

Table 4A. Horizontal Gradients and Flow Velocity Table
Burlington Generating Station / SCS Engineers Project #25223066.00
January - December 2023

Flow Path A - Shallow Potentiometric Surface						
Sampling Dates	h1 (ft)	h2 (ft)	Δl (ft)	Δh/Δl (ft/ft)	V (ft/d)	Direction
April 24-27, 2023	524.68	517.35	767	0.0096	2.38	North-Northwest
July 31, 2023	519.50	518.37	1113	0.0010	0.25	South-Southeast
October 2-5, 2023	519.50	518.30	1119	0.0011	0.27	South-Southeast

Flow Path B - Deeper Potentiometric Surface						
Sampling Dates	h1 (ft)	h2 (ft)	Δl (ft)	Δh/Δl (ft/ft)	V (ft/d)	Direction
April 24-27, 2023	524.29	520.77	686	0.0051	1.28	North-Northwest
July 31, 2023	519.70	518.08	686	0.0024	0.59	South-Southeast
October 2-5, 2023	519.61	518.05	686	0.0023	0.57	South-Southeast

Well	K Values (cm/sec)	K Values (ft/d)
MW-301	1.6E-03	4.4
MW-302	2.9E-02	82
MW-302A	4.9E-02	140
MW-303	8.3E-03	24
MW-304	6.0E-02	171
MW-305	6.1E-02	173
MW-306	1.0E-01	295
MW-307	8.5E-03	24
MW-307A	4.1E-02	116
MW-307B	6.2E-02	175
MW-308	7.6E-02	215
MW-309	1.2E-02	34
MW-310	3.7E-02	104
MW-310A	1.49E-07	0
MW-311	9.1E-03	26
MW-312	6.6E-02	187
MW-313	1.1E-01	298
MW-313A	1.2E-01	334
MW-313B	4.8E-02	135
Geometric Mean	3.5E-02	100

Assumed Porosity, n
0.40

ft = feet
 ft/d = feet per day
 K = hydraulic conductivity
 n = effective porosity

h1, h2 = point interpreted groundwater elevation at locations 1 and 2
 Δl = distance between location 1 and 2
 Δh/Δl = hydraulic gradient
 V = groundwater flow velocity

- MW-310, MW-310A, and MW-311 are background wells and are not included in geometric mean calculation.
- See Figures 3, 4, and 5 for velocity calculation flow path locations.

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

Created by: <u>NDK</u>	Date: <u>9/19/2022</u>
Last revision by: <u>NLB</u>	Date: <u>1/8/2024</u>
Checked by: <u>RM</u>	Date: <u>1/8/2024</u>

Table 4B. Vertical Gradients
Burlington Generating Station / SCS Engineers Project #25223066.00
January - December 2023

Vertical Hydraulic Gradients	MW302/MW302A		MW307/MW307A		MW-307A/MW-307B		MW310/MW310A		MW313/MW313A		MW313A/MW313B	
	Distance between midpoints (feet)	Vertical Gradient (ft/ft)	Distance between midpoints (feet)	Vertical Gradient (ft/ft)	Distance between midpoints (feet)	Vertical Gradient (ft/ft)	Distance between midpoints (feet)	Vertical Gradient (ft/ft)	Distance between midpoints (feet)	Vertical Gradient (ft/ft)	Distance between midpoints (feet)	Vertical Gradient (ft/ft)
Shallow Well	MW302		MW307		MW-307A		MW310		MW313		MW313A	
Screen midpoint (feet amsl)	508.24		510.82		473.69		515.73		505.35		475.15	
Deep Well	MW302A		MW307A		MW-307B		MW310A		MW313A		MW313B	
Screen midpoint (feet amsl)	475.84		473.69		456.15		486.23		475.15		466.64	
Measurement Date												
April 24-27, 2023	32.4	-0.002	37.1	0.031	17.5	0.000	29.5	-0.297	30.2	-0.003	8.5	0.012
July 31, 2023	32.4	-0.002	37.1	0.036	17.5	-0.083	29.5	-0.087	30.2	-0.004	8.5	0.007
August 1-3, 2023	32.4	-0.003	37.1	0.037	17.5	-0.070	29.5	-0.999	30.2	-0.003	8.5	0.001
October 2-5, 2023	32.4	-0.002	37.1	0.035	17.5	-0.084	29.5	-0.089	30.2	-0.004	8.5	0.008

Notes:

- 1: A positive vertical gradient indicates upward groundwater flow. A negative gradient indicates downward flow.
- 2: The screen midpoint for water table wells is calculated as the midpoint between the water table elevation and screen bottom elevation.

Created by: <u>RM</u>	Date: <u>12/20/2021</u>
Last revision by: <u>EMS</u>	Date: <u>12/8/2023</u>
Checked by: <u>RM</u>	Date: <u>12/21/2023</u>
Checked by PM: <u>TK</u>	Date: <u>1/16/2024</u>

**Table 5. Groundwater Analytical Results Summary - Assessment Monitoring
Burlington Generating Station, Burlington, IA / SCS Engineers Project #25222066.00**

Parameter Name	UPL Method	UPL	GPS	Background Well			Supplemental Background Well			Background Well			Supplemental Background Well		
				MW-310			MW-310A			MW-311			MW-314		
				10/20/2022	4/27/2023	8/3/2023	10/20/2022	4/27/2023	8/3/2023	10/20/2022	4/27/2023	8/3/2023	10/20/2022	4/27/2023	8/3/2023
				DRY	518.44	520.29	512.84	509.69	490.83	DRY	522.07	518.28	517.78	Flooded	518.28
Appendix III															
Boron, ug/L	NP	3,500		--	150	260	--	870	830	--	1200	1700	--	--	240
Calcium, mg/L	P	220		--	120	170	--	48	57	--	160	160	--	--	150
Chloride, mg/L	P	193		--	9.7	17	9.6	9.4	12	--	23	31	14	--	16
Fluoride, mg/L	P	0.650		--	0.39 J	<0.38	<0.22	0.57 J	<0.38	--	0.45 J	<0.38	<0.22	--	<0.38
Field pH, Std. Units	P	7.55		--	7.13	7.10	7.54	7.05	7.39	--	6.83	6.95	7.11	--	6.68
Sulfate, mg/L	P	288		--	340	340	82	100	110	--	290	240	85	--	110
Total Dissolved Solids, mg/L	P	1,160		--	580	730	530	530	610	--	750	720	560	--	640
Appendix IV															
		UPL	GPS												
Antimony, ug/L	P*	1.90	6	--	<1.0	<1.0	--	<1.0	<1.0	--	<1.0	<1.0	--	--	<1.0
Arsenic, ug/L**	P	79.8	79.8	--	32	47	--	1.2 J	0.91 J	--	4.7	5.3	--	--	3.7
Barium, ug/L	P	829	2,000	--	330	410	--	55	58	--	220	230	--	--	320
Beryllium, ug/L	NP*	0.270	4	--	<0.33	<0.33	--	<0.33	<0.33	--	<0.33	<0.33	--	--	<0.33
Cadmium, ug/L	NP*	0.0770	5	--	<0.10	<0.10	--	<0.10	<0.10	--	<0.10	<0.10	--	--	<0.10
Chromium, ug/L	P*	1.33	100	--	<1.1	<1.1	--	<1.1	<1.1	--	<1.1	<1.1	--	--	<1.1
Cobalt, ug/L	P	2.70	6	--	3.1	3.8	--	0.34 J	0.58	--	3.8	1.5	--	--	0.86
Fluoride, mg/L	P	0.650	4	--	0.39 J	<0.38	<0.22	0.57 J	<0.38	--	0.45 J	<0.38	<0.22	--	<0.38
Lead, ug/L	NP*	1.10	15	--	<0.24	<0.24	--	<0.24	0.35 J	--	<0.24	0.40 J	--	--	1.3
Lithium, ug/L	NP*	9.80	40	--	<2.5	<2.5	--	33	37	--	<2.5	<2.5	--	--	5.8 J
Mercury, ug/L	DQ	DQ	2	--	<0.14	<0.14	<0.11	<0.14	<0.14	--	<0.14	<0.14	<0.11	--	<0.14
Molybdenum, ug/L	NP	25.2	100	--	1.9 J	2.7	--	11	10	--	3.4	5.6	--	--	2.1
Selenium, ug/L	P*	1.00	50	--	<1.4	<1.4	--	<1.4	<1.4	--	<1.4	<1.4	--	--	1.9 J
Thallium, ug/L	NP*	0.500	2	--	<0.26	<0.26	--	<0.26	<0.26	--	<0.26	<0.26	--	--	<0.26
Radium 226/228 Combined, pCi/L	P	3.28	5	--	0.696	--	2.04	0.818	--	--	1.26	--	1.14	--	--
Additional Parameters for Selection of Remedy															
Lithium, dissolved, ug/L				--	--	--	34	--	--	--	--	--	3.6 J	--	--
Iron, dissolved, ug/L				--	--	--	<36	--	--	--	--	--	12,000	--	--
Iron, ug/L				--	--	31,000	290	--	140	--	--	15,000	11,000	--	34,000
Magnesium, ug/L				--	--	--	16,000	--	--	--	--	--	40,000	--	--
Manganese, dissolved, ug/L				--	--	--	22	--	--	--	--	--	5000	--	--
Manganese, ug/L				--	--	--	41	--	--	--	--	--	5500	--	--
Molybdenum, dissolved, ug/L				--	--	--	14	--	--	--	--	--	1.4 J	--	--
Potassium, ug/L				--	--	--	4,200	--	--	--	--	--	440 J	--	--
Sodium, ug/L				--	--	--	120,000	--	--	--	--	--	11,000	--	--
Bicarbonate Alkalinity, mg/L				--	--	--	420	--	--	--	--	--	450	--	--
Carbonate Alkalinity, mg/L				--	--	--	<4.6	--	--	--	--	--	<4.6	--	--
Total Alkalinity, mg/L				--	--	--	420	--	--	--	--	--	450	--	--

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

**Table 5. Groundwater Analytical Results Summary - Assessment Monitoring
Burlington Generating Station, Burlington, IA / SCS Engineers Project #25222066.00**

Parameter Name	UPL Method	UPL	GPS	Compliance Wells						Delineation Well		
				MW-301			MW-302			MW-302A		
				10/20/2022	4/26/2023	8/3/2023	10/20/2022	4/26/2023	8/1/2023	10/20/2022	4/26/2023	8/1/2023
				DRY	524.21	518.33	DRY	525.56	518.19	506.87	525.51	518.09
Appendix III												
Boron, ug/L	NP	3,500		--	5100	5600	--	5600	4600	1600	--	--
Calcium, mg/L	P	220		--	200	160	--	370	250	160	--	--
Chloride, mg/L	P	193		--	26	16	--	21	22	13	--	--
Fluoride, mg/L	P	0.650		--	<1.5	<0.38	--	<1.5	<0.38	<0.22	--	--
Field pH, Std. Units	P	7.55		--	6.83	6.87	--	6.11	6.31	7.09	7.52	7.78
Sulfate, mg/L	P	288		--	910	810	--	1300	750	170	--	--
Total Dissolved Solids, mg/L	P	1,160		--	1900	1600	--	1900	1100	630	--	--
Appendix IV		UPL	GPS									
Antimony, ug/L	P*	1.90	6	--	<4.0	<1.0 F1, F2	--	<1.0	<1.0	<0.69	--	--
Arsenic, ug/L**	P	79.8	79.8	--	2.1 J	9.8 F1, F2	--	3.1	15	2.3	--	--
Barium, ug/L	P	829	2,000	--	67	79 F1, F2	--	38	54	420	--	--
Beryllium, ug/L	NP*	0.270	4	--	<1.3	<0.33 F1, F2	--	1.1	<0.33	0.27	--	--
Cadmium, ug/L	NP*	0.0770	5	--	0.54 J	0.12 J, F1, F2	--	0.89	0.36	<0.055	--	--
Chromium, ug/L	P*	1.33	100	--	<4.4	<1.1 F1, F2	--	<1.1	<1.1	<1.1	--	--
Cobalt, ug/L	P	2.70	6	--	4.8	8.8 F1, F2	--	78	41	<0.19	--	--
Fluoride, mg/L	P	0.650	4	--	<1.5	<0.38	--	<1.5	<0.38	<0.22	--	--
Lead, ug/L	NP*	1.10	15	--	<0.96	0.51 F1, F2	--	0.37 J	0.77	<0.24	--	--
Lithium, ug/L	NP*	9.80	40	--	<10	11 F1, F2	--	66	51	13	<2.5	3.3 J
Mercury, ug/L	DQ	DQ	2	--	<0.14	<0.14	--	<0.14	<0.14	<0.11	--	--
Molybdenum, ug/L	NP	25.2	100	--	29	73 F2	--	26	58	36	3.4	7.4
Selenium, ug/L	P*	1.00	50	--	<5.6	<5.6 F1, F2	--	<5.6	2.3 J	<0.96	--	--
Thallium, ug/L	NP*	0.500	2	--	<1.0 F1	1.5 F1, F2	--	<1.0	<0.26	<0.26	--	--
Radium 226/228 Combined, pCi/L	P	3.28	5	--	0.0545	--	--	0.438	--	2.65	--	--
Additional Parameters for Selection of Remedy												
Lithium, dissolved, ug/L				--	--	--	--	--	--	14	--	--
Iron, dissolved, ug/L				--	--	--	--	--	--	11,000	--	--
Iron, ug/L				--	--	5,800	--	--	19,000	11,000	2,800	4,000
Magnesium, ug/L				--	--	--	--	--	--	33,000	--	--
Manganese, dissolved, ug/L				--	--	--	--	--	--	3,700	--	--
Manganese, ug/L				--	--	--	--	--	--	4,300	--	--
Molybdenum, dissolved, ug/L				--	--	--	--	--	--	36	--	--
Potassium, ug/L				--	--	--	--	--	--	6,900	--	--
Sodium, ug/L				--	--	--	--	--	--	14,000	--	--
Bicarbonate Alkalinity, mg/L				--	--	--	--	--	--	430	--	--
Carbonate Alkalinity, mg/L				--	--	--	--	--	--	<4.6	--	--
Total Alkalinity, mg/L				--	--	--	--	--	--	430	--	--

**Table 5. Groundwater Analytical Results Summary - Assessment Monitoring
Burlington Generating Station, Burlington, IA / SCS Engineers Project #25222066.00**

				Compliance Wells														
Parameter Name	UPL Method	UPL	GPS	MW-303			MW-304			MW-305			MW-306			MW-307		
				10/20/2023	4/26/2023	8/1/2023	10/20/2022	4/26/2023	8/1/2023	10/20/2022	4/26/2023	8/1/2023	10/20/2022	4/27/2023	8/2/2023	10/20/2022	4/24/2023	8/1/2023
				DRY	525.42	517.91	DRY	525.20	518.19	DRY	517.35	518.03	DRY	522.20	518.07	DRY	519.61	518.04
Appendix III																		
Boron, ug/L	NP	3,500		--	3200	2600	--	1400	7800	--	1,100	1,300	--	4100	5700	--	4800	3700
Calcium, mg/L	P	220		--	85	100	--	100	240	--	97	130	--	70	140	--	53	76
Chloride, mg/L	P	193		--	25	27	--	26	27	--	27	29	--	31	31	--	28	24
Fluoride, mg/L	P	0.650		--	<0.38	<0.38	--	<0.38	<0.38	--	<0.38	<0.38	--	<0.38	<0.38	--	<0.38	<0.38
Field pH, Std. Units	P	7.55		--	6.92	7.09	--	7.03	6.45	--	5.18	6.39	--	8.77	8.81	--	8.35	7.62
Sulfate, mg/L	P	288		--	180	150	--	220	850	--	450	370	--	50	270	--	100	330
Total Dissolved Solids, mg/L	P	1,160		--	430	430	--	470	1300	--	640	700	--	310	630	--	390	550
Appendix IV																		
		UPL	GPS															
Antimony, ug/L	P*	1.90	6	--	<1.0	<1.0	--	<1.0	<1.0	--	<1.0	<1.0	--	<1.0	<1.0	--	<1.0	<1.0
Arsenic, ug/L**	P	79.8	79.8	--	4	12	--	1.4 J	9.6	--	<0.53	2.0	--	36	32	--	8.8	8.2
Barium, ug/L	P	829	2,000	--	65	150	--	57	58	--	38	44	--	61	110	--	76	92
Beryllium, ug/L	NP*	0.270	4	--	<0.33	<0.33	--	<0.33	<0.33	--	<0.33	<0.33	--	<0.33	<0.33	--	<0.33	<0.33
Cadmium, ug/L	NP*	0.0770	5	--	<0.10	<0.10	--	<0.10	0.12 J	--	0.45	<0.10	--	<0.10	<0.10	--	0.12 J	0.24
Chromium, ug/L	P*	1.33	100	--	<1.1	<1.1	--	<1.1	<1.1	--	<1.1	<1.1	--	<1.1	<1.1	--	<1.1	<1.1
Cobalt, ug/L	P	2.70	6	--	1.3	1.4	--	1.3	81	--	290	9.2	--	0.42 J	0.31 J	--	0.31 J	0.92
Fluoride, mg/L	P	0.650	4	--	<0.38	<0.38	--	<0.38	<0.38	--	<0.38	<0.38	--	<0.38	<0.38	--	<0.38	<0.38
Lead, ug/L	NP*	1.10	15	--	<0.24	0.45 J	--	<0.24	0.45 J	--	<0.24	0.25 J	--	<0.24	1.5	--	<0.24	1.1
Lithium, ug/L	NP*	9.80	40	--	23	27	--	63	160	--	37	18	--	34	49	--	72	100
Mercury, ug/L	DQ	DQ	2	--	<0.14	<0.14	--	<0.14	<0.14	--	<0.14	<0.14	--	<0.14	<0.14	--	<0.14	<0.14 H
Molybdenum, ug/L	NP	25.2	100	--	94	150	--	190	100	--	1.5 J	1.3 J	--	12	71	--	320	280
Selenium, ug/L	P*	1.00	50	--	<1.4	<1.4	--	<1.4	<1.4	--	<1.4	<1.4	--	<1.4	<1.4	--	<1.4	<1.4
Thallium, ug/L	NP*	0.500	2	--	<0.26	<0.26	--	<0.26	<0.26	--	<0.26	<0.26	--	<0.26	<0.26	--	<0.26	<0.26
Radium 226/228 Combined, pCi/L	P	3.28	5	--	0.53	--	--	0.689	--	--	0.449	--	--	0.735	--	--	0.258	--
Additional Parameters for Selection of Remedy																		
Lithium, dissolved, ug/L	UPL or GPS not applicable			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron, dissolved, ug/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron, ug/L				--	--	8,100	--	--	63,000	--	--	24,000	--	--	340	--	--	640
Magnesium, ug/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese, dissolved, ug/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese, ug/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Molybdenum, dissolved, ug/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium, ug/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, ug/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bicarbonate Alkalinity, mg/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity, mg/L				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Alkalinity, mg/L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

**Table 5. Groundwater Analytical Results Summary - Assessment Monitoring
Burlington Generating Station, Burlington, IA / SCS Engineers Project #25222066.00**

Parameter Name	UPL Method	UPL	GPS	Delineation Wells						Compliance Wells							
				MW-307A			MW-307B			MW-308			MW-309				
				10/20/2022	4/24/2023	8/1/2023	10/20/2022	4/24/2023	8/2/2023	10/20/2022	4/24/2023	8/1/2023	10/20/2022	4/27/2023	8/2/2023		
				508.27	520.77	519.42	508.35	520.77	518.20	DRY	521.08	518.22	DRY	523.02	518.22		
Appendix III																	
Boron, ug/L	NP	3,500		4100	--	--	1400	--	--	--	5700	6800	--	12000	14000		
Calcium, mg/L	P	220		27	--	--	59	--	--	--	61	140	--	82	94		
Chloride, mg/L	P	193		47	--	--	11	--	--	--	26	37	--	39	28		
Fluoride, mg/L	P	0.650		<0.22	--	--	<0.22	--	--	--	<0.38	<0.38	--	0.43 J	<0.38		
Field pH, Std. Units	P	7.55		7.69	7.63	7.78	7.1	7.49	7.62	--	7.49	7.33	--	6.93	7.06		
Sulfate, mg/L	P	288		190	--	--	68	--	--	--	240	570	--	210	140		
Total Dissolved Solids, mg/L	P	1,160		470	--	--	260	--	--	--	650	1000	--	550	530		
Appendix IV																	
Antimony, ug/L	P*	1.90	6	<0.69	--	--	<0.69	--	--	--	<1.0	<1.0	--	<1.0	<1.0		
Arsenic, ug/L**	P	79.8	79.8	<0.75	--	--	1.4 J	--	--	--	1.9 J	5.7	--	21	22		
Barium, ug/L	P	829	2,000	110	--	--	310	--	--	--	87	150	--	220	190		
Beryllium, ug/L	NP*	0.270	4	<0.27	--	--	<0.27	--	--	--	<0.33	<0.33	--	<0.33	<0.33		
Cadmium, ug/L	NP*	0.0770	5	<0.055	--	--	0.055 J	--	--	--	0.15 J	0.12 J	--	<0.10	<0.10		
Chromium, ug/L	P*	1.33	100	<1.1	--	--	<1.1	--	--	--	<1.1	<1.1	--	<1.1	<1.1		
Cobalt, ug/L	P	2.70	6	<0.19	--	--	<0.19	--	--	--	0.18 J	4.1	--	1.3	0.61		
Fluoride, mg/L	P	0.650	4	<0.22	--	--	<0.22	--	--	--	<0.38	<0.38	--	0 J	<0.38		
Lead, ug/L	NP*	1.10	15	<0.24	--	--	<0.24	--	--	--	<0.24	0.27 J	--	0.41 J	<0.24		
Lithium, ug/L	NP*	9.80	40	12	7 J	6.2 J	6.1 J	6.8 J	4.7 J	--	73	180	--	4.9 J	3.5 J		
Mercury, ug/L	DQ	DQ	2	<0.11	--	--	<0.11	--	--	--	<0.14	<0.14	--	<0.14	<0.14		
Molybdenum, ug/L	NP	25.2	100	120	4.3	5.4	32	7.5	4.6	--	480	220	--	69	84		
Selenium, ug/L	P*	1.00	50	<0.96	--	--	<0.96	--	--	--	<1.4	<1.4	--	<1.4	<1.4		
Thallium, ug/L	NP*	0.500	2	<0.26	--	--	<0.26	--	--	--	<0.26	<0.26	--	<0.26	<0.26		
Radium 226/228 Combined, pCi/L	P	3.28	5	1.15	--	--	1.43	--	--	--	1.14	--	--	1.13	--		
Additional Parameters for Selection of Remedy																	
Lithium, dissolved, ug/L	UPL or GPS not applicable			11.0	--	--	6.7 J	--	--	--	--	--	--	--	--		
Iron, dissolved, ug/L				1000	--	--	1,500	--	--	--	--	--	--	--	--	--	--
Iron, ug/L				1200	1100	1,900	3,000	1,400	1,700	--	--	--	5,800	--	--	--	22,000
Magnesium, ug/L				4,300	--	--	14,000	--	--	--	--	--	--	--	--	--	--
Manganese, dissolved, ug/L				870	--	--	370	--	--	--	--	--	--	--	--	--	--
Manganese, ug/L				940	--	--	360	--	--	--	--	--	--	--	--	--	--
Molybdenum, dissolved, ug/L				120	--	--	35.0	--	--	--	--	--	--	--	--	--	--
Potassium, ug/L				4,200	--	--	1,600	--	--	--	--	--	--	--	--	--	--
Sodium, ug/L				130,000	--	--	19,000	--	--	--	--	--	--	--	--	--	--
Bicarbonate Alkalinity, mg/L				170	--	--	190	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity, mg/L				<0.46	--	--	<4.6	--	--	--	--	--	--	--	--	--	--
Total Alkalinity, mg/L				170	--	--	190	--	--	--	--	--	--	--	--	--	--

**Table 5. Groundwater Analytical Results Summary - Assessment Monitoring
Burlington Generating Station, Burlington, IA / SCS Engineers Project #25222066.00**

Parameter Name	UPL Method	UPL	GPS	Delineation Wells											
				MW-312			MW-313			MW-313A			MW-313B		
				10/20/2022	4/26/2023	8/1/2023	10/20/2022	4/25/2023	8/1/2023	10/20/2022	4/25/2023	8/2/2023	10/20/2022	4/25/2023	8/2/2023
				DRY	524.68	517.93	512.08	524.37	518.09	511.86	524.29	518.00	511.91	524.39	518.01
Appendix III															
Boron, ug/L	NP	3,500		--	--	--	--	--	--	--	--	--	--	--	--
Calcium, mg/L	P	220		--	--	--	--	--	--	--	--	--	--	--	--
Chloride, mg/L	P	193		--	--	--	26	--	--	57	--	--	85	--	--
Fluoride, mg/L	P	0.650		--	--	--	<0.22	--	--	<0.22	--	--	<0.22	--	--
Field pH, Std. Units	P	7.55		--	6.86	6.95	7.65	7.2	7.10	7.72	7.59	7.69	7.51	7.41	7.47
Sulfate, mg/L	P	288		--	--	--	23	--	--	52	--	--	150	--	--
Total Dissolved Solids, mg/L	P	1,160		--	--	--	320	--	--	310	--	--	490	--	--
Appendix IV		UPL	GPS												
Antimony, ug/L	P*	1.90	6	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, ug/L**	P	79.8	79.8	--	--	--	--	--	--	--	--	--	--	--	--
Barium, ug/L	P	829	2,000	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium, ug/L	NP*	0.270	4	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, ug/L	NP*	0.0770	5	--	--	--	--	--	--	--	--	--	--	--	--
Chromium, ug/L	P*	1.33	100	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt, ug/L	P	2.70	6	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride, mg/L	P	0.650	4	--	--	--	<0.22	--	--	<0.22	--	--	<0.22	--	--
Lead, ug/L	NP*	1.10	15	--	--	--	--	--	--	--	--	--	--	--	--
Lithium, ug/L	NP*	9.80	40	--	11	18	--	9.9 J	12	--	<2.5	4.1 J	--	4.9 J	5.1 J
Mercury, ug/L	DQ	DQ	2	--	--	--	<0.11	--	--	<0.11	--	--	<0.11	--	--
Molybdenum, ug/L	NP	25.2	100	--	28	37	--	18	44	--	2.8	4.6	--	14	9.3
Selenium, ug/L	P*	1.00	50	--	--	--	--	--	--	--	--	--	--	--	--
Thallium, ug/L	NP*	0.500	2	--	--	--	--	--	--	--	--	--	--	--	--
Radium 226/228 Combined, pCi/L	P	3.28	5	--	--	--	1.11	--	--	0.586	--	--	1.45	--	--
Additional Parameters for Selection of Remedy															
Lithium, dissolved, ug/L				--	--	--	32	--	--	7.3 J	--	--	14.0	--	--
Iron, dissolved, ug/L				--	--	--	3,600	--	--	610	--	--	750	--	--
Iron, ug/L				--	3,900	24,000	16,000	6600	19000	910	2000	2300	1,300	3,400	2800
Magnesium, ug/L				--	--	--	6,000	10000	17000	1,400	--	--	4,800	--	--
Manganese, dissolved, ug/L				--	--	--	2,000	--	--	250	--	--	350	--	--
Manganese, ug/L				--	--	--	2,700	3200	6200	290	--	--	410	--	--
Molybdenum, dissolved, ug/L				--	--	--	47	--	--	63	--	--	100.0	--	--
Potassium, ug/L				--	--	--	15,000	--	--	7,200	--	--	9,100	--	--
Sodium, ug/L				--	--	--	47,000	--	--	96,000	--	--	100,000	--	--
Bicarbonate Alkalinity, mg/L				--	--	--	170	160	230	170	--	--	160	--	--
Carbonate Alkalinity, mg/L				--	--	--	<4.6	<2.5	<2.5	<4.6	--	--	<4.6	--	--
Total Alkalinity, mg/L				--	--	--	170	160	230	170	--	--	160	--	--

**Table 5. Groundwater Analytical Results Summary - Assessment Monitoring
Burlington Generating Station, Burlington, IA / SCS Engineers Project #25222066.00**

Abbreviations:

UPL = Upper Prediction Limit
 NA = Not Analyzed
 mg/L = milligrams per liter
 -- = parameter not analyzed

GPS = Groundwater Protection Standard
 DQ = Double Quantification Rule (not detected in background)
 NP = Nonparametric UPL (highest background value) with 1-of-2- retesting

LOD = Limit of Detection
 LOQ = Limit of Quantification
 P = Parametric UPL with 1-of-2 retesting

Lab Qualifiers:

J = Estimated concentration at or above the LOD and below the LOQ.
 F1 = MS and/or MSD recovery exceeds control limits.
 F2 = MS/MSD RPD exceeds control limits.
 H = Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

* = UPL is below the LOQ for background sampling. For compliance wells, only results confirmed above the LOQ are evaluated as potential SSIs above background.
 ** = UPL for arsenic is greater than the MCL and will be used as the GPS.

Notes:

1. An individual result above the UPL or GPS does not constitute a statistically significant increase (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 (US EPA) Maximum Contamination Level (MCL), if established, or the value from 40 CFR 257.95(h)(2), or the background UPL if it is higher.
3. Interwell UPLs calculated based on results from background wells MW-310 and MW-311.

Created by: <u>NDK</u>	Date: <u>9/19/2022</u>
Last revision by: <u>RM</u>	Date: <u>12/21/2023</u>
Checked by: <u>NLB</u>	Date: <u>12/21/2023</u>
Scientist or Proj Mgr QA/QC: <u>TK</u>	Date: <u>1/16/2024</u>

Table 6. Groundwater Field Data Summary
Burlington Generating Station / SCS Engineers Project #25223066.00

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	10/20/2022	--	--	--	--	--	--	--
	4/26/2023	524.21	11.7	6.83	0.20	2,584	49	9.39
	8/3/2023	518.33	12.2	6.87	0.14	2,261	-41	34.7
MW-302	10/20/2022	--	--	--	--	--	--	--
	4/26/2023	525.56	12.4	6.11	0.10	2,283	21	7.19
	8/1/2023	518.19	11.0	6.31	0.04	1,535	5	18.6
MW-302A	10/20/2022	506.87	16.7	7.09	0.00	1,090	-115	5.00
	4/26/2023	525.51	7.9	7.52	0.37	467	-98	0.02
	8/1/2023	518.09	8.3	7.78	0.29	458	-151	4.13
MW-303	10/20/2022	--	--	--	--	--	--	--
	4/26/2023	525.42	12.6	6.92	0.13	757	25	0.02
	8/1/2023	517.91	11.5	7.09	0.03	762	-100	11.6
MW-304	10/20/2022	--	--	--	--	--	--	--
	4/26/2023	525.20	11.3	7.03	0.09	855	-72	10.6
	8/1/2023	518.19	12.4	6.45	0.05	1,602	-72	15.7
MW-305	10/20/2022	--	--	--	--	--	--	--
	4/26/2023	517.35	11.4	5.18	0.14	977	91	0.02
	8/1/2023	518.03	10.9	6.39	0.02	1,081	-21	3.63
MW-306	10/20/2022	--	--	--	--	--	--	--
	4/27/2023	522.20	12.5	8.77	0.11	577	48	0.02
	8/2/2023	518.07	12.9	8.81	0.19	937	-129	15.5
MW-307	10/20/2022	--	--	--	--	--	--	--
	4/24/2023	519.61	13.7	8.35	0.13	635	111	3.93
	8/1/2023	518.04	12.6	7.62	0.05	872	-112	15.1
MW-307A	10/20/2022	508.27	15.5	7.69	0.00	791	-131	0.30
	4/24/2023	520.77	7.7	7.63	0.12	477	-117	0.02
	8/1/2023	519.42	7.6	7.78	0.04	488	-154	4.61
MW-307B	10/20/2022	508.35	14.1	7.1	0.00	492	-34	17.0
	4/24/2023	520.77	13.4	7.49	2.08	435	-48	1.08
	8/2/2023	518.20	10.3	7.62	0.29	435	-130	8.79

Table 6. Groundwater Field Data Summary
Burlington Generating Station / SCS Engineers Project #25223066.00

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-308	10/20/2022	--	--	--	--	--	--	--	
	4/24/2023	521.08	14.2	7.49	0.10	994	123	10.8	
	8/1/2023	518.22	13.2	7.33	0.44	1,483	-122	0.98	
MW-309	10/20/2022	--	--	--	--	--	--	--	
	4/27/2023	523.02	13.0	6.93	0.07	1,004	-117	55.8	
	8/2/2023	518.22	13.7	7.06	0.00	890	-155	21.4	
MW-310	10/20/2022	--	--	--	--	--	--	--	
	4/27/2023	518.44	10.6	7.13	0.23	999	-146	11.8	
	8/3/2023	520.29	15.7	7.10	0.03	1,168	-175	7.38	
MW-310A	10/20/2022	512.84	18.9	7.54	0.01	874	21	2.00	
	4/27/2023	509.69	12.6	7.05	7.56	1,010	-22	--	
	8/3/2023	490.83	--	7.39	--	1,100	--	--	
MW-311	10/20/2022	--	--	--	--	--	--	--	
	4/27/2023	522.07	10.9	6.83	0.10	1,225	-82	2.75	
	8/3/2023	518.28	12.3	6.95	0.07	1,163	-130	6.88	
MW-312	10/20/2022	--	--	--	--	--	--	--	
	4/26/2023	524.68	6.9	6.86	1.27	853	-30	9.97	
	8/1/2023	517.93	10.8	6.95	1.81	1,030	-109	36.5	
MW-313	10/20/2022	512.08	19.6	7.65	0.00	477	-181	185	
	4/25/2023	524.37	7.1	7.20	0.13	643	-96	1.91	
	8/1/2023	518.09	9.4	7.10	-0.02	817	-152	45.1	
MW-313A	10/20/2022	511.86	17.1	7.72	0.00	621	-105	10.0	
	4/25/2023	524.29	5.5	7.59	0.16	437	-109	0.02	
	8/2/2023	518.00	7.3	7.69	0.27	457	-174	0.81	
MW-313B	10/20/2022	511.91	18.0	7.51	0.00	804	-105	4.00	
	4/25/2023	524.39	9.7	7.41	1.33	572	-66	13.7	
	8/2/2023	518.01	8.4	7.47	1.06	512	-146	1.76	
MW-314	10/20/2022	517.58	13.3	7.11	0.00	930	-120	5.00	
	4/24/2023	Flooded, unable to sample							
	8/3/2023	518.28	12.3	6.68	0.30	1,149	-111	38.4	

Notes:

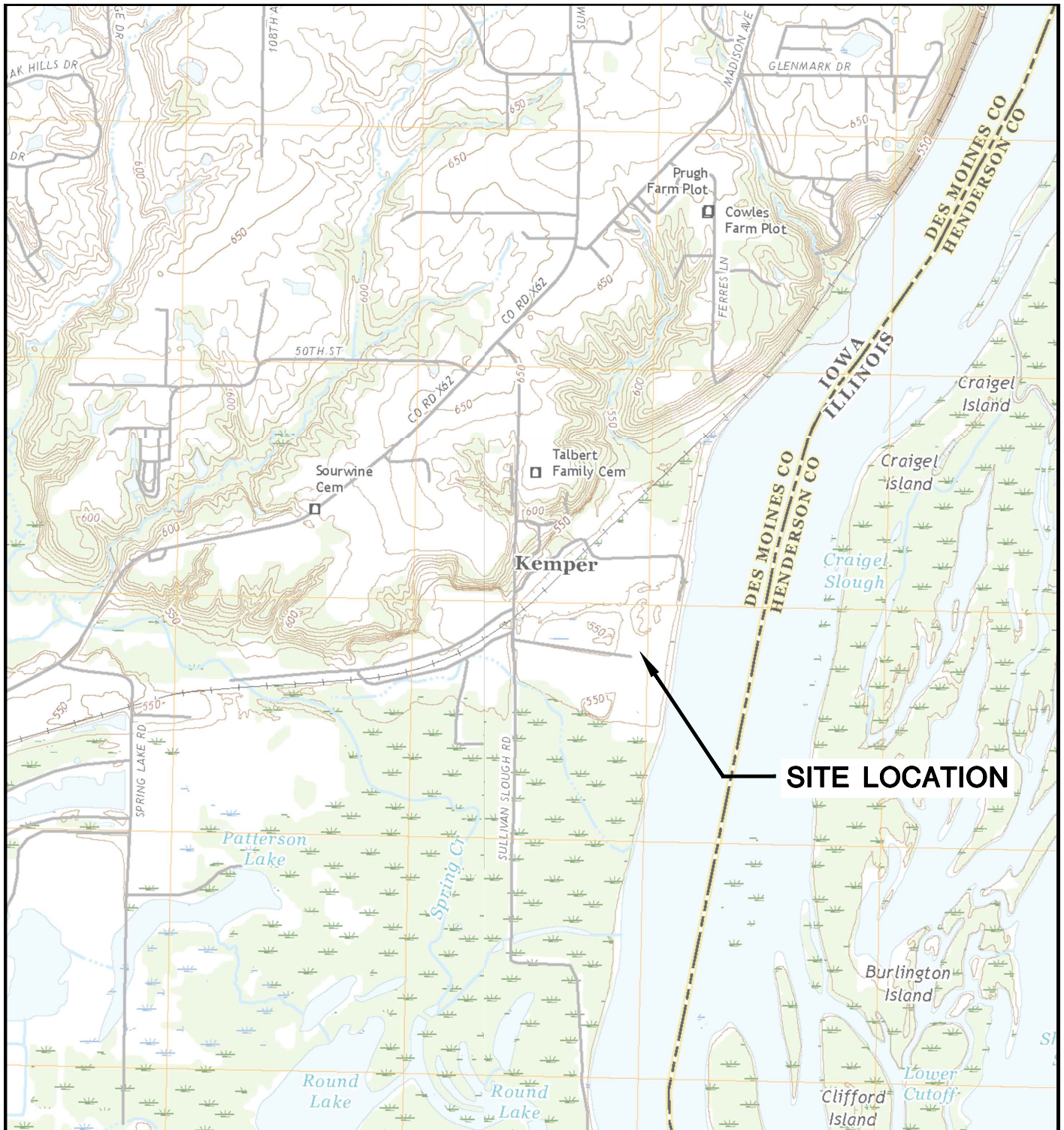
-- = Not sampled or unable to sample

Created by: RM
 Last revision by: EMS
 Checked by: RM

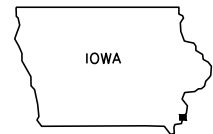
Date: 9/1/2022
 Date: 12/8/2023
 Date: 12/21/2023

Figures

- 1 Site Location Map
- 2 Site Plan and Monitoring Well Locations
- 3 Shallow Potentiometric Surface Map – April 24-27, 2023
- 4 Shallow Potentiometric Surface Map – July 31, 2023
- 5 Shallow Potentiometric Surface Map – October 2-5, 2023
- 6 Deep Potentiometric Surface Map – April 24-27, 2023
- 7 Deep Potentiometric Surface Map – July 31, 2023
- 8 Deep Potentiometric Surface Map – October 2-5, 2023



LOMAX QUADRANGLE
 ILLINOIS / IOWA-DES MOINES 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 BURLINGTON GENERATING STATION BURLINGTON, IOWA		ENGINEER	SCS ENGINEERS 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830		FIGURE
	PROJECT NO.	25219066.00		DRAWN BY:	BSS		1		
	DRAWN:	11/14/2019		CHECKED BY:	MDB				
REVISED:	01/14/2020	APPROVED BY:	TK 01/30/2020						

I:\25219066.00\Drawings\CCR 2019 Annual Report\Site Location Map.dwg, 1/30/2020 3:35:22 PM



LEGEND

- EXISTING CCR RULE MONITORING WELL
- CCR RULE PIEZOMETER
- CCR UNITS

NOTES:

1. MONITORING WELLS MW-303 THROUGH MW-308 WERE INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF CASCADE ENGINEERS ON DECEMBER 15-17, 2015.
2. MONITORING WELLS MW-301, MW-302, AND MW-309 THROUGH MW-311 WERE INSTALLED BY DIRECT PUSH ANALYTICAL SERVICES CORP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM FEBRUARY 29, 2016 TO MARCH 1, 2016.
3. MONITORING WELLS MW-312 AND MW-313 WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN MAY 2019.
4. PIEZOMETERS MW-302A, MW-307A, MW-310A, AND MW-311A WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN JUNE-JULY 2020.
5. PIEZOMETERS MW-307B AND MW-313B INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM AMY 10-12, 2021.
6. MONITORING WELL MW-314 INSTALLED BY TERRACON CONSULTANTS, INC. UNDER THE SUPERVISION OF SCS ENGINEERS ON FEBRUARY 25, 2022.
7. 2017 AERIAL PHOTOGRAPH SOURCES: GOOGLE EARTH DATED SEPTEMBER 14, 2017.

N



SCALE: 1" = 700'

PROJECT NO.	25221060.00	DRAWN BY:	BSS/KRG/BWM
DRAWN:	09/14/2020	CHECKED BY:	MDB
REVISED:	12/13/2022	APPROVED BY:	TK 1/22/2023

ENGINEER

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

CLIENT

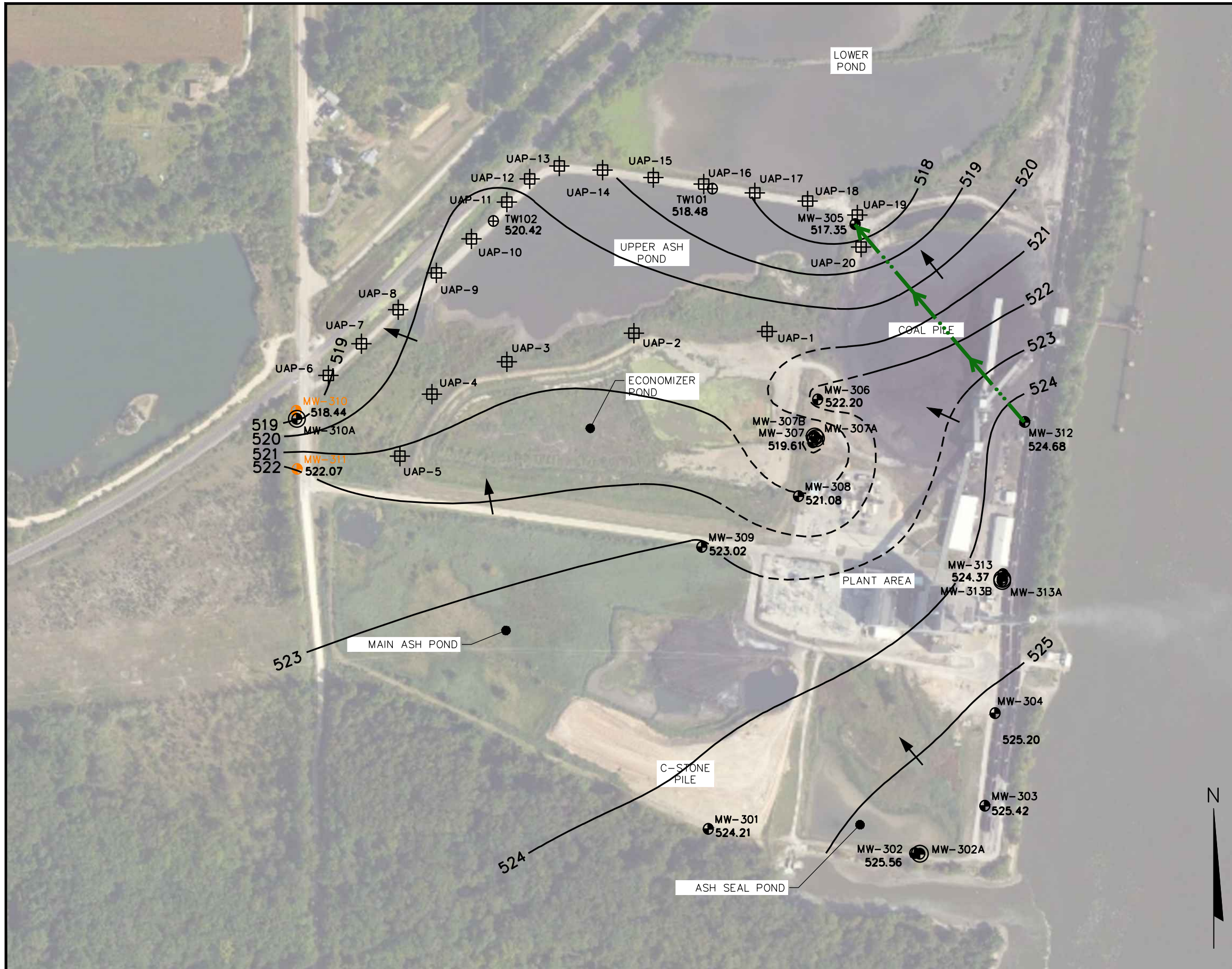
ALLIANT ENERGY
 4902 N. BILTMORE LANE, #1000
 MADISON, WI 53718

SITE

ALLIANT ENERGY
 BURLINGTON GENERATING STATION
 BURLINGTON, IOWA

SITE PLAN AND MONITORING
 WELL LOCATIONS

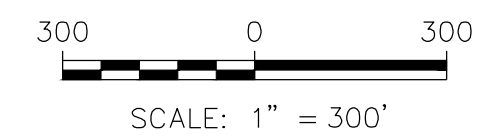
FIGURE
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LEGEND

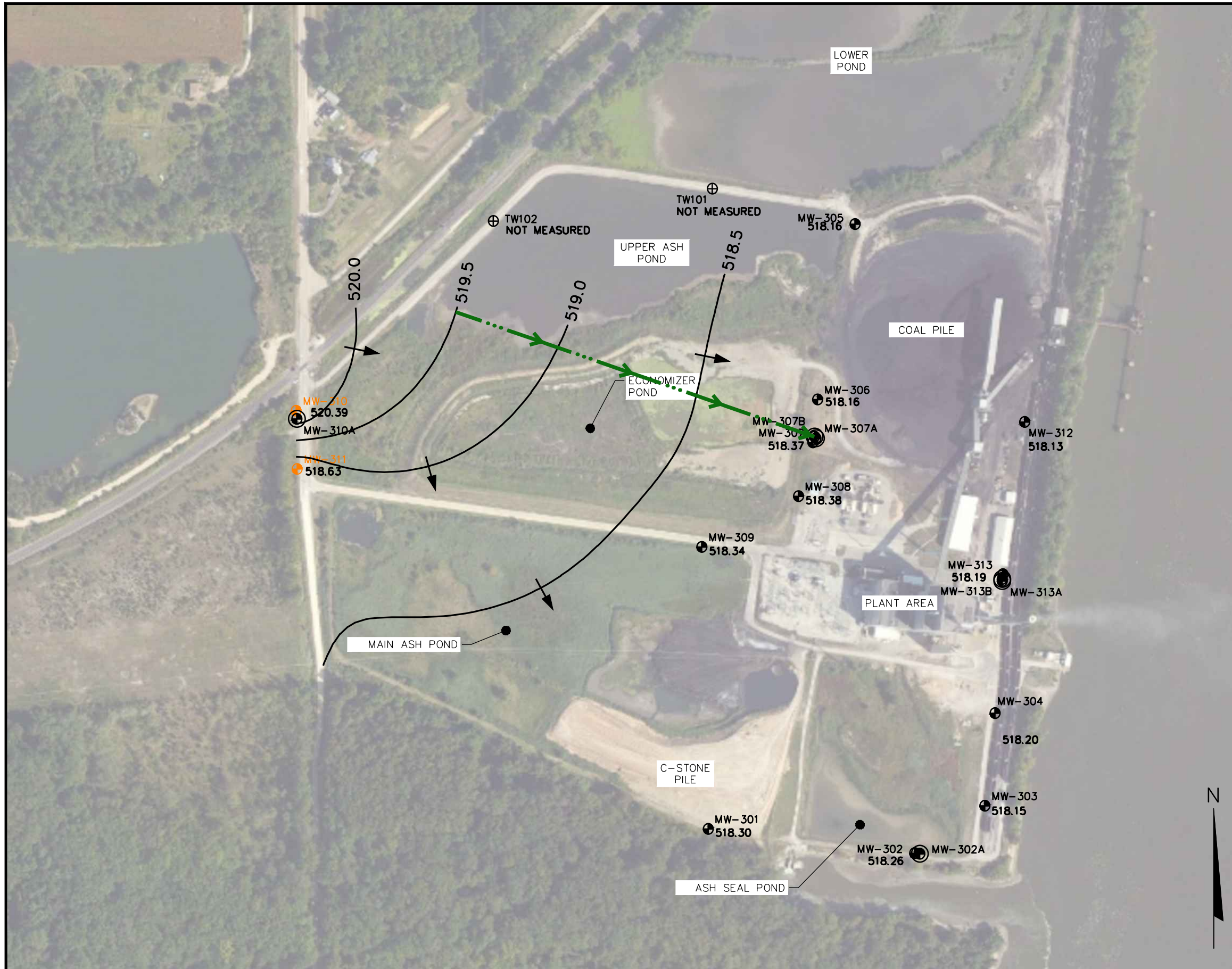
- MONITORING WELL
- DEEP PIEZOMETER
- CCR BACKGROUND MONITORING WELL
- TEMPORARY MONITORING WELL
- DEWATERING WELL
- 522.11** WATER LEVEL MEASURED APRIL 24-27, 2023
- POTENTIOMETRIC SURFACE ELEVATION CONTOUR (DASHED WHERE INFERRED)
- FLOW PATH FOR VELOCITY CALCULATION (SEE TABLE 4A)
- APPROXIMATE FLOW DIRECTION

- NOTES:**
- MONITORING WELLS MW-303 THROUGH MW-308 WERE INSTALLED BY CASCADE DRILLING, LLP, UNDER THE SUPERVISION OF SCS ENGINEERS ON DECEMBER 15-17, 2015.
 - MONITORING WELLS MW301, MW302, AND MW309-MW311 WERE INSTALLED BY DIRECT PUSH ANALYTICAL SERVICES CORP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM FEBRUARY 29, 2016 TO MARCH 1, 2016.
 - MONITORING WELLS MW-301 THROUGH MW-311 WERE SURVEYED BY FRENCH-RENEKER ASSOCIATES OF FRANKLIN, IA ON MARCH 16, 2016.
 - MONITORING WELLS MW-312 AND MW-313 WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN MAY 2019.
 - PIEZOMETERS MW-302A, MW-307A, MW-310A, AND MW-313A WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN JUNE-JULY 2020.
 - PIEZOMETERS MW-307B AND MW-313B WERE INSTALLED BY CASCADE DRILLING IN MAY 2021.
 - GROUNDWATER ELEVATION ESTIMATED BASED ON MONITORING WELLS SCREENED BELOW THE POTENTIOMETRIC SURFACE IN THE SAND UNIT.
 - MW-314 IS LOCATED APPROXIMATELY 4,000 FEET SOUTH OF THE PLANT AND IS NOT SHOWN ON THE MAP.
 - BACKGROUND MONITORING WELLS FOR THE BURLINGTON GENERATING STATION ARE: MW-310 AND MW-311.
 - POND CLOSURE CONSTRUCTION DEWATERING ACTIVITIES WERE ONGOING AT THE SITE DURING APRIL 2023 WHERE DEWATERING WELLS UAP-1 THROUGH UAP-20 WERE ACTIVELY DEWATERING OR INTERMITTENTLY DEWATERING DURING THE APRIL 2023 EVENT. IN ADDITION, THE MISSISSIPPI RIVER STAGE WAS RELATIVELY HIGHER OVER THE COURSE OF THE APRIL 2023 EVENT, SO THE GROUNDWATER GRADIENT IS REVERSED FROM TYPICAL OBSERVATIONS. DASHED LINES ARE USED TO INDICATE WHERE GROUNDWATER ELEVATION CONDITIONS ARE APPROXIMATE DUE TO TRANSIENT WATER TABLE CONDITIONS DURING THE APRIL 2023 GROUNDWATER EVENT.



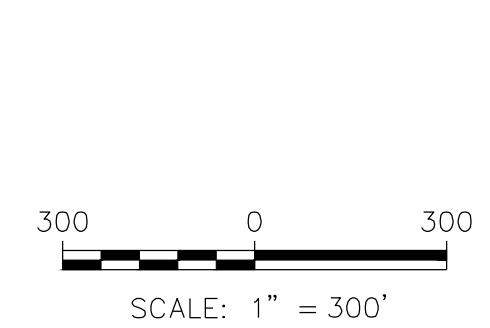
PROJECT NO. 25223066.00	DRAWN BY: KP	 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830	CLIENT	ALLIANT ENERGY	SITE	ALLIANT ENERGY	SHALLOW POTENTIOMETRIC SURFACE MAP	FIGURE
DRAWN: 06/15/2023	CHECKED BY: NLB			4902 N. BILTMORE LANE, #1000		BURLINGTON GENERATING STATION		
REVISED: 01/09/2024	APPROVED BY: TK, 1/30/2024			MADISON, WI 53718		BURLINGTON, IOWA		

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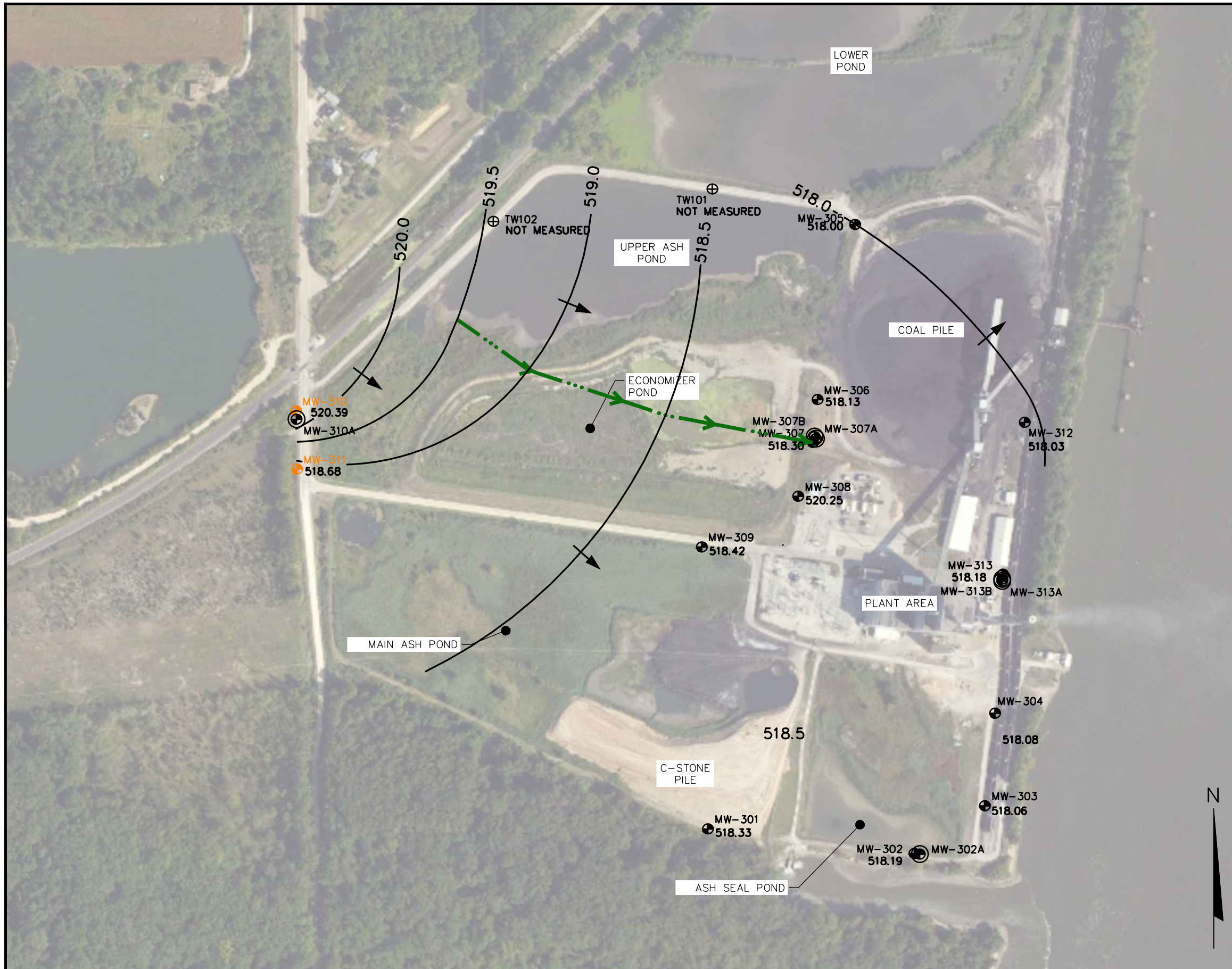
LEGEND	
	MONITORING WELL
	DEEP PIEZOMETER
	CCR BACKGROUND MONITORING WELL
	TEMPORARY MONITORING WELL
522.11	WATER LEVEL MEASURED JULY 31, 2023
	POTENTIOMETRIC SURFACE ELEVATION CONTOUR (DASHED WHERE INFERRED)
	FLOW PATH FOR VELOCITY CALCULATION (SEE TABLE 4A)
	APPROXIMATE FLOW DIRECTION

- NOTES:
1. MONITORING WELLS MW-303 THROUGH MW-308 WERE INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS ON DECEMBER 15-17, 2015.
 2. MONITORING WELLS MW301, MW302, AND MW309-MW311 WERE INSTALLED BY DIRECT PUSH ANALYTICAL SERVICES CORP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM FEBRUARY 29, 2016 TO MARCH 1, 2016.
 3. MONITORING WELLS MW-301 THROUGH MW-311 WERE SURVEYED BY FRENCH-RENEKER ASSOCIATES OF FRANKLIN, IA ON MARCH 16, 2016.
 4. MONITORING WELLS MW-312 AND MW-313 WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN MAY 2019.
 5. PIEZOMETERS MW-302A, MW-307A, MW-310A, AND MW-313A WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN JUNE-JULY 2020.
 6. PIEZOMETERS MW-307B AND MW-313B WERE INSTALLED BY CASCADE DRILLING IN MAY 2021.
 7. GROUNDWATER ELEVATION ESTIMATED BASED ON MONITORING WELLS SCREENED BELOW THE POTENTIOMETRIC SURFACE IN THE SAND UNIT.
 8. MW-314 IS LOCATED APPROXIMATELY 4,000 FEET SOUTH OF THE PLANT AND IS NOT SHOWN ON THE MAP.
 9. BACKGROUND MONITORING WELLS FOR THE BURLINGTON GENERATING STATION ARE: MW-310 AND MW-311.



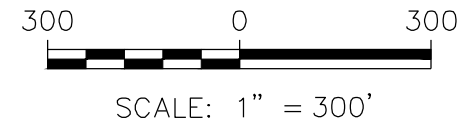
PROJECT NO. 25223066.00	DRAWN BY: KP	 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830	CLIENT	ALLIANT ENERGY 4902 N. BILTMORE LANE, #1000 MADISON, WI 53718	SITE ALLIANT ENERGY BURLINGTON GENERATING STATION BURLINGTON, IOWA	SHALLOW POTENTIOMETRIC SURFACE MAP JULY 31, 2023	FIGURE
DRAWN: 08/03/2023	CHECKED BY: NLB						4
REVISED: 01/09/2024	APPROVED BY: TK, 1/30/2024						

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LEGEND	
	MONITORING WELL
	DEEP PIEZOMETER
	CCR BACKGROUND MONITORING WELL
	TEMPORARY MONITORING WELL
522.11	WATER LEVEL MEASURED OCTOBER 2-5, 2023
	POTENTIOMETRIC SURFACE ELEVATION CONTOUR (DASHED WHERE INFERRED)
	FLOW PATH FOR VELOCITY CALCULATION (SEE TABLE 4A)
	APPROXIMATE FLOW DIRECTION

- NOTES:
- MONITORING WELLS MW-303 THROUGH MW-308 WERE INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS ON DECEMBER 15-17, 2015.
 - MONITORING WELLS MW301, MW302, AND MW309-MW311 WERE INSTALLED BY DIRECT PUSH ANALYTICAL SERVICES CORP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM FEBRUARY 29, 2016 TO MARCH 1, 2016.
 - MONITORING WELLS MW-301 THROUGH MW-311 WERE SURVEYED BY FRENCH-RENEKER ASSOCIATES OF FRANKLIN, IA ON MARCH 16, 2016.
 - MONITORING WELLS MW-312 AND MW-313 WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN MAY 2019.
 - PIEZOMETERS MW-302A, MW-307A, MW-310A, AND MW-313A WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN JUNE-JULY 2020.
 - PIEZOMETERS MW-307B AND MW-313B WERE INSTALLED BY CASCADE DRILLING IN MAY 2021.
 - GROUNDWATER ELEVATION ESTIMATED BASED ON MONITORING WELLS SCREENED BELOW THE POTENTIOMETRIC SURFACE IN THE SAND UNIT.
 - MW-314 IS LOCATED APPROXIMATELY 4,000 FEET SOUTH OF THE PLANT AND IS NOT SHOWN ON THE MAP.
 - BACKGROUND MONITORING WELLS FOR THE BURLINGTON GENERATING STATION ARE: MW-310 AND MW-311.
 - ELEVATION DATA FOR MW-308 ARE NOT USED FOR THE POTENTIOMETRIC SURFACE INTERPRETATION DUE TO ANOMALOUS OR INCORRECT READING DURING THE OCTOBER 2023 EVENT.



PROJECT NO. 25223066.00	DRAWN BY: KP	 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 BURLINGTON GENERATING STATION BURLINGTON, IOWA	SHALLOW POTENTIOMETRIC SURFACE MAP OCTOBER 2-5, 2023	FIGURE
DRAWN: 12/06/2023	CHECKED BY: NLB					5
REVISED: 01/09/2024	APPROVED BY: TK, 1/30/2024					

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LEGEND

- MONITORING WELL
- DEEP PIEZOMETER
- CCR BACKGROUND MONITORING WELL
- TEMPORARY MONITORING WELL
- DEWATERING WELL
- 522.11** WATER LEVEL MEASURED APRIL 24-27, 2023
- (521.83)** WATER LEVEL MEASURED APRIL 24-27, 2023, NOT USED FOR CONTOURING
- POTENTIOMETRIC SURFACE ELEVATION CONTOUR (DASHED WHERE INFERRED)
- FLOW PATH FOR VELOCITY CALCULATION (SEE TABLE 4A)
- APPROXIMATE FLOW DIRECTION

NOTES:

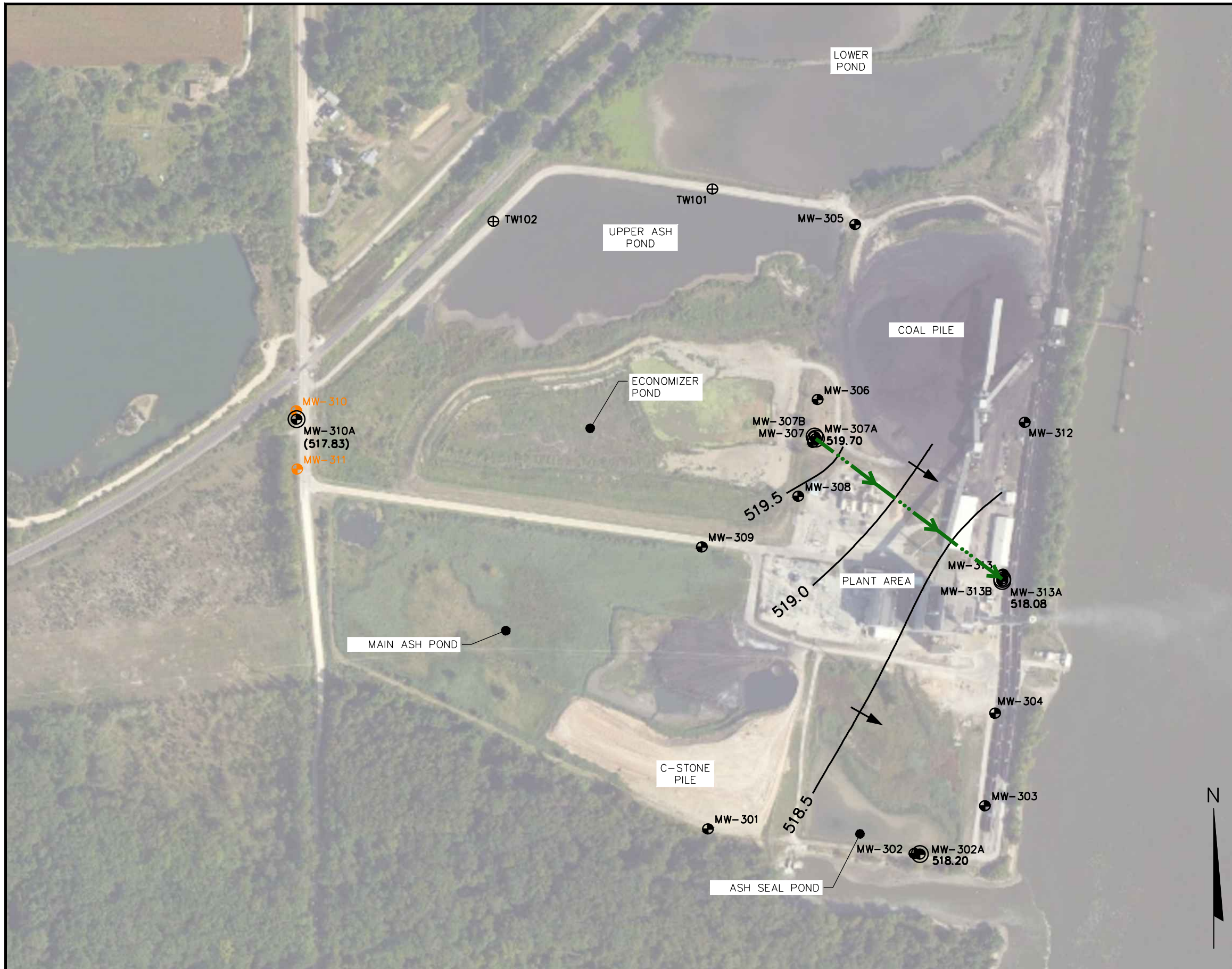
- MONITORING WELLS MW-303 THROUGH MW-308 WERE INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS ON DECEMBER 15-17, 2015.
- MONITORING WELLS MW301, MW302, AND MW309-MW311 WERE INSTALLED BY DIRECT PUSH ANALYTICAL SERVICES CORP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM FEBRUARY 29, 2016 TO MARCH 1, 2016.
- MONITORING WELLS MW-301 THROUGH MW-311 WERE SURVEYED BY FRENCH-RENEKER ASSOCIATES OF FRANKLIN, IA ON MARCH 16, 2016.
- MONITORING WELLS MW-312 AND MW-313 WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN MAY 2019.
- PIEZOMETERS MW-302A, MW-307A, MW-310A, AND MW-313A WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN JUNE-JULY 2020.
- PIEZOMETERS MW-307B AND MW-313B WERE INSTALLED BY CASCADE DRILLING IN MAY 2021.
- GROUNDWATER ELEVATION ESTIMATED BASED ON MONITORING WELLS SCREENED BELOW THE POTENTIOMETRIC SURFACE IN THE SAND UNIT.
- BACKGROUND MONITORING WELLS FOR THE BURLINGTON GENERATING STATION ARE: MW-310 AND MW-311.
- MW-310A IS SCREENED WITHIN MUDSTONE BEDROCK. THE GROUNDWATER ELEVATION AT THIS WELL IS NOT USED FOR POTENTIOMETRIC SURFACE CONTOURING.
- POND CLOSURE CONSTRUCTION DEWATERING ACTIVITIES WERE ONGOING AT THE SITE DURING APRIL 2023 WHERE DEWATERING WELLS UAP-1 THROUGH UAP-20 WERE ACTIVELY DEWATERING OR INTERMITTENTLY DEWATERING DURING THE APRIL 2023 EVENT. IN ADDITION, THE MISSISSIPPI RIVER STAGE WAS RELATIVELY HIGHER OVER THE COURSE OF THE APRIL 2023 EVENT, SO THE GROUNDWATER GRADIENT IS REVERSED FROM TYPICAL OBSERVATIONS. DASHED LINES ARE USED TO INDICATE WHERE GROUNDWATER ELEVATION CONDITIONS ARE APPROXIMATE DUE TO TRANSIENT WATER TABLE CONDITIONS DURING THE APRIL 2023 GROUNDWATER EVENT.

300 0 300

 SCALE: 1" = 300'

PROJECT NO. 25223066.00	DRAWN BY: KP	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 BURLINGTON GENERATING STATION BURLINGTON, IOWA	FIGURE DEEP POTENTIOMETRIC SURFACE MAP APRIL 24-27, 2023 6
DRAWN: 06/15/2023	CHECKED BY: NLB				
REVISED: 01/09/2024	APPROVED BY: TK, 1/30/2024				

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LEGEND	
	MONITORING WELL
	DEEP PIEZOMETER
	CCR BACKGROUND MONITORING WELL
	TEMPORARY MONITORING WELL
522.11	WATER LEVEL MEASURED JULY 31, 2023
(521.83)	WATER LEVEL MEASURED JULY 31, 2023, NOT USED FOR CONTOURING
	POTENTIOMETRIC SURFACE ELEVATION CONTOUR (DASHED WHERE INFERRED)
	FLOW PATH FOR VELOCITY CALCULATION (SEE TABLE 4A)
	APPROXIMATE FLOW DIRECTION

- NOTES:
1. MONITORING WELLS MW-303 THROUGH MW-308 WERE INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS ON DECEMBER 15-17, 2015.
 2. MONITORING WELLS MW301, MW302, AND MW309-MW311 WERE INSTALLED BY DIRECT PUSH ANALYTICAL SERVICES CORP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM FEBRUARY 29, 2016 TO MARCH 1, 2016.
 3. MONITORING WELLS MW-301 THROUGH MW-311 WERE SURVEYED BY FRENCH-RENEKER ASSOCIATES OF FRANKLIN, IA ON MARCH 16, 2016.
 4. MONITORING WELLS MW-312 AND MW-313 WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN MAY 2019.
 5. PIEZOMETERS MW-302A, MW-307A, MW-310A, AND MW-313A WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN JUNE-JULY 2020.
 6. PIEZOMETERS MW-307B AND MW-313B WERE INSTALLED BY CASCADE DRILLING IN MAY 2021.
 7. GROUNDWATER ELEVATION ESTIMATED BASED ON MONITORING WELLS SCREENED BELOW THE POTENTIOMETRIC SURFACE IN THE SAND UNIT.
 8. BACKGROUND MONITORING WELLS FOR THE BURLINGTON GENERATING STATION ARE: MW-310 AND MW-311.
 9. MW-310A IS SCREENED WITHIN MUDSTONE BEDROCK. THE GROUNDWATER ELEVATION AT THIS WELL IS NOT USED FOR POTENTIOMETRIC SURFACE CONTOURING.

PROJECT NO. 25223066.00	DRAWN BY: KP	 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 BURLINGTON GENERATING STATION BURLINGTON, IOWA	DEEP POTENTIOMETRIC SURFACE MAP JULY 31, 2023	FIGURE 7
DRAWN: 08/03/2023	CHECKED BY: NLB					
REVISED: 01/09/2024	APPROVED BY: TK, 1/30/2024					

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LEGEND	
	MONITORING WELL
	DEEP PIEZOMETER
	CCR BACKGROUND MONITORING WELL
	TEMPORARY MONITORING WELL
522.11	WATER LEVEL MEASURED OCTOBER 2-5, 2023
(521.83)	WATER LEVEL MEASURED OCTOBER 2-5, 2023, NOT USED FOR CONTOURING
	POTENTIOMETRIC SURFACE ELEVATION CONTOUR (DASHED WHERE INFERRED)
	FLOW PATH FOR VELOCITY CALCULATION (SEE TABLE 4A)
	APPROXIMATE FLOW DIRECTION

- NOTES:
1. MONITORING WELLS MW-303 THROUGH MW-308 WERE INSTALLED BY CASCADE DRILLING, LLP. UNDER THE SUPERVISION OF SCS ENGINEERS ON DECEMBER 15-17, 2015.
 2. MONITORING WELLS MW301, MW302, AND MW309-MW311 WERE INSTALLED BY DIRECT PUSH ANALYTICAL SERVICES CORP. UNDER THE SUPERVISION OF SCS ENGINEERS FROM FEBRUARY 29, 2016 TO MARCH 1, 2016.
 3. MONITORING WELLS MW-301 THROUGH MW-311 WERE SURVEYED BY FRENCH-RENEKER ASSOCIATES OF FRANKLIN, IA ON MARCH 16, 2016.
 4. MONITORING WELLS MW-312 AND MW-313 WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN MAY 2019.
 5. PIEZOMETERS MW-302A, MW-307A, MW-310A, AND MW-313A WERE INSTALLED BY ROBERTS ENVIRONMENTAL DRILLING IN JUNE-JULY 2020.
 6. PIEZOMETERS MW-307B AND MW-313B WERE INSTALLED BY CASCADE DRILLING IN MAY 2021.
 7. GROUNDWATER ELEVATION ESTIMATED BASED ON MONITORING WELLS SCREENED BELOW THE POTENTIOMETRIC SURFACE IN THE SAND UNIT.
 8. BACKGROUND MONITORING WELLS FOR THE BURLINGTON GENERATING STATION ARE: MW-310 AND MW-311.
 9. MW-310A IS SCREENED WITHIN MUDSTONE BEDROCK. THE GROUNDWATER ELEVATION AT THIS WELL IS NOT USED FOR POTENTIOMETRIC SURFACE CONTOURING.

PROJECT NO. 25223066.00	DRAWN BY: KP	 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 BURLINGTON GENERATING STATION BURLINGTON, IOWA	DEEP POTENTIOMETRIC SURFACE MAP OCTOBER 2-5, 2023	FIGURE 8
DRAWN: 12/06/2023	CHECKED BY: NLB					
REVISED: 01/09/2024	APPROVED BY: TK, 1/30/2024					

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Appendix A
Regional Hydrogeologic Information

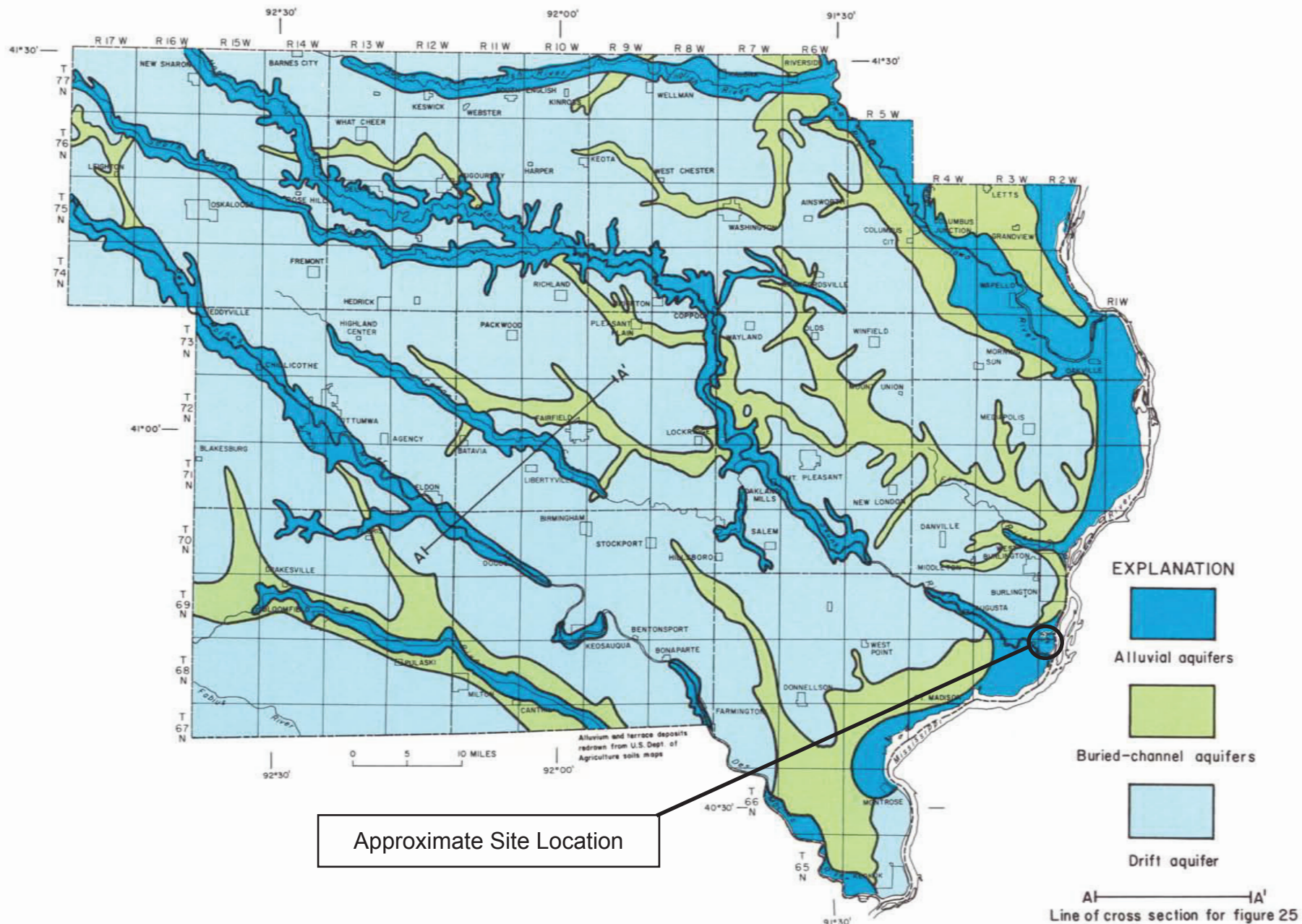
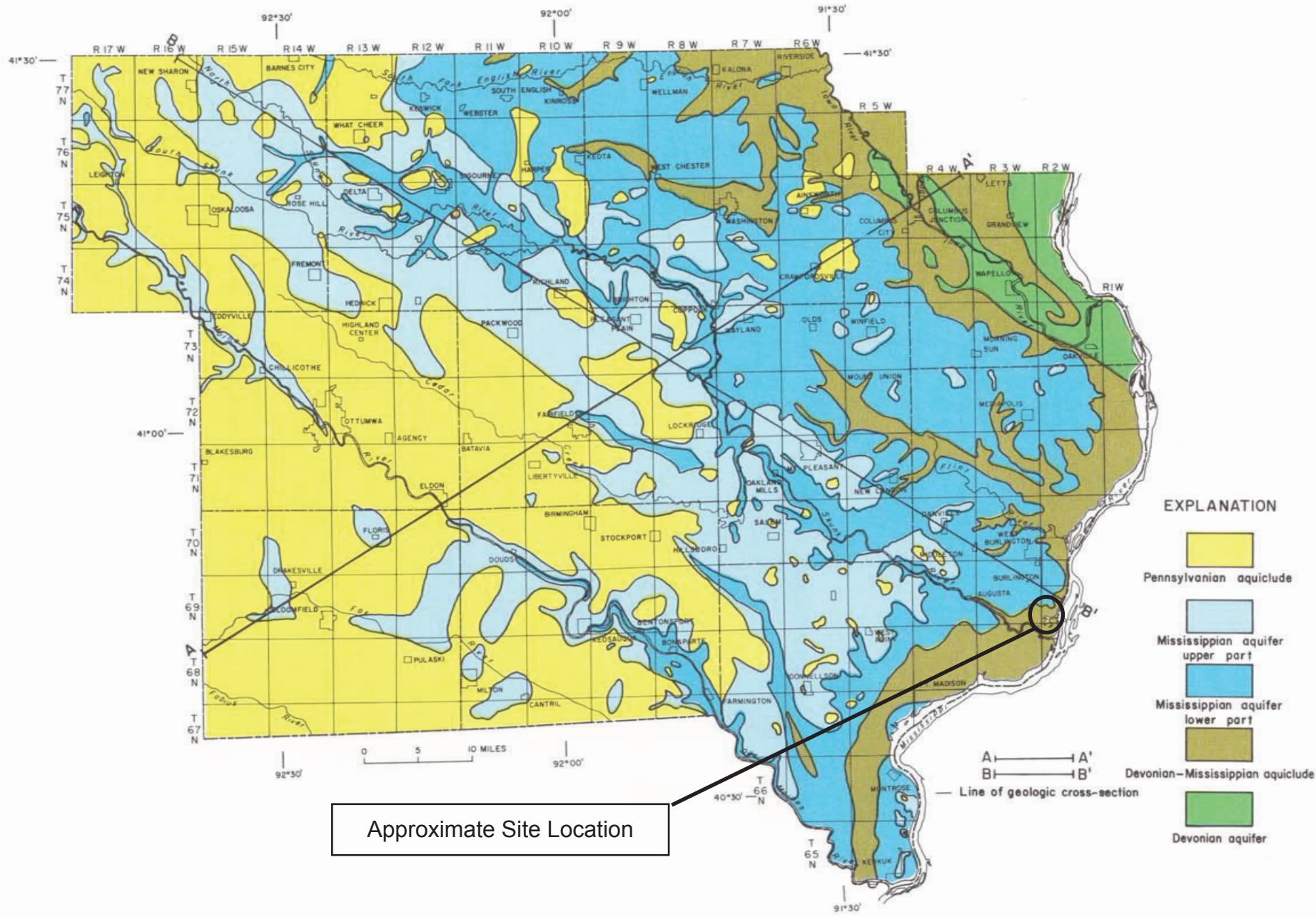


Figure 24.—Areal distribution of surficial aquifers

Source: Coble, R.W., The Water Resources of Southeast Iowa, Iowa Geological Survey Water Atlas Number 4, 1971.



Approximate Site Location

Figure 27.—Bedrock hydrogeologic map

Source: Coble, R.W., The Water Resources of Southeast Iowa, Iowa Geological Survey Water Atlas Number 4, 1971.

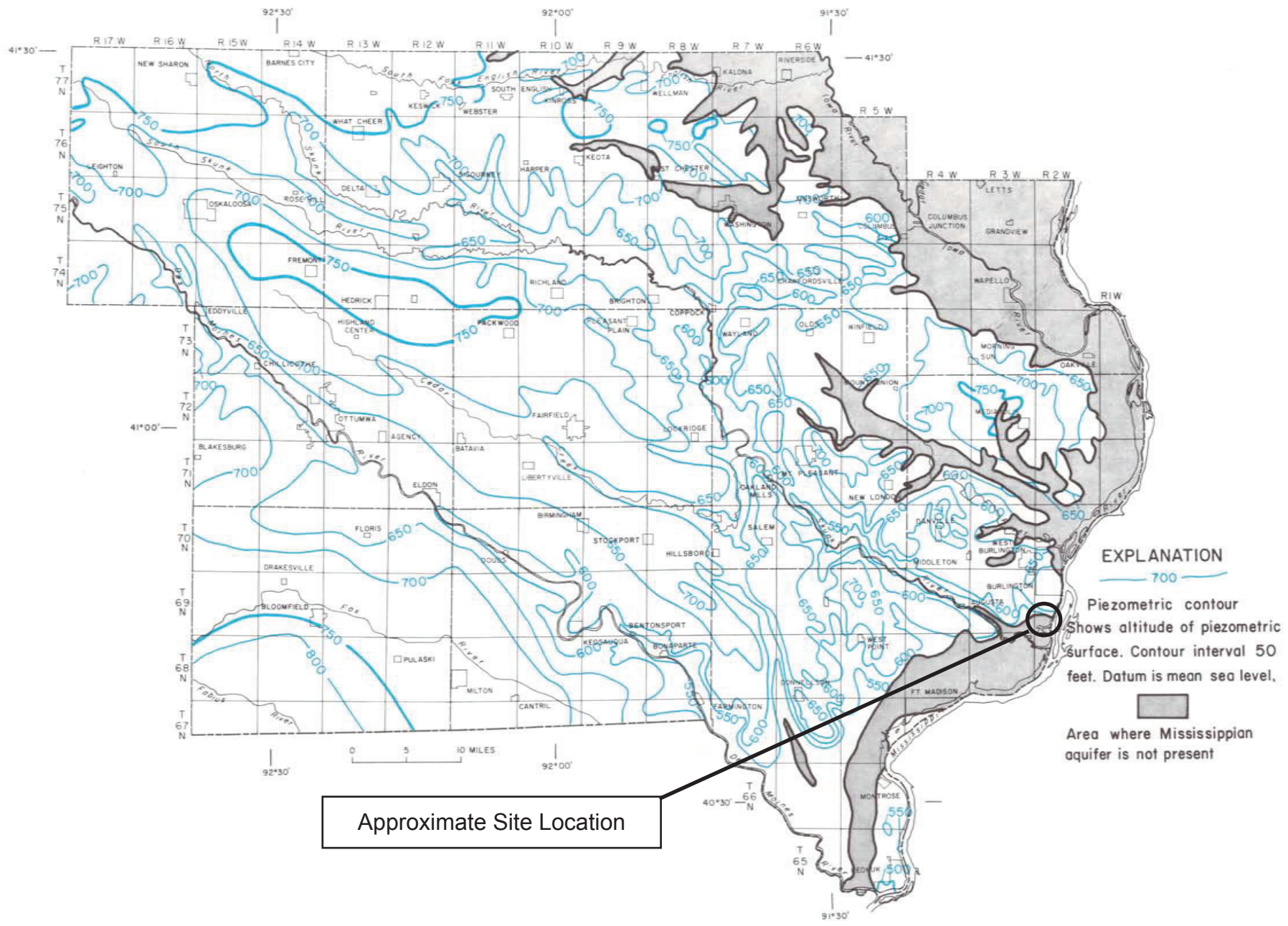


Figure 41.—Altitude of the water levels in wells tapping the Mississippiian aquifer

Source: Coble, R.W., The Water Resources of Southeast Iowa, Iowa Geological Survey Water Atlas Number 4, 1971.

Appendix B

Boring Logs and Well Construction Documentation

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

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-301	
Boring Drilled By: Name of crew chief (first, last) and Firm Kevin Collins Direct Push Analytical			Date Drilling Started 2/29/2016	Date Drilling Completed 2/29/2016	Drilling Method Direct Push 4-1/2/HSA
Unique Well No.	DNR Well ID No.	Common Well Name MW-301	Final Static Water Level Feet	Surface Elevation 536.0 Feet	Borehole Diameter 8.5 in
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 278,382 N, 2,300,041 E S/C/N			Lat _____ " <input type="checkbox"/> N <input type="checkbox"/> E		Local Grid Location
SW 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W			Long _____ " Feet <input type="checkbox"/> S Feet <input type="checkbox"/> W		
Facility ID		County Des Moines	Civil Town/City/ or Village Burlington		

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						RQD/ Comments	
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200			
			1	FILL, boring location was cleared to 10' bgs by hydrovac, then back filled.	FILL											
			2													
			3													
			4													
			5													
			6													
			7													
			8													
			9													
			10													
S1	16		11	LEAN CLAY WITH SAND, very dark gray (10YR 3/1).	CL											
			12													
			13													
			14													
			15													
S2	45															

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:
---------------	---	---------------------------

Boring Number MW-301

Page 2 of 2

Sample		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					RQD/ Comments						
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200							
S3	37		16	LEAN CLAY WITH SAND, very dark gray (10YR 3/1). <i>(continued)</i>	CL															
			17																	
			18											POORLY GRADED SAND, very dark gray (10YR 3/1).	SP					W
S4	24		19	SILT WITH SAND, very dark gray (10YR 3/1).	ML															
			20																	
			21											POORLY GRADED SAND, very dark gray (10YR 3/1).	SP					W
			22											SANDY SILT, very dark gray (10YR 3/1).	MLS					W
S5	NA		23	POORLY GRADED SAND, very dark gray (10YR 3/1).	SP															
			24																	
			25																	
			26																	
			27																	
			28																	
			29																	
				End of Boring at 29.50 feet bgs.																

Recovery
NA sleeve
stuck in
discrete
sampler.

SCS ENGINEERS

Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

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

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-302	
Boring Drilled By: Name of crew chief (first, last) and Firm Kevin Collins Direct Push Analytical			Date Drilling Started 2/29/2016	Date Drilling Completed 2/29/2016	Drilling Method Direct Push 4-1/2/HSA
Unique Well No.	DNR Well ID No.	Common Well Name MW-302	Final Static Water Level Feet	Surface Elevation 533.2 Feet	Borehole Diameter 8.5 in

Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>	State Plane 278,310 N, 2,300,647 E S/C/N	Lat _____"	Local Grid Location
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W	Long _____"	Feet <input type="checkbox"/> N Feet <input type="checkbox"/> S	Feet <input type="checkbox"/> E Feet <input type="checkbox"/> W

Facility ID	County Des Moines	Civil Town/City/ or Village Burlington
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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					RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			1	FILL, boring location was cleared to 10' bgs by hydrovac, then back filled.										
			2											
			3											
			4											
			5		FILL									
			6											
			7											
			8											
			9											
			10											
S1	15		11	POORLY GRADED SAND WITH SILT, medium grained, very dark gray (10YR 3/1).	SP-SM						W			
			12											
			13	POORLY GRADED SAND, medium grained, very dark gray (10YR 3/1).	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 2830 Dairy Drive Madison, WI 53718	Tel: 608-224-2830 Fax:
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Boring Number MW-302

Page 2 of 2


Sample		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					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S3	17		16	POORLY GRADED SAND, medium grained, very dark gray (10YR 3/1). (continued)	SP									
			17	LEAN CLAY, very dark gray (10YR 3/1).										
S4	15		18		CL						W			
			19											
S5	16		20	POORLY GRADED SAND, coarse grained, very dark gray (10YR 3/1).										
			21											
S4	15		22								W			
			23											
S5	16		24		SP									
			25											
S5	16		26								W			
			27											
			28	End of Boring at 28 feet bgs.										

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

Facility/Project Name Burlington Generating Station		SCS#: 25220055.00		License/Permit/Monitoring Number		Boring Number MW-302A	
Boring Drilled By: Name of crew chief (first, last) and Firm Jeff Crank Roberts Environmental Services				Date Drilling Started 6/30/2020		Date Drilling Completed 7/1/2020	
WI Unique Well No.		DNR Well ID No.		Common Well Name		Final Static Water Level 11.92 Feet	
						Surface Elevation 533.51 Feet MSL	
						Borehole Diameter 8.0 in.	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 278,310 N, 2,300,647 E S/C/N				Lat _____ " _____ "		Local Grid Location	
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W				Long _____ " _____ "		Feet <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County Des Moines		County Code		Civil Town/City/ or Village Burlington	

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					RQD/ Comments	
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
	0		0	Blind drilled to 28' bgs											
			1												
			2	See boring logs for MW-302 for log information from 0-25'bgs.											
			3												
			4												
			5												
			6												
			7												
			8												
			9												
			10												
			11												
			12												
			13												
			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:
--	------------------------------	--------------

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 used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Boring Number **MW-302A** Use only as an attachment to Form 4400-122. Page **2** of **3**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			16 17 18 19 20 21 22 23 24											
S1	14	34 78	25 26 27	POORLY GRADED SAND, mostly fine to meium grain, trace coarse grain, gray to dark gray (5y, 4/1), with clay lense at top of spoon. olive gray, dense.										
S2	3	02 45	30 31 32	Same, fine grain, trace coarse grain with large piece of limestone.	SP									Roberts began using water to keep sand from backing up into augers. Took two jar samples from 25-27' bgs.
S3	0	68 78	35 36 37 38 39 40	No returns										

Boring Number **MW-302A** Use only as an attachment to Form 4400-122. Page **3** of **3**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
S4	6	5 7 8 13	41	POORLY GRADED SAND, fine to coarse grain, with gravel, gray to dark gray (5y, 3/1), with very trace silt (same color).											
			42												
			43												
			44												
S5	0	4 12 16 14	45	No returns											
			46												
			47												
			48												
S6	15	3 8 12 14	49												
			50	POORLY GRADED SAND, fine to coarse grain, trace gravel, gray to darkish gray brown, 5y, 4/1).	SP										
			51												
			52												
			53												
			54												
S7	14	3 6 12 18	55	Same											
			56												
			57												
			58												
			59												
			60												
S8	24	6 9 13 25	61	End of Boring at 61' below ground surface. Well placed at 60' bgs.											





SCS ENGINEERS

Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

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

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-303	
Boring Drilled By: Name of crew chief (first, last) and Firm Mike Mueller Cascade Drilling		Date Drilling Started 12/15/2015		Date Drilling Completed 12/15/2015	
Drilling Method 4-1/2 hollow stem auger		Unique Well No.		DNR Well ID No.	
Common Well Name MW-303		Final Static Water Level Feet		Surface Elevation 531.0 Feet	
Borehole Diameter 8.5 in		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>		Local Grid Location	
State Plane 278,450 N, 2,300,854 E S/C/N		Lat ° ' "		<input type="checkbox"/> N <input type="checkbox"/> E	
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W		Long ° ' "		Feet <input type="checkbox"/> S Feet <input type="checkbox"/> W	
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington	

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					RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			1-9	FILL, boring location was cleared to 10' bgs by hydrovac, then back filled.	FILL									
S1	0	46 88	10-11	LEAN CLAY, dark gray (10YR 3/1).	CL									Rock in the end of shoe.
S2	14	24 45	13-14											

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:
--	--	---------------------------

Boring Number MW-303

Page 2 of 2

Sample		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					RQD/ Comments			
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200				
S3	15	22 46	16 17	LEAN CLAY, dark gray (10YR 3/1). <i>(continued)</i>													
S4	3	12 38	18 19		CL												
S5	10	48 99	20 21 22	POORLY GRADED SAND, coarse grained, very dark gray (2.5Y 3/1), some gravel.	SP												
S6	14	12 89	23 24 25	POORLY GRADED SAND, very dark gray (2.5Y 3/1), medium grained.	SP												
S7	8	46 810	26 27	same as above except, coarse grained.													
				End of Boring at 27.50 ft bgs.													

Rock in the end of shoe.

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

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-304	
Boring Drilled By: Name of crew chief (first, last) and Firm Mike Mueller Cascade Drilling		Date Drilling Started 12/15/2015		Date Drilling Completed 12/15/2015	
Unique Well No.		DNR Well ID No.		Common Well Name MW-304	
Final Static Water Level Feet		Surface Elevation 532.2 Feet		Borehole Diameter 8.5 in	

Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>		Local Grid Location	
State Plane 278,721 N, 2,300,883 E S/C/N		Lat _____ " _____ "	
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W		Long _____ " _____ "	
		Feet <input type="checkbox"/> N <input type="checkbox"/> E Feet <input type="checkbox"/> S <input type="checkbox"/> W	

Facility ID	County Des Moines	Civil Town/City/ or Village Burlington
-------------	----------------------	---

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						RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			1	FILL, boring location was cleared to 10' bgs by hydrovac, then back filled.											
			2												
			3												
			4												
			5		FILL										
			6												
			7												
			8												
			9												
			10	FAT CLAY, dark gray (10YR 3/1).											
S1	12	3 4 11 14	11												
			12												
			13												
S2		2 3 5 5	14		CH										
			15												

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:
--	---	---------------------------







Boring Number MW-304

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S3	14	1 1 2 4	16 17	SANDY SILT, very dark gray (2.5Y 3/1), fine grained.	ML				W					
S4	14	1 2 3	18 19	POORLY GRADED SAND, very dark gray (2.5Y 3/1), medium grained.					W					
S5	24	2 3 5 8	21 22		SP				W					
S6	12	3 5 6 7	23 24	Same as above except, coarse grained.					W					
S7	12	3 6 11 16	26 27						W					
				End of boring at 27 feet bgs.										

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

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-305	
Boring Drilled By: Name of crew chief (first, last) and Firm Mike Mueller Cascade Drilling		Date Drilling Started 12/17/2015		Date Drilling Completed 12/17/2015	
Unique Well No.		DNR Well ID No.		Common Well Name MW-305	
Final Static Water Level Feet		Surface Elevation 530.9 Feet		Borehole Diameter 8.5 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>		State Plane 280,157 N, 2,300,473 E S/C/N		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
NE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W		Lat _____ Long _____		Feet _____	
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington	

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					RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			1	FILL, boring location was cleared to 5' bgs by hydrovac, then back filled.	FILL									
S1	14	13 30 20 12	6	SILT, ash, black (2.5Y 2.5/1), (fill).	ML					M				
S2	6	3 4 2 1	9							M				
S3	5	4 4 6 7	11	LEAN CLAY, olive (5Y 4/4).	CL					M				
S4	10	2 4 6 8	14	same as above except, black (2.5Y 2.5/1).						M				

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:
--	--	---------------------------

Boring Number MW-305

Page 2 of 2


Sample		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					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S5	14	11 23	16	LEAN CLAY, olive (5Y 4/4). (continued)	CL									
			17											
S6	16	11 22	18	same as above except, very dark gray (10YR 3/1).	CL									
			19											
S7	12	12 45	20	POORLY GRADED SAND, very dark gray (10YR 3/1), coarse grained.	SP									
			21											
S8	12	11 23	22		SP									
			23											
S9	8		24		SP									
			25											
			26		SP									
			27											
				End of Boring at 27.50 ft bgs.										

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

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-306	
Boring Drilled By: Name of crew chief (first, last) and Firm Mike Mueller Cascade Drilling			Date Drilling Started 12/16/2015		Date Drilling Completed 12/17/2015
Unique Well No.	DNR Well ID No.	Common Well Name MW-306	Final Static Water Level Feet	Surface Elevation 534.5 Feet	Borehole Diameter 8.5 in
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 279,643 N, 2,300,362 E S/C/N			Lat <input type="text"/> ° <input type="text"/> ' <input type="text"/> "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W
NE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W	Long <input type="text"/> ° <input type="text"/> ' <input type="text"/> "	Feet <input type="checkbox"/> S	Feet <input type="checkbox"/> W		
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington	

Sample		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					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			1-7.5	FILL, boring location was cleared to 7.5' bgs by hydrovac, then back filled.	FILL									
S1	22	68 12 12	8-12	SANDY SILT, very dark gray (2.5Y 3/1), fine grained sand.	ML									
S2	22	72 22	11-12											
S3	12	49 19 21	13-14											

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:
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Boring Number MW-306

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S4	10	22 22	16	LEAN CLAY, black (2.5Y 2.5/1).					W					
S5	10	11 12	17 18 19		CL				W					
S6	22	34 5	20 21 22	SANDY SILT, very dark gray (2.5 3/1), fined grained sand.	ML				W					
S7	10	11 12	23 24	LEAN CLAY, black (2.5Y 2.5/1).	CL				W					
S8	20	23 6 10	25 26 27	POORLY GRADED SAND, very dark gray (2.5Y 3/1), coarse grained.					W					
S9	10	13 3 5	28 29		SP				W					
S10	10	22 3 8	30 31 32						W					
			33 34	End of boring at 34 ft bgs.										

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

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-307	
Boring Drilled By: Name of crew chief (first, last) and Firm Mike Mueller Cascade Drilling		Date Drilling Started 12/16/2015		Date Drilling Completed 12/16/2015	
Unique Well No.		DNR Well ID No.		Common Well Name MW-307	
Final Static Water Level Feet		Surface Elevation 534.3 Feet		Borehole Diameter 8.5 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 279,517 N, 2,300,349 E S/C/N		Lat ° ' "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
NE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W		Long ° ' "		Feet <input type="checkbox"/> S Feet <input type="checkbox"/> W	

Facility ID	County Des Moines	Civil Town/City/ or Village Burlington
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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					RQD/ Comments	
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			1	FILL, boring location was cleared to 7.5' bgs by hydrovac, then back filled.											
			2												
			3												
			4		FILL										
			5												
			6												
			7												
S1	0		8	SILT, ash, (fill).	FILL										
			9												
S2	16	13 8 6 11	10	SANDY SILT, ash, fine grained, very dark gray, (2.5Y 3/1), (fill).											
			11												
			12		FILL										
			13												
S3	15	4 9 6 3	14												
			15	SANDY SILT, fine grained, very dark gray, (2.5Y 3/1).	ML										

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

Signature <i>Jackie Rennebohm</i> for Kyle Kramer	Firm SCS Engineers 2830 Dairy Drive, Madison, WI 53718 608-224-2830	Tel: Fax:
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Amended on 10/6/2021

Boring Number MW-307

Page 2 of 2

Sample		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					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S4	18	13 55	16	SANDY SILT, fine grained, very dark gray, (2.5Y 3/1). <i>(continued)</i>	ML				W					
S5	20	12 22	18	LEAN CLAY, black, (10YR 2/1).	CL				W					
S6	16	12 46	20	POORLY GRADED SAND, coarse grained, very dark gray, (2.5Y 3/1).					W					
S7	10	12 44	22		SP				W					
S8	12	22 34	24						W					
			26											
			27	End of boring at 27 ft bgs.										

Route To: Watershed/Wastewater Waste Management
 Remediation/Redevelopment , other

Facility/Project Name Burlington Generating Station		SVS#: 2H288H88		License/Permit/Monitoring Number		Boring Number MW-380A	
Boring Drilled By: Name of Crew Chief (first/last) and Firm Jeff VranP Roberts Environmental Services				Date Drilling Started "/24/2828		Date Drilling Completed 0/1/2828	
WI Unique Well No		H x R Well No		Common Well Name		Final Static Water Level 12.09 Feet	
						Surface Elevation HB364 Feet MS7	
						Borehole Diameter D8 in5	
Local Grid, Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 206110 x L 213881346 E S/V/x				7 at _____' _____'		Local Grid Location	
x E 1/4 of SW 1/4 of Section 26L T "6 x LR 2 W				7 on _____' _____'		Feet <input type="checkbox"/> x Feet <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility Loc		County Des Moines		County Code		Civil Town/Village or Precinct Burlington	

Sample Number and Type	7 engt9 Att5& Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USVS	Graphic Log	Well Diagram	Oh/Fth	Soil Properties					RQh/Comments
									Standard Penetration	Moisture Content	Liquid Limit	Elasticity Index	O288	
8			1 2 3 4 H " 0 D 6 18 11 12 13 14 1H	Blind drilled to 28' bgs See boring logs for MW-380 for log information from 8-28'bgs5										

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

Signature 	Firm SVS Engineers	Tel: Fax:
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This form is authorized by Chapters 2DIL2D1L2D6L261L262L263L264 and 266LWis5 Stats5 Completion of this form is mandatory5 Failure to file this form may result in forfeiture of between \$18 and \$2H888Lor imprisonment for up to one yearLdepending on the program and conduct involved5 Personally identifiable information on this form is not intended to be used for any other purpose5 x , TE: See instructions for more informationLincluding where the completed form should be sent5

Boring Number **MW-380A** Use only as an attachment to Form 4488-1225 Page **2** of **3**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Region For Each Major Unit	USVS	Graphic Log	Well Diagram	Other/Flt	Soil Properties					RQh / Comments													
Number and Type	Length Att 5 & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	OC														
S1	16	31 86	1"	SI7 TLdarP gray (25Y L2.5/1) Lwit9 trace sand Lfine grain to coarse5	M7				80H	W																	
			21"													22"	23"	24"	25"	26"	27"	28"	29"	30"	31"	32"	33"
S2	14	H0 611	21"	Same						W																	
			22"	23"													24"	25"	26"	27"	28"	29"	30"	31"	32"	33"	34"
S3	D	3" 00	28"	Q, R7Y GRAh Eh SAX h Lfine to medium grain L trace coarse grain LdarP gray (25Y L2.5/1)5	SO					W																	
			29"	30"													31"	32"	33"	34"	35"	36"	37"	38"	39"	40"	41"
S4	D	3 H 0 D	38"	Same L trace silt5						W																	
			39"	40"													41"	42"	43"	44"	45"	46"	47"	48"			
			39"	Same L fine to medium grain L grayis9 brown (25Y L3/1) L trace pieces of gravel L no silt5																							
			40"	41"													42"	43"	44"	45"	46"	47"	48"				





Boring number **MW-380A** Use only as an attachment to Form 4488-1225 Page **3** of **3**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Region For Each Major Unit	USVS	Graphic Log	Well Diagram	Other/Flt	Soil Properties					RQh / Comments
Number and Type	Length Att 5' & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	OC	
SH	22	23	41	Q ₁ , R7Y GRAh Eh SAx h Lfine to medium grainL gray (2.5%L/4/1) Ltrace gravel wit9 ". layer of sticPs in middle of spoon5										7arge amount of sticPs in center of spoon5
S"	28	4 11 12	4"	SameLfine to coarse grainLtrace gravelLgray to grayis9 brown (2.5%L/4/1) wit9 trace sticPs5										
S0	85H	4 2 1"	H1	SameLno sticPs5	so									Refusal last " inches sand pushed up into augers and locPed up spoon5
SD	28	4 6 14 16	H1'	SameLfine to medium grainLgray to grayis9 brown (2.5%L/4/1)5										TooP two jar samples from HHH' bgs5
				End of boring ar "8' below ground surface5 Set well from H6' bgs5										

Route To: Watershed/Wastewater Waste Management
Remediation/Rcdevelopment Other

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-308	
Boring Drilled By: Name of crew chief (first, last) and Firm Mike Mueller Cascade Drilling			Date Drilling Started 12/15/2015	Date Drilling Completed 12/16/2015	Drilling Method 4-1/2 hollow stem auger
Unique Well No.	DNR Well ID No.	Common Well Name MW-308	Final Static Water Level Feet	Surface Elevation 534.9 Feet	Borehole Diameter 8.5 in
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 279,359 N, 2,300,306 E S/C/N			Lat _____ " _____ "		Local Grid Location
NE 1/4 of SW 1/4 of Section 29 , T 69 N, R 2 W			Long _____ " _____ "		Feet <input type="checkbox"/> N <input type="checkbox"/> E Feet <input type="checkbox"/> S <input type="checkbox"/> W

Facility ID	County Des Moines	Civil Town/City/ or Village Burlington
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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						RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			1	FILL, boring location was cleared to 5' bgs by hydrovac, then back filled.	FILL										
S1	14	22 12 13 15	5-6	SANDY SILT, olive brown (2.5Y 4/3).									W		
S2	18	2 2 4 8	8-9										W		
S3	18	1 2 2 50	11-12		MLS								W		
S4	14	3 15 50	13-14										W		

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:
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Boring Number MW-308

Page 2 of 2

Sample		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					RQD/ Comments
Number and Type	Length Aft. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S5	12	6 4	16	LEAN CLAY, black (2.5Y 2.5/1).	CL									
		2 4	17											
S6	12	5 6	18											
		5 10	19											
S7	18	1 1	20	SILT, very dark gray (7.5YR 3/1), trace sand.	ML									
		1 2	21											
S8	10	1 12	22	POORLY GRADED SAND, very dark gray (2.5Y 3/1), coarse grained.										
		13 18	23											
S9	12	2 6	24		SP									
		8 10	25											
S10		2 2	26											
		6 8	27											
			28											
			29	End of Boring at 29.5 ft bgs.										

SCS ENGINEERS

Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

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

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-309	
Boring Drilled By: Name of crew chief (first, last) and Firm Kevin Collins Direct Push Analytical		Date Drilling Started 3/1/2016		Date Drilling Completed 3/1/2016	
Drilling Method 4-1/2 hollow stem auger		Unique Well No.		DNR Well ID No.	
Common Well Name MW-309		Final Static Water Level Feet		Surface Elevation 534.1 Feet	
Borehole Diameter 8.5 in		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>		Local Grid Location	
State Plane 279,210 N, 2,300,022 E S/C/N		Lat _____ "		<input type="checkbox"/> N <input type="checkbox"/> E	
SW 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W		Long _____ "		Feet <input type="checkbox"/> S Feet <input type="checkbox"/> W	
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington	

Sample		Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties						RQD/ Comments
Number and Type	Length Att. & Recovered (in)							Blow Counts	Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
		1-10	FILL, boring location was cleared to 10' bgs by hydrovac, then back filled.	FILL										
S1	14	10-11	LEAN CLAY, olive brown (2.5Y 4/3).	CL										
S2	34	11-14	Same as above except, gray (2.5Y 6/1).	CL										

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:
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Boring Number MW-309

Page 2 of 2

Sample		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					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S3	34		16	LEAN CLAY, olive brown (2.5Y 4/3). (continued)	CL									
			17	Same as above except, very dark gray (2.5Y 3/1).										
S4	31		18	POORLY GRADED SAND, coarse grained, very dark gray (10YR 3/1).	SP									
			19											
			20											
			21											
			22											
			23											
			24											
			25	End of Boring at 25 feet bgs.										

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

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-310	
Boring Drilled By: Name of crew chief (first, last) and Firm Kevin Collins Direct Push Analytical		Date Drilling Started 3/1/2016		Date Drilling Completed 3/1/2016	
Unique Well No.		DNR Well ID No.		Common Well Name MW-310	
Final Static Water Level Feet		Surface Elevation 532.2 Feet		Borehole Diameter 8.5 in	

Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>		Lat _____		Local Grid Location	
State Plane 279,610 N, 2,298,832 E S/C/N		Long _____		<input type="checkbox"/> N <input type="checkbox"/> E	
NE 1/4 of SE 1/4 of Section 30, T 69 N, R 2 W				Feet <input type="checkbox"/> S Feet <input type="checkbox"/> W	

Facility ID	County Des Moines	Civil Town/City/ or Village Burlington
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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					RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S1	13		1	LEAN CLAY WITH SAND, dark olive brown (2.5Y 3/3).										
			2											M
			3											
S2	33		4	Same as above except, very dark gray (2.5Y 3/1).	CL									
			5											M
			6											
S3	22		7	Trace organics.										
			8											M
			9											
S4	31		10	SILTY SAND, very dark grayish brown (2.5Y 3/2).	SM									
			11											
			12											
			13	POORLY GRADED SAND, coarse grained, very dark grayish brown (2.5Y 3/2).	SP									
			14											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 2830 Dairy Drive Madison, WI 53718	Tel: 608-224-2830 Fax:
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Boring Number MW-310

Page 2 of 2

Sample		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					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S5	35		16	POORLY GRADED SAND, coarse grained, very dark grayish brown (2.5Y 3/2). (continued)	SP									
			17											
S6	NA		18	LEAN CLAY, dark gray (2.5Y 4/1).	CL									
			19											
			20											
			21											
S6	NA		22	POORLY GRADED SAND, very dark grayish brown (2.5Y 3/2).	SP									
			23											
			24											
			24	End of Boring at 24 feet bgs.										

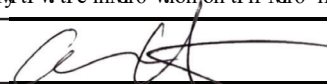
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Route To: Watershed/Wastewater Waste Management
 Remediation/Redevelopment Other

Facility/Project Name IPL- Burlington Generating Station SCS#: 25215135.80		License/Permit/Monitoring Number		Boring Number MW-311	
Boring Drilled By: Name of crew chief (first, last) and Firm Kevin Collins Direct Push Analytical		Date Drilling Started 3/1/2016		Date Drilling Completed 3/1/2016	
Unique Well No.		DNR Well ID No.		Common Well Name MW-311	
Final Static Water Level Feet		Surface Elevation 532.7 Feet		Borehole Diameter 8.5 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>		State Plane 279,439 N, 2,298,835 E S/C/N		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
NE 1/4 of SE 1/4 of Section 30 , T 69 N, R 2 W		Lat _____ Long _____		Feet _____	

Facility ID	County Des Moines	Civil Town/City/ or Village Burlington
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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					RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S1	14		1	TOPSOIL.	TOPSOIL									
			2	LEAN CLAY, dark olive brown (2.5Y 3/3).	CL					M				
S2	8		4	POORLY GRADED SAND, yellowish brown (10YR 5/8), coarse grained.										
			6		SP					M				
S3	6		8	LEAN CLAY, very dark gray (2.5Y 3/1).										
			10		CL					M			Rock in shoe.	
S4	25		14											

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:
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Boring Number MW-311

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S5	34		16	LEAN CLAY, very dark gray (2.5Y 3/1). (continued)	CL									
			17	SILTY SAND, black (2.5Y 2.5/1).	SM									
			18											
S6	40		19	POORLY GRADED SAND, very dark grayish brown (2.5Y 3/2).	SP									
			20	SILTY SAND, very dark grayish brown (2.5Y 3/2).	SM									
			21											
			22											
S7	45		23	SILT, very dark grayish brown (2.5Y 3/2).	ML									
			24	LEAN CLAY, dark gray (2.5Y 4/1), laminated, organics.	CL									
			25											
			26											
			27											
S8			28	POORLY GRADED SAND, very dark grayish brown (2.5Y 3/2).	SP									
			29	LEAN CLAY, dark gray (2.5Y 4/1), laminated, organics.	CL									
			30											
			31	Same as above except, dark greenish gray (5GY 4/1), shells.										
32	End of Boring at 32 feet bgs.													

SCS ENGINEERS

Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

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

Facility/Project Name IPL - Burlington Generating Station SCS#: 25218220.00		License/Permit/Monitoring Number		Boring Number MW312	
Boring Drilled By: Name of crew chief (first, last) and Firm Jeff Crank Roberts Environmental Drilling		Date Drilling Started 5/20/2019		Date Drilling Completed 5/20/2019	
Unique Well No.		DNR Well ID No.		Common Well Name MW312	
Final Static Water Level 531.08 Feet		Surface Elevation 533.8 Feet		Borehole Diameter 8.5 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>		State Plane 279,576 N, 2,300,970 E S/C/N		Local Grid Location	
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2		Lat _____"		Feet <input type="checkbox"/> N <input type="checkbox"/> E	
		Long _____"		Feet <input type="checkbox"/> S <input type="checkbox"/> W	

Facility ID	County Des Moines	Civil Town/City/ or Village Burlington
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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					RQD/ Comments
										Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
				1-8	Hydrovaced to 8'										
	4	33 67		9	LEAN CLAY, teal/blue, (GLEY1 5/10 GY), trace coarse sand.							M			
	18	34 57		11	same as above but dark green, (GLEY1 3/10 GY), with gravel.	CL						M			
	10	12 58		13	trace organic material							M			
				14	same as above but dark green, (10YR 2/1).										

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: Fax:
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Boring Number MW312

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
24	1 4	5 6	14	LEAN CLAY, teal/blue, (GLEY1 5/10 GY), trace coarse sand. (continued)	CL				M					
			16											
			17						M					
			18											
		2 3	19	POORLY GRADED SAND, fine to coarse, (2.5YR 3/2).					M					
		3 4	20											
			21						W					
6	0 1	2 3	21											
			22											
			23		SP									
6	1 2	4 5	23						W					
			24											
			25						W					
4			25											
			26	End of Boring at 26 feet.										

SCS ENGINEERS

Environmental Consultants and Contractors

SOIL BORING LOG INFORMATION

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

Facility/Project Name IPL - Burlington Generating Station SCS#: 25218220.00		License/Permit/Monitoring Number		Boring Number MW313	
Boring Drilled By: Name of crew chief (first, last) and Firm Jeff Crank Roberts Environmental Drilling		Date Drilling Started 5/21/2019		Date Drilling Completed 5/21/2019	
Unique Well No.		DNR Well ID No.		Common Well Name MW313	
Final Static Water Level 531.05 Feet		Surface Elevation 534.0 Feet		Borehole Diameter 8.5 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 279,130 N, 2,300,907 E S/C/N		Lat ° ' "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2		Long ° ' "		Feet <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington	

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					RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			1-8	Hydrovaced to 8'.										
8	3 1 4 5		9	LEAN CLAY, (GLEY1 4/10Y), trace coarse sand.							M			
8	1 1 3 4		11		CL						M			
8	1 1 2 2		13	Trace organic material							M			

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: Fax:
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Boring Number MW313

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
12	11 22	11 22	16	LEAN CLAY, (GLEY1 4/10Y), trace coarse sand. <i>(continued)</i>	CL									
			17	Same as above but dark gray, (10YR 2/1).										
			18											
			19											
			20											
18	11 34	11 34	21											
			22											
24	32 34	32 34	23											
			24	Small sand lenses.										
18	11 28	11 28	25											
			26	POORLY GRADED SAND, coarse.	SP									
4			27											
			28											
10	32 46	32 46	29											
			30											
0	13 87	13 87	31											
			32	End of Boring at 32 feet.										

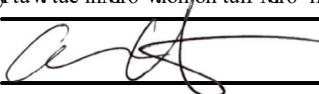
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			.D) .8 .F 49													

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0F	"8	" " 9 "	H HD H) H8 HF	0W6 eL6 oftly Mhe to 6 ediS6 srWh g itu trWe -oWfe srWh Wid srWelLsrWifu brog n3												
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Route To: Watershed/Wastewater Waste Management
 Remediation/Redevelopment Other

Facility/Project Name Burlington Generating Station SCS#: 25221160.00		License/Permit/Monitoring Number		Boring Number MW-307B	
Boring Drilled By: Name of crew chief (first, last) and Firm Mike Mueller Cascade Drilling		Date Drilling Started 5/10/2021		Date Drilling Completed 5/11/2021	
Unique Well No.		DNR Well ID No.		Common Well Name MW-307B	
Final Static Water Level Feet MSL		Surface Elevation 534.4 Feet MSL		Borehole Diameter 6.0 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 279,534 N, 2,300,353 E <input checked="" type="checkbox"/> C/N		Lat 40° 44' 32.8"		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E	
NE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W		Long -91° 5' 5.2"		Feet <input type="checkbox"/> S Feet <input type="checkbox"/> W	
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington, IA	

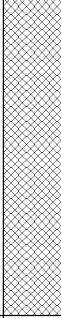



Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments		
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200			
S1	40		1	Hydrovacated to 2' below ground surface (bgs) before hitting compacted bottom ash - hydrovac could not break through.												
			2	BOTTOM ASH, dark gray to black, hard, consolidated, (fill).								M				
S2	58		3	FLY ASH, fine to coarse grained, black, with bottom ash throughout (fill).												
			4													
			6	Same as above but brownish gray, with trace bottom ash.								M				
			10	Same as above but mixed with dense consolidated bottom ash.												
S3	8		12													
			13													Depth to water at ~12' bgs

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:
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Boring Number MW-307B

Page 2 of 4

Sample		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					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S4	40		16	FLY ASH, fine to coarse grained, black, with bottom ash throughout (fill). <i>(continued)</i> FLY ASH, fine to coarse grained, black, with bottom ash throughout (fill).										
			17											
			18											
			19											
S5	0		20	No Recovery from 20-25'.										
			21											
			22											
			23											
			24											
			25											
S6	28		27	LEAN CLAY, dark gray to black, (5Y 2.5/1), loose to dense, with trace gravel.	CL									
			28											
			29											
S7	48		30	POORLY GRADED SAND, fine to coarse grained, dark gray, (10YR 4/1), with trace clay and silt. Same as above but no clay or silt.										
			31											
			32											
			33											
			34											
			35											
S8	0		36											
			37											
			38											
			39											
			40											

Exact depth of transition from ash to clay is uncertain due to poor sample recovery.

No recovery 35 - 40' bgs

Boring Number MW-307B

Page 3 of 4

Sample		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					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S9	40		41	POORLY GRADED SAND, fine to coarse grained, dark gray, (10YR 4/1), with trace clay and silt. <i>(continued)</i> Same as above but gray to dark gray, (5Y 4/1).	SP									
			42											
S10	10		43	SANDY SILT, fine to coarse grained, black, (5Y 2.5/1), with pieces of wood.	ML									
			44											
S11	52		45	POORLY GRADED SAND, fine to coarse grain, dark gray, (5Y 3/1), with trace silt and gravel. Same as above but gray to dark gray, (5Y 4/1) with no silt.	SP									
			46											
S12	38		47	Same as above but gray, (5Y 5/1).	SP									
			48											
S13	50		49	Same as above with trace silt at 60'.	SP									
			50											
			51											
			52											
			53											
			54											
			55											
			56											
			57											
			58											
			59											
			60											
			61											
			62											
			63											
			64											
			65											

Boring Number MW-307B

Page 4 of 4

Sample		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					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S14	18		66	POORLY GRADED SAND, fine to coarse grain, dark gray, (5Y 3/1), with trace silt and gravel. <i>(continued)</i> Same as above but dark gray, (5YR 4/1).						W				
			67											
S15	48		68	Same as above but coarse grained and dark gray, (5YR 4/1).	SP					W				
			69											
			70											
			71											
			72											
S16	48		73	Same as above but dark grayish brown, (10YR 4/2).					4.5+	W				
			74											
			75											
			76											
			77											
			78											
			79											
S17	50		80	LEAN CLAY, dark gray, (5Y 3/1), very dense with gravel and large cobbles, reacts with acid.	CL				4.5+	W				
			81											
			82											
			83											
			84											
			85											
End of boring at 85' below ground surface.														

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

Facility/Project Name Burlington Generating Station		SCS#: 25221160.00		License/Permit/Monitoring Number		Boring Number MW-313B	
Boring Drilled By: Name of crew chief (first, last) and Firm Mike Mueller Cascade Drilling				Date Drilling Started 5/11/2021		Date Drilling Completed 5/12/2021	
Unique Well No.		DNR Well ID No.		Common Well Name MW-313B		Final Static Water Level Feet MSL	
						Surface Elevation 533.9 Feet MSL	
						Borehole Diameter 6.0 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 279,110 N, 2,300,905 E <input checked="" type="checkbox"/> C/N				Lat 40° 44' 28.5"		Local Grid Location	
SE 1/4 of SW 1/4 of Section 29, T 69 N, R 2 W				Long -91° 6' 58.2"		<input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington, IA			

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					RQD/ Comments	
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			1-7	Hydrovacced to 8' below ground surface (bgs).											
S1	16		8-9	LEAN CLAY, gray to olive gray, (5Y 3/2), with gravel and trace roots.	CL				2.5	W					
S2	52		12-13	SILT, gray to dark gray, (10YR 4/1).	ML				2.0	W					
			13-14	LEAN CLAY, gray to olive gray, (5Y 3/2), with trace gravel, roots, and sticks.	CL										

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:
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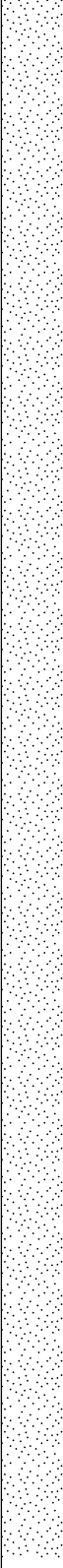

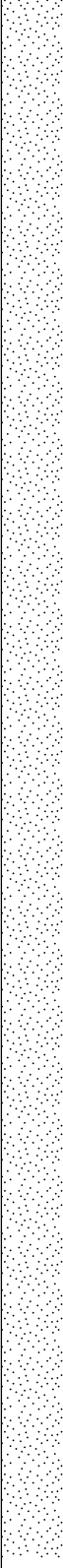

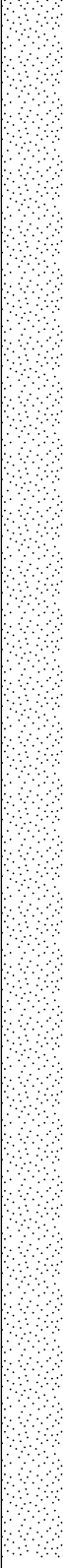

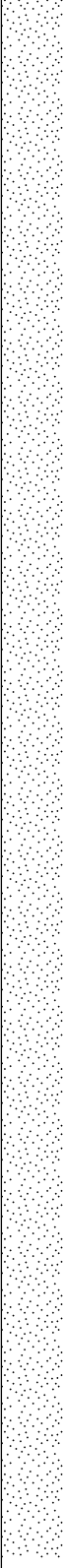

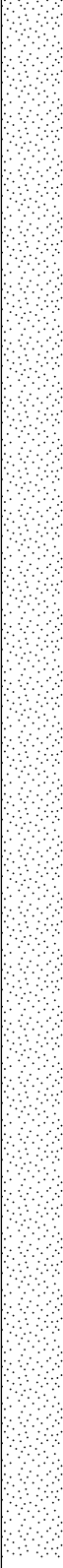

Boring Number MW-313B

Page 2 of 4

Sample		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					RQD/ Comments	
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
S3	54		16	LEAN CLAY, gray to olive gray, (5Y 3/2,) with trace gravel, roots, and sticks. <i>(continued)</i>	CL										
			17	Same as above but black to very black, (5Y 2.5/1).										1.0	W
			18												
			19												
			20												
21	S4	58	22	SILT, very dark gray, (5Y 3/1), with trace sand.	ML										
23			0.75	W											
24															
25															
26															
27	S5	52	27	POORLY GRADED SAND, fine to coarse grained, gray to dark gray, (5Y 4/1).	SP										
28			W												
29															
30				Same as above but more fine than coarse grained.									W		
31															
32															
33	S6	16	33	Same as above but with trace subrounded to subangular gravel.											
34			W												
35															
36															
37												S7	19	37	
38	W														
39															
40															

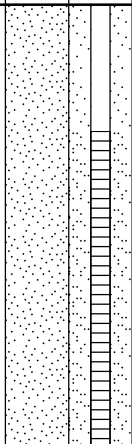
Boring Number MW-313B

Page 3 of 4

Sample		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					RQD/ Comments		
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200			
S8	46		41	POORLY GRADED SAND, fine to coarse grained, gray to dark gray, (5Y 4/1). (continued)												
			42													W
			43													
			44													
			45													
S9	33		46													
			47													W
			48													
			49													
			50													
S10	30		51		SP											
			52													W
			53													
			54													
			55													
S11	35		55	Same as above but grayish brown, (2.5Y 5/2).												
			56													
			57													
			58													W
			59													
S12	54		60													
			61													
			62													
			63													W
			64													
	65															

Boring Number MW-313B

Page 4 of 4

Sample		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					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S13	0		66	POORLY GRADED SAND, fine to coarse grained, gray to dark gray, (5Y 4/1). (continued)	SP				W					
			67											68
S14	56		70	Same as above but with more gravel.	CL			4.5+	W					
			72	73										74
			75	End of boring at 75' below ground surface.										

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

Facility/Project Name Burlington Generating Station SCS#: 25221160.00		License/Permit/Monitoring Number		Boring Number MW-314	
Boring Drilled By: Name of crew chief (first, last) and Firm Ryan Peterson Terracon Consultants Inc.			Date Drilling Started 2/25/2022		Date Drilling Completed 2/25/2022
Unique Well No.	DNR Well ID No.	Common Well Name MW-314	Final Static Water Level 519.2 Feet MSL	Surface Elevation 524.1 Feet MSL	Borehole Diameter 8.3 in
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 274,984 N, 2,299,795 E <input checked="" type="checkbox"/> C/N S 1/4 of SW 1/4 of Section 32 , T 69 N, R 2 W			Lat _____ " _____ "	Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County Des Moines		Civil Town/City/ or Village Burlington	







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					RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S1	12		1	LEAN CLAY, brown, with silt and trace sand.	CL									
			2	Same as above but with trace organic.										
S2	14		3	SANDY LEAN CLAY, dark brown, with silt and trace organic.	CL									
			4											
S3	8		5	LEAN CLAY, gray brown.	CL									
			6											
S4	14		7	FAT CLAY, gray, with silt, trace sand, and organic.	CH									
			8											
S5	14		9	LEAN CLAY, gray, with silt, trace sand, and roots.	CL									
			10											
S6	16		11	Same as above but gray brown with trace gravel.	CL									
			12											
S7	16		13											
			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 2830 Dairy Drive, Madison, WI 53718 608-228-2830	Tel: Fax:
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Boring Number MW-314

Page 2 of 2

Sample		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					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
S8	14		14	LEAN CLAY, gray, with silt, trace sand, and roots. <i>(continued)</i>	CL					W				
S9	14		16-17	SANDY LEAN CLAY, fine to medium grained sand, gray brown, with trace gravel.	CL					W				
S10	16		18-20	POORLY GRADED SAND, fine to medium grained, gray brown. Same as above but fine to coarse grained.	SP					W				
S11	18		21							W				
S12	24		22-23							W				
			24	End of boring at 24' below ground surface.										



IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.:

Well or Piezometer No: MW-301

Dates Started: 2/29/16 Date Completed: 2/29/16

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (± 0.5 ft): Specify corner of site: SE of Parcel 16-29-300-007	Name & Address of Construction Company: Direct Push Analytical Corp
Distance & direction along boundary: 119' W	4N969 Old LaFox Road, Unit E
Distance & direction from boundary to wall: 356' N	St. Charles, IL 60175
Elevations (± 0.01 ft MSL):	Name of Driller: Kevin Collins
Ground Surface: 535.98	Drilling Method: Direct Push/4.25" HSA
Top of protective casing: 538.75	Drilling Fluid: NA
Top of well casing: 538.38	Bore Hole Diameter: 8.5 inch
Benchmark elevation:	Soil Sampling Method: Macro Core
Benchmark description:	Depth of Boring: 29.50 ft bgs

C. MONITORING WELL INSTALLATION	
Casing material: PVC	Placement method: Gravity
Length of casing: 24.5	Volume: 4.4 cubic ft
Outside casing diameter: 2.38"	Backfill (if different from seal):
Inside casing diameter: 2"	Material:
Casing joint type: threaded	Placement method:
Casing/screen joint type: threaded	Volume:
Screen material: PVC	Surface seal design:
Screen opening size: 0.010"	Material of protective casing: Steel 4 inch
Screen length: 5 ft	Material of grout between protective casing and well casing: sand
Depth of well: 29.5 ft	Protective cap:
Filter Pack:	Material: Steel, vented
Material: NSF R.W Sidley Inc.	Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: 10/20	Well Cap:
Volume: 2.25 cubic ft	Material: PVC
Seal (minimum 3 ft length above filter pack):	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: Black Hills Bentonite 3/8 inch	

D. GROUNDWATER MEASUREMENT (± 0.01 ft below top of inner well casing)	
Water level: 15.47 ft	Stabilization Time: <5 minutes
Well development method: Surged with block and pumped to reduce turbidity. 45 gallons pumped.	
Average depth of frostline: 3.5'	

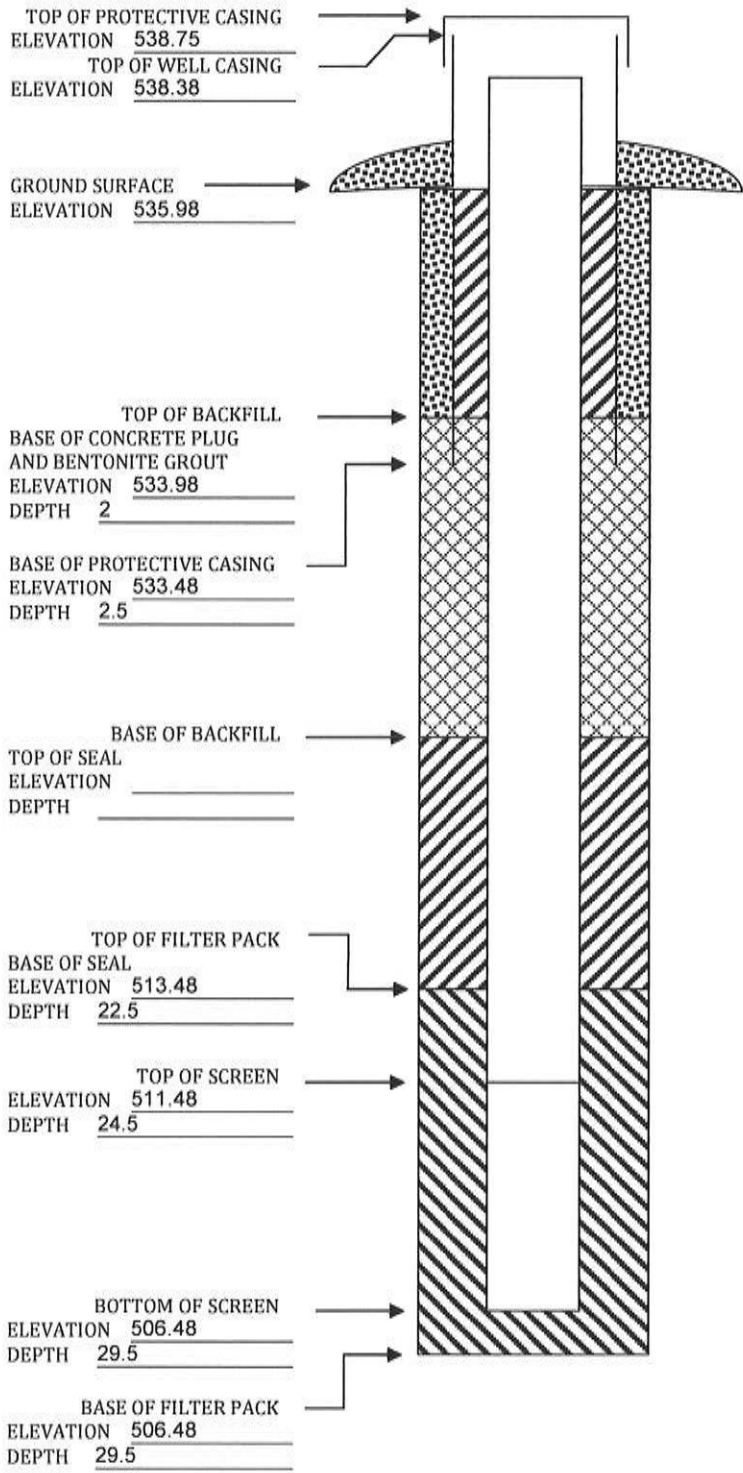
Attachments: Driller's log, Pipe schedules and grouting schedules, 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

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

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.)





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____
 Well or Piezometer No: MW-302
 Dates Started: 2/29/16 Date Completed: 2/29/16

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (± 0.5 ft): Specify corner of site: <u>SE of Parcel 16-29-300-008</u> Distance & direction along boundary: <u>315' W</u> Distance & direction from boundary to wall: <u>34'N</u>	Name & Address of Construction Company: <u>Direct Push Analytical Corp</u> <u>4N969 Old LaFox Road, Unit E</u> <u>St. Charles, IL 60175</u>
Elevations (± 0.01 ft MSL): Ground Surface: <u>533.24</u> Top of protective casing: <u>535.98</u> Top of well casing: _____ <u>535.69</u> Benchmark elevation: _____ Benchmark description: _____	Name of Driller: <u>Kevin Collins</u> Drilling Method: <u>Direct Push/4.25" HSA</u> Drilling Fluid: <u>NA</u> Bore Hole Diameter: <u>8.5 inch</u> Soil Sampling Method: <u>Macro Core</u> Depth of Boring: <u>28 ft bgs</u>

C. MONITORING WELL INSTALLATION	
Casing material: <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: <u>22.5</u>	Volume: <u>2.7 cubic ft</u>
Outside casing diameter: <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: <u>2"</u>	Material: _____
Casing joint type: <u>threaded</u>	Placement method: _____
Casing/screen joint type: <u>threaded</u>	Volume: _____
Screen material: <u>PVC</u>	Surface seal design: _____
Screen opening size: <u>0.010"</u>	Material of protective casing: <u>Steel 4 inch</u>
Screen length: <u>5 ft</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: <u>27.5</u>	Protective cap: _____
Filter Pack: _____	Material: <u>Steel, vented</u>
Material: <u>NSF R.W Sidley Inc.</u>	Vented: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: <u>10/20</u>	Well Cap: _____
Volume: <u>1.25 cubic ft</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Black Hills Bentonite 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (± 0.01 ft below top of inner well casing)	
Water level: <u>12.70 ft</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 68.5 gallons pumped.</u>	
Average depth of frostline: <u>3.5</u>	

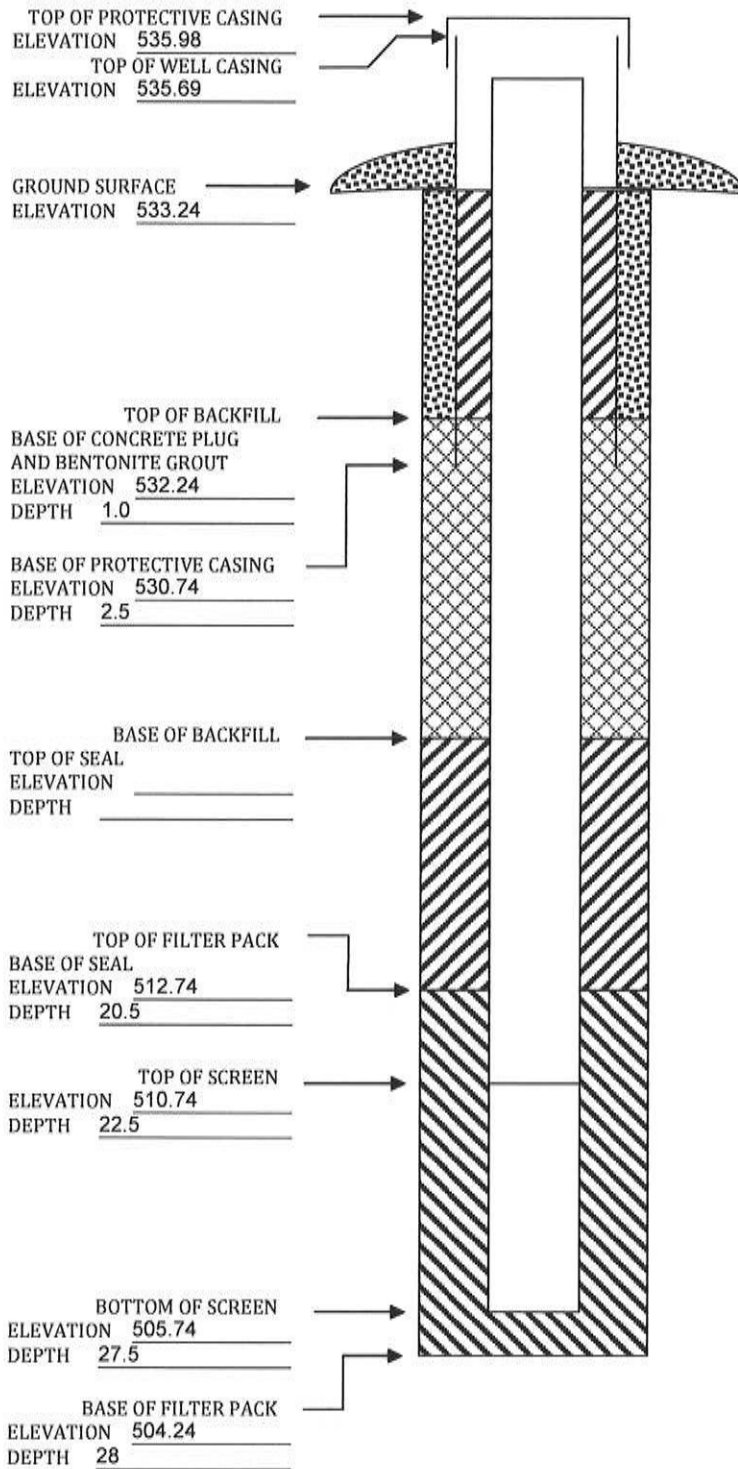
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

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

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.)



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name Burlington Generating Station Permit No. _____
Well or Piezometer No. MW-302A Dates Started 6/30/2020 Date Completed 7/1/2020

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

Specify corner of site South East Corner Distance and direction along boundary _____
Distance and direction from boundary to surface monitoring well _____
Elevation (+0.01 ft. MSL) _____
Ground Surface 533.51' Top of protective casing 536.28'
Top of well casing 535.89' Benchmark elevation _____
Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name Roberts Environmental Drilling
Address 1107 S Mulberry St City, State, Zip Code Millstadt, IL 62260
Name of driller Jeff Crank
Drilling method Hollow Stem Auger Drilling fluid Water Bore Hole diameter 4.25"
Soil sampling method Split spoon Depth of boring 61'

C. MONITORING WELL INSTALLATION

Casing material Sch. 40 PVC Placement method Pumped
Length of casing 62.5' Volume 8, 50lbs bags (120 gallons of grout)
Outside casing diameter 2.4" Backfill (if different from seal): _____
Inside casing diameter 2" Material 3/8" Bentonite chips
Casing joint type Threaded Placement method Poured
Casing/screen joint type Threaded Volume 3, 50lbs bags
Screen material Sch. 40 PVC Surface seal design: Stick-up
Screen opening size 0.01 Material of protective casing: steel
Screen length 5' Material of grout between
Depth of Well 60' protective casing and well casing: Sand
Filter Pack: _____ Protective cap: _____
Material Sand (FilterSil) Material Steel
Grain Size 18-23 Vented?: Y N Locking?: Y N
Volume 2, 50lbs bags Well cap: Lockable expanding well plug
Seal (minimum 3 ft. length above filter pack): _____ Material Plastic
Material Bentonite grout Vented?: Y N

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

Water level 14.25' Stabilization time < 5 min
Well development method Surged with bailer 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 *Jeff Crank* Certification # 8515 Date 9-16-20

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 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.

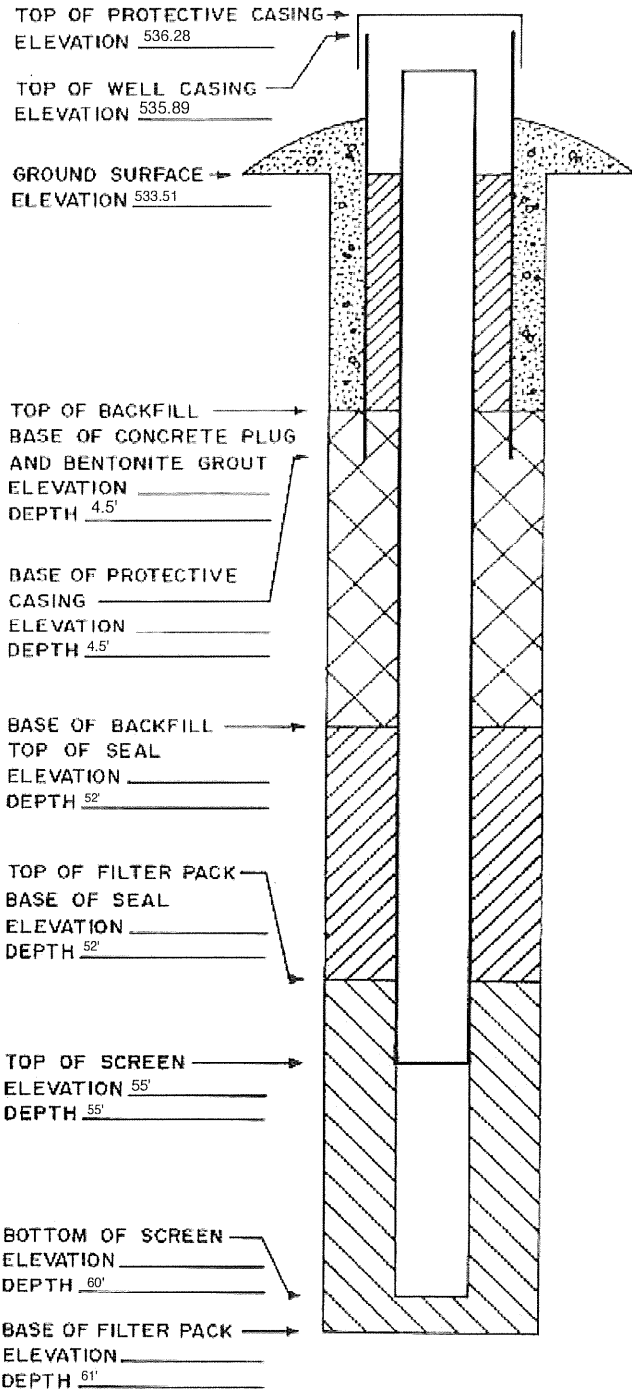
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

09/2017 cmc

DNR Form 542-1277

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).





IOWA DEPARTMENT OF NATURAL RESOURCES

MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____Well or Piezometer No: MW-303Dates Started: 12/15/15 Date Completed: 12/15/15

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (± 0.5 ft): _____	Name & Address of Construction Company: _____
Specify corner of site: <u>SE of Parcel 16-29-300-008</u>	<u>Cascade Drilling, LP</u>
Distance & direction along boundary: <u>89' W</u>	<u>301 Alderson St</u>
Distance & direction from boundary to wall: <u>139' N</u>	<u>Schofield, WI 54476</u>
Elevations (± 0.01 ft MSL): _____	Name of Driller: <u>Mike Mueller</u>
Ground Surface: <u>531.01</u>	Drilling Method: <u>4.25" HSA</u>
Top of protective casing: <u>534.08</u>	Drilling Fluid: <u>NA</u>
Top of well casing: _____ <u>533.6</u>	Bore Hole Diameter: <u>8.5 inch</u>
Benchmark elevation: _____	Soil Sampling Method: <u>Spoon</u>
Benchmark description: _____	Depth of Boring: <u>27 ft</u>

C. MONITORING WELL INSTALLATION	
Casing material: _____ <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: _____ <u>21 ft</u>	Volume: <u>7.4 cubic ft</u>
Outside casing diameter: _____ <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: _____ <u>2"</u>	Material: _____
Casing joint type: _____ <u>threaded</u>	Placement method: _____
Casing/screen joint type: _____ <u>threaded</u>	Volume: _____
Screen material: _____ <u>PVC</u>	Surface seal design: _____
Screen opening size: _____ <u>0.010"</u>	Material of protective casing: <u>Steel 6 inch</u>
Screen length: _____ <u>5 ft</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: _____ <u>26 ft</u>	Protective cap: _____
Filter Pack: _____	Material: <u>steel, vented</u>
Material: _____ <u>Red Flint</u>	Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: _____ <u>#40</u>	Well Cap: _____
Volume: _____ <u>2.5 cubic ft</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Hole Plug 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (± 0.01 ft below top of inner well casing)	
Water level: <u>10.55 ft</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 147 gallons pumped.</u>	
Average depth of frostline: <u>3.5'</u>	

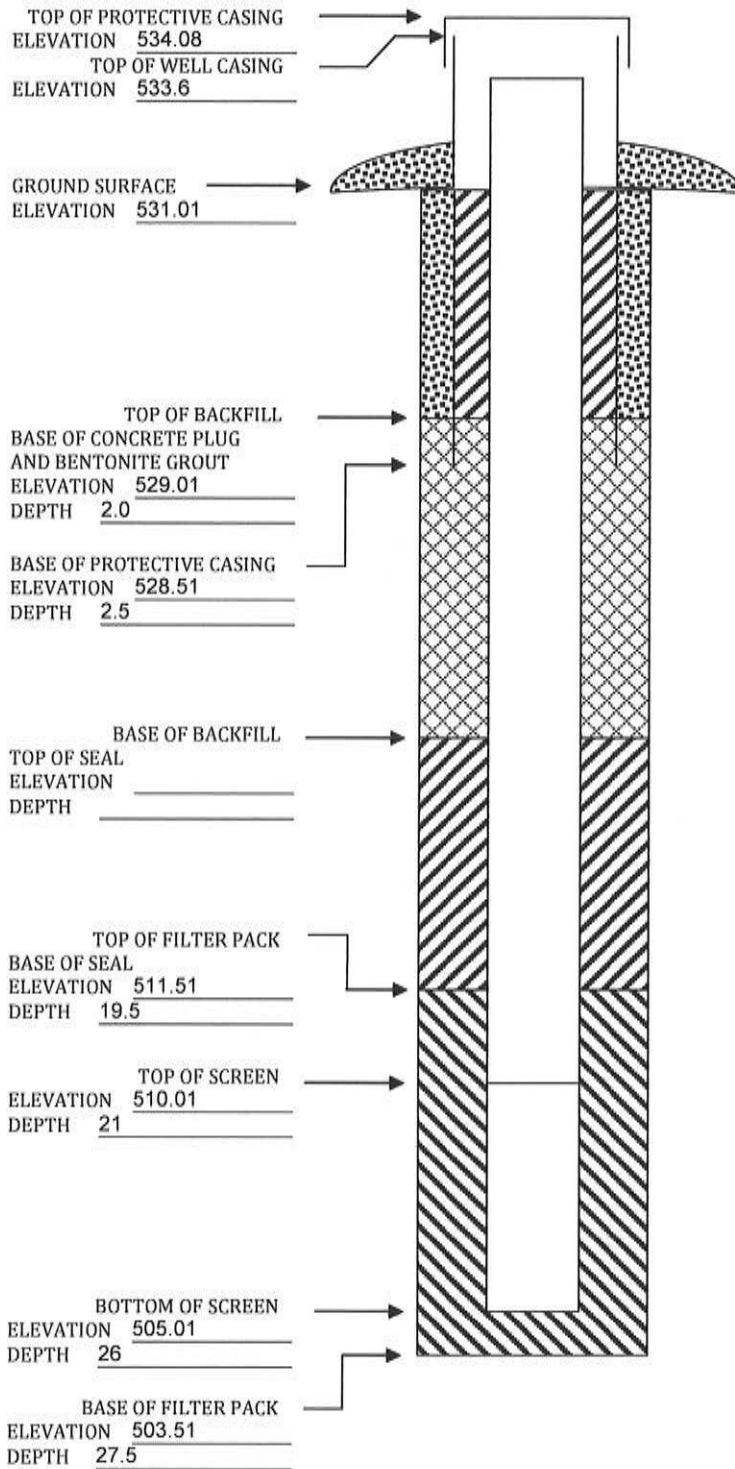
Attachments: Driller's log, Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

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

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.)





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-304

Dates Started: 12/15/15 Date Completed: 12/15/15

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (\pm 0.5 ft): _____	Name & Address of Construction Company: _____
Specify corner of site: <u>SE of Parcel 16-29-300-008</u>	<u>Cascade Drilling, LP</u>
Distance & direction along boundary: <u>61' W</u>	<u>301 Alderson St</u>
Distance & direction from boundary to wall: <u>558' N</u>	<u>Schofield, WI 54476</u>
Elevations (\pm 0.01 ft MSL): _____	Name of Driller: <u>Mike Mueller</u>
Ground Surface: <u>532.15</u>	Drilling Method: <u>4.25" HSA</u>
Top of protective casing: <u>535.00</u>	Drilling Fluid: <u>NA</u>
Top of well casing: _____ <u>534.42</u>	Bore Hole Diameter: <u>8.5 inch</u>
Benchmark elevation: _____	Soil Sampling Method: <u>Spoon</u>
Benchmark description: _____	Depth of Boring: <u>27 ft</u>

C. MONITORING WELL INSTALLATION	
Casing material: <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: <u>18 ft</u>	Volume: <u>4 cubic ft</u>
Outside casing diameter: <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: <u>2"</u>	Material: _____
Casing joint type: <u>threaded</u>	Placement method: _____
Casing/screen joint type: <u>threaded</u>	Volume: _____
Screen material: <u>PVC</u>	Surface seal design: _____
Screen opening size: <u>0.010"</u>	Material of protective casing: <u>Steel 6 inch</u>
Screen length: <u>5 ft</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: <u>23 ft</u>	Protective cap: _____
Filter Pack: _____	Material: <u>steel, vented</u>
Material: <u>Red Flint</u>	Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: <u>#40</u>	Well Cap: _____
Volume: <u>2.0 cubic ft</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Hole Plug 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (\pm 0.01 ft below top of inner well casing)	
Water level: <u>11.34 ft</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 136 gallons pumped.</u>	
Average depth of frostline: <u>3.5'</u>	

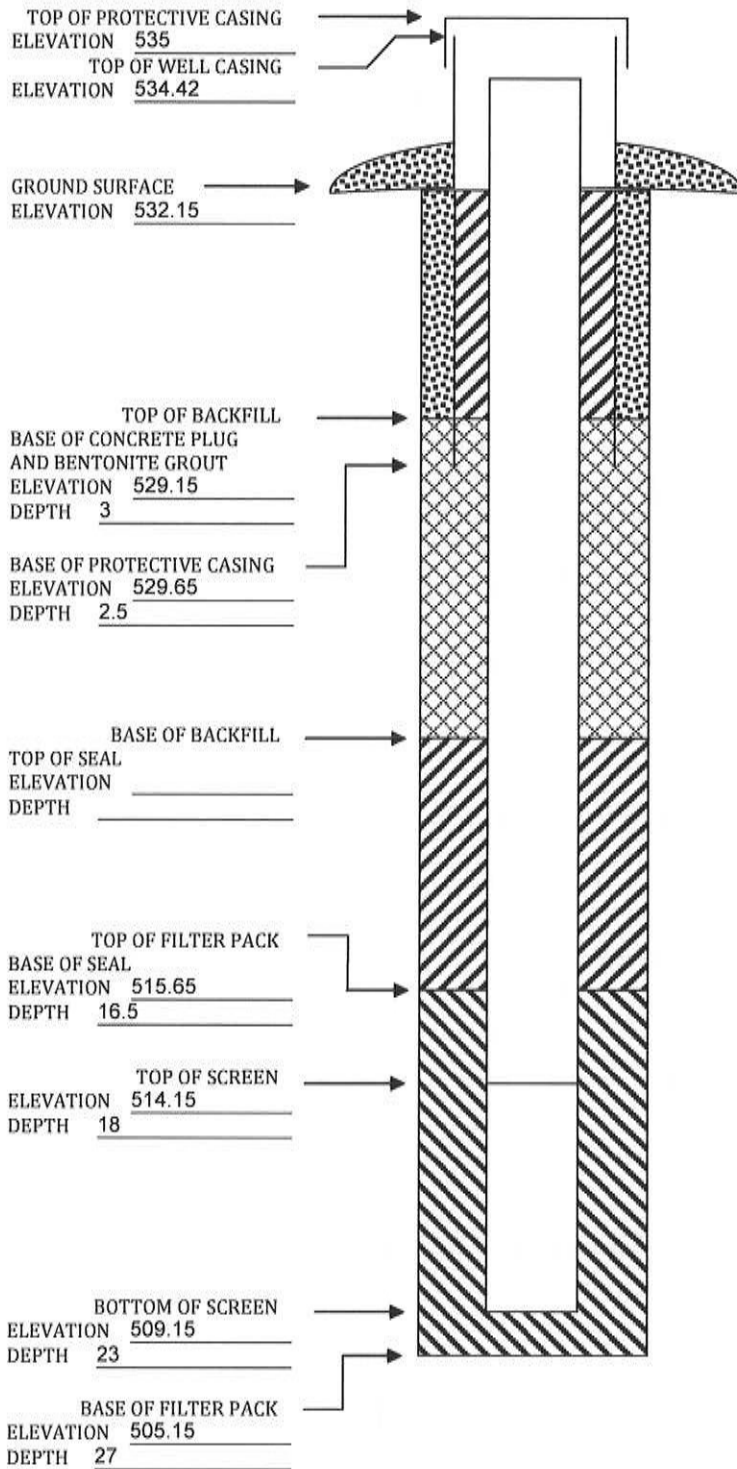
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

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

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.)





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-305

Dates Started: 12/17/15 Date Completed: 12/17/15

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (\pm 0.5 ft): _____	Name & Address of Construction Company: _____
Specify corner of site: <u>NW of Parcel 16-29-300-006</u>	<u>Cascade Drilling, LP</u>
Distance & direction along boundary: <u>475' S</u>	<u>301 Alderson St</u>
Distance & direction from boundary to wall: <u>297' E</u>	<u>Schofield, WI 54476</u>
Elevations (\pm 0.01 ft MSL): _____	Name of Driller: <u>Mike Mueller</u>
Ground Surface: <u>530.85</u>	Drilling Method: <u>4.25" HSA</u>
Top of protective casing: <u>533.93</u>	Drilling Fluid: <u>NA</u>
Top of well casing: _____ <u>533.28</u>	Bore Hole Diameter: <u>8.5 inch</u>
Benchmark elevation: _____	Soil Sampling Method: <u>Spoon</u>
Benchmark description: _____	Depth of Boring: <u>27.5 ft</u>

C. MONITORING WELL INSTALLATION	
Casing material: _____ <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: _____	Volume: <u>5.4 cubic ft</u>
Outside casing diameter: _____ <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: _____ <u>2"</u>	Material: _____
Casing joint type: _____ <u>threaded</u>	Placement method: _____
Casing/screen joint type: _____ <u>threaded</u>	Volume: _____
Screen material: _____ <u>PVC</u>	Surface seal design: _____
Screen opening size: _____ <u>0.010"</u>	Material of protective casing: <u>Steel 6 inch</u>
Screen length: _____ <u>5</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: _____ <u>32</u>	Protective cap: _____
Filter Pack: _____	Material: <u>Steel, vented</u>
Material: _____ <u>Red Flint</u>	Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: _____ <u>#40</u>	Well Cap: _____
Volume: _____ <u>2.0 cubic ft</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Hole Plug 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (\pm 0.01 ft below top of inner well casing)	
Water level: <u>10.04 ft</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 184 gallons pumped.</u>	
Average depth of frostline: <u>3.5'</u>	

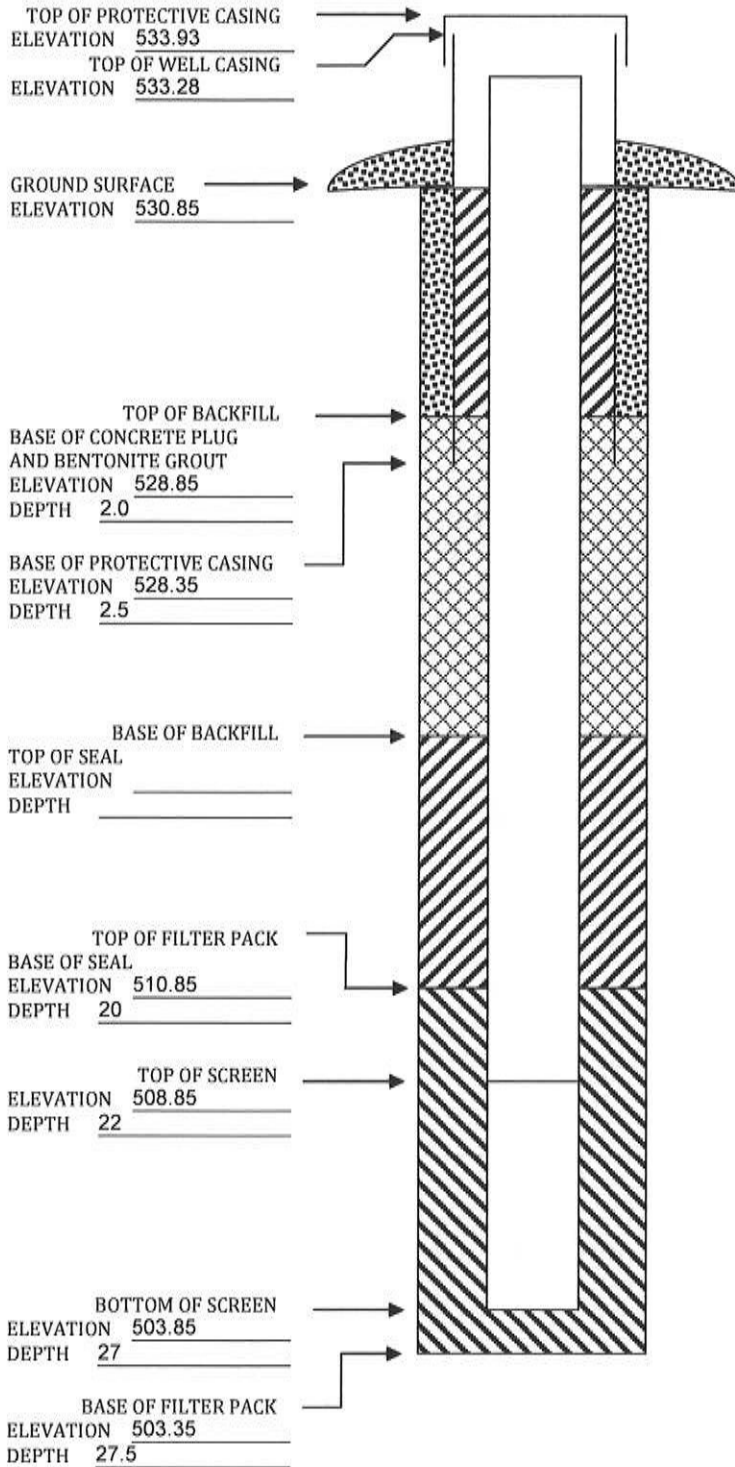
Attachments: Driller's log, Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

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

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.)





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-306

Dates Started: 12/16/15 Date Completed: 12/17/15

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (± 0.5 ft): Specify corner of site: <u>SW of Parcel 16-29-300-006</u>	Name & Address of Construction Company: <u>Cascade Drilling, LP</u>
Distance & direction along boundary: <u>328' N</u>	<u>301 Alderson St</u>
Distance & direction from boundary to wall: <u>210' E</u>	<u>Schofield, WI 54476</u>
Elevations (± 0.01 ft MSL):	Name of Driller: <u>Mike Mueller</u>
Ground Surface: <u>534.51</u>	Drilling Method: <u>4.25" HSA</u>
Top of protective casing: <u>537.44</u>	Drilling Fluid: <u>NA</u>
Top of well casing: _____ <u>536.92</u>	Bore Hole Diameter: <u>8.5 inch</u>
Benchmark elevation: _____	Soil Sampling Method: <u>Spoon</u>
Benchmark description: _____	Depth of Boring: <u>32.5 ft</u>

C. MONITORING WELL INSTALLATION	
Casing material: _____ <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: _____ <u>27 ft</u>	Volume: <u>6.7 cubic ft.</u>
Outside casing diameter: _____ <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: _____ <u>2"</u>	Material: _____
Casing joint type: _____ <u>threaded</u>	Placement method: _____
Casing/screen joint type: _____ <u>threaded</u>	Volume: _____
Screen material: _____ <u>PVC</u>	Surface seal design: _____
Screen opening size: _____ <u>0.010"</u>	Material of protective casing: <u>Steel 6 inch</u>
Screen length: _____ <u>5 ft</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: _____ <u>32 ft</u>	Protective cap: _____
Filter Pack: _____	Material: <u>Steel, vented</u>
Material: _____ <u>Red Flint</u>	Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: _____ <u>#40</u>	Well Cap: _____
Volume: _____ <u>2.5 cubic ft</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Hole Plug 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (± 0.01 ft below top of inner well casing)	
Water level: <u>13.65</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 120 gallons pumped.</u>	
Average depth of frostline: <u>3.5</u>	

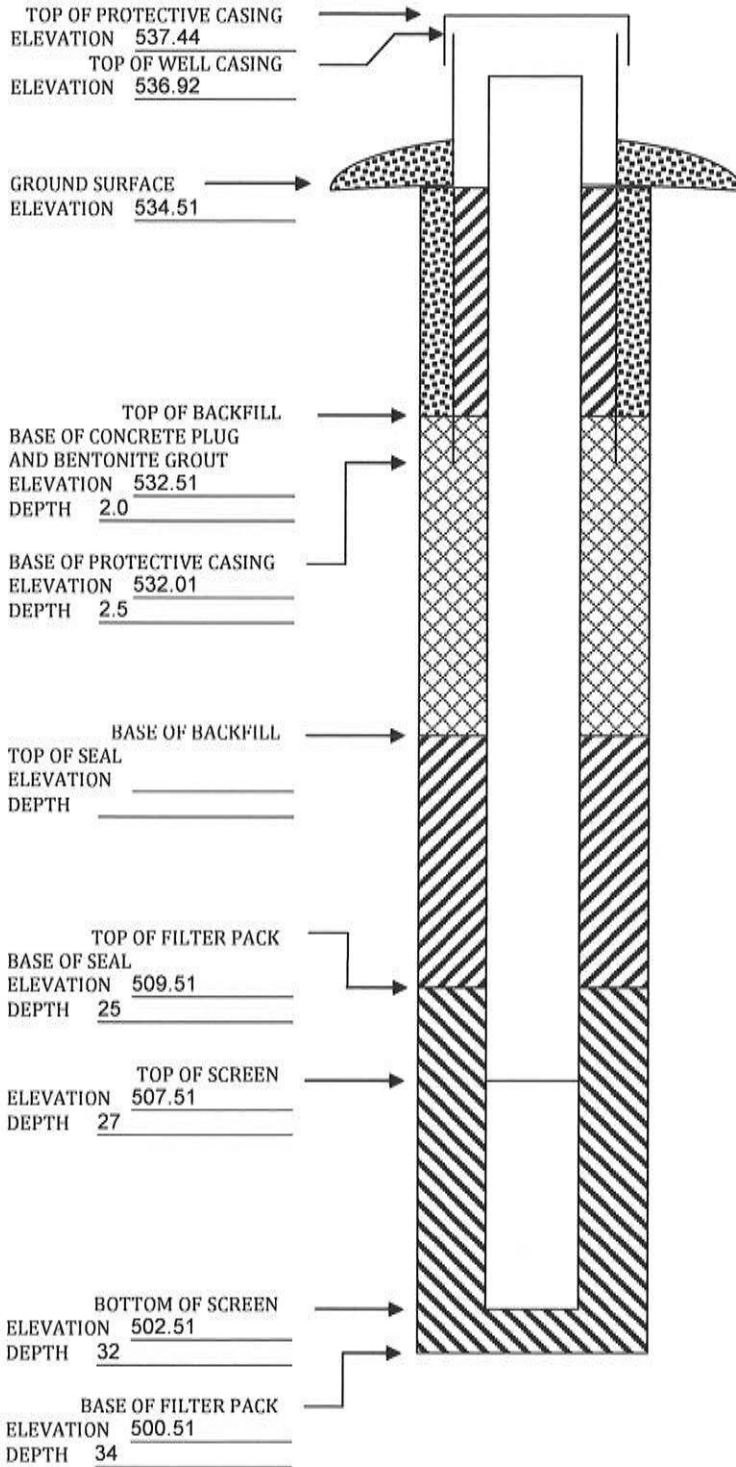
Attachments: Driller's log, Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

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

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.)





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-307

Dates Started: 12/16/15 Date Completed: 12/16/15

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (± 0.5 ft): _____	Name & Address of Construction Company: _____
Specify corner of site: <u>SW of Parcel 16-29-300-006</u>	<u>Cascade Drilling, LP</u>
Distance & direction along boundary: <u>201' N</u>	<u>301 Alderson St</u>
Distance & direction from boundary to wall: <u>177' E</u>	<u>Schofield, WI 54476</u>
Elevations (± 0.01 ft MSL): _____	Name of Driller: <u>Mike Mueller</u>
Ground Surface: <u>534.32</u>	Drilling Method: <u>4.25" HSA</u>
Top of protective casing: <u>537.54</u>	Drilling Fluid: <u>NA</u>
Top of well casing: _____ <u>536.96</u>	Bore Hole Diameter: <u>8.5 inch</u>
Benchmark elevation: _____	Soil Sampling Method: <u>Spoon</u>
Benchmark description: _____	Depth of Boring: <u>27 ft</u>

C. MONITORING WELL INSTALLATION	
Casing material: _____ <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: _____ <u>21 ft</u>	Volume: <u>6 cubic ft.</u>
Outside casing diameter: _____ <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: _____ <u>2"</u>	Material: _____
Casing joint type: _____ <u>threaded</u>	Placement method: _____
Casing/screen joint type: _____ <u>threaded</u>	Volume: _____
Screen material: _____ <u>PVC</u>	Surface seal design: _____
Screen opening size: _____ <u>0.010"</u>	Material of protective casing: <u>Steel 6 inch</u>
Screen length: _____ <u>5 ft</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: _____ <u>27 ft</u>	Protective cap: _____
Filter Pack: _____	Material: <u>Steel, vented</u>
Material: _____ <u>Red Flint</u>	Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: _____ <u>#40</u>	Well Cap: _____
Volume: _____ <u>2 cubic ft</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Hole Plug 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (± 0.01 ft below top of inner well casing)	
Water level: <u>13.34 ft</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 137 gallons pumped.</u>	
Average depth of frostline: <u>3.5'</u>	

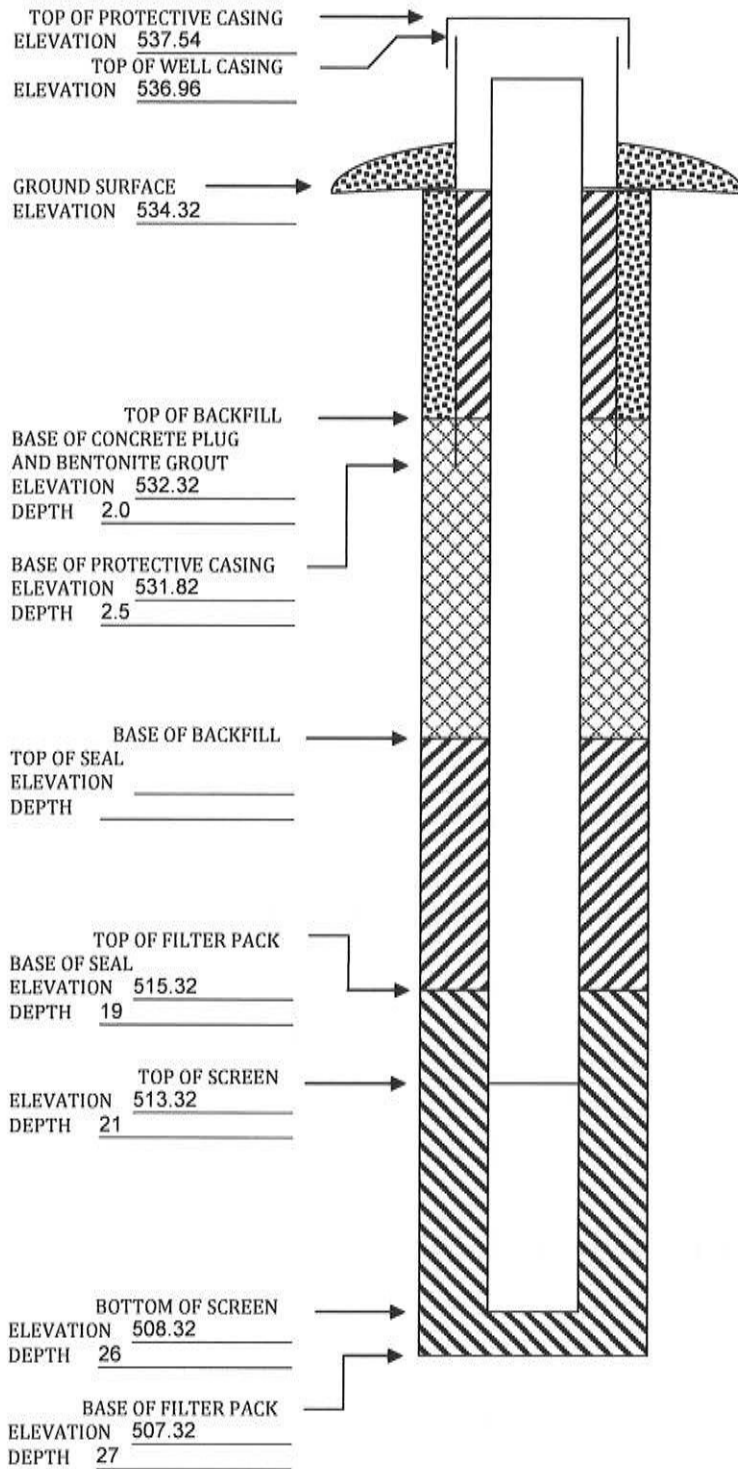
Attachments: Driller's log, Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

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

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.)



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name Burlington Generating Station Permit No. _____
Well or Piezometer No. MW-307A Dates Started 6/24/2020 Date Completed 7/1/2020

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

Specify corner of site SW of Parcel 16-29-300-00 Distance and direction along boundary 201' N
Distance and direction from boundary to surface monitoring well 177' E
Elevation (+0.01 ft. MSL) _____
Ground Surface 533.94' Top of protective casing 536.67'
Top of well casing 536.22' Benchmark elevation _____
Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name Roberts Environmental Drilling
Address 1107 S Mulberry St City, State, Zip Code Millstadt, IL 62260
Name of driller Jeff Crank
Drilling method Hollow Stem Auger Drilling fluid Water Bore Hole diameter 4.25"
Soil sampling method Split spoon Depth of boring 60'

C. MONITORING WELL INSTALLATION

Casing material <u>Sch. 40 PVC</u>	Placement method <u>Pumped</u>
Length of casing <u>61.92'</u>	Volume <u>7, 50lbs bags (~115 gallons of grout)</u>
Outside casing diameter <u>2.4"</u>	Backfill (if different from seal): _____
Inside casing diameter <u>2"</u>	Material <u>3/8" Bentonite chips</u>
Casing joint type <u>Threaded</u>	Placement method <u>Poured</u>
Casing/screen joint type <u>Threaded</u>	Volume <u>5, 50lbs bags</u>
Screen material <u>Sch. 40 PVC</u>	Surface seal design: <u>Stick-up</u>
Screen opening size <u>0.01</u>	Material of protective casing: <u>steel</u>
Screen length <u>5'</u>	Material of grout between protective casing and well casing: <u>Sand</u>
Depth of Well <u>59'</u>	Protective cap: _____
Filter Pack: _____	Material <u>Steel</u>
Material <u>Sand (FilterSil)</u>	Vented?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Locking?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Grain Size <u>18-23</u>	Well cap: <u>Lockable expanding well plug</u>
Volume <u>3, 50lbs bags</u>	Material <u>Plastic</u>
Seal (minimum 3 ft. length above filter pack): _____	Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Material <u>Bentonite grout</u>	

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

Water level 14.37' Stabilization time <5 min
Well development method Surged with bailer 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 *Jeff Crank* Certification # 8515 Date 9-16-20

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 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.

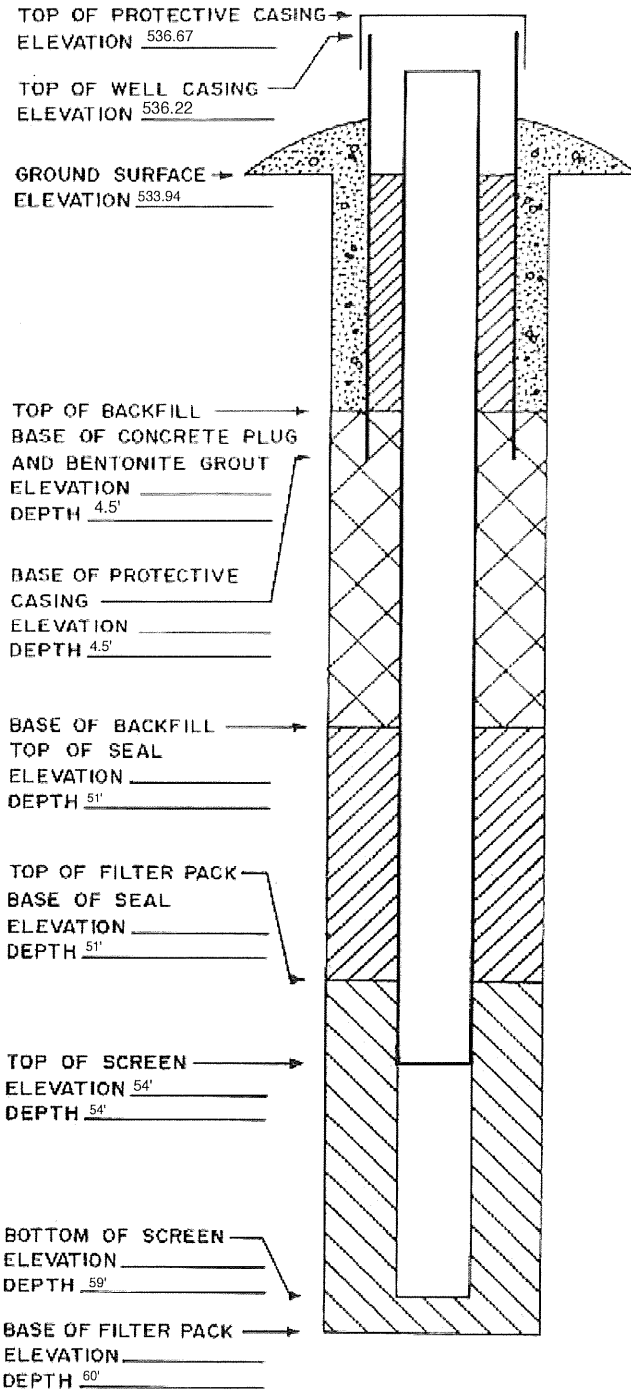
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

09/2017 cmc

DNR Form 542-1277

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).





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-308

Dates Started: 12/15/15 Date Completed: 12/16/15

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (± 0.5 ft): Specify corner of site: <u>SW of Parcel 16-29-300-006</u>	Name & Address of Construction Company: <u>Cascade Drilling, LP</u>
Distance & direction along boundary: <u>33' N</u>	<u>301 Alderson St</u>
Distance & direction from boundary to wall: <u>130' E</u>	<u>Schofield, WI 54476</u>
Elevations (± 0.01 ft MSL):	Name of Driller: <u>Mike Mueller</u>
Ground Surface: <u>534.89</u>	Drilling Method: <u>4.25" HSA</u>
Top of protective casing: <u>537.74</u>	Drilling Fluid: <u>NA</u>
Top of well casing: <u>537.20</u>	Bore Hole Diameter: <u>8.5 inch</u>
Benchmark elevation: _____	Soil Sampling Method: <u>Spoon</u>
Benchmark description: _____	Depth of Boring: <u>29.5 ft</u>

C. MONITORING WELL INSTALLATION	
Casing material: <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: <u>23 ft</u>	Volume: <u>6 cubic ft.</u>
Outside casing diameter: <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: <u>2"</u>	Material: _____
Casing joint type: <u>threaded</u>	Placement method: _____
Casing/screen joint type: <u>threaded</u>	Volume: _____
Screen material: <u>PVC</u>	Surface seal design: _____
Screen opening size: <u>0.010"</u>	Material of protective casing: <u>Steel 6 inch</u>
Screen length: <u>5 ft</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: <u>28 ft</u>	Protective cap: _____
Filter Pack: _____	Material: <u>steel, vented</u>
Material: <u>Red Flint</u>	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Locking: <input type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: <u>#40</u>	Well Cap: _____
Volume: <u>2 cubic ft.</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Hole Plug 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (± 0.01 ft below top of inner well casing)	
Water level: <u>13.95</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 151 gallons pumped.</u>	
Average depth of frostline: <u>3.5'</u>	

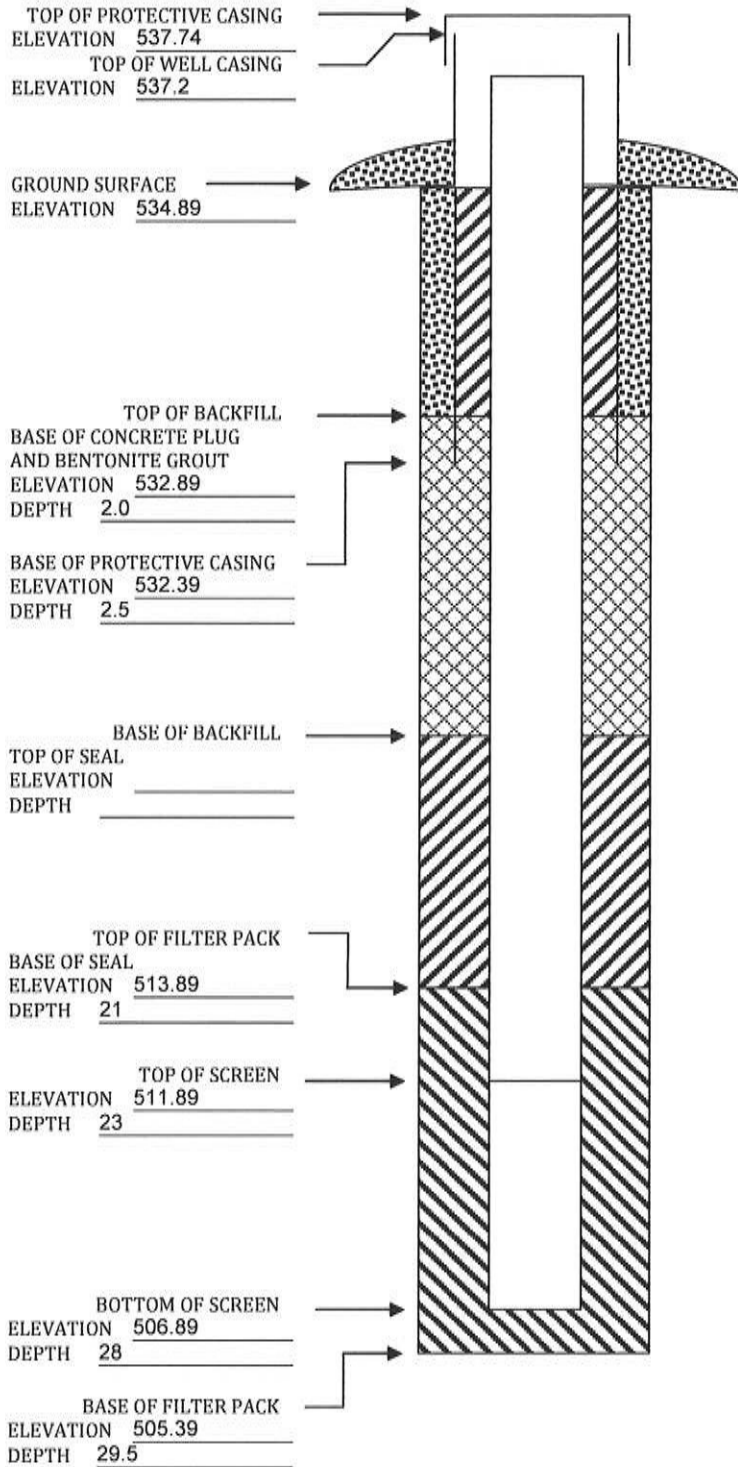
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

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

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.)





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-309

Dates Started: 3/1/16 Date Completed: 3/1/16

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (± 0.5 ft): Specify corner of site: <u>NE of Parcel 16-29-300-007</u> Distance & direction along boundary: <u>141' S</u> Distance & direction from boundary to wall: <u>123' W</u>	Name & Address of Construction Company: <u>Direct Push Analytical Corp</u> <u>4N969 Old LaFox Road, Unit E</u> <u>St. Charles, IL 60175</u>
Elevations (± 0.01 ft MSL): Ground Surface: <u>534.11</u> Top of protective casing: <u>536.70</u> Top of well casing: _____ <u>536.42</u> Benchmark elevation: _____ Benchmark description: _____	Name of Driller: <u>Kevin Collins</u> Drilling Method: <u>Direct Push/4.25" HSA</u> Drilling Fluid: <u>NA</u> Bore Hole Diameter: <u>8.5 inch</u> Soil Sampling Method: <u>Macro Core</u> Depth of Boring: <u>25 ft bgs</u>

C. MONITORING WELL INSTALLATION	
Casing material: <u>PVC</u> Length of casing: <u>20</u> Outside casing diameter: <u>2.38"</u> Inside casing diameter: <u>2"</u> Casing joint type: <u>threaded</u> Casing/screen joint type: <u>threaded</u> Screen material: <u>PVC with slip cap and 4 stainless screws</u> Screen opening size: <u>0.010"</u> Screen length: <u>5 ft</u> Depth of well: <u>25</u> Filter Pack: Material: <u>NSF R.W Sidley Inc.</u> Grain size: <u>10/20</u> Volume: <u>1.50 cubic ft.</u> Seal (minimum 3 ft length above filter pack): Material: <u>Black Hills Bentonite 3/8 inch</u>	Placement method: <u>Gravity</u> Volume: <u>2 cubic ft.</u> Backfill (if different from seal): Material: <u>3/8 Hole Plug</u> Placement method: <u>Gravity</u> Volume: _____ Surface seal design: Material of protective casing: <u>Steel 4 inch</u> Material of grout between protective casing and well casing: <u>sand</u> Protective cap: Material: <u>steel, vented</u> Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Well Cap: Material: <u>PVC</u> Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

D. GROUNDWATER MEASUREMENT (± 0.01 ft below top of inner well casing)
Water level: <u>13.18</u> Stabilization Time: <u><5 minutes</u> Well development method: <u>Surged with block and pumped to reduce turbidity. 140 gallons pumped.</u> Average depth of frostline: _____

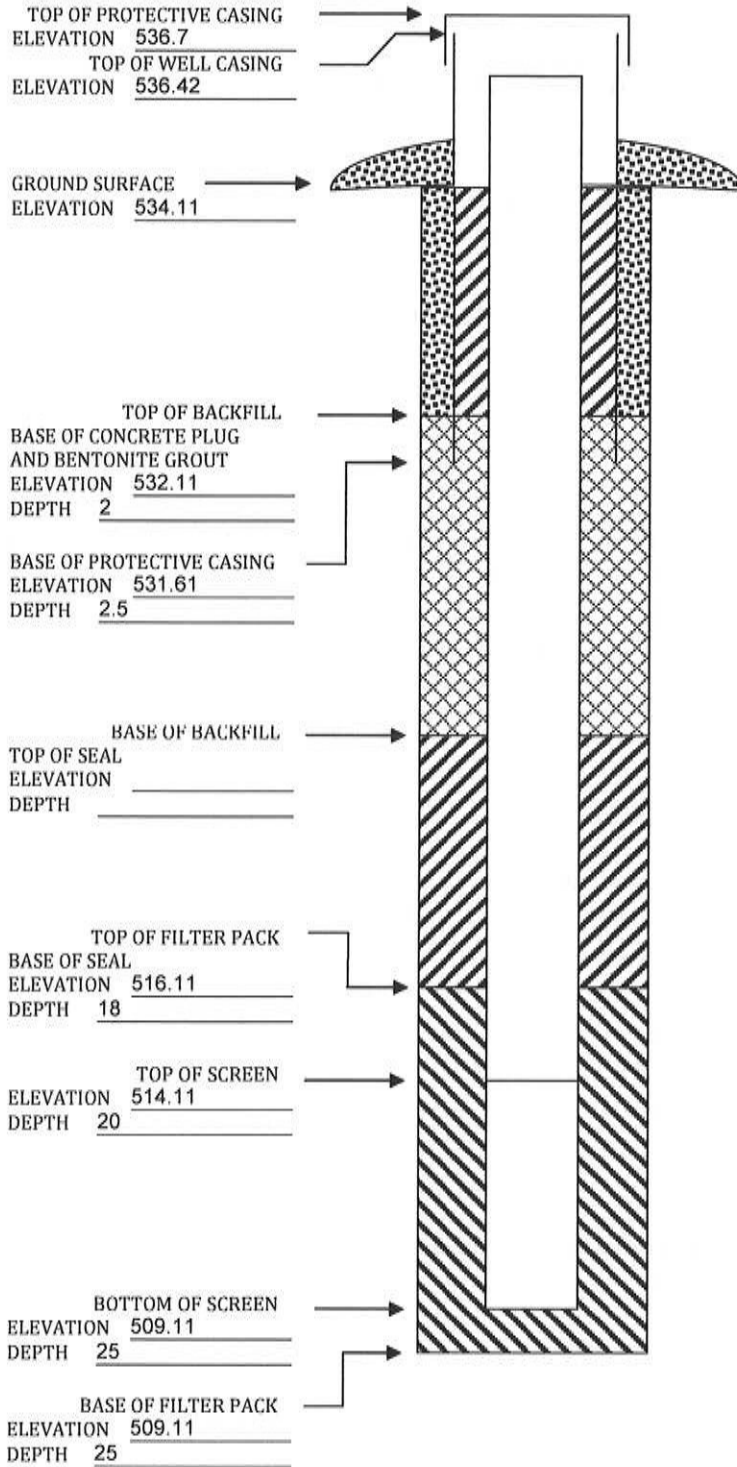
Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

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

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.)





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-310

Dates Started: 3/1/16 Date Completed: 3/1/16

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (± 0.5 ft): Specify corner of site: <u>Sullivan Slough RD West ROW</u>	Name & Address of Construction Company: <u>Direct Push Analytical Corp</u>
Distance & direction along boundary: <u>65' S from RR Tracks</u>	<u>4N969 Old LaFox Road, Unit E</u>
Distance & direction from boundary to wall: <u>21' W</u>	<u>St. Charles, IL 60175</u>
Elevations (± 0.01 ft MSL):	Name of Driller: <u>Kevin Collins</u>
Ground Surface: <u>532.23</u>	Drilling Method: <u>Direct Push/4.25" HSA</u>
Top of protective casing: <u>532.23</u>	Drilling Fluid: <u>NA</u>
Top of well casing: _____ <u>531.99</u>	Bore Hole Diameter: <u>8.5 inch</u>
Benchmark elevation: _____	Soil Sampling Method: <u>Macro Core</u>
Benchmark description: _____	Depth of Boring: <u>24 ft bgs</u>

C. MONITORING WELL INSTALLATION	
Casing material: _____ <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: _____ <u>14</u>	Volume: <u>2.7 cubic ft.</u>
Outside casing diameter: _____ <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: _____ <u>2"</u>	Material: _____
Casing joint type: _____ <u>threaded</u>	Placement method: _____
Casing/screen joint type: _____ <u>threaded</u>	Volume: _____
Screen material: <u>PVC with slip cap and 4 stainless screws</u>	Surface seal design: _____
Screen opening size: _____ <u>0.010"</u>	Material of protective casing: <u>Steel 4 inch</u>
Screen length: _____ <u>5 ft</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: _____ <u>19 ft bgs</u>	Protective cap: _____
Filter Pack: _____	Material: <u>Steel, not vented, flush-mount</u>
Material: _____ <u>NSF R.W Sidley Inc.</u>	Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: _____ <u>10/20</u>	Well Cap: _____
Volume: _____ <u>1 cubic ft.</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Black Hills Bentonite 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (± 0.01 ft below top of inner well casing)	
Water level: <u>6.58</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 112.5 gallons pumped.</u>	
Average depth of frostline: <u>3.5</u>	

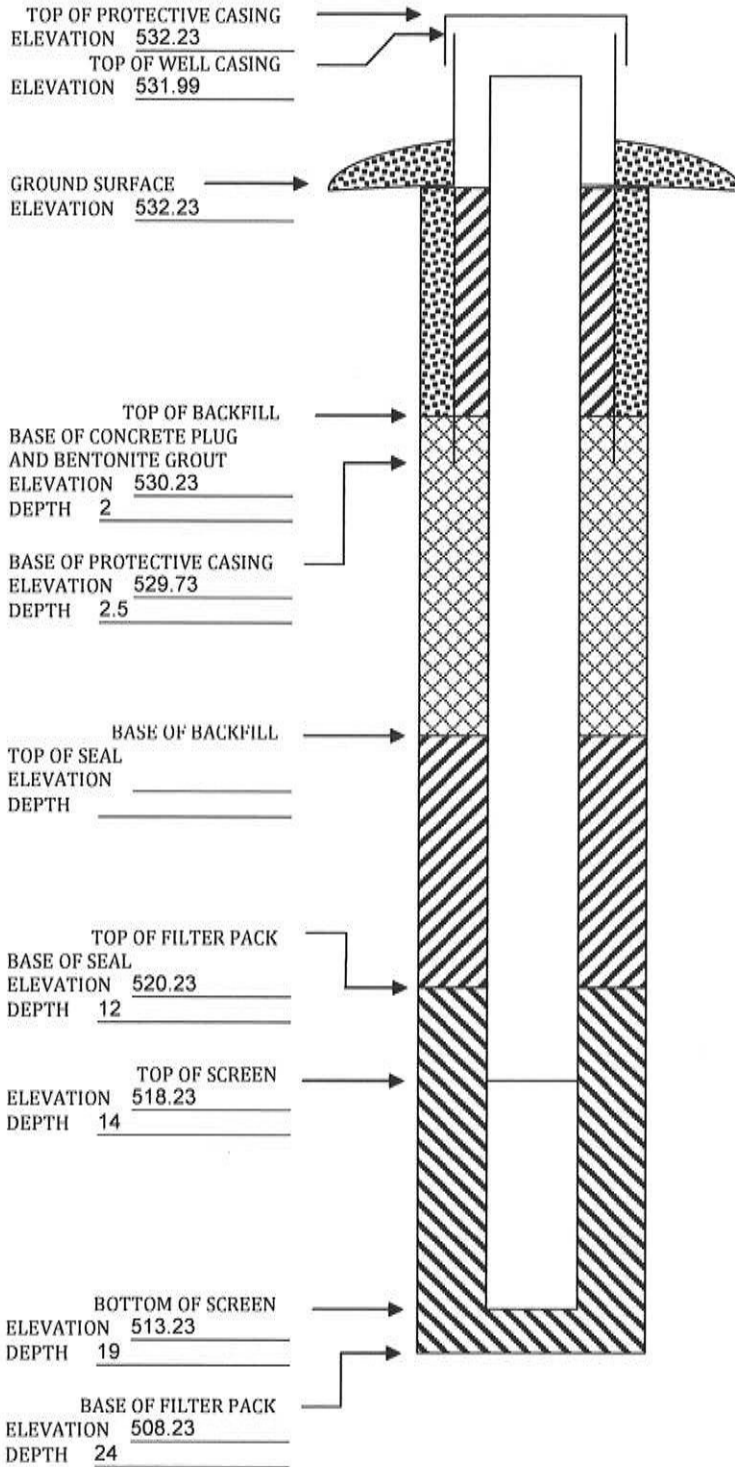
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Please mail completed for to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9th St, Des Moines IA 50319-0034.

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

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.)



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name Burlington Generating Station Permit No. _____
Well or Piezometer No. MW-310A Dates Started 6/25/2020 Date Completed 6/26/2020

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

Specify corner of site Sullivan SloughRd WestROW Distance and direction along boundary 75' S from RR Tracks
Distance and direction from boundary to surface monitoring well 21' W
Elevation (+0.01 ft. MSL) _____
Ground Surface 532.91' Top of protective casing 532.91'
Top of well casing 532.53' Benchmark elevation _____
Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name Roberts Environmental Drilling
Address 1107 S Mulberry St City, State, Zip Code Millstadt, IL 62260
Name of driller Jeff Crank
Drilling method Hollow Stem Auger Drilling fluid Water Bore Hole diameter 4.25"
Soil sampling method Split spoon Depth of boring 50'

C. MONITORING WELL INSTALLATION

Casing material <u>Sch. 40 PVC</u>	Placement method <u>Pumped</u>
Length of casing <u>49.4'</u>	Volume <u>8, 50lbs bags (~130 gallons of grout)</u>
Outside casing diameter <u>2.4"</u>	Backfill (if different from seal): _____
Inside casing diameter <u>2"</u>	Material <u>3/8" Bentonite chips</u>
Casing joint type <u>Threaded</u>	Placement method <u>Poured</u>
Casing/screen joint type <u>Threaded</u>	Volume <u>23, 50lbs bags</u>
Screen material <u>Sch. 40 PVC</u>	Surface seal design: <u>Flush mount</u>
Screen opening size <u>0.01</u>	Material of protective casing: <u>steel</u>
Screen length <u>5'</u>	Material of grout between protective casing and well casing: <u>Bentonite chips</u>
Depth of Well <u>49'</u>	Protective cap: _____
Filter Pack: _____	Material <u>Steel</u>
Material <u>Sand (FilterSil)</u>	Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N Locking?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Grain Size <u>18-23</u>	Well cap: <u>Lockable expanding well plug</u>
Volume <u>3, 50lbs bags</u>	Material <u>Plastic</u>
Seal (minimum 3 ft. length above filter pack): _____	Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Material <u>Bentonite grout</u>	

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

Water level 8.77' Stabilization time >48 hrs
Well development method Surged with bailer 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 *Jeff Crank* Certification # 8515 Date 9-16-20

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 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.

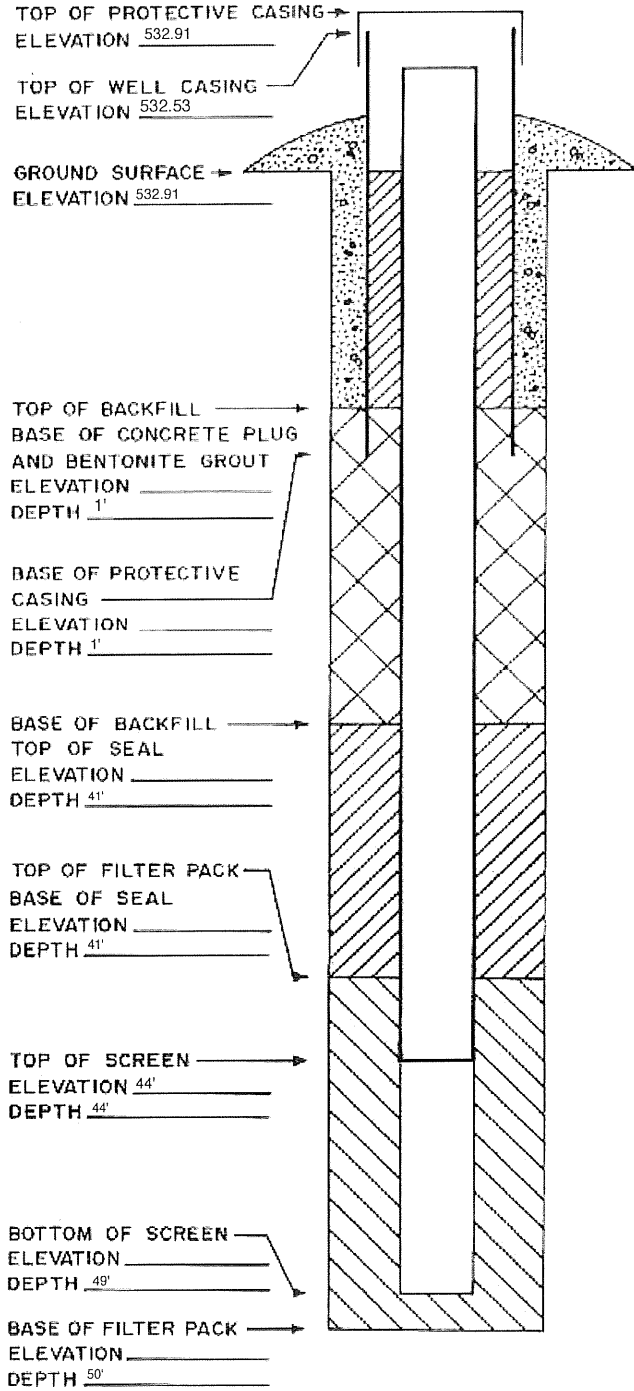
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

09/2017 cmc

DNR Form 542-1277

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).





IOWA DEPARTMENT OF NATURAL RESOURCES
MONITORING WELL/PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: IPL - Burlington Generating Station Permit No.: _____

Well or Piezometer No: MW-311

Dates Started: 3/1/16 Date Completed: 3/1/16

A. SURVEYED LOCATIONS AND ELEVATIONS	B. SOIL BORING INFORMATION
Locations (\pm 0.5 ft): _____	Name & Address of Construction Company: _____
Specify corner of site: <u>Sullivan Slough RD West ROW</u>	<u>Direct Push Analytical Corp</u>
Distance & direction along boundary: <u>207' S from RR Tracks</u>	<u>4N969 Old LaFox Road, Unit E</u>
Distance & direction from boundary to wall: <u>18' W</u>	<u>St. Charles, IL 60175</u>
Elevations (\pm 0.01 ft MSL): _____	Name of Driller: <u>Kevin Collins</u>
Ground Surface: <u>532.69</u>	Drilling Method: <u>Direct Push/4.25" HSA</u>
Top of protective casing: <u>532.69</u>	Drilling Fluid: <u>NA</u>
Top of well casing: _____ <u>532.32</u>	Bore Hole Diameter: <u>8.5 inch</u>
Benchmark elevation: _____	Soil Sampling Method: <u>Macro Core</u>
Benchmark description: _____	Depth of Boring: <u>32 ft bgs</u>

C. MONITORING WELL INSTALLATION	
Casing material: _____ <u>PVC</u>	Placement method: <u>Gravity</u>
Length of casing: _____ <u>18</u>	Volume: <u>3.7 cubic ft.</u>
Outside casing diameter: _____ <u>2.38"</u>	Backfill (if different from seal): _____
Inside casing diameter: _____ <u>2"</u>	Material: _____
Casing joint type: _____ <u>threaded</u>	Placement method: _____
Casing/screen joint type: _____ <u>threaded</u>	Volume: _____
Screen material: <u>PVC with slip cap and 4 stainless screws</u>	Surface seal design: _____
Screen opening size: _____ <u>0.010"</u>	Material of protective casing: <u>Steel 4 inch</u>
Screen length: _____ <u>5</u>	Material of grout between protective casing and well casing: <u>sand</u>
Depth of well: _____ <u>23</u>	Protective cap: _____
Filter Pack: _____	Material: <u>steel, not vented, flush-mount</u>
Material: _____ <u>NSF R.W Sidley Inc.</u>	Vented: <input type="checkbox"/> Yes <input type="checkbox"/> No Locking: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Grain size: _____ <u>10/20</u>	Well Cap: _____
Volume: _____ <u>1 cubic ft.</u>	Material: <u>PVC</u>
Seal (minimum 3 ft length above filter pack): _____	Vented: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material: <u>Black Hills Bentonite 3/8 inch</u>	

D. GROUNDWATER MEASUREMENT (\pm 0.01 ft below top of inner well casing)	
Water level: <u>8.34 ft</u>	Stabilization Time: <u><5 minutes</u>
Well development method: <u>Surged with block and pumped to reduce turbidity. 99 gallons pumped.</u>	
Average depth of frostline: <u>3.5'</u>	

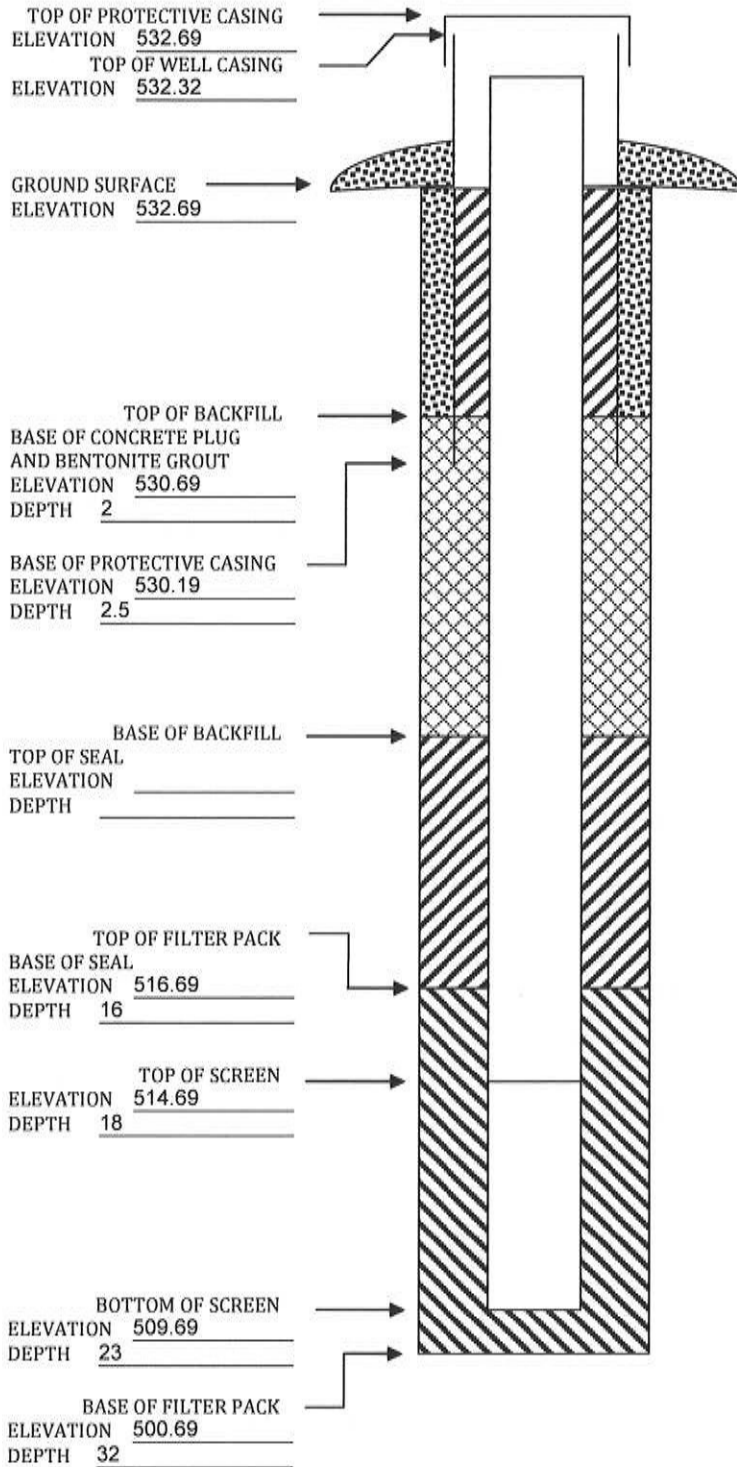
Attachments: Driller's log, Pipe schedules and grouting schedules. 8 1/2x11 inch map showing locations of all monitoring wells and piezometers.

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

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.)



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name IPL Burlington Generating Station Permit No. _____
Well or Piezometer No. MW312 Dates Started 5/20/2019 Date Completed 5/21/2019

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

Specify corner of site SE Distance and direction along boundary 1,400 N
Distance and direction from boundary to surface monitoring well 200 W
Elevation (+0.01 ft. MSL) _____
Ground Surface 533.80 Top of protective casing 536.83
Top of well casing 536.43 Benchmark elevation _____
Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name Roberts Environmental Drilling, Inc.
Address 1107 S Mullberry St. City, State, Zip Code Millstadt, IL 62260
Name of driller Jeff Crank
Drilling method 4.25" HSA Drilling fluid _____ Bore Hole diameter 8.5"
Soil sampling method split spoon Depth of boring 26'

C. MONITORING WELL INSTALLATION

Casing material <u>PVC</u>	Placement method <u>gravity</u>
Length of casing <u>27.65</u>	Volume <u>5 cu. ft.</u>
Outside casing diameter <u>2.4"</u>	Backfill (if different from seal): _____
Inside casing diameter <u>2.0"</u>	Material _____
Casing joint type <u>threaded</u>	Placement method _____
Casing/screen joint type <u>threaded</u>	Volume _____
Screen material <u>PVC</u>	Surface seal design: <u>Concrete</u>
Screen opening size <u>0.01"</u>	Material of protective casing: <u>Steel</u>
	Material of grout between protective casing and well casing: <u>Bentonite</u>
Screen length <u>5'</u>	Protective cap: _____
Depth of Well <u>25'</u>	Material <u>Steel</u>
Filter Pack:	Vented?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Locking?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Material <u>filter sand</u>	Well cap: <u>Low-flow purge cap</u>
Grain Size <u>#5</u>	Material <u>Plastic</u>
Volume <u>3 cu. ft.</u>	Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Seal (minimum 3 ft. length above filter pack): _____	
Material <u>Bentonite chips</u>	

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

Water level 4.85 Stabilization time < 1 hr
Well development method Surged and pumped to remove turbidity
Average depth of frost line 4 ft

DRILLER'S CERTIFICATION

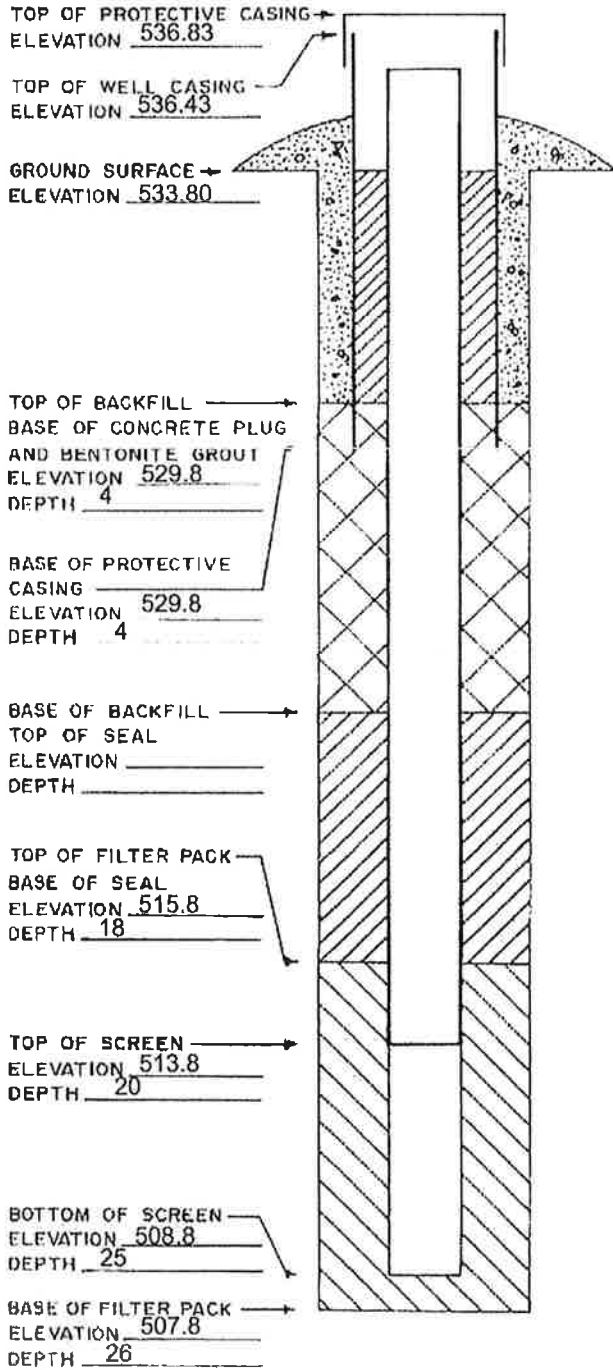
I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature  Certification # 8515 Date 8/8/2019

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 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

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).



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name IPL Burlington Generating Station Permit No. _____
Well or Piezometer No. MW313 Dates Started 5/21/2019 Date Completed 5/22/2019

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

Specify corner of site SE Distance and direction along boundary 890 N
Distance and direction from boundary to surface monitoring well 130 E
Elevation (+0.01 ft. MSL) _____
Ground Surface 533.97 Top of protective casing 536.18
Top of well casing 535.82 Benchmark elevation _____
Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name Roberts Environmental Drilling, Inc.
Address 1107 S Mullberry St. City, State, Zip Code Millstadt, IL 62260
Name of driller Jeff Crank
Drilling method 4.25" HSA Drilling fluid water Bore Hole diameter 8.5"
Soil sampling method split spoon Depth of boring 32'

C. MONITORING WELL INSTALLATION

Casing material <u>PVC</u>	Placement method <u>gravity</u>
Length of casing <u>32.99'</u>	Volume <u>7 cu. ft.</u>
Outside casing diameter <u>2.4"</u>	Backfill (if different from seal): _____
Inside casing diameter <u>2.0"</u>	Material _____
Casing joint type <u>threaded</u>	Placement method _____
Casing/screen joint type <u>threaded</u>	Volume _____
Screen material <u>PVC</u>	Surface seal design: <u>Concrete</u>
Screen opening size <u>0.01"</u>	Material of protective casing: <u>Steel</u>
	Material of grout between protective casing and well casing: <u>Bentonite</u>
Screen length <u>5'</u>	Protective cap: _____
Depth of Well <u>31'</u>	Material <u>steel</u>
Filter Pack:	Vented?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Locking?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Material <u>filter sand</u>	Well cap: <u>Low-flow purge cap</u>
Grain Size <u>#5</u>	Material <u>Plastic</u>
Volume <u>3 cu. ft.</u>	Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Seal (minimum 3 ft. length above filter pack): _____	
Material <u>Bentonite chips</u>	

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

Water level 4.25 Stabilization time < 1 hr
Well development method Surged and pumped to remove turbidity
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 *Jeff Crank* Certification # 8515 Date 8/8/2019

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 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.

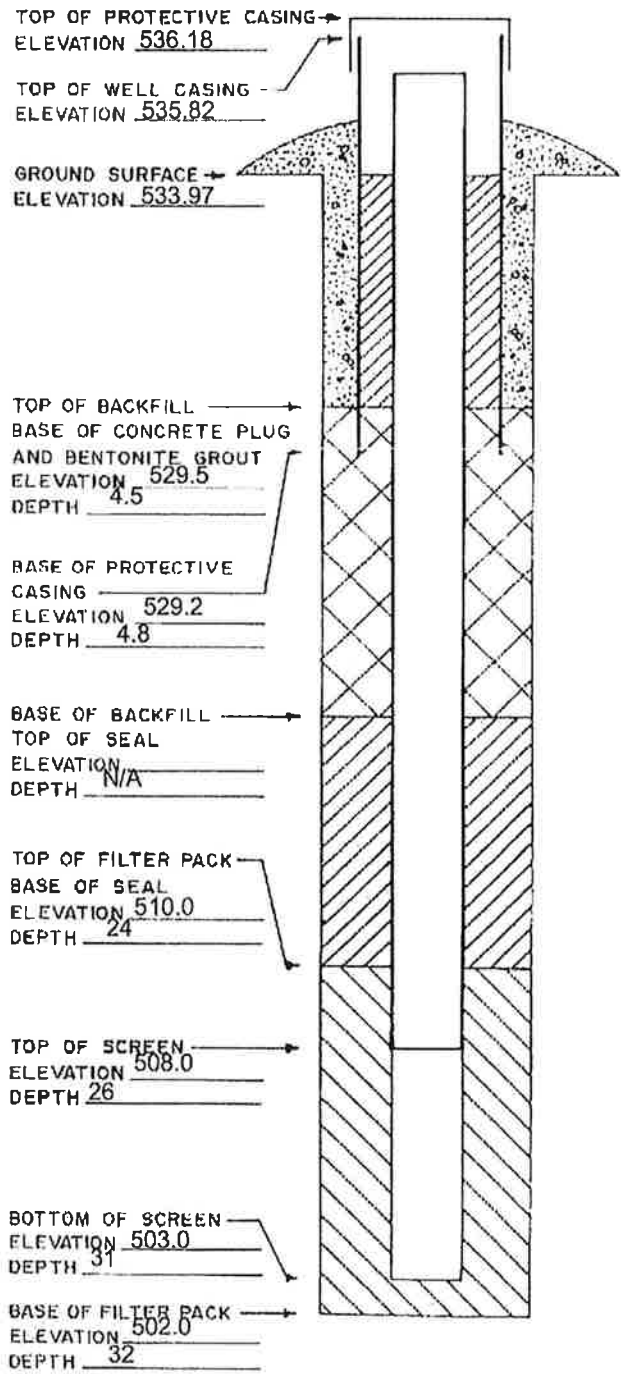
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

09/2017 cmc

DNR Form 542-1277

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).



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name Burlington Generating Station Permit No. _____
Well or Piezometer No. MW-313A Dates Started 6/23/2020 Date Completed 6/30/2020

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

Specify corner of site SE Distance and direction along boundary 890 N
Distance and direction from boundary to surface monitoring well 130 E
Elevation (+0.01 ft. MSL) _____
Ground Surface 529.35' Top of protective casing 532.03'
Top of well casing 531.63' Benchmark elevation _____
Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name Roberts Environmental Drilling
Address 1107 S Mulberry St City, State, Zip Code Millstadt, IL 62260
Name of driller Jeff Crank
Drilling method Hollow Stem Auger Drilling fluid Water Bore Hole diameter 4.25"
Soil sampling method Split spoon Depth of boring 62'

C. MONITORING WELL INSTALLATION

Casing material <u>Sch. 40 PVC</u>	Placement method <u>Pumped</u>
Length of casing <u>63.38'</u>	Volume <u>9, 50lbs bags (~150 gallons of grout)</u>
Outside casing diameter <u>2.4"</u>	Backfill (if different from seal): _____
Inside casing diameter <u>2"</u>	Material <u>3/8" Bentonite chips</u>
Casing joint type <u>Threaded</u>	Placement method <u>Poured</u>
Casing/screen joint type <u>Threaded</u>	Volume <u>3, 50lbs bags</u>
Screen material <u>Sch. 40 PVC</u>	Surface seal design: <u>Concrete</u>
Screen opening size <u>0.01</u>	Material of protective casing: <u>steel</u>
Screen length <u>5'</u>	Material of grout between protective casing and well casing: <u>Bentonite chips</u>
Depth of Well <u>61'</u>	Protective cap: _____
Filter Pack: _____	Material <u>Steel</u>
Material <u>Sand (FilterSil)</u>	Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N Locking?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Grain Size <u>18-23</u>	Well cap: <u>Lockable expanding well plug</u>
Volume <u>2, 50lbs bags</u>	Material <u>Plastic</u>
Seal (minimum 3 ft. length above filter pack): _____	Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Material <u>Bentonite grout</u>	

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

Water level 14.41' Stabilization time < 5 min
Well development method Surged with bailer 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 *Jeff Crank* Certification # 8515 Date 9-16-20

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 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.

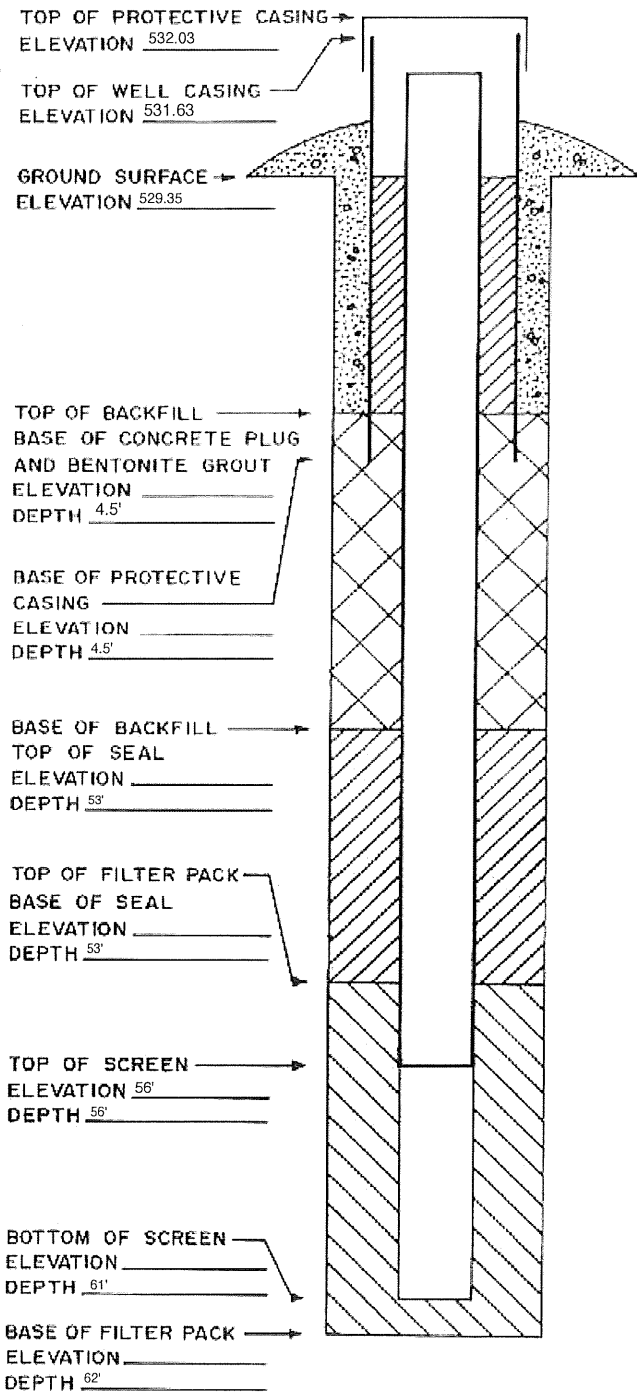
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

09/2017 cmc

DNR Form 542-1277

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).



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name Burlington Generating Station Permit No. _____
 Well or Piezometer No. ML-307AAB Dates Started 5/10/2021 Date Completed 5/13/2021

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

Specify corner of site _____ Distance and direction along boundary _____
 Distance and direction from boundary to surface monitoring well _____
 Elevation (+0.01 ft. MSL) _____
 Ground Surface _____ Top of protective casing _____
 Top of well casing _____ Benchmark elevation _____
 Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name _____
 Address _____ City, State, Zip Code _____
 Name of driller _____
 Drilling method Roto-Sonic Drilling fluid water Bore Hole diameter 6"
 Soil sampling method Bagged Depth of boring 85'

C. MONITORING WELL INSTALLATION

Casing material <u>Sch. 40 PVC</u> Length of casing _____ Outside casing diameter <u>2.4"</u> Inside casing diameter <u>2.05"</u> Casing joint type <u>Sch. 40 PVC Threaded</u> Casing/screen joint type <u>Threaded</u> Screen material <u>Sch. 40 PVC</u> Screen opening size <u>0.01"</u> Screen length <u>5'</u> Depth of Well <u>80'</u> Filter Pack: Material <u>Red Flint filter sand</u> Grain Size <u>#40</u> Volume <u>3.5 bags, 1.75 ft³</u> Seal (minimum 3 ft. length above filter pack): Material <u>Bentonite chips (50lbs. bag)</u>	Placement method <u>pour</u> Volume <u>1 bag</u> Backfill (if different from seal): Material <u>Bentonite grout</u> Placement method <u>pumped</u> Volume <u>~55 gallons</u> Surface seal design: Material of protective casing: <u>Steel</u> Material of grout between protective casing and well casing: <u>Bentonite chips and sand</u> Protective cap: <u>Aluminum</u> Material _____ Vented?: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N Locking?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Well cap: Material <u>Plastic</u> Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
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D. GROUNDWATER MEASUREMENT (+0.01 foot below top of inner well casing)

Water level _____ Stabilization time _____
 Well development method _____
 Average depth of frost line _____

DRILLER'S CERTIFICATION

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

Signature _____ Certification # _____ Date _____

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 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.

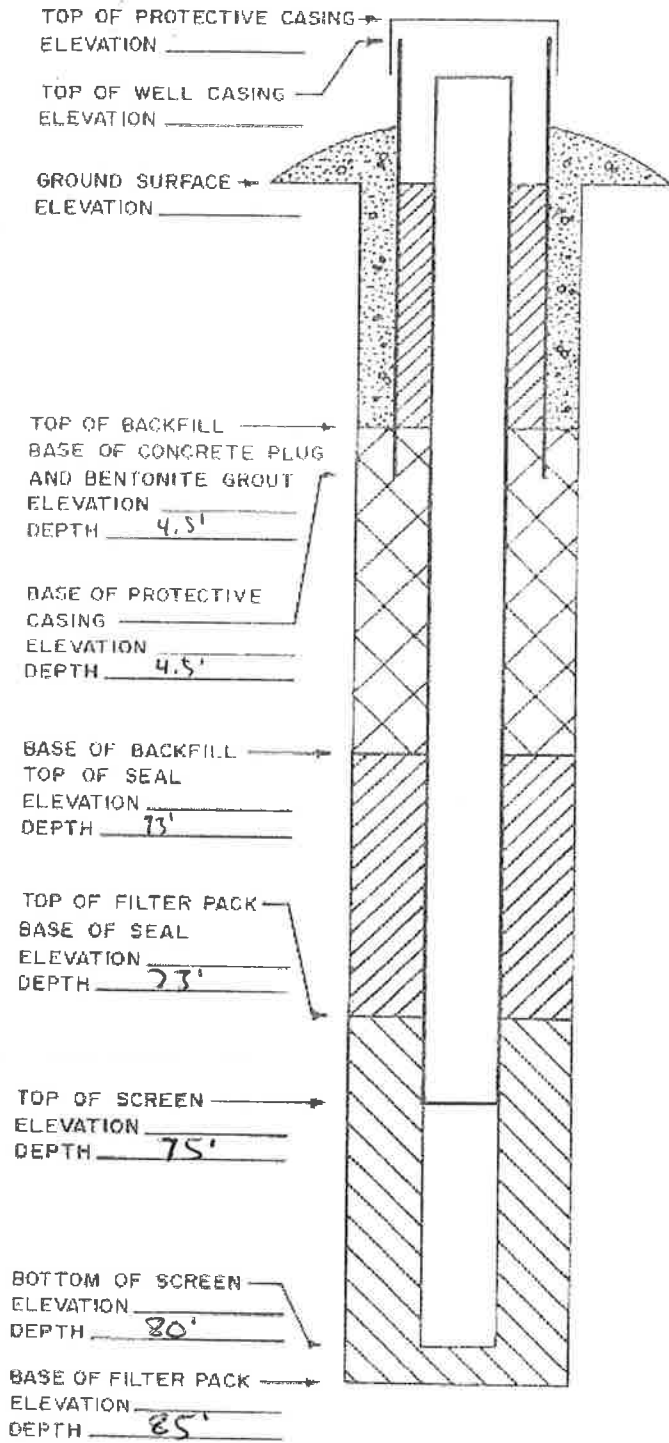
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

09/2017 cmc

DNR Form 542-1277

ELEVATIONS: \pm 0.01 FT. MSL
DEPTHS: \pm 0.1 FT. FROM
GROUND SURFACE

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



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name Burlington Generating Station Permit No. _____
 Well or Piezometer No. MU-313B Dates Started 5/11/2021 Date Completed 5/12/2021

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

Specify corner of site _____ Distance and direction along boundary _____
 Distance and direction from boundary to surface monitoring well _____
 Elevation (+0.01 ft. MSL) _____
 Ground Surface _____ Top of protective casing _____
 Top of well casing _____ Benchmark elevation _____
 Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name Cascade Drilling
 Address _____ City, State, Zip Code _____
 Name of driller Mike Mueller
 Drilling method Roto-Sonic Drilling fluid Water Bore Hole diameter 6"
 Soil sampling method Bagged Depth of boring 75"

C. MONITORING WELL INSTALLATION

Casing material <u>Sch. 40 PVC</u> Length of casing <u>69.5'</u> Outside casing diameter <u>2.4"</u> Inside casing diameter <u>2.05"</u> Casing joint type <u>Threaded</u> Casing/screen joint type <u>Threaded</u> Screen material <u>Sch. 40 PVC</u> Screen opening size <u>0.01"</u> Screen length <u>5'</u> Depth of Well <u>72'</u> Filter Pack: Material <u>Red Flint filter sand</u> Grain Size <u>#40</u> Volume <u>1ft³ (2 bags @ 1/2 ft³ each)</u> Seal (minimum 3 ft. length above filter pack): Material <u>3/8" Bentonite chips</u>	Placement method <u>Poured</u> Volume <u>1 bag (50 # bag)</u> Backfill (if different from seal): Material <u>Bentonite Grout</u> Placement method <u>Pumped</u> Volume <u>55 gallons</u> Surface seal design: Material of protective casing: <u>Steel</u> Material of grout between protective casing and well casing: <u>Bentonite chips and sand</u> Protective cap: Material <u>Aluminum</u> Vented?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Locking?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Well cap: Material <u>plastic</u> Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
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D. GROUNDWATER MEASUREMENT (+0.01 foot below top of inner well casing)

Water level _____ Stabilization time _____
 Well development method _____
 Average depth of frost line _____

DRILLER'S CERTIFICATION

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

Signature _____ Certification # _____ Date _____

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 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.

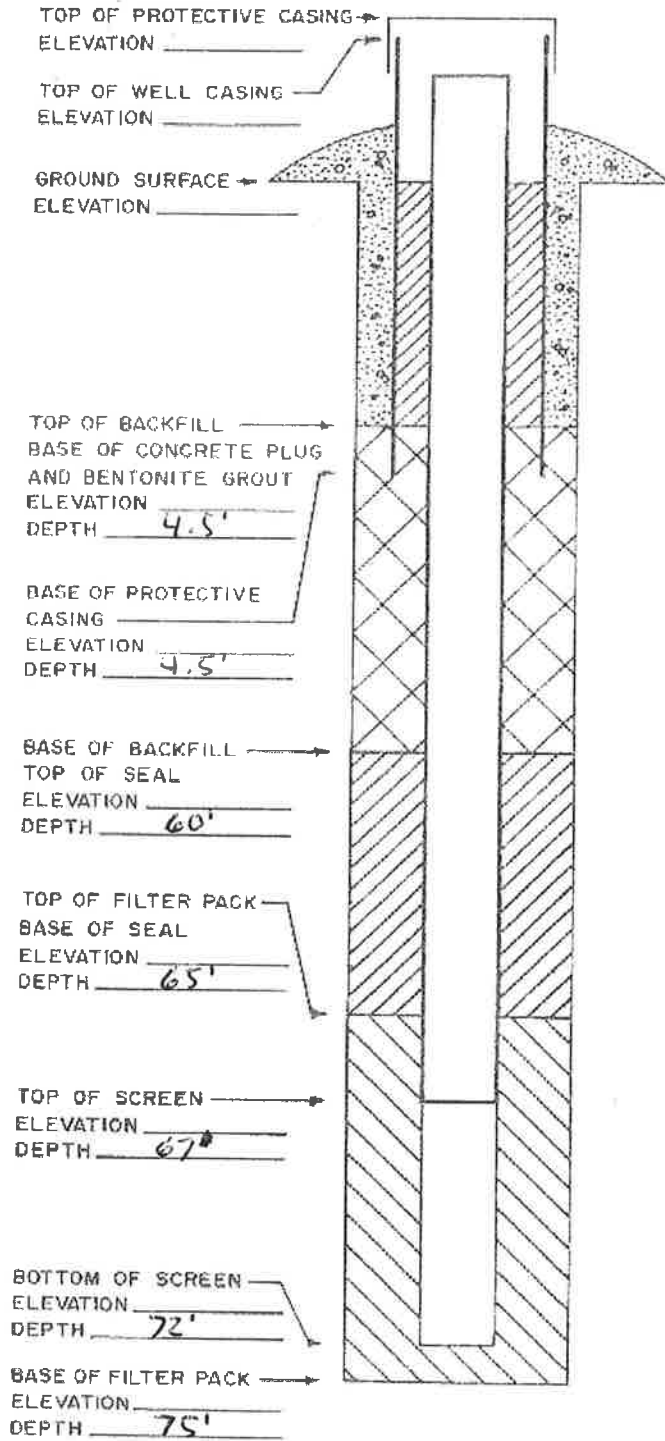
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

09/2017 cmc

DNR Form 542-1277

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).



MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name Burlington Generating Station Permit No. 58619
Well or Piezometer No. MW-314 Dates Started 2/25/2022 Date Completed 2/25/2022

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

Specify corner of site SE of parcel 16-32-300-005 Distance and direction along boundary 400' W
Distance and direction from boundary to surface monitoring well 750' N
Elevation (+0.01 ft. MSL) _____
Ground Surface 524.09 Top of protective casing 526.72
Top of well casing 526.58 Benchmark elevation _____
Benchmark description _____

B. SOIL BORING INFORMATION

Construction Company Name Terracon Consultants Inc.
Address 870 40th Ave. City, State, Zip Code Bettendorf, IA 52722
Name of driller Ryan Peterson
Drilling method Hollow-stem-auger Drilling fluid None Bore Hole diameter 8.25"
Soil sampling method Split spoon Depth of boring 24'

C. MONITORING WELL INSTALLATION

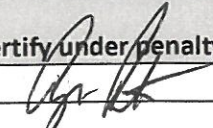
Casing material <u>PVC</u>	Placement method <u>Gravity-poured</u>
Length of casing <u>20.47'</u>	Volume <u>2 cu. ft.</u>
Outside casing diameter <u>2.38"</u>	Backfill (if different from seal): <u>Same as Seal</u>
Inside casing diameter <u>2.01"</u>	Material <u>3/8" Bentonite chips - holeplug</u>
Casing joint type <u>Threaded</u>	Placement method <u>Manually</u>
Casing/screen joint type <u>Threaded</u>	Volume <u>3.35 cu. ft.</u>
Screen material <u>PVC-factory slotted</u>	Surface seal design: _____
Screen opening size <u>0.010"</u>	Material of protective casing: <u>Steel</u>
Screen length <u>5'</u>	Material of grout between protective casing and well casing: <u>Bentonite chips</u>
Depth of Well <u>23'</u>	Protective cap: _____
Filter Pack: _____	Material <u>Steel</u>
Material <u>Sand - Gillibrand Industrial</u>	Vented?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Grain Size _____	Locking?: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Volume <u>2 cu. ft.</u>	Well cap: _____
Seal (minimum 3 ft. length above filter pack): _____	Material <u>Rubber</u>
Material <u>3/8" Bentonite chips - holeplug</u>	Vented?: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N

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

Water level 7.2" Stabilization time 20 min
Well development method Surged and pumped to remove turbidity
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  Certification # 10115 Date 6-7-22

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 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.

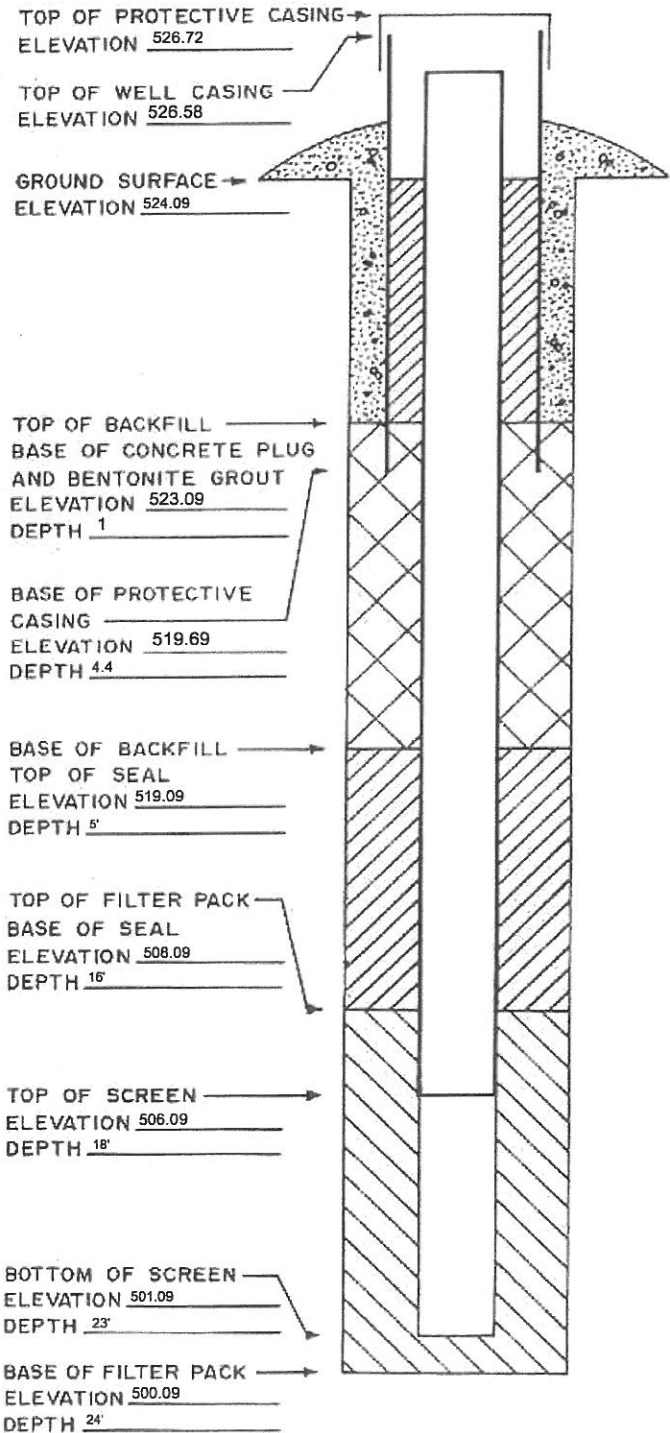
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov


09/2017 cmc

DNR Form 542-1277

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).





Appendix C
Analytical Laboratory Reports

C1 October 2022 Assessment Monitoring



ANALYTICAL REPORT

PREPARED FOR

Attn: Meghan Blodgett
SCS Engineers
2830 Dairy Drive
Madison, Wisconsin 53718
Generated 2/24/2023 1:46:57 PM Revision 1

JOB DESCRIPTION

Alliant Burlington 25222066

JOB NUMBER

310-243082-1

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



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Revision 1

Authorized for release by
Sandie Fredrick, Project Manager II
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Case Narrative

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Job ID: 310-243082-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative 310-243082-1

Comments

No additional comments.

Receipt

The samples were received on 10/25/2022 9:45 AM. 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 -0.8° C, 0.5° C and 0.6° C.

HPLC/IC

Methods 300.0, 9056A: The following samples were diluted due to the nature of the sample matrix: MW-302A (310-243082-1), MW-307A (310-243082-2), MW-307B (310-243082-3), MW-310A (310-243082-4), MW-313 (310-243082-5), MW-313A (310-243082-6), MW-313B (310-243082-7) and MW-314 (310-243082-8). 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: Alliant Burlington 25222066

Job ID: 310-243082-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-243082-1	MW-302A	Water	10/20/22 13:34	10/25/22 09:45
310-243082-2	MW-307A	Water	10/20/22 10:42	10/25/22 09:45
310-243082-3	MW-307B	Water	10/20/22 10:12	10/25/22 09:45
310-243082-4	MW-310A	Water	10/20/22 14:50	10/25/22 09:45
310-243082-5	MW-313	Water	10/20/22 12:20	10/25/22 09:45
310-243082-6	MW-313A	Water	10/20/22 11:48	10/25/22 09:45
310-243082-7	MW-313B	Water	10/20/22 11:50	10/25/22 09:45
310-243082-8	MW-314	Water	10/20/22 14:15	10/25/22 09:45
310-243082-9	Field Blank	Water	10/20/22 10:50	10/25/22 09:45

1

2

3

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Detection Summary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Client Sample ID: MW-302A

Lab Sample ID: 310-243082-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	170		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	2.3		2.0	0.75	ug/L	1		6020A	Total/NA
Barium	420		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	1600		100	58	ug/L	1		6020A	Total/NA
Calcium	160		0.50	0.19	mg/L	1		6020A	Total/NA
Lithium	13		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	36		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	630		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	506.87				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-115.0				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.0				mg/L	1		Field Sampling	Total/NA
pH, Field	7.09				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1090				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	16.70				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	5.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-307A

Lab Sample ID: 310-243082-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	47		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	190		5.0	2.0	mg/L	5		9056A	Total/NA
Barium	110		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	4100		100	58	ug/L	1		6020A	Total/NA
Calcium	27		0.50	0.19	mg/L	1		6020A	Total/NA
Lithium	12		10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	120		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	470		50	26	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	508.27				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-131.0				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.0				mg/L	1		Field Sampling	Total/NA
pH, Field	7.69				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	791				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	15.47				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.30				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-307B

Lab Sample ID: 310-243082-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	68		5.0	2.0	mg/L	5		9056A	Total/NA
Arsenic	1.4	J	2.0	0.75	ug/L	1		6020A	Total/NA
Barium	310		2.0	0.88	ug/L	1		6020A	Total/NA
Boron	1400		100	58	ug/L	1		6020A	Total/NA
Cadmium	0.055	J	0.10	0.055	ug/L	1		6020A	Total/NA
Calcium	59		0.50	0.19	mg/L	1		6020A	Total/NA
Lithium	6.1	J	10	2.5	ug/L	1		6020A	Total/NA
Molybdenum	32		2.0	1.2	ug/L	1		6020A	Total/NA
Total Dissolved Solids	260		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

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Client Sample ID: MW-307B (Continued)

Lab Sample ID: 310-243082-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ground Water Elevation	508.35				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-34.0				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.0				mg/L	1		Field Sampling	Total/NA
pH, Field	7.10				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	492				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	14.11				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	17.00				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-310A

Lab Sample ID: 310-243082-4

Sample Analysis Not Complete.

Client Sample ID: MW-313

Lab Sample ID: 310-243082-5

Sample Analysis Not Complete.

Client Sample ID: MW-313A

Lab Sample ID: 310-243082-6

Sample Analysis Not Complete.

Client Sample ID: MW-313B

Lab Sample ID: 310-243082-7

Sample Analysis Not Complete.

Client Sample ID: MW-314

Lab Sample ID: 310-243082-8

Sample Analysis Not Complete.

Client Sample ID: Field Blank

Lab Sample ID: 310-243082-9

Sample Analysis Not Complete.

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Client Sample ID: MW-302A

Lab Sample ID: 310-243082-1

Date Collected: 10/20/22 13:34

Matrix: Water

Date Received: 10/25/22 09:45

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			11/04/22 19:06	5
Fluoride	<0.22		0.50	0.22	mg/L			11/04/22 19:06	5
Sulfate	170		5.0	2.0	mg/L			11/04/22 19:06	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		10/27/22 09:00	11/04/22 15:52	1
Arsenic	2.3		2.0	0.75	ug/L		10/27/22 09:00	11/04/22 15:52	1
Barium	420		2.0	0.88	ug/L		10/27/22 09:00	11/04/22 15:52	1
Beryllium	<0.27		1.0	0.27	ug/L		10/27/22 09:00	11/04/22 15:52	1
Boron	1600		100	58	ug/L		10/27/22 09:00	11/04/22 15:52	1
Cadmium	<0.055		0.10	0.055	ug/L		10/27/22 09:00	11/04/22 15:52	1
Calcium	160		0.50	0.19	mg/L		10/27/22 09:00	11/04/22 15:52	1
Chromium	<1.1		5.0	1.1	ug/L		10/27/22 09:00	11/04/22 15:52	1
Cobalt	<0.19		0.50	0.19	ug/L		10/27/22 09:00	11/04/22 15:52	1
Lead	<0.24		0.50	0.24	ug/L		10/27/22 09:00	11/04/22 15:52	1
Lithium	13		10	2.5	ug/L		10/27/22 09:00	11/04/22 15:52	1
Molybdenum	36		2.0	1.2	ug/L		10/27/22 09:00	11/04/22 15:52	1
Selenium	<0.96		5.0	0.96	ug/L		10/27/22 09:00	11/04/22 15:52	1
Thallium	<0.26		1.0	0.26	ug/L		10/27/22 09:00	11/04/22 15:52	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		10/26/22 12:58	10/27/22 15:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	630		50	26	mg/L			10/25/22 15:59	1
pH (SM 4500 H+ B)	7.1	HF	0.1	0.1	SU			10/25/22 13:22	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	506.87				ft			10/20/22 13:34	1
Oxidation Reduction Potential	-115.0				millivolts			10/20/22 13:34	1
Oxygen, Dissolved, Client Supplied	0.0				mg/L			10/20/22 13:34	1
pH, Field	7.09				SU			10/20/22 13:34	1
Specific Conductance, Field	1090				umhos/cm			10/20/22 13:34	1
Temperature, Field	16.70				Degrees C			10/20/22 13:34	1
Turbidity, Field	5.00				NTU			10/20/22 13:34	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Client Sample ID: MW-307A

Lab Sample ID: 310-243082-2

Date Collected: 10/20/22 10:42

Matrix: Water

Date Received: 10/25/22 09:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	47		5.0	2.3	mg/L			11/04/22 19:18	5
Fluoride	<0.22		0.50	0.22	mg/L			11/04/22 19:18	5
Sulfate	190		5.0	2.0	mg/L			11/04/22 19:18	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		10/27/22 09:00	11/04/22 15:58	1
Arsenic	<0.75		2.0	0.75	ug/L		10/27/22 09:00	11/04/22 15:58	1
Barium	110		2.0	0.88	ug/L		10/27/22 09:00	11/04/22 15:58	1
Beryllium	<0.27		1.0	0.27	ug/L		10/27/22 09:00	11/04/22 15:58	1
Boron	4100		100	58	ug/L		10/27/22 09:00	11/04/22 15:58	1
Cadmium	<0.055		0.10	0.055	ug/L		10/27/22 09:00	11/04/22 15:58	1
Calcium	27		0.50	0.19	mg/L		10/27/22 09:00	11/04/22 15:58	1
Chromium	<1.1		5.0	1.1	ug/L		10/27/22 09:00	11/04/22 15:58	1
Cobalt	<0.19		0.50	0.19	ug/L		10/27/22 09:00	11/04/22 15:58	1
Lead	<0.24		0.50	0.24	ug/L		10/27/22 09:00	11/04/22 15:58	1
Lithium	12		10	2.5	ug/L		10/27/22 09:00	11/04/22 15:58	1
Molybdenum	120		2.0	1.2	ug/L		10/27/22 09:00	11/04/22 15:58	1
Selenium	<0.96		5.0	0.96	ug/L		10/27/22 09:00	11/04/22 15:58	1
Thallium	<0.26		1.0	0.26	ug/L		10/27/22 09:00	11/04/22 15:58	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		10/26/22 12:58	10/27/22 15:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	470		50	26	mg/L			10/25/22 15:03	1
pH (SM 4500 H+ B)	7.7	HF	0.1	0.1	SU			10/25/22 13:23	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	508.27				ft			10/20/22 10:42	1
Oxidation Reduction Potential	-131.0				millivolts			10/20/22 10:42	1
Oxygen, Dissolved, Client Supplied	0.0				mg/L			10/20/22 10:42	1
pH, Field	7.69				SU			10/20/22 10:42	1
Specific Conductance, Field	791				umhos/cm			10/20/22 10:42	1
Temperature, Field	15.47				Degrees C			10/20/22 10:42	1
Turbidity, Field	0.30				NTU			10/20/22 10:42	1

Client Sample Results

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Client Sample ID: MW-307B

Lab Sample ID: 310-243082-3

Date Collected: 10/20/22 10:12

Matrix: Water

Date Received: 10/25/22 09:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		5.0	2.3	mg/L			11/04/22 19:30	5
Fluoride	<0.22		0.50	0.22	mg/L			11/04/22 19:30	5
Sulfate	68		5.0	2.0	mg/L			11/04/22 19:30	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		10/27/22 09:00	11/04/22 16:01	1
Arsenic	1.4	J	2.0	0.75	ug/L		10/27/22 09:00	11/04/22 16:01	1
Barium	310		2.0	0.88	ug/L		10/27/22 09:00	11/04/22 16:01	1
Beryllium	<0.27		1.0	0.27	ug/L		10/27/22 09:00	11/04/22 16:01	1
Boron	1400		100	58	ug/L		10/27/22 09:00	11/04/22 16:01	1
Cadmium	0.055	J	0.10	0.055	ug/L		10/27/22 09:00	11/04/22 16:01	1
Calcium	59		0.50	0.19	mg/L		10/27/22 09:00	11/04/22 16:01	1
Chromium	<1.1		5.0	1.1	ug/L		10/27/22 09:00	11/04/22 16:01	1
Cobalt	<0.19		0.50	0.19	ug/L		10/27/22 09:00	11/04/22 16:01	1
Lead	<0.24		0.50	0.24	ug/L		10/27/22 09:00	11/04/22 16:01	1
Lithium	6.1	J	10	2.5	ug/L		10/27/22 09:00	11/04/22 16:01	1
Molybdenum	32		2.0	1.2	ug/L		10/27/22 09:00	11/04/22 16:01	1
Selenium	<0.96		5.0	0.96	ug/L		10/27/22 09:00	11/04/22 16:01	1
Thallium	<0.26		1.0	0.26	ug/L		10/27/22 09:00	11/04/22 16:01	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		10/26/22 12:58	10/27/22 15:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	260		50	26	mg/L			10/25/22 15:03	1
pH (SM 4500 H+ B)	7.6	HF	0.1	0.1	SU			10/25/22 13:24	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	508.35				ft			10/20/22 10:12	1
Oxidation Reduction Potential	-34.0				millivolts			10/20/22 10:12	1
Oxygen, Dissolved, Client Supplied	0.0				mg/L			10/20/22 10:12	1
pH, Field	7.10				SU			10/20/22 10:12	1
Specific Conductance, Field	492				umhos/cm			10/20/22 10:12	1
Temperature, Field	14.11				Degrees C			10/20/22 10:12	1
Turbidity, Field	17.00				NTU			10/20/22 10:12	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Client Sample ID: MW-310A

Lab Sample ID: 310-243082-4

Date Collected: 10/20/22 14:50

Matrix: Water

Date Received: 10/25/22 09:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.6		5.0	2.3	mg/L			11/04/22 19:43	5
Fluoride	<0.22		0.50	0.22	mg/L			11/04/22 19:43	5
Sulfate	82		5.0	2.0	mg/L			11/04/22 19:43	5

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		10/26/22 12:58	10/27/22 15:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	530		50	26	mg/L			10/25/22 15:03	1
pH (SM 4500 H+ B)	7.4	HF	0.1	0.1	SU			10/25/22 13:25	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	512.84				ft			10/20/22 14:50	1
Oxidation Reduction Potential	21.0				millivolts			10/20/22 14:50	1
Oxygen, Dissolved, Client Supplied	0.01				mg/L			10/20/22 14:50	1
pH, Field	7.54				SU			10/20/22 14:50	1
Specific Conductance, Field	874				umhos/cm			10/20/22 14:50	1
Temperature, Field	18.90				Degrees C			10/20/22 14:50	1
Turbidity, Field	2.00				NTU			10/20/22 14:50	1



Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Client Sample ID: MW-313

Lab Sample ID: 310-243082-5

Date Collected: 10/20/22 12:20

Matrix: Water

Date Received: 10/25/22 09:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26		5.0	2.3	mg/L			11/04/22 19:55	5
Fluoride	<0.22		0.50	0.22	mg/L			11/04/22 19:55	5
Sulfate	23		5.0	2.0	mg/L			11/04/22 19:55	5

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		10/26/22 12:58	10/27/22 15:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	320		50	26	mg/L			10/25/22 15:03	1
pH (SM 4500 H+ B)	7.4	HF	0.1	0.1	SU			10/25/22 13:26	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	512.08				ft			10/20/22 12:20	1
Oxidation Reduction Potential	-181.0				millivolts			10/20/22 12:20	1
Oxygen, Dissolved, Client Supplied	0.00				mg/L			10/20/22 12:20	1
pH, Field	7.65				SU			10/20/22 12:20	1
Specific Conductance, Field	477				umhos/cm			10/20/22 12:20	1
Temperature, Field	19.60				Degrees C			10/20/22 12:20	1
Turbidity, Field	185.00				NTU			10/20/22 12:20	1



Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Client Sample ID: MW-313A

Lab Sample ID: 310-243082-6

Date Collected: 10/20/22 11:48

Matrix: Water

Date Received: 10/25/22 09:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	57		5.0	2.3	mg/L			11/04/22 20:07	5
Fluoride	<0.22		0.50	0.22	mg/L			11/04/22 20:07	5
Sulfate	52		5.0	2.0	mg/L			11/04/22 20:07	5

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		10/26/22 12:58	10/27/22 15:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	310		50	26	mg/L			10/25/22 15:03	1
pH (SM 4500 H+ B)	7.9	HF	0.1	0.1	SU			10/25/22 13:32	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	511.86				ft			10/20/22 11:48	1
Oxidation Reduction Potential	-105.0				millivolts			10/20/22 11:48	1
Oxygen, Dissolved, Client Supplied	0.00				mg/L			10/20/22 11:48	1
pH, Field	7.72				SU			10/20/22 11:48	1
Specific Conductance, Field	621				umhos/cm			10/20/22 11:48	1
Temperature, Field	17.06				Degrees C			10/20/22 11:48	1
Turbidity, Field	10.00				NTU			10/20/22 11:48	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Client Sample ID: MW-313B

Lab Sample ID: 310-243082-7

Date Collected: 10/20/22 11:50

Matrix: Water

Date Received: 10/25/22 09:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	85		5.0	2.3	mg/L			11/04/22 20:44	5
Fluoride	<0.22		0.50	0.22	mg/L			11/04/22 20:44	5
Sulfate	150		5.0	2.0	mg/L			11/04/22 20:44	5

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		10/26/22 12:58	10/27/22 15:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	490		50	26	mg/L			10/25/22 15:03	1
pH (SM 4500 H+ B)	7.7	HF	0.1	0.1	SU			10/25/22 13:27	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	511.91				ft			10/20/22 11:50	1
Oxidation Reduction Potential	-105.0				millivolts			10/20/22 11:50	1
Oxygen, Dissolved, Client Supplied	0.00				mg/L			10/20/22 11:50	1
pH, Field	7.51				SU			10/20/22 11:50	1
Specific Conductance, Field	804				umhos/cm			10/20/22 11:50	1
Temperature, Field	17.99				Degrees C			10/20/22 11:50	1
Turbidity, Field	4.00				NTU			10/20/22 11:50	1



Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Client Sample ID: MW-314

Lab Sample ID: 310-243082-8

Date Collected: 10/20/22 14:15

Matrix: Water

Date Received: 10/25/22 09:45

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			11/04/22 20:56	5
Fluoride	<0.22		0.50	0.22	mg/L			11/04/22 20:56	5
Sulfate	85		5.0	2.0	mg/L			11/04/22 20:56	5

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		10/26/22 12:58	10/27/22 15:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	560		50	26	mg/L			10/25/22 15:03	1
pH (SM 4500 H+ B)	7.1	HF	0.1	0.1	SU			10/25/22 13:28	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	517.78				ft			10/20/22 14:15	1
Oxidation Reduction Potential	-120.0				millivolts			10/20/22 14:15	1
Oxygen, Dissolved, Client Supplied	0.00				mg/L			10/20/22 14:15	1
pH, Field	7.11				SU			10/20/22 14:15	1
Specific Conductance, Field	930				umhos/cm			10/20/22 14:15	1
Temperature, Field	13.30				Degrees C			10/20/22 14:15	1
Turbidity, Field	5.00				NTU			10/20/22 14:15	1



Client Sample Results

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Client Sample ID: Field Blank

Lab Sample ID: 310-243082-9

Date Collected: 10/20/22 10:50

Matrix: Water

Date Received: 10/25/22 09:45

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			11/04/22 21:09	1
Fluoride	<0.044		0.10	0.044	mg/L			11/04/22 21:09	1
Sulfate	<0.40		1.0	0.40	mg/L			11/04/22 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		10/26/22 12:58	10/27/22 15:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	<26		50	26	mg/L			10/25/22 15:03	1
pH (SM 4500 H+ B)	5.7	HF	0.1	0.1	SU			10/25/22 13:28	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

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.

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

QC Sample Results

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-371213/3
Matrix: Water
Analysis Batch: 371213

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			11/04/22 16:29	1
Fluoride	<0.044		0.10	0.044	mg/L			11/04/22 16:29	1
Sulfate	<0.40		1.0	0.40	mg/L			11/04/22 16:29	1

Lab Sample ID: LCS 310-371213/4
Matrix: Water
Analysis Batch: 371213

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	9.58		mg/L		96	90 - 110
Fluoride	2.00	1.94		mg/L		97	90 - 110
Sulfate	10.0	9.70		mg/L		97	90 - 110

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-369585/1-B
Matrix: Water
Analysis Batch: 370223

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 369585

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.69		2.0	0.69	ug/L		10/27/22 09:00	10/28/22 13:45	1
Arsenic	<0.75		2.0	0.75	ug/L		10/27/22 09:00	10/28/22 13:45	1
Barium	<0.88		2.0	0.88	ug/L		10/27/22 09:00	10/28/22 13:45	1
Beryllium	<0.27		1.0	0.27	ug/L		10/27/22 09:00	10/28/22 13:45	1
Boron	<58		100	58	ug/L		10/27/22 09:00	10/28/22 13:45	1
Cadmium	<0.055		0.10	0.055	ug/L		10/27/22 09:00	10/28/22 13:45	1
Calcium	<0.19		0.50	0.19	mg/L		10/27/22 09:00	10/28/22 13:45	1
Chromium	<1.1		5.0	1.1	ug/L		10/27/22 09:00	10/28/22 13:45	1
Cobalt	<0.19		0.50	0.19	ug/L		10/27/22 09:00	10/28/22 13:45	1
Lead	<0.24		0.50	0.24	ug/L		10/27/22 09:00	10/28/22 13:45	1
Lithium	<2.5		10	2.5	ug/L		10/27/22 09:00	10/28/22 13:45	1
Molybdenum	<1.2		2.0	1.2	ug/L		10/27/22 09:00	10/28/22 13:45	1
Selenium	<0.96		5.0	0.96	ug/L		10/27/22 09:00	10/28/22 13:45	1
Thallium	<0.26		1.0	0.26	ug/L		10/27/22 09:00	10/28/22 13:45	1

Lab Sample ID: LCS 310-369585/2-B
Matrix: Water
Analysis Batch: 370223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369585

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	200	229		ug/L		114	80 - 120
Arsenic	200	219		ug/L		109	80 - 120
Barium	100	111		ug/L		111	80 - 120
Beryllium	100	107		ug/L		107	80 - 120
Boron	200	219		ug/L		109	80 - 120
Cadmium	100	109		ug/L		109	80 - 120
Calcium	2.00	2.35		mg/L		118	80 - 120
Chromium	100	105		ug/L		105	80 - 120
Cobalt	100	107		ug/L		107	80 - 120

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QC Sample Results

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

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

Lab Sample ID: LCS 310-369585/2-B
Matrix: Water
Analysis Batch: 370223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369585

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	200	225		ug/L		112	80 - 120
Lithium	200	205		ug/L		102	80 - 120
Molybdenum	200	219		ug/L		109	80 - 120
Selenium	400	415		ug/L		104	80 - 120
Thallium	200	230		ug/L		115	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-369880/1-A
Matrix: Water
Analysis Batch: 370084

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 369880

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.11		0.20	0.11	ug/L		10/26/22 13:58	10/27/22 14:53	1

Lab Sample ID: LCS 310-369880/2-A
Matrix: Water
Analysis Batch: 370084

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369880

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.67	1.69		ug/L		101	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-369757/1
Matrix: Water
Analysis Batch: 369757

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			10/25/22 15:03	1

Lab Sample ID: LCS 310-369757/2
Matrix: Water
Analysis Batch: 369757

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	922		mg/L		92	90 - 110

Lab Sample ID: MB 310-369775/1
Matrix: Water
Analysis Batch: 369775

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			10/25/22 15:59	1

Lab Sample ID: LCS 310-369775/2
Matrix: Water
Analysis Batch: 369775

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	984		mg/L		98	90 - 110

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QC Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-369745/29
Matrix: Water
Analysis Batch: 369745

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: 310-243082-6 DU
Matrix: Water
Analysis Batch: 369745

Client Sample ID: MW-313A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.9	HF	7.9		SU		0.1	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

QC Association Summary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

HPLC/IC

Analysis Batch: 371213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-1	MW-302A	Total/NA	Water	9056A	
310-243082-2	MW-307A	Total/NA	Water	9056A	
310-243082-3	MW-307B	Total/NA	Water	9056A	
310-243082-4	MW-310A	Total/NA	Water	9056A	
310-243082-5	MW-313	Total/NA	Water	9056A	
310-243082-6	MW-313A	Total/NA	Water	9056A	
310-243082-7	MW-313B	Total/NA	Water	9056A	
310-243082-8	MW-314	Total/NA	Water	9056A	
310-243082-9	Field Blank	Total/NA	Water	9056A	
MB 310-371213/3	Method Blank	Total/NA	Water	9056A	
LCS 310-371213/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 369585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-1	MW-302A	Total/NA	Water	3005A	
310-243082-2	MW-307A	Total/NA	Water	3005A	
310-243082-3	MW-307B	Total/NA	Water	3005A	
MB 310-369585/1-B	Method Blank	Total/NA	Water	3005A	
LCS 310-369585/2-B	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 369880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-1	MW-302A	Total/NA	Water	7470A	
310-243082-2	MW-307A	Total/NA	Water	7470A	
310-243082-3	MW-307B	Total/NA	Water	7470A	
310-243082-4	MW-310A	Total/NA	Water	7470A	
310-243082-5	MW-313	Total/NA	Water	7470A	
310-243082-6	MW-313A	Total/NA	Water	7470A	
310-243082-7	MW-313B	Total/NA	Water	7470A	
310-243082-8	MW-314	Total/NA	Water	7470A	
310-243082-9	Field Blank	Total/NA	Water	7470A	
MB 310-369880/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-369880/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 370084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-1	MW-302A	Total/NA	Water	7470A	369880
310-243082-2	MW-307A	Total/NA	Water	7470A	369880
310-243082-3	MW-307B	Total/NA	Water	7470A	369880
310-243082-4	MW-310A	Total/NA	Water	7470A	369880
310-243082-5	MW-313	Total/NA	Water	7470A	369880
310-243082-6	MW-313A	Total/NA	Water	7470A	369880
310-243082-7	MW-313B	Total/NA	Water	7470A	369880
310-243082-8	MW-314	Total/NA	Water	7470A	369880
310-243082-9	Field Blank	Total/NA	Water	7470A	369880
MB 310-369880/1-A	Method Blank	Total/NA	Water	7470A	369880
LCS 310-369880/2-A	Lab Control Sample	Total/NA	Water	7470A	369880

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QC Association Summary

Client: SCS Engineers
Project/Site: Alliant Burlington 2522066

Job ID: 310-243082-1

Metals

Analysis Batch: 370223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-369585/1-B	Method Blank	Total/NA	Water	6020A	369585
LCS 310-369585/2-B	Lab Control Sample	Total/NA	Water	6020A	369585

Analysis Batch: 370994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-1	MW-302A	Total/NA	Water	6020A	369585
310-243082-2	MW-307A	Total/NA	Water	6020A	369585
310-243082-3	MW-307B	Total/NA	Water	6020A	369585

General Chemistry

Analysis Batch: 369745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-1	MW-302A	Total/NA	Water	SM 4500 H+ B	
310-243082-2	MW-307A	Total/NA	Water	SM 4500 H+ B	
310-243082-3	MW-307B	Total/NA	Water	SM 4500 H+ B	
310-243082-4	MW-310A	Total/NA	Water	SM 4500 H+ B	
310-243082-5	MW-313	Total/NA	Water	SM 4500 H+ B	
310-243082-6	MW-313A	Total/NA	Water	SM 4500 H+ B	
310-243082-7	MW-313B	Total/NA	Water	SM 4500 H+ B	
310-243082-8	MW-314	Total/NA	Water	SM 4500 H+ B	
310-243082-9	Field Blank	Total/NA	Water	SM 4500 H+ B	
LCS 310-369745/29	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-243082-6 DU	MW-313A	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 369757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-2	MW-307A	Total/NA	Water	SM 2540C	
310-243082-3	MW-307B	Total/NA	Water	SM 2540C	
310-243082-4	MW-310A	Total/NA	Water	SM 2540C	
310-243082-5	MW-313	Total/NA	Water	SM 2540C	
310-243082-6	MW-313A	Total/NA	Water	SM 2540C	
310-243082-7	MW-313B	Total/NA	Water	SM 2540C	
310-243082-8	MW-314	Total/NA	Water	SM 2540C	
310-243082-9	Field Blank	Total/NA	Water	SM 2540C	
MB 310-369757/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-369757/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 369775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-1	MW-302A	Total/NA	Water	SM 2540C	
MB 310-369775/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-369775/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 370029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-1	MW-302A	Total/NA	Water	Field Sampling	
310-243082-2	MW-307A	Total/NA	Water	Field Sampling	
310-243082-3	MW-307B	Total/NA	Water	Field Sampling	
310-243082-4	MW-310A	Total/NA	Water	Field Sampling	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Field Service / Mobile Lab (Continued)

Analysis Batch: 370029 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-5	MW-313	Total/NA	Water	Field Sampling	
310-243082-6	MW-313A	Total/NA	Water	Field Sampling	
310-243082-7	MW-313B	Total/NA	Water	Field Sampling	
310-243082-8	MW-314	Total/NA	Water	Field Sampling	

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Lab Chronicle

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Client Sample ID: MW-302A

Date Collected: 10/20/22 13:34

Date Received: 10/25/22 09:45

Lab Sample ID: 310-243082-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	371213	J7CK	EET CF	11/04/22 19:06
Total/NA	Prep	3005A			369585	QTZ5	EET CF	10/27/22 09:00
Total/NA	Analysis	6020A		1	370994	A6US	EET CF	11/04/22 15:52
Total/NA	Prep	7470A			369880	XXW3	EET CF	10/26/22 12:58
Total/NA	Analysis	7470A		1	370084	XXW3	EET CF	10/27/22 15:23
Total/NA	Analysis	SM 2540C		1	369775	ENB7	EET CF	10/25/22 15:59
Total/NA	Analysis	SM 4500 H+ B		1	369745	W9YR	EET CF	10/25/22 13:22
Total/NA	Analysis	Field Sampling		1	370029	BJ0R	EET CF	10/20/22 13:34

Client Sample ID: MW-307A

Date Collected: 10/20/22 10:42

Date Received: 10/25/22 09:45

Lab Sample ID: 310-243082-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	371213	J7CK	EET CF	11/04/22 19:18
Total/NA	Prep	3005A			369585	QTZ5	EET CF	10/27/22 09:00
Total/NA	Analysis	6020A		1	370994	A6US	EET CF	11/04/22 15:58
Total/NA	Prep	7470A			369880	XXW3	EET CF	10/26/22 12:58
Total/NA	Analysis	7470A		1	370084	XXW3	EET CF	10/27/22 15:25
Total/NA	Analysis	SM 2540C		1	369757	ENB7	EET CF	10/25/22 15:03
Total/NA	Analysis	SM 4500 H+ B		1	369745	W9YR	EET CF	10/25/22 13:23
Total/NA	Analysis	Field Sampling		1	370029	BJ0R	EET CF	10/20/22 10:42

Client Sample ID: MW-307B

Date Collected: 10/20/22 10:12

Date Received: 10/25/22 09:45

Lab Sample ID: 310-243082-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	371213	J7CK	EET CF	11/04/22 19:30
Total/NA	Prep	3005A			369585	QTZ5	EET CF	10/27/22 09:00
Total/NA	Analysis	6020A		1	370994	A6US	EET CF	11/04/22 16:01
Total/NA	Prep	7470A			369880	XXW3	EET CF	10/26/22 12:58
Total/NA	Analysis	7470A		1	370084	XXW3	EET CF	10/27/22 15:27
Total/NA	Analysis	SM 2540C		1	369757	ENB7	EET CF	10/25/22 15:03
Total/NA	Analysis	SM 4500 H+ B		1	369745	W9YR	EET CF	10/25/22 13:24
Total/NA	Analysis	Field Sampling		1	370029	BJ0R	EET CF	10/20/22 10:12

Client Sample ID: MW-310A

Date Collected: 10/20/22 14:50

Date Received: 10/25/22 09:45

Lab Sample ID: 310-243082-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	371213	J7CK	EET CF	11/04/22 19:43

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Client Sample ID: MW-310A

Lab Sample ID: 310-243082-4

Date Collected: 10/20/22 14:50

Matrix: Water

Date Received: 10/25/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			369880	XXW3	EET CF	10/26/22 12:58
Total/NA	Analysis	7470A		1	370084	XXW3	EET CF	10/27/22 15:29
Total/NA	Analysis	SM 2540C		1	369757	ENB7	EET CF	10/25/22 15:03
Total/NA	Analysis	SM 4500 H+ B		1	369745	W9YR	EET CF	10/25/22 13:25
Total/NA	Analysis	Field Sampling		1	370029	BJ0R	EET CF	10/20/22 14:50

Client Sample ID: MW-313

Lab Sample ID: 310-243082-5

Date Collected: 10/20/22 12:20

Matrix: Water

Date Received: 10/25/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	371213	J7CK	EET CF	11/04/22 19:55
Total/NA	Prep	7470A			369880	XXW3	EET CF	10/26/22 12:58
Total/NA	Analysis	7470A		1	370084	XXW3	EET CF	10/27/22 15:31
Total/NA	Analysis	SM 2540C		1	369757	ENB7	EET CF	10/25/22 15:03
Total/NA	Analysis	SM 4500 H+ B		1	369745	W9YR	EET CF	10/25/22 13:26
Total/NA	Analysis	Field Sampling		1	370029	BJ0R	EET CF	10/20/22 12:20

Client Sample ID: MW-313A

Lab Sample ID: 310-243082-6

Date Collected: 10/20/22 11:48

Matrix: Water

Date Received: 10/25/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	371213	J7CK	EET CF	11/04/22 20:07
Total/NA	Prep	7470A			369880	XXW3	EET CF	10/26/22 12:58
Total/NA	Analysis	7470A		1	370084	XXW3	EET CF	10/27/22 15:33
Total/NA	Analysis	SM 2540C		1	369757	ENB7	EET CF	10/25/22 15:03
Total/NA	Analysis	SM 4500 H+ B		1	369745	W9YR	EET CF	10/25/22 13:32
Total/NA	Analysis	Field Sampling		1	370029	BJ0R	EET CF	10/20/22 11:48

Client Sample ID: MW-313B

Lab Sample ID: 310-243082-7

Date Collected: 10/20/22 11:50

Matrix: Water

Date Received: 10/25/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	371213	J7CK	EET CF	11/04/22 20:44
Total/NA	Prep	7470A			369880	XXW3	EET CF	10/26/22 12:58
Total/NA	Analysis	7470A		1	370084	XXW3	EET CF	10/27/22 15:35
Total/NA	Analysis	SM 2540C		1	369757	ENB7	EET CF	10/25/22 15:03
Total/NA	Analysis	SM 4500 H+ B		1	369745	W9YR	EET CF	10/25/22 13:27
Total/NA	Analysis	Field Sampling		1	370029	BJ0R	EET CF	10/20/22 11:50

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Client Sample ID: MW-314

Date Collected: 10/20/22 14:15

Date Received: 10/25/22 09:45

Lab Sample ID: 310-243082-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	371213	J7CK	EET CF	11/04/22 20:56
Total/NA	Prep	7470A			369880	XXW3	EET CF	10/26/22 12:58
Total/NA	Analysis	7470A		1	370084	XXW3	EET CF	10/27/22 15:38
Total/NA	Analysis	SM 2540C		1	369757	ENB7	EET CF	10/25/22 15:03
Total/NA	Analysis	SM 4500 H+ B		1	369745	W9YR	EET CF	10/25/22 13:28
Total/NA	Analysis	Field Sampling		1	370029	BJ0R	EET CF	10/20/22 14:15

Client Sample ID: Field Blank

Date Collected: 10/20/22 10:50

Date Received: 10/25/22 09:45

Lab Sample ID: 310-243082-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	371213	J7CK	EET CF	11/04/22 21:09
Total/NA	Prep	7470A			369880	XXW3	EET CF	10/26/22 12:58
Total/NA	Analysis	7470A		1	370084	XXW3	EET CF	10/27/22 15:44
Total/NA	Analysis	SM 2540C		1	369757	ENB7	EET CF	10/25/22 15:03
Total/NA	Analysis	SM 4500 H+ B		1	369745	W9YR	EET CF	10/25/22 13:28

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	01-04-23

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Method Summary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-1

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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Environment Testing
America



310-243082 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE <u>10/25/22</u>	TIME <u>945</u>	Received By: <u>LR</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes: Cooler ID:</i>			
Multiple Coolers? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes: Cooler # <u>1</u> of <u>3</u></i>			
Cooler Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes: Cooler custody seals intact?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No			
Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes: Sample custody seals intact?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No			
Trip Blank Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes: Which VOA samples are in cooler?</i> ↓			
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>P</u>		Correction Factor (°C) <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>-0.8</u>		Corrected Temp (°C): <u>-0.8</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1 <u>1L PI NT</u>	CONTAINER 2 <u>1L Plastic NT</u>	
Uncorrected Temp (°C):	<u>0.6</u>	<u>0.9</u>	
Corrected Temp (°C):	<u>0.6</u>	<u>0.9</u>	
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No			
a) <i>If yes: Is there evidence that the chilling process began?</i> <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Environment Testing
America

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE <u>10/25/22</u>	TIME <u>945</u>	Received By: <u>LR</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler ID: _____			
Multiple Coolers? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler # <u>2</u> of <u>3</u>			
Cooler Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Trip Blank Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Which VOA samples are in cooler? ↓			
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>P</u>		Correction Factor (°C) <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>0.5</u>		Corrected Temp (°C): <u>0.5</u>	
• 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? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			





Environment Testing
America

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE <u>10/25/22</u>	TIME <u>945</u>	Received By: <u>LR</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID:	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>3</u> of <u>3</u>	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>P</u>	Correction Factor (°C) <u>0</u>		
Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>0.6</u>	Corrected Temp (°C): <u>0.6</u>		
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? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE. If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Client Information		Sampler: <u>Kacy Garber</u>		Lab P/N: <u>Frederick Sandie</u>		COC No: <u>310-74997-14654 1</u>	
Client Contact: <u>Mr. Tom Karwoski</u>		Phone: <u>301-402-6333</u>		E-Mail: <u>Sandra.Fredrick@eurofins.com</u>		Page: <u>Page 1 of 2</u>	
Company: <u>SCS Engineers</u>		Address: <u>2830 Dairy Dr</u>		City: <u>Madison</u>		Job #: _____	
State: <u>IA</u>		Zip: <u>53718</u>		Phone: <u>25222066</u>		PO #: <u>25222066</u>	
Email: <u>tkarwoski@scsengineers.com</u>		Project #: <u>3-1011020</u>		SSOW#: _____		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Allent: <u>Burlington 25222066</u>		Site: _____		Due Date Requested: _____		TAT Requested (days): _____	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Matrix (Inhibitor, Stabilizer, Preservative)		Preservation Code		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
MWL-301						6020A Metals Hg	
MWL-302						2549C Calcd. 9056A ORGM 28D, SM4500 H+	
MWL-302A		<u>10/20/22 13.34</u>		<u>G</u>		<u>XX</u>	
MWL-303							
MWL-304							
MWL-304F							
MWL-306							
MWL-307							
MWL-307A		<u>10/20/22 16.42</u>		<u>G</u>		<u>XX</u>	
MWL-307B		<u>10/20/22 10.12</u>		<u>G</u>		<u>XX</u>	
MWL-308							
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological							
Deliverable Requested <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify) _____							
Empty Kit Relinquished by: _____ Date: _____							
Relinquished by: <u>[Signature]</u> Date/Time: <u>10/20/2022/1845</u> Company: <u>SCS</u>							
Relinquished by: <u>[Signature]</u> Date/Time: <u>10/20/2022/1845</u> Company: <u>SCS</u>							
Relinquished by: <u>[Signature]</u> Date/Time: <u>10/20/2022/1845</u> Company: <u>SCS</u>							
Custody Seal Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							

Sample ID	Analysis Requested	Carrier Tracking No(s)	Stats of Origin	Special Instructions/Note
MWL-301				
MWL-302				
MWL-302A				
MWL-303				
MWL-304				
MWL-304F				
MWL-306				
MWL-307				
MWL-307A				
MWL-307B				
MWL-308				

Chain of Custody Record

Client Information		Sampler: Kacey Garber		Lab PM: Fredrick Sandie		COC No: 310-74999-21444 1	
Client Contact: Mr Tom Karwoski		Phone: 309-262-6333		E-Mail: Sandra.Fredrick@eurofins.com		Page: Page 1 of 2	
Company: SCS Engineers		PWSID:		State of Origin:		Job #:	
Address: 2830 Dairy Dr		Due Date Requested:		Analysis Requested:		Preservation Codes:	
City: Madison		TAT Requested (days):				A HCl B NaOH C Zn Acetate D Nitric Acid E NaHSO4 F NaOH G Archlor H Ascorbic Acid I Ice J DI Water K EDTA L EDA Other	
State Zip: WI 53718		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				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)	
Phone: 25222066		PO #: 25222066				Total Number of Containers: 3	
Email: tkarwoski@scsengineers.com		WO #: 31011020				Special Instructions/Note	
Project Name: Allent Burlington 25222066		Project #: 31011020					
Site: SS3W#		SS3W#:					
Sample Identification		Sample Date		Sample Time		Sample Type	
MW-30*		10/20/22		13:39		G	
MW-302A						G	
MW-303						G	
MW-304						G	
MW-305						G	
MW-306						G	
MW-307						G	
MW-307A		10/20/22		10:42		G	
MW-307B		10/20/22		14:12		G	
MW-308						G	
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard		<input type="checkbox"/> Flammable		<input type="checkbox"/> Skin Irritant	
Deliverable Requested		<input type="checkbox"/> I		<input type="checkbox"/> II		<input type="checkbox"/> III	
Empty Kit Relinquished by		Date/Time: 10/20/22 18:45		Date/Time: 10/20/22 18:45		Date/Time: 10/20/22 18:45	
Relinquished by: [Signature]		Company: SCS		Relinquished by: [Signature]		Company: SCS	
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:	
Custody Seals Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:			

Chain of Custody Record

Client Information		Sampler: Kacey Garber		Lab PM: Fredrick, Sandie		Carrier Tracking No(s)		COC No: <i>r</i>	
Client Contact: Meghan Blodgett		Phone: 304-202-6333		E-Mail: Sandra.Fredrick@et.eurofins.com		State of Origin: Iowa		Page: 1 of 2	
Company: SCS Engineers		PWSID:		Analysis Requested		Total Number of Containers		Job #: _____	
Address: 2830 Dairy Drive		Due Date Requested: Standard TAT		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>		Preservation Codes: M - Hexane 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 Other: _____	
City: Igadison		TAT Requested (days): Standard TAT		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>		Special Instructions/Note	
State, Zip: WI, 53718		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		Sample Date		Sample Time		Special Instructions/Note	
Phone: 608-224-2830		PO #: 25222066		Sample Date		Sample Time		Special Instructions/Note	
Email: bsuchoemel@scsengineers.com		WO #: _____		Sample Date		Sample Time		Special Instructions/Note	
Project Name: Alliant Burlington 25222066		Project #: _____		Sample Date		Sample Time		Special Instructions/Note	
Site: Burlington IA		SSOW#: _____		Sample Date		Sample Time		Special Instructions/Note	
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (Water, Solid, Derivative)	
MW-301								W	
MW-302								W	
MW-302A		10/20/22		13:34		G		W	
MW-303								W	
MW-304								W	
MW-305								W	
MW-306								W	
MW-307								W	
MW-307A		10/20/22		10:42		G		W	
MW-307B		10/20/22		10:12		G		W	
MW-308								W	
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard		<input type="checkbox"/> Flammable		<input type="checkbox"/> Skin Irritant		<input type="checkbox"/> Poison B	
Deliverable Requested I, II, III, IV, Other (specify)		<input type="checkbox"/> Unknown		<input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client		<input type="checkbox"/> Disposal By Lab	
Empty Kit Relinquished by		Date		Time		Method of Shipment		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Relinquished by: <i>[Signature]</i>		Date Time: 10/20/22 18:45		Date Time: 10/20/22 18:45		Date Time: 10/20/22 18:45		Company: SCS	
Relinquished by: _____		Date Time: _____		Date Time: _____		Date Time: _____		Company: _____	
Relinquished by: _____		Date Time: _____		Date Time: _____		Date Time: _____		Company: _____	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:		Special Instructions/QC Requirements:		Archive For _____ Months	

Chain of Custody Record

SL# - ca Des Moines SC
 214

Client Information		Sampler		Lab P/N		Carrier Tracking No(s)		COC No	
Client Contact: Mr. Tom Karwoski		Phone 319-202-6333		E-Mail Sandra.Fredrick@eurofins.com		State of Origin		Page Page 2 of 2	
Company SCS Engineers		PMSID		Lab P/N Fredrick, Sandie		Carrier Tracking No(s)		Job #	
Address 2830 Dairy Dr		Due Date Requested		Analysis Requested		State of Origin		Preservation Codes	
City Madison		TAT Requested (days)		Analysis Requested		State of Origin		A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSC4 F - MeOH G Amchlor H Ascorbic Acid I Ice J DI Water K EDTA L EDA Other	
State Zip WV 53718		Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No		Analysis Requested		State of Origin		M Hexane N None O AsNaO2 P Na2O4S Q - Na2SO3 R Na2SO4 S H2SO4 T TSP Dodecylsulfate U Acetone V MCA W pH 4-5 X Trizma Z other (specify)	
Phone		PC # 25222066		Analysis Requested		State of Origin		Total Number of containers	
Email tkarwoski@scsengineers.com		WO #		Analysis Requested		State of Origin		Special Instructions/Note	
Project Name Alliant Burlington 25222066		Project # 31011020		Analysis Requested		State of Origin			
Site		SSOM#		Analysis Requested		State of Origin			
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=organic, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B Alkalinity	6020A Metals (g)	6020A D Metals (g)
MW-3-0				Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
MW-3-0	10/20/22	1:50	G	Water			XX	X	2
MW-3-0A	10/20/22	12:20	G	Water			XX	X	3
MW-3-1	10/20/22	11:48	G	Water			XX	X	3
MW-3-2	10/20/22	11:50	G	Water			XX	X	3
MW-3-3	10/20/22	14:15	G	Water			XX	X	3
MW-3-3A				Water					
MW-3-3B				Water					
MW-3-4				Water					

Eurofins Cedar Falls
 3019 Venture Way
 Cedar Falls IA 50613
 Phone 319-277-2401 Fax 319-277-2425

1stAmerica Des Moines SC
 214
Chain of Custody Record

Client Information
 Client Contact: Kathy Garber
 M: Tom Karwoski
 Company: SCS Engineers

Address: 2830 Dairy Dr
 City: Madison
 State Zip: IA 50613
 Phone: 53718
 Email: tkarwoski@sceengineers.com
 Project Name: Allent Burlington 25222068
 Site:

Lab #W: Frederick, Sandie
 E-Mail: Sandra.Fredrick@at.eurofins.com
 PWSID: 304-201-6333
 PWSD:

Due Date Requested: _____
 TAT Requested (days): _____
 Compliance Project: Yes No
 PO #: 25222068
 WO #: _____
 Project #: 31011020
 SSONW#: _____

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (W=water, S=solid, O=oil, BT=Blood, A=Air)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)		Total Number of Containers	Special Instructions/Note
							6020A Metals Hg	2540C Calcd 9056A, ORGM 26D, SM4500, H+		
MW-3C				Water		X	X			
MW-3C				Water		X	X			
MW-3 CA	10/20/22	14:50	G	Water		X	X	2		
MW-311				Water		X	X			
MW-32				Water		X	X			
MW-313	10/20/22	12:20	G	Water		X	X	2		
MW-33A	10/20/22	11:48	G	Water		X	X	2		
MW-33B	10/20/22	11:50	G	Water		X	X	2		
MW-314	10/20/22	14:15	G	Water		X	X	2		
Field Blank	10/20/22	17:58	G	Water		X	X	2		

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested II III IV Other (specify): _____

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: _____ Company: SCS

Relinquished by: _____ Company: SCS

Relinquished by: _____ Company: _____

Custody Seals Intact Yes No

Custody Seal No: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements: _____

Method of Shipment: _____

Date/TIME: 10/20/22 18:45 Company: SCS

Date/TIME: 10/25/22 09:45 Company: _____

Date/TIME: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: _____

Chain of Custody Record

Client Information		Lab PM Fredrick, Sandie		Carrier Tracking No(s)		COC No:																																																																																	
Client Contact: Meghan Blodgett		Sampler: Kacey Garber		State of Origin: Iowa		Page: Page 2 of 2																																																																																	
Company: SCS Engineers		Phone: 307-202-6373		E-Mail: Sandra.Fredrick@et.eurofinsus.com		Job #:																																																																																	
Address: 2830 Dairy Drive		Due Date Requested: Standard TAT		<table border="1"> <thead> <tr> <th colspan="2">Analysis Requested</th> <th rowspan="2">Perform MS/MSD (Yes or No)</th> <th rowspan="2">Field Filtered Sample (Yes or No)</th> <th rowspan="2">Total Number of Containers</th> <th rowspan="2">Special Instructions/Note</th> </tr> <tr> <th>Sample ID</th> <th>Sample Description</th> </tr> </thead> <tbody> <tr> <td>9030</td> <td>Radium 226</td> <td>X</td> <td>D</td> <td>2</td> <td></td> </tr> <tr> <td>9040</td> <td>Radium 228</td> <td>X</td> <td>D</td> <td>2</td> <td></td> </tr> <tr> <td>MW-309</td> <td></td> <td></td> <td>N</td> <td></td> <td></td> </tr> <tr> <td>MW-310</td> <td></td> <td></td> <td>N</td> <td></td> <td></td> </tr> <tr> <td>MW-310A</td> <td></td> <td></td> <td>N</td> <td></td> <td></td> </tr> <tr> <td>MW-311</td> <td></td> <td></td> <td>N</td> <td></td> <td></td> </tr> <tr> <td>MW-312</td> <td></td> <td></td> <td>N</td> <td></td> <td></td> </tr> <tr> <td>MW-313</td> <td></td> <td></td> <td>N</td> <td></td> <td></td> </tr> <tr> <td>MW-313A</td> <td></td> <td></td> <td>N</td> <td></td> <td></td> </tr> <tr> <td>MW-313B</td> <td></td> <td></td> <td>N</td> <td></td> <td></td> </tr> <tr> <td>MW-314</td> <td></td> <td></td> <td>N</td> <td></td> <td></td> </tr> <tr> <td>Field Blank</td> <td></td> <td></td> <td>N</td> <td></td> <td></td> </tr> </tbody> </table>				Analysis Requested		Perform MS/MSD (Yes or No)	Field Filtered Sample (Yes or No)	Total Number of Containers	Special Instructions/Note	Sample ID	Sample Description	9030	Radium 226	X	D	2		9040	Radium 228	X	D	2		MW-309			N			MW-310			N			MW-310A			N			MW-311			N			MW-312			N			MW-313			N			MW-313A			N			MW-313B			N			MW-314			N			Field Blank			N		
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Phone: 808-224-2830		PO #: 25222066																																																																																					
Email: busu@home@scsengineers.com		WO #:																																																																																					
Project Name: Alliant Burlington 25222066		Project #:																																																																																					
Site: Burlington, IA		SSOW#:																																																																																					
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=water/oil, BT=Tissue, A=Air)		Preservation Code:																																																																													
MW-309		10/20/22		14:50		G		W		W																																																																													
MW-313		10/20/22		12:26		G		W		W																																																																													
MW-313A		10/20/22		11:48		G		W		W																																																																													
MW-313B		10/20/22		11:50		G		W		W																																																																													
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Field Blank		10/20/22		10:50		G		W		W																																																																													
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard		<input type="checkbox"/> Flammable		<input type="checkbox"/> Skin Irritant		<input type="checkbox"/> Poison B		<input type="checkbox"/> Unknown		<input type="checkbox"/> Radiological																																																																											
Deliverable Requested I, II, III, IV, Other (specify)		Empty Kit Relinquished by		Date		Time		Method of Shipment:		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																																																																											
Relinquished by: [Signature]		Date/Time: 10/20/22/1845		Company: SCS		Received by: [Signature]		Date/Time: 10/20/22/1845		Company: SCS		Relinquished by: [Signature]																																																																											
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Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:																																																																																			





Table 1. Sampling Points and Parameters CCR Rule Sampling Program Assessment Monitoring
Groundwater Monitoring Burlington Generating Station / SCS Engineers Project #25222666

Parameter	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-308	MW-307	MW-307A	MW-307B	MW-308	MW-309	MW-310	MW-310A	MW-311	MW-312	MW-313	MW-313A	MW-313B	MW-314	Field Blank	TOTAL	
	Appendix III Parameters																						
Boron	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Calcium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Chloride	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Fluoride	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
PH	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Sulfate	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
TDS	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Appendix IV Parameters																							
Antimony	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Arsenic	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Barium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Beryllium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Cadmium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Chromium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Copper	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Fluoride	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Lead	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Lithium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Mercury	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Molybdenum	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Selenium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Thallium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Radium (report separately)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Field Parameters																							
Ferrous Iron (Chemicals)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Sulfide (Chemicals)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Groundwater Elevation	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Well Depth	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
pH (field)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Specific Conductance	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Dissolved Oxygen	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
ORP	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Temperature	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Turbidity	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Color	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Odor	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
COC #3																							
Bicarbonate (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Carbonate (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Iron (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Magnesium (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Manganese (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Potassium (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Sodium (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Iron (filtered)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Lithium (filtered)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Manganese (filtered)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Molybdenum (filtered)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20

015:
1\25222666\00Data and Calculations\field\Workbooks\1_BQS_CCR_Rule_Sampling_2210_3\514411

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-243082-1

Login Number: 243082

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Costello, Mackenzie K

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



**Table 1. Groundwater Monitoring Results - Field Parameters
Burlington Generating Station / SCS Engineers Project #25222066.00
October 2022**

Sample	Sample Date/Time	Temperature (Deg. C)	pH (Std. Units)	Dissolved Oxygen (mg/L)	Specific Conductivity (µmhos/cm)	ORP (mV)	Turbidity	Groundwater Elevation (amsl)
MW-302A	10/20/2022 @13:34	16.70	7.09	0.0	1,090	-115.0	5.00	506.87
MW-307A	10/20/2022 @10:42	15.47	7.69	0.0	791	-131.0	0.30	508.27
MW-307B	10/20/2022 @10:12	14.11	7.10	0.0	492	-34.0	17.00	508.35
MW-310A	10/20/2022 @14:50	18.90	7.54	0.01	874	21.0	2.00	512.84
MW-313	10/20/2022 @12:20	19.60	7.65	0.00	477	-181.0	185.00	512.08
MW-313A	10/20/2022 @11:48	17.06	7.72	0.00	621	-105.0	10.00	511.86
MW-313B	10/20/2022 @11:50	17.99	7.51	0.00	804	-105.0	4.00	511.91
MW-314	10/20/2022 @14:15	13.30	7.11	0.00	930	-120.0	5.00	517.78

Abbreviations:

mg/L = milligrams per liter
mV = millivolts

amsl = above mean sea level
µmhos/cm = micromohs per cm

-- = Not Applicable
NM = not measured

Created by: NDK
Last revision by: DK
Checked by: NDK

Date: 10/15/2021
Date: 10/20/2022
Date: 10/26/2022

C:\Users\hld0\AppData\Local\Microsoft\Windows\NetCache\Content.Outlook\USG3GGGC\[2210 - BGS_CCR_Field.xlsx]GW Field Parameters

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 2/24/2023 1:50:49 PM Revision 1

JOB DESCRIPTION

Alliant Burlington 25222066 MNA

JOB NUMBER

310-243082-3

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.

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Authorization



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Authorized for release by
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Case Narrative

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Job ID: 310-243082-3

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative 310-243082-3

Comments

REVISED REPORT: Updated to remove sampling logs at clients request

Receipt

The samples were received on 10/25/2022 9:45 AM. 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 -0.8° C, 0.5° C and 0.6° C.

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.

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Sample Summary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-243082-1	MW-302A	Water	10/20/22 13:34	10/25/22 09:45
310-243082-2	MW-307A	Water	10/20/22 10:42	10/25/22 09:45
310-243082-3	MW-307B	Water	10/20/22 10:12	10/25/22 09:45
310-243082-4	MW-310A	Water	10/20/22 14:50	10/25/22 09:45
310-243082-5	MW-313	Water	10/20/22 12:20	10/25/22 09:45
310-243082-6	MW-313A	Water	10/20/22 11:48	10/25/22 09:45
310-243082-7	MW-313B	Water	10/20/22 11:50	10/25/22 09:45
310-243082-8	MW-314	Water	10/20/22 14:15	10/25/22 09:45

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Detection Summary

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Client Sample ID: MW-302A

Lab Sample ID: 310-243082-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	11000		100	36	ug/L	1		6020A	Total/NA
Magnesium	33000		500	150	ug/L	1		6020A	Total/NA
Manganese	4300		10	3.6	ug/L	1		6020A	Total/NA
Potassium	6900		500	150	ug/L	1		6020A	Total/NA
Sodium	14000		1000	610	ug/L	1		6020A	Total/NA
Iron	11000		100	36	ug/L	1		6020A	Dissolved
Lithium	14		10	2.5	ug/L	1		6020A	Dissolved
Manganese	3700		70	25	ug/L	7		6020A	Dissolved
Molybdenum	36		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	430		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	430		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-307A

Lab Sample ID: 310-243082-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1200		100	36	ug/L	1		6020A	Total/NA
Magnesium	4300		500	150	ug/L	1		6020A	Total/NA
Manganese	940		10	3.6	ug/L	1		6020A	Total/NA
Potassium	4200		500	150	ug/L	1		6020A	Total/NA
Sodium	130000		1000	610	ug/L	1		6020A	Total/NA
Iron	1000		100	36	ug/L	1		6020A	Dissolved
Lithium	11		10	2.5	ug/L	1		6020A	Dissolved
Manganese	870		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	120		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	170		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	170		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-307B

Lab Sample ID: 310-243082-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	3000		100	36	ug/L	1		6020A	Total/NA
Magnesium	14000		500	150	ug/L	1		6020A	Total/NA
Manganese	360		10	3.6	ug/L	1		6020A	Total/NA
Potassium	1600		500	150	ug/L	1		6020A	Total/NA
Sodium	19000		1000	610	ug/L	1		6020A	Total/NA
Iron	1500		100	36	ug/L	1		6020A	Dissolved
Lithium	6.7	J	10	2.5	ug/L	1		6020A	Dissolved
Manganese	370		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	35		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-310A

Lab Sample ID: 310-243082-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	290		100	36	ug/L	1		6020A	Total/NA
Magnesium	16000		500	150	ug/L	1		6020A	Total/NA
Manganese	41		10	3.6	ug/L	1		6020A	Total/NA
Potassium	4200		500	150	ug/L	1		6020A	Total/NA
Sodium	120000		1000	610	ug/L	1		6020A	Total/NA
Lithium	34		10	2.5	ug/L	1		6020A	Dissolved
Manganese	22		10	3.6	ug/L	1		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Client Sample ID: MW-310A (Continued)

Lab Sample ID: 310-243082-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	14		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	420		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	420		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-313

Lab Sample ID: 310-243082-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	16000		100	36	ug/L	1		6020A	Total/NA
Magnesium	6000		500	150	ug/L	1		6020A	Total/NA
Manganese	2700		10	3.6	ug/L	1		6020A	Total/NA
Potassium	15000		500	150	ug/L	1		6020A	Total/NA
Sodium	47000		1000	610	ug/L	1		6020A	Total/NA
Iron	3600		100	36	ug/L	1		6020A	Dissolved
Lithium	32		10	2.5	ug/L	1		6020A	Dissolved
Manganese	2000		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	47		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	170		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	170		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-313A

Lab Sample ID: 310-243082-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	910		100	36	ug/L	1		6020A	Total/NA
Magnesium	1400		500	150	ug/L	1		6020A	Total/NA
Manganese	290		10	3.6	ug/L	1		6020A	Total/NA
Potassium	7200		500	150	ug/L	1		6020A	Total/NA
Sodium	96000		1000	610	ug/L	1		6020A	Total/NA
Iron	610		100	36	ug/L	1		6020A	Dissolved
Lithium	7.3	J	10	2.5	ug/L	1		6020A	Dissolved
Manganese	250		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	63		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	170		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	170		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-313B

Lab Sample ID: 310-243082-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1300		100	36	ug/L	1		6020A	Total/NA
Magnesium	4800		500	150	ug/L	1		6020A	Total/NA
Manganese	410		10	3.6	ug/L	1		6020A	Total/NA
Potassium	9100		500	150	ug/L	1		6020A	Total/NA
Sodium	100000		1000	610	ug/L	1		6020A	Total/NA
Iron	750		100	36	ug/L	1		6020A	Dissolved
Lithium	14		10	2.5	ug/L	1		6020A	Dissolved
Manganese	350		10	3.6	ug/L	1		6020A	Dissolved
Molybdenum	100		2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	160		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	160		10	4.6	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW-314

Lab Sample ID: 310-243082-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	11000		700	250	ug/L	7		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Client Sample ID: MW-314 (Continued)

Lab Sample ID: 310-243082-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	40000		500	150	ug/L	1		6020A	Total/NA
Manganese	5500		70	25	ug/L	7		6020A	Total/NA
Potassium	440	J	500	150	ug/L	1		6020A	Total/NA
Sodium	11000		1000	610	ug/L	1		6020A	Total/NA
Iron	12000		100	36	ug/L	1		6020A	Dissolved
Lithium	3.6	J	10	2.5	ug/L	1		6020A	Dissolved
Manganese	5000		70	25	ug/L	7		6020A	Dissolved
Molybdenum	1.4	J	2.0	1.2	ug/L	1		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	450		10	4.6	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	450		10	4.6	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Client Sample ID: MW-302A

Lab Sample ID: 310-243082-1

Date Collected: 10/20/22 13:34

Matrix: Water

Date Received: 10/25/22 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	11000		100	36	ug/L		10/27/22 09:00	11/04/22 15:52	1
Magnesium	33000		500	150	ug/L		10/27/22 09:00	11/04/22 15:52	1
Manganese	4300		10	3.6	ug/L		10/27/22 09:00	11/04/22 15:52	1
Potassium	6900		500	150	ug/L		10/27/22 09:00	11/04/22 15:52	1
Sodium	14000		1000	610	ug/L		10/27/22 09:00	11/04/22 15:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	11000		100	36	ug/L		10/27/22 09:00	11/03/22 19:53	1
Lithium	14		10	2.5	ug/L		10/27/22 09:00	11/03/22 19:53	1
Manganese	3700		70	25	ug/L		10/27/22 09:00	11/07/22 13:54	7
Molybdenum	36		2.0	1.2	ug/L		10/27/22 09:00	11/03/22 19:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	430		10	4.6	mg/L			10/29/22 12:41	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/29/22 12:41	1
Total Alkalinity as CaCO3 (SM 2320B)	430		10	4.6	mg/L			10/29/22 12:41	1



Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Client Sample ID: MW-307A

Lab Sample ID: 310-243082-2

Date Collected: 10/20/22 10:42

Matrix: Water

Date Received: 10/25/22 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1200		100	36	ug/L		10/27/22 09:00	11/04/22 15:58	1
Magnesium	4300		500	150	ug/L		10/27/22 09:00	11/04/22 15:58	1
Manganese	940		10	3.6	ug/L		10/27/22 09:00	11/04/22 15:58	1
Potassium	4200		500	150	ug/L		10/27/22 09:00	11/04/22 15:58	1
Sodium	130000		1000	610	ug/L		10/27/22 09:00	11/04/22 15:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1000		100	36	ug/L		10/27/22 09:00	10/27/22 22:06	1
Lithium	11		10	2.5	ug/L		10/27/22 09:00	10/27/22 22:06	1
Manganese	870		10	3.6	ug/L		10/27/22 09:00	10/27/22 22:06	1
Molybdenum	120		2.0	1.2	ug/L		10/27/22 09:00	10/27/22 22:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	170		10	4.6	mg/L			10/29/22 12:41	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/29/22 12:41	1
Total Alkalinity as CaCO3 (SM 2320B)	170		10	4.6	mg/L			10/29/22 12:41	1



Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Client Sample ID: MW-307B

Lab Sample ID: 310-243082-3

Date Collected: 10/20/22 10:12

Matrix: Water

Date Received: 10/25/22 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	3000		100	36	ug/L		10/27/22 09:00	11/04/22 16:01	1
Magnesium	14000		500	150	ug/L		10/27/22 09:00	11/04/22 16:01	1
Manganese	360		10	3.6	ug/L		10/27/22 09:00	11/04/22 16:01	1
Potassium	1600		500	150	ug/L		10/27/22 09:00	11/04/22 16:01	1
Sodium	19000		1000	610	ug/L		10/27/22 09:00	11/04/22 16:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1500		100	36	ug/L		10/27/22 09:00	11/03/22 20:21	1
Lithium	6.7	J	10	2.5	ug/L		10/27/22 09:00	11/03/22 20:21	1
Manganese	370		10	3.6	ug/L		10/27/22 09:00	11/03/22 20:21	1
Molybdenum	35		2.0	1.2	ug/L		10/27/22 09:00	11/03/22 20:21	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			10/29/22 12:41	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/29/22 12:41	1
Total Alkalinity as CaCO3 (SM 2320B)	190		10	4.6	mg/L			10/29/22 12:41	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Client Sample ID: MW-310A

Lab Sample ID: 310-243082-4

Date Collected: 10/20/22 14:50

Matrix: Water

Date Received: 10/25/22 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	290		100	36	ug/L		10/27/22 09:00	11/04/22 16:33	1
Magnesium	16000		500	150	ug/L		10/27/22 09:00	11/04/22 16:33	1
Manganese	41		10	3.6	ug/L		10/27/22 09:00	11/04/22 16:33	1
Potassium	4200		500	150	ug/L		10/27/22 09:00	11/04/22 16:33	1
Sodium	120000		1000	610	ug/L		10/27/22 09:00	11/04/22 16:33	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		10/27/22 09:00	11/03/22 20:25	1
Lithium	34		10	2.5	ug/L		10/27/22 09:00	11/03/22 20:25	1
Manganese	22		10	3.6	ug/L		10/27/22 09:00	11/03/22 20:25	1
Molybdenum	14		2.0	1.2	ug/L		10/27/22 09:00	11/03/22 20:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	420		10	4.6	mg/L			10/29/22 12:41	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/29/22 12:41	1
Total Alkalinity as CaCO3 (SM 2320B)	420		10	4.6	mg/L			10/29/22 12:41	1



Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Client Sample ID: MW-313

Lab Sample ID: 310-243082-5

Date Collected: 10/20/22 12:20

Matrix: Water

Date Received: 10/25/22 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	16000		100	36	ug/L		10/27/22 09:00	11/04/22 16:36	1
Magnesium	6000		500	150	ug/L		10/27/22 09:00	11/04/22 16:36	1
Manganese	2700		10	3.6	ug/L		10/27/22 09:00	11/04/22 16:36	1
Potassium	15000		500	150	ug/L		10/27/22 09:00	11/04/22 16:36	1
Sodium	47000		1000	610	ug/L		10/27/22 09:00	11/04/22 16:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	3600		100	36	ug/L		10/27/22 09:00	11/03/22 20:28	1
Lithium	32		10	2.5	ug/L		10/27/22 09:00	11/03/22 20:28	1
Manganese	2000		10	3.6	ug/L		10/27/22 09:00	11/03/22 20:28	1
Molybdenum	47		2.0	1.2	ug/L		10/27/22 09:00	11/03/22 20:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	170		10	4.6	mg/L			10/29/22 12:41	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/29/22 12:41	1
Total Alkalinity as CaCO3 (SM 2320B)	170		10	4.6	mg/L			10/29/22 12:41	1



Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Client Sample ID: MW-313A

Lab Sample ID: 310-243082-6

Date Collected: 10/20/22 11:48

Matrix: Water

Date Received: 10/25/22 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	910		100	36	ug/L		10/27/22 09:00	11/04/22 16:39	1
Magnesium	1400		500	150	ug/L		10/27/22 09:00	11/04/22 16:39	1
Manganese	290		10	3.6	ug/L		10/27/22 09:00	11/04/22 16:39	1
Potassium	7200		500	150	ug/L		10/27/22 09:00	11/04/22 16:39	1
Sodium	96000		1000	610	ug/L		10/27/22 09:00	11/04/22 16:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	610		100	36	ug/L		10/27/22 09:00	11/03/22 20:32	1
Lithium	7.3	J	10	2.5	ug/L		10/27/22 09:00	11/03/22 20:32	1
Manganese	250		10	3.6	ug/L		10/27/22 09:00	11/03/22 20:32	1
Molybdenum	63		2.0	1.2	ug/L		10/27/22 09:00	11/03/22 20:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	170		10	4.6	mg/L			10/29/22 12:41	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/29/22 12:41	1
Total Alkalinity as CaCO3 (SM 2320B)	170		10	4.6	mg/L			10/29/22 12:41	1



Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Client Sample ID: MW-313B

Lab Sample ID: 310-243082-7

Date Collected: 10/20/22 11:50

Matrix: Water

Date Received: 10/25/22 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1300		100	36	ug/L		10/27/22 09:00	11/04/22 16:42	1
Magnesium	4800		500	150	ug/L		10/27/22 09:00	11/04/22 16:42	1
Manganese	410		10	3.6	ug/L		10/27/22 09:00	11/04/22 16:42	1
Potassium	9100		500	150	ug/L		10/27/22 09:00	11/04/22 16:42	1
Sodium	100000		1000	610	ug/L		10/27/22 09:00	11/04/22 16:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	750		100	36	ug/L		10/27/22 09:00	11/03/22 20:35	1
Lithium	14		10	2.5	ug/L		10/27/22 09:00	11/03/22 20:35	1
Manganese	350		10	3.6	ug/L		10/27/22 09:00	11/03/22 20:35	1
Molybdenum	100		2.0	1.2	ug/L		10/27/22 09:00	11/03/22 20:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	160		10	4.6	mg/L			10/29/22 12:41	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/29/22 12:41	1
Total Alkalinity as CaCO3 (SM 2320B)	160		10	4.6	mg/L			10/29/22 12:41	1



Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Client Sample ID: MW-314

Lab Sample ID: 310-243082-8

Date Collected: 10/20/22 14:15

Matrix: Water

Date Received: 10/25/22 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	11000		700	250	ug/L		10/27/22 09:00	11/07/22 14:33	7
Magnesium	40000		500	150	ug/L		10/27/22 09:00	11/04/22 16:45	1
Manganese	5500		70	25	ug/L		10/27/22 09:00	11/07/22 14:33	7
Potassium	440	J	500	150	ug/L		10/27/22 09:00	11/04/22 16:45	1
Sodium	11000		1000	610	ug/L		10/27/22 09:00	11/04/22 16:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	12000		100	36	ug/L		10/27/22 09:00	11/03/22 20:39	1
Lithium	3.6	J	10	2.5	ug/L		10/27/22 09:00	11/03/22 20:39	1
Manganese	5000		70	25	ug/L		10/27/22 09:00	11/07/22 13:58	7
Molybdenum	1.4	J	2.0	1.2	ug/L		10/27/22 09:00	11/03/22 20:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	450		10	4.6	mg/L			10/29/22 12:41	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.6		10	4.6	mg/L			10/29/22 12:41	1
Total Alkalinity as CaCO3 (SM 2320B)	450		10	4.6	mg/L			10/29/22 12:41	1



Definitions/Glossary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

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

QC Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-369585/1-B
Matrix: Water
Analysis Batch: 370223

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 369585

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		10/27/22 09:00	10/28/22 13:45	1
Magnesium	<150		500	150	ug/L		10/27/22 09:00	10/28/22 13:45	1
Manganese	<3.6		10	3.6	ug/L		10/27/22 09:00	10/28/22 13:45	1
Potassium	<150		500	150	ug/L		10/27/22 09:00	10/28/22 13:45	1
Sodium	<610		1000	610	ug/L		10/27/22 09:00	10/28/22 13:45	1

Lab Sample ID: LCS 310-369585/2-B
Matrix: Water
Analysis Batch: 370141

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369585

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	200	170		ug/L		85	80 - 120

Lab Sample ID: LCS 310-369585/2-B
Matrix: Water
Analysis Batch: 370223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369585

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Magnesium	2000	2160		ug/L		108	80 - 120
Manganese	100	109		ug/L		109	80 - 120
Potassium	2000	2210		ug/L		111	80 - 120
Sodium	2000	2210		ug/L		111	80 - 120

Lab Sample ID: MB 310-369865/1-A
Matrix: Water
Analysis Batch: 370141

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 369865

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<36		100	36	ug/L		10/27/22 09:00	10/27/22 21:22	1
Lithium	<2.5		10	2.5	ug/L		10/27/22 09:00	10/27/22 21:22	1
Manganese	<3.6		10	3.6	ug/L		10/27/22 09:00	10/27/22 21:22	1
Molybdenum	<1.2		2.0	1.2	ug/L		10/27/22 09:00	10/27/22 21:22	1

Lab Sample ID: LCS 310-369865/2-A
Matrix: Water
Analysis Batch: 370141

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369865

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	200	191		ug/L		95	80 - 120
Lithium	200	183		ug/L		92	80 - 120
Manganese	100	88.1		ug/L		88	80 - 120
Molybdenum	200	205		ug/L		103	80 - 120

Lab Sample ID: 310-243082-2 DU
Matrix: Water
Analysis Batch: 370141

Client Sample ID: MW-307A
Prep Type: Dissolved
Prep Batch: 369865

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Iron	1000		1020		ug/L		1	20
Lithium	11		12.0		ug/L		5	20

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QC Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

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

Lab Sample ID: 310-243082-2 DU
Matrix: Water
Analysis Batch: 370141

Client Sample ID: MW-307A
Prep Type: Dissolved
Prep Batch: 369865

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Manganese	870		875		ug/L		0	20
Molybdenum	120		123		ug/L		0.2	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 310-370260/1
Matrix: Water
Analysis Batch: 370260

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Bicarbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			10/29/22 12:41	1
Carbonate Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			10/29/22 12:41	1
Total Alkalinity as CaCO3	<2.3		5.0	2.3	mg/L			10/29/22 12:41	1

Lab Sample ID: LCS 310-370260/2
Matrix: Water
Analysis Batch: 370260

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

QC Association Summary

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Metals

Prep Batch: 369585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-1	MW-302A	Total/NA	Water	3005A	
310-243082-2	MW-307A	Total/NA	Water	3005A	
310-243082-3	MW-307B	Total/NA	Water	3005A	
310-243082-4	MW-310A	Total/NA	Water	3005A	
310-243082-5	MW-313	Total/NA	Water	3005A	
310-243082-6	MW-313A	Total/NA	Water	3005A	
310-243082-7	MW-313B	Total/NA	Water	3005A	
310-243082-8	MW-314	Total/NA	Water	3005A	
MB 310-369585/1-B	Method Blank	Total/NA	Water	3005A	
LCS 310-369585/2-B	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 369865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-1	MW-302A	Dissolved	Water	3005A	
310-243082-2	MW-307A	Dissolved	Water	3005A	
310-243082-3	MW-307B	Dissolved	Water	3005A	
310-243082-4	MW-310A	Dissolved	Water	3005A	
310-243082-5	MW-313	Dissolved	Water	3005A	
310-243082-6	MW-313A	Dissolved	Water	3005A	
310-243082-7	MW-313B	Dissolved	Water	3005A	
310-243082-8	MW-314	Dissolved	Water	3005A	
MB 310-369865/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-369865/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-243082-2 DU	MW-307A	Dissolved	Water	3005A	

Analysis Batch: 370141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-2	MW-307A	Dissolved	Water	6020A	369865
MB 310-369865/1-A	Method Blank	Total/NA	Water	6020A	369865
LCS 310-369585/2-B	Lab Control Sample	Total/NA	Water	6020A	369585
LCS 310-369865/2-A	Lab Control Sample	Total/NA	Water	6020A	369865
310-243082-2 DU	MW-307A	Dissolved	Water	6020A	369865

Analysis Batch: 370223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-369585/1-B	Method Blank	Total/NA	Water	6020A	369585
LCS 310-369585/2-B	Lab Control Sample	Total/NA	Water	6020A	369585

Analysis Batch: 370891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-1	MW-302A	Dissolved	Water	6020A	369865
310-243082-3	MW-307B	Dissolved	Water	6020A	369865
310-243082-4	MW-310A	Dissolved	Water	6020A	369865
310-243082-5	MW-313	Dissolved	Water	6020A	369865
310-243082-6	MW-313A	Dissolved	Water	6020A	369865
310-243082-7	MW-313B	Dissolved	Water	6020A	369865
310-243082-8	MW-314	Dissolved	Water	6020A	369865

Analysis Batch: 370994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-1	MW-302A	Total/NA	Water	6020A	369585

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QC Association Summary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Metals (Continued)

Analysis Batch: 370994 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-2	MW-307A	Total/NA	Water	6020A	369585
310-243082-3	MW-307B	Total/NA	Water	6020A	369585

Analysis Batch: 371144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-4	MW-310A	Total/NA	Water	6020A	369585
310-243082-5	MW-313	Total/NA	Water	6020A	369585
310-243082-6	MW-313A	Total/NA	Water	6020A	369585
310-243082-7	MW-313B	Total/NA	Water	6020A	369585
310-243082-8	MW-314	Total/NA	Water	6020A	369585

Analysis Batch: 371241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-1	MW-302A	Dissolved	Water	6020A	369865
310-243082-8	MW-314	Dissolved	Water	6020A	369865

Analysis Batch: 371242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-8	MW-314	Total/NA	Water	6020A	369585

General Chemistry

Analysis Batch: 370260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-1	MW-302A	Total/NA	Water	SM 2320B	
310-243082-2	MW-307A	Total/NA	Water	SM 2320B	
310-243082-3	MW-307B	Total/NA	Water	SM 2320B	
310-243082-4	MW-310A	Total/NA	Water	SM 2320B	
310-243082-5	MW-313	Total/NA	Water	SM 2320B	
310-243082-6	MW-313A	Total/NA	Water	SM 2320B	
310-243082-7	MW-313B	Total/NA	Water	SM 2320B	
310-243082-8	MW-314	Total/NA	Water	SM 2320B	
MB 310-370260/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 310-370260/2	Lab Control Sample	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Client Sample ID: MW-302A

Date Collected: 10/20/22 13:34

Date Received: 10/25/22 09:45

Lab Sample ID: 310-243082-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369865	QTZ5	EET CF	10/27/22 09:00
Dissolved	Analysis	6020A		1	370891	A6US	EET CF	11/03/22 19:53
Dissolved	Prep	3005A			369865	QTZ5	EET CF	10/27/22 09:00
Dissolved	Analysis	6020A		7	371241	A6US	EET CF	11/07/22 13:54
Total/NA	Prep	3005A			369585	QTZ5	EET CF	10/27/22 09:00
Total/NA	Analysis	6020A		1	370994	A6US	EET CF	11/04/22 15:52
Total/NA	Analysis	SM 2320B		1	370260	MAQ3	EET CF	10/29/22 12:41

Client Sample ID: MW-307A

Date Collected: 10/20/22 10:42

Date Received: 10/25/22 09:45

Lab Sample ID: 310-243082-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369865	QTZ5	EET CF	10/27/22 09:00
Dissolved	Analysis	6020A		1	370141	A6US	EET CF	10/27/22 22:06
Total/NA	Prep	3005A			369585	QTZ5	EET CF	10/27/22 09:00
Total/NA	Analysis	6020A		1	370994	A6US	EET CF	11/04/22 15:58
Total/NA	Analysis	SM 2320B		1	370260	MAQ3	EET CF	10/29/22 12:41

Client Sample ID: MW-307B

Date Collected: 10/20/22 10:12

Date Received: 10/25/22 09:45

Lab Sample ID: 310-243082-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369865	QTZ5	EET CF	10/27/22 09:00
Dissolved	Analysis	6020A		1	370891	A6US	EET CF	11/03/22 20:21
Total/NA	Prep	3005A			369585	QTZ5	EET CF	10/27/22 09:00
Total/NA	Analysis	6020A		1	370994	A6US	EET CF	11/04/22 16:01
Total/NA	Analysis	SM 2320B		1	370260	MAQ3	EET CF	10/29/22 12:41

Client Sample ID: MW-310A

Date Collected: 10/20/22 14:50

Date Received: 10/25/22 09:45

Lab Sample ID: 310-243082-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369865	QTZ5	EET CF	10/27/22 09:00
Dissolved	Analysis	6020A		1	370891	A6US	EET CF	11/03/22 20:25
Total/NA	Prep	3005A			369585	QTZ5	EET CF	10/27/22 09:00
Total/NA	Analysis	6020A		1	371144	A6US	EET CF	11/04/22 16:33
Total/NA	Analysis	SM 2320B		1	370260	MAQ3	EET CF	10/29/22 12:41

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Client Sample ID: MW-313
Date Collected: 10/20/22 12:20
Date Received: 10/25/22 09:45

Lab Sample ID: 310-243082-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369865	QTZ5	EET CF	10/27/22 09:00
Dissolved	Analysis	6020A		1	370891	A6US	EET CF	11/03/22 20:28
Total/NA	Prep	3005A			369585	QTZ5	EET CF	10/27/22 09:00
Total/NA	Analysis	6020A		1	371144	A6US	EET CF	11/04/22 16:36
Total/NA	Analysis	SM 2320B		1	370260	MAQ3	EET CF	10/29/22 12:41

Client Sample ID: MW-313A
Date Collected: 10/20/22 11:48
Date Received: 10/25/22 09:45

Lab Sample ID: 310-243082-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369865	QTZ5	EET CF	10/27/22 09:00
Dissolved	Analysis	6020A		1	370891	A6US	EET CF	11/03/22 20:32
Total/NA	Prep	3005A			369585	QTZ5	EET CF	10/27/22 09:00
Total/NA	Analysis	6020A		1	371144	A6US	EET CF	11/04/22 16:39
Total/NA	Analysis	SM 2320B		1	370260	MAQ3	EET CF	10/29/22 12:41

Client Sample ID: MW-313B
Date Collected: 10/20/22 11:50
Date Received: 10/25/22 09:45

Lab Sample ID: 310-243082-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369865	QTZ5	EET CF	10/27/22 09:00
Dissolved	Analysis	6020A		1	370891	A6US	EET CF	11/03/22 20:35
Total/NA	Prep	3005A			369585	QTZ5	EET CF	10/27/22 09:00
Total/NA	Analysis	6020A		1	371144	A6US	EET CF	11/04/22 16:42
Total/NA	Analysis	SM 2320B		1	370260	MAQ3	EET CF	10/29/22 12:41

Client Sample ID: MW-314
Date Collected: 10/20/22 14:15
Date Received: 10/25/22 09:45

Lab Sample ID: 310-243082-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	3005A			369865	QTZ5	EET CF	10/27/22 09:00
Dissolved	Analysis	6020A		1	370891	A6US	EET CF	11/03/22 20:39
Dissolved	Prep	3005A			369865	QTZ5	EET CF	10/27/22 09:00
Dissolved	Analysis	6020A		7	371241	A6US	EET CF	11/07/22 13:58
Total/NA	Prep	3005A			369585	QTZ5	EET CF	10/27/22 09:00
Total/NA	Analysis	6020A		7	371242	A6US	EET CF	11/07/22 14:33
Total/NA	Prep	3005A			369585	QTZ5	EET CF	10/27/22 09:00
Total/NA	Analysis	6020A		1	371144	A6US	EET CF	11/04/22 16:45
Total/NA	Analysis	SM 2320B		1	370260	MAQ3	EET CF	10/29/22 12:41

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Eurofins Cedar Falls

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	01-04-23

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

Method Summary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066 MNA

Job ID: 310-243082-3

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.

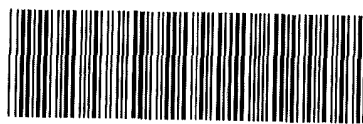
Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401





Environment Testing
America



310-243082 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE <u>10/25/22</u>	TIME <u>945</u>	Received By: <u>LR</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler ID: _____			
Multiple Coolers? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler # <u>1</u> of <u>3</u>			
Cooler Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Trip Blank Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Which VOA samples are in cooler? ↓			
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>P</u>		Correction Factor (°C) <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>-0.8</u>		Corrected Temp (°C): <u>-0.8</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1 <u>1L PI NT</u>	CONTAINER 2 <u>1L Plastic NT</u>	
Uncorrected Temp (°C):	<u>0.6</u>	<u>0.9</u>	
Corrected Temp (°C):	<u>0.6</u>	<u>0.9</u>	
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Environment Testing
America

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE <u>10/25/22</u>	TIME <u>945</u>	Received By: <u>LR</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler ID: _____			
Multiple Coolers? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler # <u>2</u> of <u>3</u>			
Cooler Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Trip Blank Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Which VOA samples are in cooler? ↓			
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>P</u>		Correction Factor (°C) <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>0.5</u>		Corrected Temp (°C): <u>0.5</u>	
• 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? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Environment Testing
America

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE <u>10/25/22</u>	TIME <u>945</u>	Received By: <u>LR</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID:	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>3</u> of <u>3</u>	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID:	<u>P</u>	Correction Factor (°C) <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C):	<u>0.6</u>	Corrected Temp (°C): <u>0.6</u>	
• 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? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE. If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Client Information		Sampler: <u>Kacy Garber</u>		Lab P/N: <u>Fredrick Sandie</u>		COC No: <u>310-74997-14654 1</u>	
Client Contact: <u>Mr. Tom Karwoski</u>		Phone: <u>301-402-6333</u>		E-Mail: <u>Sandra.Fredrick@eurofins.com</u>		Page: <u>Page 1 of 2</u>	
Company: <u>SCS Engineers</u>		Address: <u>2830 Dairy Dr</u>		City: <u>Madison</u>		State: <u>IA</u> Zip: <u>53718</u>	
Phone: <u>537-18</u>		Compliance Project: <u>Δ Yes Δ No</u>		PO #: <u>25222066</u>		VIC #: <u>3-1011020</u>	
Email: <u>*karwoski@scsengineers.com</u>		Project #: <u>3-1011020</u>		SSOW#: <u></u>		Analysis Requested	
Project Name: <u>Allent Burlington 25222066</u>		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Site: <u></u>		Matrix (In-house, Contract, Other)		Preservation Code		Field Filtered Sample (Yes or No)	
Sample Identification		Performs MS/MSD (Yes or No)		6020A Metals Hg		2540C Calcd. 9056A ORGM 28D, SM4500 H+	
MWL-301		Water		D N D D		D N D D	
MWL-302		Water		XX		2	
MWL-302A		Water		XX		2	
MWL-303		Water		XX		2	
MWL-304		Water					
MWL-304F		Water					
MWL-306		Water					
MWL-307		Water					
MWL-307A		Water					
MWL-307B		Water					
MWL-308		Water					
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify) _____							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Special Instructions/QC Requirements: _____							
Empty Kit Relinquished by: <u>798</u>		Date: <u>10/20/2022/1845</u>		Company: <u>SCS</u>		Requested by: <u>Charles H. Hattal</u>	
Relinquished by: <u>798</u>		Date/Time: <u>10/20/2022 1845</u>		Company: <u>SCS</u>		Received by: <u>XC</u>	
Relinquished by: <u>798</u>		Date/Time: <u>10/25/22 945</u>		Company: <u>SCS</u>		Received by: <u>XC</u>	
Custody Seal Intact <u>Δ Yes Δ No</u>		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: _____		Method of Shipment: _____	



Chain of Custody Record

Client Information		Sampler: Kacey Garber		Lab PM: Fredrick Sandie		COC No: 310-74999-21444 1	
Client Contact: Mr Tom Karwoski		Phone: 309-262-6333		E-Mail: Sandra.Fredrick@eurofins.com		Page: Page 1 of 2	
Company: SCS Engineers		Address: 2830 Dairy Dr		City: Madison		State of Origin: IA	
State Zip: WI 53718		Compliance Project: Δ Yes Δ No		PO #: 25222066		Job #: 	
Phone: 		TAT Requested (days): 		WC #: 		Preservation Codes: A HCl M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 R Na2S2O3 F NaOH S H2SO4 G Ascorbic Acid T TSP Dodecahydrate H Ice U Acetone I DI Water V MCAA J EDTA W pH 4-5 K EDTA Y Trizma L EDA Z other (specify) Other: 	
Email: tkarwoski@scsengineers.com		Project #: 31011020		Field Filtered Sample (Yes or No): X		Total Number of Containers: 3	
Project Name: Allent Burlington 25222066		Site: SS3W#		Perform MS/MSD (Yes or No): X		Special Instructions/Note: 	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
MW-30*		10/20/22		13:39		G	
MW-302A		10/20/22		10:47		G	
MW-303		10/20/22		14:12		G	
MW-304							
MW-305							
MW-306							
MW-307							
MW-307A							
MW-307B							
MW-308							
Possible Hazard Identification		Non-Hazard <input type="checkbox"/>		Flammable <input type="checkbox"/>		Skin Irritant <input type="checkbox"/>	
Deliverable Requested		I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> Other (specify) 		Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological <input type="checkbox"/>		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months	
Empty Kit Relinquished by 		Date: 10/20/22		Time: 18:45		Method of Shipment: 	
Relinquished by 		Date/Time: 10/20/22 18:45		Company: SCS		Date/Time: 10/20/22 18:45	
Relinquished by 		Date/Time: 10/20/22 18:45		Company: SCS		Date/Time: 10/20/22 18:45	
Relinquished by 		Date/Time: 10/20/22 18:45		Company: SCS		Date/Time: 10/20/22 18:45	
Custody Seals Intact Δ Yes Δ No		Custody Seal No 		Cooler Temperature(s) °C and Other Remarks: 		Company: SCS	



Chain of Custody Record

Client Information		Sampler: Kacey Garber		Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: r
Client Contact: Meghan Blodgett		Phone: 304-202-6333		E-Mail: Sandra.Fredrick@et.eurofins.com	State of Origin: Iowa	Page: 1 of 2
Company: SCS Engineers		PWSID:		Analysis Requested		
Address: 2830 Dairy Drive		Due Date Requested: Standard TAT		Perform MS/MSD (Yes or No)		
City: Ladison		TAT Requested (days): Standard TAT		Field Filtered Sample (Yes or No)		
State, Zip: WI, 53718		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		904.0 - Radium 226		
Phone: 608-224-2830		PO #: 25222066		904.0 - Radium 228		
Email: bsuchoel@scsengineers.com		WO #:		D		
Project Name: Alliant Burlington 25222066		Project #:		D		
Site: Burlington IA		SSOW#:		Total Number of containers		
				Special Instructions/Note		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, D=distillate, BT=issue, A=AU)	Preservation Code*	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0 Radium 226	904.0 - Radium 228	Special Instructions/Note
MW-301					W	N	X			
MW-302					W	N				
MW-302A	10/20/22	13:34	G		W	N	X	X	2	
MW-303					W	N				
MW-304					W	N				
MW-305					W	N				
MW-306					W	N				
MW-307					W	N				
MW-307A	10/20/22	10:42	G		W	N	X	X	2	
MW-307B	10/20/22	10:12	G		W	N	X	X	2	
MW-308					W	N				

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: <i>[Signature]</i>		Date: 10/20/22		Time: 18:45		Company: SCS	
Relinquished by: <i>[Signature]</i>		Date/Time: 10/20/22 18:45		Received by: <i>[Signature]</i>		Date/Time: 10/20/22 18:45	
Relinquished by: <i>[Signature]</i>		Date/Time: 10/20/22 18:45		Received by: <i>[Signature]</i>		Date/Time: 10/20/22 18:45	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:			

Chain of Custody Record

SL# - ca Des Moines SC
 214

Client Information		Sampler		Lab PIN		Carrier Tracking No(s)		COC No				
Client Contact: Mr. Tom Karwoski		Phone: 319-202-6333		E-Mail: Fredrick.Sandie@eurofins.com		State of Origin:		Page: Page 2 of 2				
Company: SCS Engineers		PMSID:		E-Mail: Sandra.Fredrick@eurofins.com		Job #:		Job #:				
<p>Due Date Requested: _____</p> <p>TAT Requested (days): _____</p> <p>Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>PC #: 25222066</p> <p>WO #: _____</p> <p>Email: tkarwoski@scsengineers.com</p> <p>Project Name: Allient Burlington 25222066</p> <p>Project #: 31011020</p> <p>Site: _____</p>												
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=organic, BT=Blood, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2320B Alkalinity	6020A Metals (g)	6020A D Metals (g)	Analysis Requested	Preservation Codes	Special Instructions/Note
MW-3-0				Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSC4 F MeOH G Amchlor H Ascorbic Acid I Ice J DI Water K EDTA L EDA Other	
MW-3-0A	10/20/22	1:50	G	Water			XX					2
MW-3-1				Water								
MW-3-2				Water								
MW-3-3	10/20/22	12:20	G	Water			XX					3
MW-3-3A	10/20/22	11:48	G	Water			XX					3
MW-3-3B	10/20/22	11:56	G	Water			XX					3
MW-3-4	10/20/22	14:15	G	Water			XX					3
				Water								

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested I II III IV Other (specify) _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements: _____

Empty Kit Relinquished by _____ Date _____

Relinquished by *[Signature]* Date 10/20/22 / 1845 Company SCS

Relinquished by *[Signature]* Date 10/20/22 15:45 Company SCS

Relinquished by *[Signature]* Date 10/25/22 9:45 Company

Custody Seals Intact Yes No Custody Seal No

Cooler Temperature(s) °C and Other Remarks: _____



Chain of Custody Record

Client Information Client Contact: Mr. Tom Karwoski Company: SCS Engineers Address: 2830 Dairy Dr City: Madison State Zip: IA 50613 Phone: 53718 Email: tkarwoski@scsengineers.com Project Name: Allent Burlington 25222066 Site:		Lab #W: Fredrick, Sandie E-Mail: Sandra.Fredrick@at.eurofins.com PWSID:		Carrier Tracking No(s): 310-74997-14654 2 Page: Page 2 of 2 Job #:	
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: 25222066 WO #:		Analysis Requested: 6020A Metals Hg 2540C Calcd 9056A, ORGM 26D, SM4500, H+ 6020A Radionuclides 6020A Radionuclides		Preservation Codes: A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSO4 F MeOH G Anchor H Ascorbic Acid I Ice J DI Water K EDTA L EDA Other:	
Sample Identification MW-3C9 MW-3C MW-3 CA MW-3 1 MW-3 2 MW-3 3 MW-3 3A MW-3 3B MW-3 4 Field Blank		Matrix (W=water, S=solid, O=organic, BT=biological) Sample Type (C=comp, G=grab) Sample Date Sample Time Preservation Code		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 2540C Calcd 9056A, ORGM 26D, SM4500, H+ 6020A Radionuclides 6020A Radionuclides	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify):		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by:		Date:		Method of Shipment:	
Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by:		Date/Time: 10/20/22 18:45 Date/Time: 10/20/22 18:45 Date/Time:		Company: SCS Company: Company:	
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No:		Cooler Temperature (s) °C and Other Remarks:	

Chain of Custody Record

Client Information		Sampler		Lab PM		Carrier Tracking No(s)		COC No:	
Client Contact: Meghan Blodgett		Kacey Garber		Fredrick, Sandie					
Company: SCS Engineers		Phone: 307-202-6373		E-Mail: Sandra.Fredrick@et.eurofinsus.com		State of Origin: Iowa		Page: Page 2 of 2	
Address: 2830 Dairy Drive		Due Date Requested: Standard TAT		PWSID:		Analysis Requested		Job #:	
City: Madison		TAT Requested (days): Standard TAT		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		Perform MS/MSD (Yes or No)		Preservation Codes	
State, Zip: WI, 53718		PO #: 25222066		WO #:		Field Filtered Sample (Yes or No)		A - HCL B - NaOH C - Zn-Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Email: busu@home@scsengineers.com		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=water/oil, BT=Tissue, A=Air)	
Project Name: Alliant Burlington 25222066		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=water/oil, BT=Tissue, A=Air)	
Site: Burlington, IA		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=water/oil, BT=Tissue, A=Air)	
Sample Identification									
MW-309									
MW-310									
MW-310A	10/20/22	14:50	G						
MW-311									
MW-312									
MW-313	10/20/22	12:26	G						
MW-313A	10/20/22	11:48	G						
MW-313B	10/20/22	11:50	G						
MW-314	10/20/22	14:15	G						
Field Blank	10/20/22	10:50	G						
<p>Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I, II, III, IV, Other (specify)</p> <p>Empty Kit Relinquished by _____ Date _____</p> <p>Relinquished by _____ Date/Time: 10/20/22/1845 Company: SCS</p> <p>Relinquished by _____ Date/Time: _____ Company: _____</p> <p>Relinquished by _____ Date/Time: _____ Company: _____</p> <p>Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Custody Seal No. _____</p>									
<p>Special Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:</p> <p>Received by: <i>Sandra Fredrick</i> Date/Time: 10/20/22 1845 Company: SCS</p> <p>Received by: _____ Date/Time: 10/25/22 9495 Company: _____</p> <p>Received by: _____ Date/Time: _____ Company: _____</p> <p>Cooler Temperature(s) °C and Other Remarks:</p>									





Table 1. Sampling Points and Parameters CCR Rule Sampling Program Assessment Monitoring
Groundwater Monitoring Burlington Generating Station / SCS Engineers Project #25222666

Parameter	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-308	MW-307	MW-307A	MW-307B	MW-309	MW-309	MW-310	MW-310A	MW-311	MW-312	MW-313	MW-313A	MW-313B	MW-314	Field Blank	TOTAL
COC #1 (non-rad) and #2 (radium)																						
Appendix III Parameters																						
Boron	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Calcium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Chloride	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Fluoride	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
pH	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Sulfate	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
TDS	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Appendix IV Parameters																						
Antimony	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Arsenic	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Barium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Beryllium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Cadmium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Chromium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Copper	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Fluoride	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Lead	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Lithium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Mercury	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Molybdenum	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Selenium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Thallium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Radium (report separately)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
Field Parameters																						
Ferrous Iron (CheMetrics)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Sulfide (CheMetrics)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Groundwater Elevation	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Well Depth	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
pH (field)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Specific Conductance	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Dissolved Oxygen	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
ORP	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Temperature	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Turbidity	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Color	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Odor	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
COC #3																						
Bicarbonate (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Carbonate (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Iron (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Magnesium (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Manganese (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Potassium (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Sodium (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Iron (filtered)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Lithium (filtered)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Manganese (filtered)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
Molybdenum (filtered)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20

005:
1\25222666\00Data and Calculations\field\Work_Prec.es\1\T06_1_B03_CCR_Rule_Smping_2210_3\514411

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-243082-3

Login Number: 243082

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Costello, Mackenzie K

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





ANALYTICAL REPORT

PREPARED FOR

Attn: Meghan Blodgett
SCS Engineers
2830 Dairy Drive
Madison, Wisconsin 53718
Generated 2/24/2023 1:49:25 PM Revision 1

JOB DESCRIPTION

Alliant Burlington 25222066

JOB NUMBER

310-243082-2

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



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Revision 1

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



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Case Narrative

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

Job ID: 310-243082-2

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative 310-243082-2

Comments

REVISED REPORT: Updated to remove sampling logs at clients request

Receipt

The samples were received on 10/25/2022 9:45 AM. 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 -0.8° C, 0.5° C and 0.6° C.

RAD

Methods 903.0, 9315: Radium-226 batch 588195

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-302A (310-243082-1), MW-307A (310-243082-2), MW-307B (310-243082-3), MW-310A (310-243082-4), MW-313 (310-243082-5), MW-313A (310-243082-6), MW-313B (310-243082-7), MW-314 (310-243082-8), Field Blank (310-243082-9), (LCS 160-588195/2-A), (MB 160-588195/1-A), (310-242982-H-3-A), (310-242982-I-3-A MS) and (310-242982-I-3-B MSD)

Methods 904.0, 9320: Radium-228 prep batch 160-588200:

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-302A (310-243082-1), MW-307A (310-243082-2), MW-307B (310-243082-3), MW-310A (310-243082-4), MW-313 (310-243082-5), MW-313A (310-243082-6), MW-313B (310-243082-7), MW-314 (310-243082-8), Field Blank (310-243082-9), (LCS 160-588200/2-A), (MB 160-588200/1-A), (310-242982-H-3-B), (310-242982-I-3-C MS) and (310-242982-I-3-D MSD)

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: Alliant Burlington 25222066

Job ID: 310-243082-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-243082-1	MW-302A	Water	10/20/22 13:34	10/25/22 09:45
310-243082-2	MW-307A	Water	10/20/22 10:42	10/25/22 09:45
310-243082-3	MW-307B	Water	10/20/22 10:12	10/25/22 09:45
310-243082-4	MW-310A	Water	10/20/22 14:50	10/25/22 09:45
310-243082-5	MW-313	Water	10/20/22 12:20	10/25/22 09:45
310-243082-6	MW-313A	Water	10/20/22 11:48	10/25/22 09:45
310-243082-7	MW-313B	Water	10/20/22 11:50	10/25/22 09:45
310-243082-8	MW-314	Water	10/20/22 14:15	10/25/22 09:45
310-243082-9	Field Blank	Water	10/20/22 10:50	10/25/22 09:45

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Detection Summary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

Client Sample ID: MW-302A	Lab Sample ID: 310-243082-1
<input type="checkbox"/> No Detections.	
Client Sample ID: MW-307A	Lab Sample ID: 310-243082-2
<input type="checkbox"/> No Detections.	
Client Sample ID: MW-307B	Lab Sample ID: 310-243082-3
<input type="checkbox"/> No Detections.	
Client Sample ID: MW-310A	Lab Sample ID: 310-243082-4
<input type="checkbox"/> No Detections.	
Client Sample ID: MW-313	Lab Sample ID: 310-243082-5
<input type="checkbox"/> No Detections.	
Client Sample ID: MW-313A	Lab Sample ID: 310-243082-6
<input type="checkbox"/> No Detections.	
Client Sample ID: MW-313B	Lab Sample ID: 310-243082-7
<input type="checkbox"/> No Detections.	
Client Sample ID: MW-314	Lab Sample ID: 310-243082-8
<input type="checkbox"/> No Detections.	
Client Sample ID: Field Blank	Lab Sample ID: 310-243082-9
<input type="checkbox"/> No Detections.	

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

Client Sample ID: MW-302A

Lab Sample ID: 310-243082-1

Date Collected: 10/20/22 13:34

Matrix: Water

Date Received: 10/25/22 09:45

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	0.820		0.166	0.182	1.00	0.120	pCi/L	11/02/22 11:07	11/28/22 17:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	85.8		40 - 110					11/02/22 11:07	11/28/22 17:38	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	1.83		0.515	0.542	1.00	0.571	pCi/L	11/02/22 11:26	11/17/22 09:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	85.8		40 - 110					11/02/22 11:26	11/17/22 09:45	1
Y Carrier	84.1		40 - 110					11/02/22 11:26	11/17/22 09:45	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	2.65		0.541	0.572	5.00	0.571	pCi/L		11/29/22 12:22	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

Client Sample ID: MW-307A

Lab Sample ID: 310-243082-2

Date Collected: 10/20/22 10:42

Matrix: Water

Date Received: 10/25/22 09:45

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		0.143	0.145	1.00	0.179	pCi/L	11/02/22 11:07	11/28/22 17:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	67.2		40 - 110					11/02/22 11:07	11/28/22 17:38	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	0.883	U	0.659	0.664	1.00	1.00	pCi/L	11/02/22 11:26	11/17/22 09:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	67.2		40 - 110					11/02/22 11:26	11/17/22 09:45	1
Y Carrier	75.1		40 - 110					11/02/22 11:26	11/17/22 09:45	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	1.15		0.674	0.680	5.00	1.00	pCi/L		11/29/22 12:22	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

Client Sample ID: MW-307B

Lab Sample ID: 310-243082-3

Date Collected: 10/20/22 10:12

Matrix: Water

Date Received: 10/25/22 09:45

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	0.515		0.139	0.147	1.00	0.124	pCi/L	11/02/22 11:07	11/28/22 17:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	83.8		40 - 110					11/02/22 11:07	11/28/22 17:38	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	0.911		0.469	0.477	1.00	0.657	pCi/L	11/02/22 11:26	11/17/22 09:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	83.8		40 - 110					11/02/22 11:26	11/17/22 09:45	1
Y Carrier	75.9		40 - 110					11/02/22 11:26	11/17/22 09:45	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	1.43		0.489	0.499	5.00	0.657	pCi/L		11/29/22 12:22	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

Client Sample ID: MW-310A

Lab Sample ID: 310-243082-4

Date Collected: 10/20/22 14:50

Matrix: Water

Date Received: 10/25/22 09:45

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	0.592		0.174	0.182	1.00	0.155	pCi/L	11/02/22 11:07	11/28/22 17:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	80.4		40 - 110					11/02/22 11:07	11/28/22 17:38	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	1.45		0.621	0.635	1.00	0.811	pCi/L	11/02/22 11:26	11/17/22 09:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	80.4		40 - 110					11/02/22 11:26	11/17/22 09:46	1
Y Carrier	81.1		40 - 110					11/02/22 11:26	11/17/22 09:46	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	2.04		0.645	0.661	5.00	0.811	pCi/L		11/29/22 12:22	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

Client Sample ID: MW-313

Lab Sample ID: 310-243082-5

Date Collected: 10/20/22 12:20

Matrix: Water

Date Received: 10/25/22 09:45

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	0.434		0.148	0.153	1.00	0.127	pCi/L	11/02/22 11:07	11/28/22 18:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	80.9		40 - 110					11/02/22 11:07	11/28/22 18:53	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	0.676	U	0.473	0.477	1.00	0.704	pCi/L	11/02/22 11:26	11/17/22 09:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	80.9		40 - 110					11/02/22 11:26	11/17/22 09:46	1
Y Carrier	84.9		40 - 110					11/02/22 11:26	11/17/22 09:46	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	1.11		0.496	0.501	5.00	0.704	pCi/L		11/29/22 12:22	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

Client Sample ID: MW-313A

Lab Sample ID: 310-243082-6

Date Collected: 10/20/22 11:48

Matrix: Water

Date Received: 10/25/22 09:45

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	0.206		0.111	0.113	1.00	0.132	pCi/L	11/02/22 11:07	11/28/22 18:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	80.4		40 - 110					11/02/22 11:07	11/28/22 18:54	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	0.380	U	0.508	0.509	1.00	0.850	pCi/L	11/02/22 11:26	11/17/22 09:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	80.4		40 - 110					11/02/22 11:26	11/17/22 09:46	1
Y Carrier	83.7		40 - 110					11/02/22 11:26	11/17/22 09:46	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	0.586	U	0.520	0.521	5.00	0.850	pCi/L		11/29/22 12:22	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

Client Sample ID: MW-313B

Lab Sample ID: 310-243082-7

Date Collected: 10/20/22 11:50

Matrix: Water

Date Received: 10/25/22 09:45

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	0.349		0.143	0.146	1.00	0.159	pCi/L	11/02/22 11:07	11/28/22 18:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	84.1		40 - 110					11/02/22 11:07	11/28/22 18:54	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	1.10		0.644	0.652	1.00	0.938	pCi/L	11/02/22 11:26	11/17/22 09:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	84.1		40 - 110					11/02/22 11:26	11/17/22 09:46	1
Y Carrier	74.8		40 - 110					11/02/22 11:26	11/17/22 09:46	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	1.45		0.660	0.668	5.00	0.938	pCi/L		11/29/22 12:22	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

Client Sample ID: MW-314

Lab Sample ID: 310-243082-8

Date Collected: 10/20/22 14:15

Matrix: Water

Date Received: 10/25/22 09:45

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	0.458		0.128	0.135	1.00	0.106	pCi/L	11/02/22 11:07	11/28/22 18:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	86.3		40 - 110					11/02/22 11:07	11/28/22 18:54	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	0.685		0.385	0.390	1.00	0.547	pCi/L	11/02/22 11:26	11/17/22 09:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	86.3		40 - 110					11/02/22 11:26	11/17/22 09:47	1
Y Carrier	85.2		40 - 110					11/02/22 11:26	11/17/22 09:47	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	1.14		0.406	0.413	5.00	0.547	pCi/L		11/29/22 12:22	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

Client Sample ID: Field Blank

Lab Sample ID: 310-243082-9

Date Collected: 10/20/22 10:50

Matrix: Water

Date Received: 10/25/22 09:45

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	0.240		0.106	0.108	1.00	0.126	pCi/L	11/02/22 11:07	11/28/22 19:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	82.8		40 - 110					11/02/22 11:07	11/28/22 19:33	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	0.456	U	0.356	0.359	1.00	0.544	pCi/L	11/02/22 11:26	11/17/22 09:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba	82.8		40 - 110					11/02/22 11:26	11/17/22 09:47	1
Y Carrier	84.9		40 - 110					11/02/22 11:26	11/17/22 09:47	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	0.696		0.371	0.375	5.00	0.544	pCi/L		11/29/22 12:22	1

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Definitions/Glossary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

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

QC Sample Results

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-588195/1-A
Matrix: Water
Analysis Batch: 591359

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 588195

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium 226	0.02502	U	0.0537	0.0537	1.00	0.0988	pCi/L	11/02/22 11:07	11/28/22 15:30	1
Carrier	MB %Yield	MB Qualifier	Limits				Prepared		Analyzed	Dil Fac
Ba	82.1		40 - 110				11/02/22 11:07		11/28/22 15:30	1

Lab Sample ID: LCS 160-588195/2-A
Matrix: Water
Analysis Batch: 591359

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 588195

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium 226	11.3	10.76		1.13	1.00	0.0882	pCi/L	95	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba	87.5		40 - 110						

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-588200/1-A
Matrix: Water
Analysis Batch: 590421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 588200

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium 228	0.2303	U	0.361	0.361	1.00	0.614	pCi/L	11/02/22 11:26	11/17/22 09:52	1
Carrier	MB %Yield	MB Qualifier	Limits				Prepared		Analyzed	Dil Fac
Ba	82.1		40 - 110				11/02/22 11:26		11/17/22 09:52	1
Y Carrier	83.4		40 - 110				11/02/22 11:26		11/17/22 09:52	1

Lab Sample ID: LCS 160-588200/2-A
Matrix: Water
Analysis Batch: 590421

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 588200

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium 228	8.44	9.303		1.30	1.00	0.508	pCi/L	110	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba	87.5		40 - 110						
Y Carrier	81.1		40 - 110						

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

Rad

Prep Batch: 588195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-1	MW-302A	Total/NA	Water	PrecSep-21	
310-243082-2	MW-307A	Total/NA	Water	PrecSep-21	
310-243082-3	MW-307B	Total/NA	Water	PrecSep-21	
310-243082-4	MW-310A	Total/NA	Water	PrecSep-21	
310-243082-5	MW-313	Total/NA	Water	PrecSep-21	
310-243082-6	MW-313A	Total/NA	Water	PrecSep-21	
310-243082-7	MW-313B	Total/NA	Water	PrecSep-21	
310-243082-8	MW-314	Total/NA	Water	PrecSep-21	
310-243082-9	Field Blank	Total/NA	Water	PrecSep-21	
MB 160-588195/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-588195/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 588200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-243082-1	MW-302A	Total/NA	Water	PrecSep_0	
310-243082-2	MW-307A	Total/NA	Water	PrecSep_0	
310-243082-3	MW-307B	Total/NA	Water	PrecSep_0	
310-243082-4	MW-310A	Total/NA	Water	PrecSep_0	
310-243082-5	MW-313	Total/NA	Water	PrecSep_0	
310-243082-6	MW-313A	Total/NA	Water	PrecSep_0	
310-243082-7	MW-313B	Total/NA	Water	PrecSep_0	
310-243082-8	MW-314	Total/NA	Water	PrecSep_0	
310-243082-9	Field Blank	Total/NA	Water	PrecSep_0	
MB 160-588200/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-588200/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

Client Sample ID: MW-302A

Lab Sample ID: 310-243082-1

Date Collected: 10/20/22 13:34

Matrix: Water

Date Received: 10/25/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			588195	BMP	EET SL	11/02/22 11:07
Total/NA	Analysis	903.0		1	591361	FLC	EET SL	11/28/22 17:38
Total/NA	Prep	PrecSep_0			588200	BMP	EET SL	11/02/22 11:26
Total/NA	Analysis	904.0		1	590422	FLC	EET SL	11/17/22 09:45
Total/NA	Analysis	Ra226_Ra228 Pos		1	591527	CAH	EET SL	11/29/22 12:22

Client Sample ID: MW-307A

Lab Sample ID: 310-243082-2

Date Collected: 10/20/22 10:42

Matrix: Water

Date Received: 10/25/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			588195	BMP	EET SL	11/02/22 11:07
Total/NA	Analysis	903.0		1	591361	FLC	EET SL	11/28/22 17:38
Total/NA	Prep	PrecSep_0			588200	BMP	EET SL	11/02/22 11:26
Total/NA	Analysis	904.0		1	590422	FLC	EET SL	11/17/22 09:45
Total/NA	Analysis	Ra226_Ra228 Pos		1	591527	CAH	EET SL	11/29/22 12:22

Client Sample ID: MW-307B

Lab Sample ID: 310-243082-3

Date Collected: 10/20/22 10:12

Matrix: Water

Date Received: 10/25/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			588195	BMP	EET SL	11/02/22 11:07
Total/NA	Analysis	903.0		1	591361	FLC	EET SL	11/28/22 17:38
Total/NA	Prep	PrecSep_0			588200	BMP	EET SL	11/02/22 11:26
Total/NA	Analysis	904.0		1	590422	FLC	EET SL	11/17/22 09:45
Total/NA	Analysis	Ra226_Ra228 Pos		1	591527	CAH	EET SL	11/29/22 12:22

Client Sample ID: MW-310A

Lab Sample ID: 310-243082-4

Date Collected: 10/20/22 14:50

Matrix: Water

Date Received: 10/25/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			588195	BMP	EET SL	11/02/22 11:07
Total/NA	Analysis	903.0		1	591361	FLC	EET SL	11/28/22 17:38
Total/NA	Prep	PrecSep_0			588200	BMP	EET SL	11/02/22 11:26
Total/NA	Analysis	904.0		1	590422	FLC	EET SL	11/17/22 09:46
Total/NA	Analysis	Ra226_Ra228 Pos		1	591527	CAH	EET SL	11/29/22 12:22

Lab Chronicle

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

Client Sample ID: MW-313

Lab Sample ID: 310-243082-5

Date Collected: 10/20/22 12:20

Matrix: Water

Date Received: 10/25/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			588195	BMP	EET SL	11/02/22 11:07
Total/NA	Analysis	903.0		1	591359	FLC	EET SL	11/28/22 18:53
Total/NA	Prep	PrecSep_0			588200	BMP	EET SL	11/02/22 11:26
Total/NA	Analysis	904.0		1	590422	FLC	EET SL	11/17/22 09:46
Total/NA	Analysis	Ra226_Ra228 Pos		1	591527	CAH	EET SL	11/29/22 12:22

Client Sample ID: MW-313A

Lab Sample ID: 310-243082-6

Date Collected: 10/20/22 11:48

Matrix: Water

Date Received: 10/25/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			588195	BMP	EET SL	11/02/22 11:07
Total/NA	Analysis	903.0		1	591359	FLC	EET SL	11/28/22 18:54
Total/NA	Prep	PrecSep_0			588200	BMP	EET SL	11/02/22 11:26
Total/NA	Analysis	904.0		1	590422	FLC	EET SL	11/17/22 09:46
Total/NA	Analysis	Ra226_Ra228 Pos		1	591527	CAH	EET SL	11/29/22 12:22

Client Sample ID: MW-313B

Lab Sample ID: 310-243082-7

Date Collected: 10/20/22 11:50

Matrix: Water

Date Received: 10/25/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			588195	BMP	EET SL	11/02/22 11:07
Total/NA	Analysis	903.0		1	591359	FLC	EET SL	11/28/22 18:54
Total/NA	Prep	PrecSep_0			588200	BMP	EET SL	11/02/22 11:26
Total/NA	Analysis	904.0		1	590422	FLC	EET SL	11/17/22 09:46
Total/NA	Analysis	Ra226_Ra228 Pos		1	591527	CAH	EET SL	11/29/22 12:22

Client Sample ID: MW-314

Lab Sample ID: 310-243082-8

Date Collected: 10/20/22 14:15

Matrix: Water

Date Received: 10/25/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			588195	BMP	EET SL	11/02/22 11:07
Total/NA	Analysis	903.0		1	591359	FLC	EET SL	11/28/22 18:54
Total/NA	Prep	PrecSep_0			588200	BMP	EET SL	11/02/22 11:26
Total/NA	Analysis	904.0		1	590422	FLC	EET SL	11/17/22 09:47
Total/NA	Analysis	Ra226_Ra228 Pos		1	591527	CAH	EET SL	11/29/22 12:22

Lab Chronicle

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

Client Sample ID: Field Blank

Lab Sample ID: 310-243082-9

Date Collected: 10/20/22 10:50

Matrix: Water

Date Received: 10/25/22 09:45

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Prep	PrecSep-21			588195	BMP	EET SL	11/02/22 11:07
Total/NA	Analysis	903.0		1	591359	FLC	EET SL	11/28/22 19:33
Total/NA	Prep	PrecSep_0			588200	BMP	EET SL	11/02/22 11:26
Total/NA	Analysis	904.0		1	590422	FLC	EET SL	11/17/22 09:47
Total/NA	Analysis	Ra226_Ra228 Pos		1	591527	CAH	EET SL	11/29/22 12:22

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
 Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

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	02-15-23
ANAB	Dept. of Energy	L2305.01	02-15-23
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	12-01-22
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	10-31-23
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	12-19-22
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.

Eurofins Cedar Falls

Method Summary

Client: SCS Engineers
Project/Site: Alliant Burlington 25222066

Job ID: 310-243082-2

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

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- 13
- 14
- 15



Environment Testing America



310-243082 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE <u>10/25/22</u>	TIME <u>945</u>	Received By: <u>LR</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler ID: _____			
Multiple Coolers? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler # <u>1</u> of <u>3</u>			
Cooler Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Trip Blank Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Which VOA samples are in cooler? ↓			
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>P</u>		Correction Factor (°C) <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>-0.8</u>		Corrected Temp (°C): <u>-0.8</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1 <u>1L PI NT</u>	CONTAINER 2 <u>1L Plastic NT</u>	
Uncorrected Temp (°C):	<u>0.6</u>	<u>0.9</u>	
Corrected Temp (°C):	<u>0.6</u>	<u>0.9</u>	
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Environment Testing
America

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE <u>10/25/22</u>	TIME <u>945</u>	Received By: <u>LR</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler ID: _____			
Multiple Coolers? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler # <u>2</u> of <u>3</u>			
Cooler Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Trip Blank Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Which VOA samples are in cooler? ↓			
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>P</u>		Correction Factor (°C) <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>0.5</u>		Corrected Temp (°C): <u>0.5</u>	
• 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? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Environment Testing
America

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE <u>10/25/22</u>	TIME <u>945</u>	Received By: <u>LR</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID:	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>3</u> of <u>3</u>	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID:	<u>P</u>	Correction Factor (°C) <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C):	<u>0.6</u>	Corrected Temp (°C): <u>0.6</u>	
• 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? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE. If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Client Information		Sampler: <u>Kacy Garber</u>		Lab P/N: <u>Frederick Sandie</u>		COC No: <u>310-74997-14654 1</u>	
Client Contact: <u>Mr. Tom Karwoski</u>		Phone: <u>301-602-6333</u>		E-Mail: <u>Sandra.Fredrick@eurofins.com</u>		Page: <u>Page 1 of 2</u>	
Company: <u>SCS Engineers</u>		Address: <u>2830 Dairy Dr</u>		City: <u>Madison</u>		Job #: _____	
State: <u>IA</u>		Zip: <u>53718</u>		Phone: <u>25222066</u>		Preservation Codes: M Hexane N None O As ₂ O ₃ P Na ₂ O ₄ S Q - Na ₂ SO ₃ R Na ₂ SO ₃ S H ₂ O ₄ T TSP Dodecahydrate U Acetone V MCAA W pH 4-5 X Trizma Y Trizma Z Other (specify)	
Project Name: <u>Allent Burlington 25222066</u>		Project #: <u>3-1011020</u>		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Total Number of Containers: <u>2</u>	
Site: <u>SSOW#</u>		Sample Date: <u>10/20/22 13.34</u>		Sample Time: <u>10/20/22 16.42</u>		Special Instructions/Note: _____	
Sample Identification		Sample Type (C=Comp, G=grab)		Matrix (Ink, Water, Soil, etc.)		Field Filtered Sample (Yes or No)	
MWL-301				Water		<input checked="" type="checkbox"/>	
MWL-302				Water		<input checked="" type="checkbox"/>	
MWL-302A		<u>G</u>		Water		<input checked="" type="checkbox"/>	
MWL-303				Water		<input checked="" type="checkbox"/>	
MWL-304				Water		<input checked="" type="checkbox"/>	
MWL-305				Water		<input checked="" type="checkbox"/>	
MWL-306				Water		<input checked="" type="checkbox"/>	
MWL-307				Water		<input checked="" type="checkbox"/>	
MWL-307A				Water		<input checked="" type="checkbox"/>	
MWL-307B				Water		<input checked="" type="checkbox"/>	
MWL-308				Water		<input checked="" type="checkbox"/>	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological							
Deliverable Requested <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify) _____							
Empty Kit Relinquished by: _____ Date: _____							
Relinquished by: <u>[Signature]</u> Date: <u>10/20/2022/1845</u> Company: <u>SCS</u>							
Relinquished by: <u>[Signature]</u> Date: <u>10/20/2022/1845</u> Company: <u>SCS</u>							
Relinquished by: <u>[Signature]</u> Date: <u>10/25/22 945</u> Company: <u>SCS</u>							
Custody Seal Intact <input type="checkbox"/> Yes <input type="checkbox"/> No							

Chain of Custody Record

Client Information		Sampler: Kacey Garber		Lab PM: Fredrick Sandie		COC No: 310-74999-21444 1	
Client Contact: Mr Tom Karwoski		Phone: 309-262-6333		E-Mail: Sandra.Fredrick@eurofins.com		Page: Page 1 of 2	
Company: SCS Engineers		Address: 2830 Dairy Dr		City: Madison		State of Origin: IA	
State Zip: WI 53718		Compliance Project: Δ Yes Δ No		PO #: 25222066		Job #: 	
Phone: 		TAT Requested (days): 		WC #: 		Preservation Codes: A HCl M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 R Na2S2O3 F NaOH S H2SO4 G Ascorbic Acid T TSP Dodecahydrate H Ice U Acetone I DI Water V MCAA J EDTA W pH 4-5 K EDTA Y Trizma L EDA Z other (specify) Other: 	
Email: tkarwoski@scsengineers.com		Due Date Requested: 		Project #: 31011020		Analysis Requested: 	
Project Name: Allent Burlington 25222066		Field Filtered Sample (Yes or No): X		Perform MS/MSD (Yes or No): X		Special Instructions/Note: 	
Site: 		Sample Date: 		Sample Time: 		Total Number of Containers: 	
Sample Identification		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=organic)		Preservation Code (BT-Tissue, A-Air)	
MW-30*					Water		
MW-302					Water		
MW-302A	10/20/22 13:39	G			Water	XX	3
MW-303					Water		
MW-304					Water		
MW-305					Water		
MW-306					Water		
MW-307					Water		
MW-307A	10/20/22 10:42	G			Water	XX	3
MW-307B	10/20/22 14:12	G			Water	XX	3
MW-308					Water		

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
Deliverable Requested II III IV Other (specify)

Empty Kit Relinquished by Date Method of Shipment

Relinquished by **[Signature]** Date/Time **10/20/22 18:45** Company **SCS**

Relinquished by **[Signature]** Date/Time **10/20/22 18:15** Company **SCS**

Relinquished by **[Signature]** Date/Time **10/20/22 9:05** Company

Custody Seal Intact **Δ Yes Δ No** Custody Seal No

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021



Chain of Custody Record

Client Information		Sampler: Lab PM		Carrier Tracking No(s)		COC No: <i>r</i>	
Client Contact: Meghan Blodgett		Phone: 304-202-6333		Fredrick, Sandie		Page: 1 of 2	
Company: SOS Engineers		E-Mail: Sandra.Fredrick@et.eurofins.com		State of Origin: Iowa		Job #:	
Address: 2830 Dairy Drive		City: Igadison		State: WI		Zip: 53718	
Phone: 608-224-2830		PO #: 25222066		Project #: bsuhome1@scsengineers.com		Project Name: Alliant Burlington 25222066	
Email: bsuhome1@scsengineers.com		WO #: 25222066		SSOW#: Burlington IA		Site: Burlington IA	
Due Date Requested: Standard TAT		TAT Requested (days): Standard TAT		Compliance Project: Δ Yes Δ No		PWSID:	
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Derivative)	Preservation Code*	Field Filtered Sample (Yes or No)
MW-301							<input checked="" type="checkbox"/>
MW-302							<input checked="" type="checkbox"/>
MW-302A	10/20/22	13:34	G				<input checked="" type="checkbox"/>
MW-303							<input checked="" type="checkbox"/>
MW-304							<input checked="" type="checkbox"/>
MW-305							<input checked="" type="checkbox"/>
MW-306							<input checked="" type="checkbox"/>
MW-307							<input checked="" type="checkbox"/>
MW-307A	10/20/22	10:42	G				<input checked="" type="checkbox"/>
MW-307B	10/20/22	10:12	G				<input checked="" type="checkbox"/>
MW-308							<input checked="" type="checkbox"/>
Possible Hazard Identification		Date		Time		Method of Shipment:	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Date Time: 10/20/22 18:45		Company: SCS		Received by: [Signature]	
Deliverable Requested I, II, III, IV, Other (specify)		Date Time: 10/20/22 18:45		Company: SCS		Received by: [Signature]	
Empty Kit Relinquished by: [Signature]		Date Time: 10/20/22 18:45		Company: SCS		Received by: [Signature]	
Custody Seals Intact: Δ Yes Δ No		Date Time: 10/20/22 18:45		Company: SCS		Received by: [Signature]	
Special Instructions/Note		Date Time: 10/20/22 18:45		Company: SCS		Received by: [Signature]	
Total Number of containers		Date Time: 10/20/22 18:45		Company: SCS		Received by: [Signature]	
Special Instructions/Note		Date Time: 10/20/22 18:45		Company: SCS		Received by: [Signature]	

Chain of Custody Record

SL# - ca Des Moines SC
214

Client Information		Sampler		Lab PIN		Carrier Tracking Note(s)		COC No	
Client Contact: Mr. Tom Karwoski		Phone 319-202-6333		E-Mail Sandra.Fredrick@eurofins.com		State of Origin		Page Page 2 of 2	
Company SCS Engineers		PMSID		Analysis Requested		Preservation Codes		Job #	
Address 2830 Dairy Dr		Due Date Requested		Perform MS/MSD (Yes or No)		M Hexane			
City Madison		TAT Requested (days)		6020A Metals (g)		N None			
State Zip IA 50613		Compliance Project		6020A Metals (g)		O AsNaO2			
Phone 53718		PC # 25222066		Field Filtered Sample (Yes or No)		P Acetate			
Email tkarwoski@scsengineers.com		WO #		Matrix		Q - Na2SO3			
Project Name Alliant Burlington 25222066		Project # 31011020		Sample Type (C=comp, G=grab)		R NaHSO4			
Site Alliant Burlington 25222066		SSOM#		Sample Time		S H2SO4			
Sample Identification		Sample Date		Sample Time		T TSP Dodecylsulfate			
MW-3-08		10/20/22		1:50		U Acetone			
MW-3-10		10/20/22		12:20		V MCA			
MW-3-0A		10/20/22		11:48		W pH 4-5			
MW-3-11		10/20/22		11:56		X EDTA			
MW-3-2		10/20/22		14:15		Y Trizma			
MW-3-13						Z other (specify)			
MW-3-3A						Other			
MW-3-3B						Special Instructions/Note			
MW-3-14						Total Number of containers			
Possible Hazard Identification		Date		Time		Method of Shipment		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Date/Time		Company		Received by		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested I II III IV Other (specify)		Date/Time		Company		Received by		Special Instructions/COC Requirements	
Empty Kit Relinquished by		Date/Time		Company		Received by		Special Instructions/COC Requirements	
Relinquished by		Date/Time		Company		Received by		Special Instructions/COC Requirements	
Relinquished by		Date/Time		Company		Received by		Special Instructions/COC Requirements	
Custody Seals Intact		Date/Time		Company		Received by		Special Instructions/COC Requirements	
Yes No		Date/Time		Company		Received by		Special Instructions/COC Requirements	



Chain of Custody Record

Client Information		Sampler <u>Kathy Garber</u>		Lab #	Frederick, Sandie	Carrier Tracking No(s)	COC No 310-74997-14654-2						
Client Contact: Mr. Tom Karwoski		Phone: 301-201-6333		E-Mail	Sandra.Fredrick@at.eurofins.com	State of Origin:	Page Page 2 of 2						
Company SCS Engineers		PWSID:		Job #:									
Due Date Requested TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: 25222066 WO #: Email: tkarwoski@scsengineers.com Project Name: 31011020 All ent Burlington 25222066 Site: 330W#													
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (W=Water, S=Solid, O=Other, BT=Biological)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020A Metals Hg	2540C Caled 9056A, ORGM 26D, SM4500, H+	6030 Radium 226	6040 Radium 228	Analysis Requested	Preservation Codes	Special Instructions/Note
MW-3C9				Water	X	X						A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSO4 F MeOH G Ascorbic Acid H Anchor I Ice J DI Water K EDTA L EDA Other	
MW-3C	10/20/22	14:50	G	Water			XX						2
MW-3CA	10/20/22	12:20	G	Water			XX						2
MW-3CB	10/20/22	11:48	G	Water			XX						2
MW-3CB	10/20/22	11:50	G	Water			XX						2
MW-3C4	10/20/22	14:15	G	Water			XX						2
Field Blank	10/20/22	10:50	G	Water			XX						2
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I II III IV Other (specify):												Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by _____ Date _____ Time _____												Special Instructions/QC Requirements Method of Shipment:	
Relinquished by: <u>[Signature]</u>				Company: SCS				Date/Time: 10/20/22/18:45				Company: SCS	
Relinquished by: _____				Company: _____				Date/Time: 10/20/22/18:45				Company: _____	
Relinquished by: _____				Company: _____				Date/Time: _____				Company: _____	
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No						Custody Seal No _____						Cooler Temperature (s) °C and Other Remarks: _____	

Chain of Custody Record

Client Information		Lab PM: Fredrick, Sandie		Carrier Tracking No(s):	
Client Contact: Meghan Blodgett		E-Mail: Sandra.Fredrick@et.eurofinsus.com		State of Origin: Iowa	
Company: SCS Engineers		PWSID:		Page: Page 2 of 2	
Address: 2830 Dairy Drive		City: Madison		Job #:	
State, Zip: WI, 53718		Phone: 608-224-2830		COC No:	
Email: busu@home@scsengineers.com		Project #:		Analysis Requested	
Client Name: Alliant Burlington 25222066		SSOW#:		Total Number of Containers	
Site: Burlington, IA		Due Date Requested: Standard TAT		Preservation Codes	
TAT Requested (days): Standard TAT		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		M - Hexane A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Identification		Sample Date		Sample Time	
Sample Type (C=Comp, G=grab)		Sample Matrix (W=water, S=solid, O=water/oil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)	
Preservation Code		W		N	
903.0 Radium 226		X		D	
904.0 Radium 228		X		D	
MW-309		10/20/22 14:50		X	
MW-310		10/20/22 12:26		X	
MW-310A		10/20/22 11:48		X	
MW-311		10/20/22 11:50		X	
MW-312		10/20/22 14:15		X	
MW-313		10/20/22 10:50		X	
MW-313A					
MW-313B					
MW-314					
Field Blank					
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested I, II, III, IV, Other (specify)		Empty Kit Relinquished by		Special Instructions/QC Requirements.	
Relinquished by: [Signature]		Date: 10/20/22/1845		Method of Shipment:	
Relinquished by: [Signature]		Date Time: 10/20/22 1845		Received by: [Signature]	
Relinquished by: [Signature]		Date Time: 10/20/22 1845		Received by: [Signature]	
Relinquished by: [Signature]		Date Time: 10/20/22 1845		Received by: [Signature]	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	





Table 1. Sampling Points and Parameters CCR Rule Sampling Program Assessment Monitoring
Groundwater Monitoring Burlington Generating Station / SCS Engineers Project #25222666

COC #1 (non-rad) and #2 (radium)	Parameter	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-308	MW-307	MW-307A	MW-307B	MW-308	MW-309	MW-310	MW-310A	MW-311	MW-312	MW-313	MW-313A	MW-313B	MW-314	Field Blank	TOTAL
		Appendix III Parameters	Boron	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	Calcium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Chloride	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Fluoride	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	pH	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Sulfate	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	TDS	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Ammonia	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Arsenic	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Barium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Beryllium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Cadmium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Chromium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Copper	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Fluoride	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Lead	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Lithium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Mercury	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Molybdenum	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Selenium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Thallium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Radium (report separately)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21
	Ferrous Iron (Chemicals)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Sulfide (Chemicals)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Groundwater Elevation	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Well Depth	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	pH (field)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Specific Conductance	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Dissolved Oxygen	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	ORP	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Temperature	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Turbidity	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Color	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Odor	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Bicarbonate (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Carbonate (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Iron (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Magnesium (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Manganese (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Potassium (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Sodium (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Iron (filtered)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Lithium (filtered)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Manganese (filtered)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20
	Mercury (filtered)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20

015:
1\25222666\00Data and Calculations\field work files\1_603_CCR_Rule_Sampling_2210_3\51441

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler: Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 310-55186-1						
Shipping/Receiving		E-Mail: Sandra.Fredrick@eurofins.com	State of Origin: Iowa	Page: Page 1 of 1						
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Iowa		Job #: 310-243082-2						
Address: 13715 Rider Trail North, Earth City, MO, 63045		Due Date Requested: 11/7/2022		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - NaHSO4 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Y - Trizma Z - other (specify) Other:						
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		TAT Requested (days):								
Email:		PO #:		Analysis Requested						
WO #:		Project #:								
Project Name: Alliant Burlington 25222066		SSOW#:		Total Number of Containers						
Site:										
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=water/other, BT=tissue, AL=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PreSep_11 Radium-226 (GFPc)	904.0/PreSep_0 Radium-228 (GFPc)	Ra226_228GFPc_P/Combined Radium-226 and Radium-228	Special Instructions/Note:
MW-302A (310-243082-1)	10/20/22	13:34 Central	Water	Water	X	X	X	X		DO NOT SHIP ON ICE TO ST. LOUIS
MW-307A (310-243082-2)	10/20/22	10:42 Central	Water	Water	X	X	X	X		DO NOT SHIP ON ICE TO ST. LOUIS
MW-307B (310-243082-3)	10/20/22	10:12 Central	Water	Water	X	X	X	X		DO NOT SHIP ON ICE TO ST. LOUIS
MW-310A (310-243082-4)	10/20/22	14:50 Central	Water	Water	X	X	X	X		DO NOT SHIP ON ICE TO ST. LOUIS
MW-313 (310-243082-5)	10/20/22	12:20 Central	Water	Water	X	X	X	X		DO NOT SHIP ON ICE TO ST. LOUIS
MW-313A (310-243082-6)	10/20/22	11:48 Central	Water	Water	X	X	X	X		DO NOT SHIP ON ICE TO ST. LOUIS
MW-313B (310-243082-7)	10/20/22	11:50 Central	Water	Water	X	X	X	X		DO NOT SHIP ON ICE TO ST. LOUIS
MW-314 (310-243082-8)	10/20/22	14:15 Central	Water	Water	X	X	X	X		DO NOT SHIP ON ICE TO ST. LOUIS
Field Blank (310-243082-9)	10/20/22	10:50 Central	Water	Water	X	X	X	X		DO NOT SHIP ON ICE TO ST. LOUIS
<p>Note: Since laboratory accreditations are subject to change, Eurofins Environmental 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/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environmental Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environmental 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 Environmental Testing North Central, LLC.</p>										
Possible Hazard Identification										
Unconfirmed										
Deliverable Requested: I, II, III, IV, Other (specify)										
Primary Deliverable Rank: 2										
Special Instructions/QC Requirements:										
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months										
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)										
Empty Kit Relinquished by:										
Relinquished by: <i>[Signature]</i> Date: 10/26/22 / 10:15										
Relinquished by: <i>[Signature]</i> Date: 10/26/22 / 10:15										
Relinquished by: <i>[Signature]</i> Date: 10/26/22 / 10:15										
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No										
Custody Seal No.:										
Cooler Temperature(s) °C and Other Remarks:										



Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-243082-2

Login Number: 243082

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Costello, Mackenzie K

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <math><6\text{mm}</math> (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: 310-243082-2

Login Number: 243082

List Number: 2

Creator: Booker, Autumn R

List Source: Eurofins St. Louis

List Creation: 10/27/22 02:14 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <math><6\text{mm}</math> (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: Alliant Burlington 25222066

Job ID: 310-243082-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (40-110)
310-243082-1	MW-302A	85.8
310-243082-2	MW-307A	67.2
310-243082-3	MW-307B	83.8
310-243082-4	MW-310A	80.4
310-243082-5	MW-313	80.9
310-243082-6	MW-313A	80.4
310-243082-7	MW-313B	84.1
310-243082-8	MW-314	86.3
310-243082-9	Field Blank	82.8
LCS 160-588195/2-A	Lab Control Sample	87.5
MB 160-588195/1-A	Method Blank	82.1

Tracer/Carrier Legend

Ba = Ba

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
310-243082-1	MW-302A	85.8	84.1
310-243082-2	MW-307A	67.2	75.1
310-243082-3	MW-307B	83.8	75.9
310-243082-4	MW-310A	80.4	81.1
310-243082-5	MW-313	80.9	84.9
310-243082-6	MW-313A	80.4	83.7
310-243082-7	MW-313B	84.1	74.8
310-243082-8	MW-314	86.3	85.2
310-243082-9	Field Blank	82.8	84.9
LCS 160-588200/2-A	Lab Control Sample	87.5	81.1
MB 160-588200/1-A	Method Blank	82.1	83.4

Tracer/Carrier Legend

Ba = Ba

Y = Y Carrier

C2 April 2023 Assessment Monitoring

1
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ANALYTICAL REPORT

PREPARED FOR

Attn: Meghan Blodgett
SCS Engineers
2830 Dairy Drive
Madison, Wisconsin 53718
Generated 6/7/2023 3:48:02 PM Revision 1

JOB DESCRIPTION

Burlington Generating Station 25223066

JOB NUMBER

310-254670-1

Eurofins Cedar Falls

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



Generated
6/7/2023 3:48:02 PM
Revision 1

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



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Case Narrative

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Job ID: 310-254670-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative 310-254670-1

Comments

No additional comments.

Revision

The report being provided is a revision of the original report sent on 6/4/2023. The report (revision 1) is being revised due to: Updated field results due to data entry error..

Receipt

The samples were received on 4/28/2023 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 2.1° C, 2.3° C, 3.3° C and 5.2° C.

HPLC/IC

Method 9056A: The following samples were diluted due to the nature of the sample matrix: MW-303 (310-254670-4), MW-304 (310-254670-5), MW-305 (310-254670-6), MW-306 (310-254670-7), MW-307 (310-254670-8) and MW-308 (310-254670-11). Elevated reporting limits (RLs) are provided.

Methods 300.0, 9056A: The following samples were diluted due to the nature of the sample matrix: MW-301 (310-254670-1) and MW-302 (310-254670-2). 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 batch 610852 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 (310-254670-1), MW-302 (310-254670-2), MW-303 (310-254670-4), MW-304 (310-254670-5), MW-305 (310-254670-6), MW-306 (310-254670-7), MW-307 (310-254670-8), MW-308 (310-254670-11), MW-309 (310-254670-12), MW-310 (310-254670-13), MW-310A (310-254670-14), MW-311 (310-254670-15), Field Blank (310-254670-20), (LCS 160-610852/2-A), (LCSD 160-610852/3-A) and (MB 160-610852/1-A)

Methods 904.0, 9320: Radium-228 prep batch 160-610863: The following sample(s) did not meet the requested limit (RL) due to the reduced sample volume attributed to the presence of matrix interference. During preparation the analyst visually noted matrix effects. The data have been reported with this narrative. MW-309 (310-254670-12) and MW-310A (310-254670-14)

Methods 904.0, 9320: Radium-228 prep batch 160-610863: 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 (310-254670-1), MW-302 (310-254670-2), MW-303 (310-254670-4), MW-304 (310-254670-5), MW-305 (310-254670-6), MW-306 (310-254670-7), MW-307 (310-254670-8), MW-308 (310-254670-11), MW-309 (310-254670-12), MW-310 (310-254670-13), MW-310A (310-254670-14), MW-311 (310-254670-15), Field Blank (310-254670-20), (LCS 160-610863/2-A), (LCSD 160-610863/3-A) and (MB 160-610863/1-A)

Method PrecSep_0: Radium-228 Prep Batch 160-610863 The following samples were prepared at a reduced aliquot due to Matrix: MW-308 (310-254670-11), MW-309 (310-254670-12) and MW-310A (310-254670-14). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep_0: Radium-228 Prep Batch 160-610863 Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-301 (310-254670-1), MW-302 (310-254670-2), MW-303 (310-254670-4), MW-304 (310-254670-5), MW-305 (310-254670-6), MW-306 (310-254670-7), MW-307 (310-254670-8), MW-310 (310-254670-13), MW-311 (310-254670-15) and Field Blank (310-254670-20). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium-226 Prep Batch 160-610852 The following samples were prepared at a reduced aliquot due to Matrix: MW-308 (310-254670-11), MW-309 (310-254670-12) and MW-310A (310-254670-14). A laboratory control sample/ laboratory control

Case Narrative

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Job ID: 310-254670-1 (Continued)

Laboratory: Eurofins Cedar Falls (Continued)

sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep-21: Radium-226 Prep Batch 160-610852 Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-301 (310-254670-1), MW-302 (310-254670-2), MW-303 (310-254670-4), MW-304 (310-254670-5), MW-305 (310-254670-6), MW-306 (310-254670-7), MW-307 (310-254670-8), MW-310 (310-254670-13), MW-311 (310-254670-15) and Field Blank (310-254670-20). 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 following sample was diluted due to the nature of the sample matrix: MW-301 (310-254670-1). Elevated reporting limits (RLs) are provided.

Method 6020B: Cobalt result was confirmed by checking straight from sample bottle. MW-302 (310-254670-2) and MW-305 (310-254670-6)

Method 6020B: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following samples: MW-301 (310-254670-1) and MW-302 (310-254670-2).

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: Burlington Generating Station 25223066

Job ID: 310-254670-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-254670-1	MW-301	Water	04/26/23 16:10	04/28/23 16:20
310-254670-2	MW-302	Water	04/26/23 14:35	04/28/23 16:20
310-254670-3	MW-302A	Water	04/26/23 14:00	04/28/23 16:20
310-254670-4	MW-303	Water	04/26/23 15:20	04/28/23 16:20
310-254670-5	MW-304	Water	04/26/23 17:05	04/28/23 16:20
310-254670-6	MW-305	Water	04/26/23 11:45	04/28/23 16:20
310-254670-7	MW-306	Water	04/27/23 08:55	04/28/23 16:20
310-254670-8	MW-307	Water	04/24/23 14:50	04/28/23 16:20
310-254670-9	MW-307A	Water	04/24/23 15:50	04/28/23 16:20
310-254670-10	MW-307B	Water	04/24/23 16:45	04/28/23 16:20
310-254670-11	MW-308	Water	04/24/23 13:45	04/28/23 16:20
310-254670-12	MW-309	Water	04/27/23 12:40	04/28/23 16:20
310-254670-13	MW-310	Water	04/27/23 10:45	04/28/23 16:20
310-254670-14	MW-310A	Water	04/27/23 13:00	04/28/23 16:20
310-254670-15	MW-311	Water	04/27/23 11:45	04/28/23 16:20
310-254670-16	MW-312	Water	04/26/23 10:50	04/28/23 16:20
310-254670-17	MW-313	Water	04/25/23 15:15	04/28/23 16:20
310-254670-18	MW-313A	Water	04/25/23 16:05	04/28/23 16:20
310-254670-19	MW-313B	Water	04/25/23 17:10	04/28/23 16:20
310-254670-20	Field Blank	Water	04/27/23 12:00	04/28/23 16:20

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-301

Lab Sample ID: 310-254670-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	26		20	9.0	mg/L	20		9056A	Total/NA
Sulfate	910		20	8.4	mg/L	20		9056A	Total/NA
Arsenic	2.1	J	8.0	2.1	ug/L	4		6020B	Total/NA
Barium	67		8.0	2.6	ug/L	4		6020B	Total/NA
Boron	5100		400	300	ug/L	4		6020B	Total/NA
Cadmium	0.54	J	0.80	0.40	ug/L	4		6020B	Total/NA
Calcium	200		2.0	0.76	mg/L	4		6020B	Total/NA
Cobalt	4.8		2.0	0.68	ug/L	4		6020B	Total/NA
Iron	340	J	400	140	ug/L	4		6020B	Total/NA
Molybdenum	29		8.0	3.6	ug/L	4		6020B	Total/NA
Total Dissolved Solids	1900		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	524.21				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	48.6				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.20				mg/L	1		Field Sampling	Total/NA
pH, Field	6.83				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	2584				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	11.7				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	9.39				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-302

Lab Sample ID: 310-254670-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21		20	9.0	mg/L	20		9056A	Total/NA
Sulfate	1300		20	8.4	mg/L	20		9056A	Total/NA
Arsenic	3.1		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	38		2.0	0.64	ug/L	1		6020B	Total/NA
Beryllium	1.1		1.0	0.33	ug/L	1		6020B	Total/NA
Boron	5600		400	300	ug/L	4		6020B	Total/NA
Cadmium	0.89		0.20	0.10	ug/L	1		6020B	Total/NA
Calcium	370		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	78		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	3700		100	36	ug/L	1		6020B	Total/NA
Lead	0.37	J	0.50	0.24	ug/L	1		6020B	Total/NA
Lithium	66		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	26		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	1900		50	34	mg/L	1		SM 2540C	Total/NA
pH	6.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	525.56				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	21.4				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.10				mg/L	1		Field Sampling	Total/NA
pH, Field	6.11				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	2283				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	12.4				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	7.19				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-302A

Lab Sample ID: 310-254670-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	2800		100	36	ug/L	1		6020B	Total/NA
Molybdenum	3.4		2.0	0.91	ug/L	1		6020B	Total/NA
Ground Water Elevation	525.51				ft	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-302A (Continued)

Lab Sample ID: 310-254670-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Oxidation Reduction Potential	-98.2				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.37				mg/L	1		Field Sampling	Total/NA
pH, Field	7.52				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	466.9				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	7.9				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.02				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-303

Lab Sample ID: 310-254670-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	180		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	4.0		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	65		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	3200		100	76	ug/L	1		6020B	Total/NA
Calcium	85		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	1.3		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	750		100	36	ug/L	1		6020B	Total/NA
Lithium	23		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	94		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	430		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	525.42				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	757				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.13				mg/L	1		Field Sampling	Total/NA
pH, Field	6.92				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	25.3				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	12.6				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.02				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-304

Lab Sample ID: 310-254670-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	26		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	220		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	1.4	J	2.0	0.53	ug/L	1		6020B	Total/NA
Barium	57		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	1400		100	76	ug/L	1		6020B	Total/NA
Calcium	100		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	1.3		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	11000		100	36	ug/L	1		6020B	Total/NA
Lithium	63		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	190		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	470		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	525.20				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-71.6				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.09				mg/L	1		Field Sampling	Total/NA
pH, Field	7.03				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	855				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	11.3				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	10.6				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-305

Lab Sample ID: 310-254670-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	27		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	450		5.0	2.1	mg/L	5		9056A	Total/NA
Barium	38		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	1100		100	76	ug/L	1		6020B	Total/NA
Cadmium	0.45		0.20	0.10	ug/L	1		6020B	Total/NA
Calcium	97		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	290		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	2500		100	36	ug/L	1		6020B	Total/NA
Lithium	37		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	1.5	J	2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	640		50	34	mg/L	1		SM 2540C	Total/NA
pH	5.4	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	517.35				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	40.5				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.14				mg/L	1		Field Sampling	Total/NA
pH, Field	5.18				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	977				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	11.4				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.02				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-306

Lab Sample ID: 310-254670-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	31		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	50		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	36		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	61		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	4100		400	300	ug/L	4		6020B	Total/NA
Calcium	70		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	0.42	J	0.50	0.17	ug/L	1		6020B	Total/NA
Lithium	34		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	12		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	310		50	34	mg/L	1		SM 2540C	Total/NA
pH	8.9	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	522.20				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	48.4				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.11				mg/L	1		Field Sampling	Total/NA
pH, Field	8.77				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	577				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	12.5				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: 310-254670-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	28		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	100		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	8.8		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	76		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	4800		400	300	ug/L	4		6020B	Total/NA
Cadmium	0.12	J	0.20	0.10	ug/L	1		6020B	Total/NA
Calcium	53		0.50	0.19	mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-307 (Continued)

Lab Sample ID: 310-254670-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.31	J	0.50	0.17	ug/L	1		6020B	Total/NA
Lithium	72		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	320		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	390		50	34	mg/L	1		SM 2540C	Total/NA
pH	8.3	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Ground Water Elevation	519.61				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	110.6				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.13				mg/L	1		Field Sampling	Total/NA
pH, Field	8.35				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	634.9				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	13.7				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	3.93				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-307A

Lab Sample ID: 310-254670-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1100		100	36	ug/L	1		6020B	Total/NA
Lithium	7.0	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	4.3		2.0	0.91	ug/L	1		6020B	Total/NA
Ground Water Elevation	520.77				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-117.1				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.12				mg/L	1		Field Sampling	Total/NA
pH, Field	7.63				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	477				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	7.7				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.02				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-307B

Lab Sample ID: 310-254670-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1400		100	36	ug/L	1		6020B	Total/NA
Lithium	6.8	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	7.5		2.0	0.91	ug/L	1		6020B	Total/NA
Ground Water Elevation	520.77				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-48.4				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	2.08				mg/L	1		Field Sampling	Total/NA
pH, Field	7.49				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	434.6				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	13.4				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	1.08				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-308

Lab Sample ID: 310-254670-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	26		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	240		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	1.9	J	2.0	0.53	ug/L	1		6020B	Total/NA
Barium	87		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	5700		700	530	ug/L	7		6020B	Total/NA
Cadmium	0.15	J	0.20	0.10	ug/L	1		6020B	Total/NA
Calcium	61		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	0.18	J	0.50	0.17	ug/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-308 (Continued)

Lab Sample ID: 310-254670-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	54	J	100	36	ug/L	1		6020B	Total/NA
Lithium	73		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	480		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	650		50	34	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	521.08				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	122.6				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.10				mg/L	1		Field Sampling	Total/NA
pH, Field	7.49				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	994				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	14.2				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	10.8				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-309

Lab Sample ID: 310-254670-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	39		5.0	2.3	mg/L	5		9056A	Total/NA
Fluoride	0.43	J	1.0	0.38	mg/L	5		9056A	Total/NA
Sulfate	210		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	21		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	220		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	12000		700	530	ug/L	7		6020B	Total/NA
Calcium	82		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	1.3		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	22000		100	36	ug/L	1		6020B	Total/NA
Lead	0.41	J	0.50	0.24	ug/L	1		6020B	Total/NA
Lithium	4.9	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	69		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	550		50	34	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	523.02				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-117.2				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.07				mg/L	1		Field Sampling	Total/NA
pH, Field	6.93				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	1004				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	13.0				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	55.8				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-310

Lab Sample ID: 310-254670-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.7		5.0	2.3	mg/L	5		9056A	Total/NA
Fluoride	0.39	J	1.0	0.38	mg/L	5		9056A	Total/NA
Sulfate	340		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	32		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	330		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	150		100	76	ug/L	1		6020B	Total/NA
Calcium	120		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	3.1		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	24000		100	36	ug/L	1		6020B	Total/NA
Molybdenum	1.9	J	2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	580		50	34	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-310 (Continued)

Lab Sample ID: 310-254670-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	7.0	HF	0.1	0.1	SU		1	SM 4500 H+ B	Total/NA
Ground Water Elevation	518.44				ft		1	Field Sampling	Total/NA
Oxidation Reduction Potential	-146.4				millivolts		1	Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.23				mg/L		1	Field Sampling	Total/NA
pH, Field	7.13				SU		1	Field Sampling	Total/NA
Specific Conductance, Field	999				umhos/cm		1	Field Sampling	Total/NA
Temperature, Field	10.6				Degrees C		1	Field Sampling	Total/NA
Turbidity, Field	11.8				NTU		1	Field Sampling	Total/NA

Client Sample ID: MW-310A

Lab Sample ID: 310-254670-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.4		5.0	2.3	mg/L		5	9056A	Total/NA
Fluoride	0.57	J	1.0	0.38	mg/L		5	9056A	Total/NA
Sulfate	100		5.0	2.1	mg/L		5	9056A	Total/NA
Arsenic	1.2	J	2.0	0.53	ug/L		1	6020B	Total/NA
Barium	55		2.0	0.64	ug/L		1	6020B	Total/NA
Boron	870		100	76	ug/L		1	6020B	Total/NA
Calcium	48		0.50	0.19	mg/L		1	6020B	Total/NA
Cobalt	0.34	J	0.50	0.17	ug/L		1	6020B	Total/NA
Iron	180		100	36	ug/L		1	6020B	Total/NA
Lithium	33		10	2.5	ug/L		1	6020B	Total/NA
Molybdenum	11		2.0	0.91	ug/L		1	6020B	Total/NA
Total Dissolved Solids	530		50	34	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	509.69				ft		1	Field Sampling	Total/NA
Oxidation Reduction Potential	-21.9				millivolts		1	Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	7.56				mg/L		1	Field Sampling	Total/NA
pH, Field	7.05				SU		1	Field Sampling	Total/NA
Specific Conductance, Field	1010				umhos/cm		1	Field Sampling	Total/NA
Temperature, Field	12.6				Degrees C		1	Field Sampling	Total/NA

Client Sample ID: MW-311

Lab Sample ID: 310-254670-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	23		5.0	2.3	mg/L		5	9056A	Total/NA
Fluoride	0.45	J	1.0	0.38	mg/L		5	9056A	Total/NA
Sulfate	290		5.0	2.1	mg/L		5	9056A	Total/NA
Arsenic	4.7		2.0	0.53	ug/L		1	6020B	Total/NA
Barium	220		2.0	0.64	ug/L		1	6020B	Total/NA
Boron	1200		100	76	ug/L		1	6020B	Total/NA
Calcium	160		0.50	0.19	mg/L		1	6020B	Total/NA
Cobalt	3.8		0.50	0.17	ug/L		1	6020B	Total/NA
Iron	13000		100	36	ug/L		1	6020B	Total/NA
Molybdenum	3.4		2.0	0.91	ug/L		1	6020B	Total/NA
Total Dissolved Solids	750		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	522.07				ft		1	Field Sampling	Total/NA
Oxidation Reduction Potential	-81.9				millivolts		1	Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.10				mg/L		1	Field Sampling	Total/NA
pH, Field	6.83				SU		1	Field Sampling	Total/NA
Specific Conductance, Field	1225				umhos/cm		1	Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-311 (Continued)

Lab Sample ID: 310-254670-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Temperature, Field	10.9				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	2.75				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-312

Lab Sample ID: 310-254670-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	3900		100	36	ug/L	1		6020B	Total/NA
Lithium	11		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	28		2.0	0.91	ug/L	1		6020B	Total/NA
Ground Water Elevation	524.68				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-30.3				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	1.27				mg/L	1		Field Sampling	Total/NA
pH, Field	6.86				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	853				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	6.9				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	9.97				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-313

Lab Sample ID: 310-254670-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	6600		100	36	ug/L	1		6020B	Total/NA
Lithium	9.9	J	10	2.5	ug/L	1		6020B	Total/NA
Magnesium	10000		500	150	ug/L	1		6020B	Total/NA
Manganese	3200		10	3.6	ug/L	1		6020B	Total/NA
Molybdenum	18		2.0	0.91	ug/L	1		6020B	Total/NA
Bicarbonate Alkalinity as CaCO3	160		5.0	2.5	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	160		5.0	2.5	mg/L	1		SM 2320B	Total/NA
Ground Water Elevation	524.37				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-95.7				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	643.3				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	7.1				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	1.91				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-313A

Lab Sample ID: 310-254670-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	2000		100	36	ug/L	1		6020B	Total/NA
Molybdenum	2.8		2.0	0.91	ug/L	1		6020B	Total/NA
Ground Water Elevation	524.29				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-108.6				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	0.16				mg/L	1		Field Sampling	Total/NA
pH, Field	7.59				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	437.3				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	5.5				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	0.02				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-313B

Lab Sample ID: 310-254670-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	3400		100	36	ug/L	1		6020B	Total/NA
Lithium	4.9	J	10	2.5	ug/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-313B (Continued)

Lab Sample ID: 310-254670-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	14		2.0	0.91	ug/L	1		6020B	Total/NA
Ground Water Elevation	524.39				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-66.0				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved, Client Supplied	1.33				mg/L	1		Field Sampling	Total/NA
pH, Field	7.41				SU	1		Field Sampling	Total/NA
Specific Conductance, Field	571.9				umhos/cm	1		Field Sampling	Total/NA
Temperature, Field	9.7				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	13.7				NTU	1		Field Sampling	Total/NA

Client Sample ID: Field Blank

Lab Sample ID: 310-254670-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	7.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-301

Lab Sample ID: 310-254670-1

Date Collected: 04/26/23 16:10

Matrix: Water

Date Received: 04/28/23 16:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26		20	9.0	mg/L			05/24/23 10:35	20
Fluoride	<1.5		4.0	1.5	mg/L			05/24/23 10:35	20
Sulfate	910		20	8.4	mg/L			05/24/23 10:35	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<4.0		8.0	4.0	ug/L		05/02/23 08:45	05/09/23 16:35	4
Arsenic	2.1	J	8.0	2.1	ug/L		05/02/23 08:45	05/09/23 16:35	4
Barium	67		8.0	2.6	ug/L		05/02/23 08:45	05/09/23 16:35	4
Beryllium	<1.3		4.0	1.3	ug/L		05/02/23 08:45	05/09/23 16:35	4
Boron	5100		400	300	ug/L		05/02/23 08:45	05/09/23 16:35	4
Cadmium	0.54	J	0.80	0.40	ug/L		05/02/23 08:45	05/09/23 16:35	4
Calcium	200		2.0	0.76	mg/L		05/02/23 08:45	05/09/23 16:35	4
Chromium	<4.4		20	4.4	ug/L		05/02/23 08:45	05/09/23 16:35	4
Cobalt	4.8		2.0	0.68	ug/L		05/02/23 08:45	05/09/23 16:35	4
Iron	340	J	400	140	ug/L		05/02/23 08:45	05/09/23 16:35	4
Lead	<0.96		2.0	0.96	ug/L		05/02/23 08:45	05/09/23 16:35	4
Lithium	<10		40	10	ug/L		05/02/23 08:45	05/09/23 16:35	4
Molybdenum	29		8.0	3.6	ug/L		05/02/23 08:45	05/09/23 16:35	4
Selenium	<5.6		20	5.6	ug/L		05/02/23 08:45	06/06/23 13:50	4
Thallium	<1.0	F1	4.0	1.0	ug/L		05/02/23 08:45	06/06/23 13:50	4

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		05/08/23 11:06	05/09/23 12:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1900		50	34	mg/L			05/02/23 14:53	1
pH (SM 4500 H+ B)	7.0	HF	0.1	0.1	SU			04/28/23 19:45	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	0.00695	U	0.0766	0.0766	1.00	0.157	pCi/L	05/10/23 10:10	06/02/23 10:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	94.2		30 - 110					05/10/23 10:10	06/02/23 10:15	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	0.0475	U	0.297	0.297	1.00	0.539	pCi/L	05/10/23 11:22	05/30/23 16:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	94.2		30 - 110					05/10/23 11:22	05/30/23 16:32	1
Y Carrier	87.1		30 - 110					05/10/23 11:22	05/30/23 16:32	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-301
 Date Collected: 04/26/23 16:10
 Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-1
 Matrix: Water

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	0.0545	U	0.307	0.307	5.00	0.539	pCi/L		06/02/23 22:41	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	524.21				ft			04/26/23 16:10	1
Oxidation Reduction Potential	48.6				millivolts			04/26/23 16:10	1
Oxygen, Dissolved, Client Supplied	0.20				mg/L			04/26/23 16:10	1
pH, Field	6.83				SU			04/26/23 16:10	1
Specific Conductance, Field	2584				umhos/cm			04/26/23 16:10	1
Temperature, Field	11.7				Degrees C			04/26/23 16:10	1
Turbidity, Field	9.39				NTU			04/26/23 16:10	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-302

Lab Sample ID: 310-254670-2

Date Collected: 04/26/23 14:35

Matrix: Water

Date Received: 04/28/23 16:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21		20	9.0	mg/L			05/24/23 10:50	20
Fluoride	<1.5		4.0	1.5	mg/L			05/24/23 10:50	20
Sulfate	1300		20	8.4	mg/L			05/24/23 10:50	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		05/02/23 08:45	05/08/23 22:21	1
Arsenic	3.1		2.0	0.53	ug/L		05/02/23 08:45	05/08/23 22:21	1
Barium	38		2.0	0.64	ug/L		05/02/23 08:45	05/08/23 22:21	1
Beryllium	1.1		1.0	0.33	ug/L		05/02/23 08:45	05/08/23 22:21	1
Boron	5600		400	300	ug/L		05/02/23 08:45	05/09/23 16:45	4
Cadmium	0.89		0.20	0.10	ug/L		05/02/23 08:45	05/08/23 22:21	1
Calcium	370		0.50	0.19	mg/L		05/02/23 08:45	05/08/23 22:21	1
Chromium	<1.1		5.0	1.1	ug/L		05/02/23 08:45	05/08/23 22:21	1
Cobalt	78		0.50	0.17	ug/L		05/02/23 08:45	05/08/23 22:21	1
Iron	3700		100	36	ug/L		05/02/23 08:45	05/08/23 22:21	1
Lead	0.37	J	0.50	0.24	ug/L		05/02/23 08:45	05/08/23 22:21	1
Lithium	66		10	2.5	ug/L		05/02/23 08:45	05/08/23 22:21	1
Molybdenum	26		2.0	0.91	ug/L		05/02/23 08:45	05/08/23 22:21	1
Selenium	<5.6		20	5.6	ug/L		05/02/23 08:45	06/06/23 13:53	4
Thallium	<1.0		4.0	1.0	ug/L		05/02/23 08:45	06/06/23 13:53	4

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		05/08/23 11:06	05/09/23 12:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1900		50	34	mg/L			05/02/23 14:53	1
pH (SM 4500 H+ B)	6.2	HF	0.1	0.1	SU			04/28/23 19:42	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	0.106	U	0.118	0.118	1.00	0.190	pCi/L	05/10/23 10:10	06/02/23 10:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	91.0		30 - 110					05/10/23 10:10	06/02/23 10:15	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	0.332	U	0.338	0.339	1.00	0.545	pCi/L	05/10/23 11:22	05/30/23 16:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	91.0		30 - 110					05/10/23 11:22	05/30/23 16:32	1
Y Carrier	81.5		30 - 110					05/10/23 11:22	05/30/23 16:32	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-302
 Date Collected: 04/26/23 14:35
 Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-2
 Matrix: Water

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	0.438	U	0.358	0.359	5.00	0.545	pCi/L		06/02/23 22:41	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	525.56				ft			04/26/23 14:35	1
Oxidation Reduction Potential	21.4				millivolts			04/26/23 14:35	1
Oxygen, Dissolved, Client Supplied	0.10				mg/L			04/26/23 14:35	1
pH, Field	6.11				SU			04/26/23 14:35	1
Specific Conductance, Field	2283				umhos/cm			04/26/23 14:35	1
Temperature, Field	12.4				Degrees C			04/26/23 14:35	1
Turbidity, Field	7.19				NTU			04/26/23 14:35	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-302A

Lab Sample ID: 310-254670-3

Date Collected: 04/26/23 14:00

Matrix: Water

Date Received: 04/28/23 16:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2800		100	36	ug/L		05/02/23 08:45	05/08/23 22:25	1
Lithium	<2.5		10	2.5	ug/L		05/02/23 08:45	05/08/23 22:25	1
Molybdenum	3.4		2.0	0.91	ug/L		05/02/23 08:45	05/08/23 22:25	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	525.51				ft			04/26/23 14:00	1
Oxidation Reduction Potential	-98.2				millivolts			04/26/23 14:00	1
Oxygen, Dissolved, Client Supplied	0.37				mg/L			04/26/23 14:00	1
pH, Field	7.52				SU			04/26/23 14:00	1
Specific Conductance, Field	466.9				umhos/cm			04/26/23 14:00	1
Temperature, Field	7.9				Degrees C			04/26/23 14:00	1
Turbidity, Field	0.02				NTU			04/26/23 14:00	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-303

Lab Sample ID: 310-254670-4

Date Collected: 04/26/23 15:20

Matrix: Water

Date Received: 04/28/23 16:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25		5.0	2.3	mg/L			05/15/23 19:53	5
Fluoride	<0.38		1.0	0.38	mg/L			05/15/23 19:53	5
Sulfate	180		5.0	2.1	mg/L			05/15/23 19:53	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		05/02/23 08:45	05/08/23 22:28	1
Arsenic	4.0		2.0	0.53	ug/L		05/02/23 08:45	05/08/23 22:28	1
Barium	65		2.0	0.64	ug/L		05/02/23 08:45	05/08/23 22:28	1
Beryllium	<0.33		1.0	0.33	ug/L		05/02/23 08:45	05/08/23 22:28	1
Boron	3200		100	76	ug/L		05/02/23 08:45	05/09/23 16:49	1
Cadmium	<0.10		0.20	0.10	ug/L		05/02/23 08:45	05/08/23 22:28	1
Calcium	85		0.50	0.19	mg/L		05/02/23 08:45	05/08/23 22:28	1
Chromium	<1.1		5.0	1.1	ug/L		05/02/23 08:45	05/08/23 22:28	1
Cobalt	1.3		0.50	0.17	ug/L		05/02/23 08:45	05/08/23 22:28	1
Iron	750		100	36	ug/L		05/02/23 08:45	05/08/23 22:28	1
Lead	<0.24		0.50	0.24	ug/L		05/02/23 08:45	05/08/23 22:28	1
Lithium	23		10	2.5	ug/L		05/02/23 08:45	05/08/23 22:28	1
Molybdenum	94		2.0	0.91	ug/L		05/02/23 08:45	05/08/23 22:28	1
Selenium	<1.4		5.0	1.4	ug/L		05/02/23 08:45	05/08/23 22:28	1
Thallium	<0.26		1.0	0.26	ug/L		05/02/23 08:45	05/08/23 22:28	1

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		05/08/23 11:06	05/09/23 12:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	430		50	34	mg/L			05/02/23 14:53	1
pH (SM 4500 H+ B)	7.1	HF	0.1	0.1	SU			04/28/23 19:47	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	0.0889	U	0.139	0.139	1.00	0.237	pCi/L	05/10/23 10:10	06/02/23 10:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	91.7		30 - 110					05/10/23 10:10	06/02/23 10:15	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	0.441	U	0.344	0.347	1.00	0.534	pCi/L	05/10/23 11:22	05/30/23 16:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	91.7		30 - 110					05/10/23 11:22	05/30/23 16:32	1
Y Carrier	89.9		30 - 110					05/10/23 11:22	05/30/23 16:32	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-303
 Date Collected: 04/26/23 15:20
 Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-4
 Matrix: Water

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	0.530	U	0.371	0.374	5.00	0.534	pCi/L		06/02/23 22:41	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	525.42				ft			04/26/23 15:20	1
Oxidation Reduction Potential	757				millivolts			04/26/23 15:20	1
Oxygen, Dissolved, Client Supplied	0.13				mg/L			04/26/23 15:20	1
pH, Field	6.92				SU			04/26/23 15:20	1
Specific Conductance, Field	25.3				umhos/cm			04/26/23 15:20	1
Temperature, Field	12.6				Degrees C			04/26/23 15:20	1
Turbidity, Field	0.02				NTU			04/26/23 15:20	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-304

Lab Sample ID: 310-254670-5

Date Collected: 04/26/23 17:05

Matrix: Water

Date Received: 04/28/23 16:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26		5.0	2.3	mg/L			05/15/23 20:06	5
Fluoride	<0.38		1.0	0.38	mg/L			05/15/23 20:06	5
Sulfate	220		5.0	2.1	mg/L			05/15/23 20:06	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		05/02/23 08:45	05/08/23 22:32	1
Arsenic	1.4	J	2.0	0.53	ug/L		05/02/23 08:45	05/08/23 22:32	1
Barium	57		2.0	0.64	ug/L		05/02/23 08:45	05/08/23 22:32	1
Beryllium	<0.33		1.0	0.33	ug/L		05/02/23 08:45	05/08/23 22:32	1
Boron	1400		100	76	ug/L		05/02/23 08:45	05/09/23 16:52	1
Cadmium	<0.10		0.20	0.10	ug/L		05/02/23 08:45	05/08/23 22:32	1
Calcium	100		0.50	0.19	mg/L		05/02/23 08:45	05/08/23 22:32	1
Chromium	<1.1		5.0	1.1	ug/L		05/02/23 08:45	05/08/23 22:32	1
Cobalt	1.3		0.50	0.17	ug/L		05/02/23 08:45	05/08/23 22:32	1
Iron	11000		100	36	ug/L		05/02/23 08:45	05/08/23 22:32	1
Lead	<0.24		0.50	0.24	ug/L		05/02/23 08:45	05/08/23 22:32	1
Lithium	63		10	2.5	ug/L		05/02/23 08:45	05/08/23 22:32	1
Molybdenum	190		2.0	0.91	ug/L		05/02/23 08:45	05/08/23 22:32	1
Selenium	<1.4		5.0	1.4	ug/L		05/02/23 08:45	05/08/23 22:32	1
Thallium	<0.26		1.0	0.26	ug/L		05/02/23 08:45	05/08/23 22:32	1

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		05/08/23 11:06	05/09/23 12:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	470		50	34	mg/L			05/02/23 14:53	1
pH (SM 4500 H+ B)	7.1	HF	0.1	0.1	SU			04/28/23 19:49	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	0.193	U	0.160	0.161	1.00	0.243	pCi/L	05/10/23 10:10	06/02/23 10:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	86.1		30 - 110					05/10/23 10:10	06/02/23 10:15	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	0.496	U	0.352	0.355	1.00	0.531	pCi/L	05/10/23 11:22	05/30/23 16:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	86.1		30 - 110					05/10/23 11:22	05/30/23 16:32	1
Y Carrier	88.5		30 - 110					05/10/23 11:22	05/30/23 16:32	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-304
 Date Collected: 04/26/23 17:05
 Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-5
 Matrix: Water

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	0.689		0.387	0.390	5.00	0.531	pCi/L		06/02/23 22:41	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	525.20				ft			04/26/23 17:05	1
Oxidation Reduction Potential	-71.6				millivolts			04/26/23 17:05	1
Oxygen, Dissolved, Client Supplied	0.09				mg/L			04/26/23 17:05	1
pH, Field	7.03				SU			04/26/23 17:05	1
Specific Conductance, Field	855				umhos/cm			04/26/23 17:05	1
Temperature, Field	11.3				Degrees C			04/26/23 17:05	1
Turbidity, Field	10.6				NTU			04/26/23 17:05	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-305

Lab Sample ID: 310-254670-6

Date Collected: 04/26/23 11:45

Matrix: Water

Date Received: 04/28/23 16:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	27		5.0	2.3	mg/L			05/15/23 20:19	5
Fluoride	<0.38		1.0	0.38	mg/L			05/15/23 20:19	5
Sulfate	450		5.0	2.1	mg/L			05/15/23 20:19	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		05/02/23 08:45	05/08/23 22:35	1
Arsenic	<0.53		2.0	0.53	ug/L		05/02/23 08:45	05/08/23 22:35	1
Barium	38		2.0	0.64	ug/L		05/02/23 08:45	05/08/23 22:35	1
Beryllium	<0.33		1.0	0.33	ug/L		05/02/23 08:45	05/08/23 22:35	1
Boron	1100		100	76	ug/L		05/02/23 08:45	05/16/23 18:03	1
Cadmium	0.45		0.20	0.10	ug/L		05/02/23 08:45	05/08/23 22:35	1
Calcium	97		0.50	0.19	mg/L		05/02/23 08:45	05/08/23 22:35	1
Chromium	<1.1		5.0	1.1	ug/L		05/02/23 08:45	05/08/23 22:35	1
Cobalt	290		0.50	0.17	ug/L		05/02/23 08:45	05/08/23 22:35	1
Iron	2500		100	36	ug/L		05/02/23 08:45	05/08/23 22:35	1
Lead	<0.24		0.50	0.24	ug/L		05/02/23 08:45	05/08/23 22:35	1
Lithium	37		10	2.5	ug/L		05/02/23 08:45	05/08/23 22:35	1
Molybdenum	1.5 J		2.0	0.91	ug/L		05/02/23 08:45	05/08/23 22:35	1
Selenium	<1.4		5.0	1.4	ug/L		05/02/23 08:45	05/08/23 22:35	1
Thallium	<0.26		1.0	0.26	ug/L		05/02/23 08:45	05/08/23 22:35	1

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		05/08/23 11:06	05/09/23 12:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	640		50	34	mg/L			05/02/23 14:53	1
pH (SM 4500 H+ B)	5.4	HF	0.1	0.1	SU			04/28/23 19:50	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	0.170	U	0.138	0.139	1.00	0.208	pCi/L	05/10/23 10:10	06/02/23 10:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	82.2		30 - 110					05/10/23 10:10	06/02/23 10:17	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	0.280	U	0.296	0.297	1.00	0.478	pCi/L	05/10/23 11:22	05/30/23 16:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	82.2		30 - 110					05/10/23 11:22	05/30/23 16:32	1
Y Carrier	90.7		30 - 110					05/10/23 11:22	05/30/23 16:32	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-305
 Date Collected: 04/26/23 11:45
 Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-6
 Matrix: Water

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	0.449	U	0.327	0.328	5.00	0.478	pCi/L		06/02/23 22:41	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	517.35				ft			04/26/23 11:45	1
Oxidation Reduction Potential	40.5				millivolts			04/26/23 11:45	1
Oxygen, Dissolved, Client Supplied	0.14				mg/L			04/26/23 11:45	1
pH, Field	5.18				SU			04/26/23 11:45	1
Specific Conductance, Field	977				umhos/cm			04/26/23 11:45	1
Temperature, Field	11.4				Degrees C			04/26/23 11:45	1
Turbidity, Field	0.02				NTU			04/26/23 11:45	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-306

Lab Sample ID: 310-254670-7

Date Collected: 04/27/23 08:55

Matrix: Water

Date Received: 04/28/23 16:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31		5.0	2.3	mg/L			05/15/23 20:32	5
Fluoride	<0.38		1.0	0.38	mg/L			05/15/23 20:32	5
Sulfate	50		5.0	2.1	mg/L			05/15/23 20:32	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		05/02/23 08:45	05/08/23 22:39	1
Arsenic	36		2.0	0.53	ug/L		05/02/23 08:45	05/08/23 22:39	1
Barium	61		2.0	0.64	ug/L		05/02/23 08:45	05/08/23 22:39	1
Beryllium	<0.33		1.0	0.33	ug/L		05/02/23 08:45	05/08/23 22:39	1
Boron	4100		400	300	ug/L		05/02/23 08:45	05/16/23 18:05	4
Cadmium	<0.10		0.20	0.10	ug/L		05/02/23 08:45	05/08/23 22:39	1
Calcium	70		0.50	0.19	mg/L		05/02/23 08:45	05/08/23 22:39	1
Chromium	<1.1		5.0	1.1	ug/L		05/02/23 08:45	05/08/23 22:39	1
Cobalt	0.42 J		0.50	0.17	ug/L		05/02/23 08:45	05/08/23 22:39	1
Iron	<36		100	36	ug/L		05/02/23 08:45	05/08/23 22:39	1
Lead	<0.24		0.50	0.24	ug/L		05/02/23 08:45	05/08/23 22:39	1
Lithium	34		10	2.5	ug/L		05/02/23 08:45	05/08/23 22:39	1
Molybdenum	12		2.0	0.91	ug/L		05/02/23 08:45	05/08/23 22:39	1
Selenium	<1.4		5.0	1.4	ug/L		05/02/23 08:45	05/08/23 22:39	1
Thallium	<0.26		1.0	0.26	ug/L		05/02/23 08:45	05/08/23 22:39	1

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		05/08/23 11:06	05/09/23 12:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	310		50	34	mg/L			05/03/23 14:02	1
pH (SM 4500 H+ B)	8.9 HF		0.1	0.1	SU			04/28/23 19:52	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	0.212		0.143	0.144	1.00	0.203	pCi/L	05/10/23 10:10	06/02/23 10:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	87.1		30 - 110					05/10/23 10:10	06/02/23 10:17	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	0.523	U	0.355	0.358	1.00	0.529	pCi/L	05/10/23 11:22	05/30/23 16:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	87.1		30 - 110					05/10/23 11:22	05/30/23 16:32	1
Y Carrier	87.4		30 - 110					05/10/23 11:22	05/30/23 16:32	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-306

Lab Sample ID: 310-254670-7

Date Collected: 04/27/23 08:55

Matrix: Water

Date Received: 04/28/23 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	0.735		0.383	0.386	5.00	0.529	pCi/L		06/02/23 22:41	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	522.20				ft			04/27/23 08:55	1
Oxidation Reduction Potential	48.4				millivolts			04/27/23 08:55	1
Oxygen, Dissolved, Client Supplied	0.11				mg/L			04/27/23 08:55	1
pH, Field	8.77				SU			04/27/23 08:55	1
Specific Conductance, Field	577				umhos/cm			04/27/23 08:55	1
Temperature, Field	12.5				Degrees C			04/27/23 08:55	1
Turbidity, Field	0.02				NTU			04/27/23 08:55	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-307

Lab Sample ID: 310-254670-8

Date Collected: 04/24/23 14:50

Matrix: Water

Date Received: 04/28/23 16:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28		5.0	2.3	mg/L			05/15/23 20:45	5
Fluoride	<0.38		1.0	0.38	mg/L			05/15/23 20:45	5
Sulfate	100		5.0	2.1	mg/L			05/15/23 20:45	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		05/02/23 08:45	05/08/23 22:42	1
Arsenic	8.8		2.0	0.53	ug/L		05/02/23 08:45	05/08/23 22:42	1
Barium	76		2.0	0.64	ug/L		05/02/23 08:45	05/08/23 22:42	1
Beryllium	<0.33		1.0	0.33	ug/L		05/02/23 08:45	05/08/23 22:42	1
Boron	4800		400	300	ug/L		05/02/23 08:45	05/16/23 18:26	4
Cadmium	0.12	J	0.20	0.10	ug/L		05/02/23 08:45	05/08/23 22:42	1
Calcium	53		0.50	0.19	mg/L		05/02/23 08:45	05/08/23 22:42	1
Chromium	<1.1		5.0	1.1	ug/L		05/02/23 08:45	05/08/23 22:42	1
Cobalt	0.31	J	0.50	0.17	ug/L		05/02/23 08:45	05/08/23 22:42	1
Iron	<36		100	36	ug/L		05/02/23 08:45	05/08/23 22:42	1
Lead	<0.24		0.50	0.24	ug/L		05/02/23 08:45	05/08/23 22:42	1
Lithium	72		10	2.5	ug/L		05/02/23 08:45	05/08/23 22:42	1
Molybdenum	320		2.0	0.91	ug/L		05/02/23 08:45	05/08/23 22:42	1
Selenium	<1.4		5.0	1.4	ug/L		05/02/23 08:45	05/08/23 22:42	1
Thallium	<0.26		1.0	0.26	ug/L		05/02/23 08:45	05/08/23 22:42	1

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		05/08/23 11:06	05/09/23 12:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	390		50	34	mg/L			05/01/23 14:37	1
pH (SM 4500 H+ B)	8.3	HF	0.1	0.1	SU			04/28/23 19:54	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	0.101	U	0.124	0.124	1.00	0.204	pCi/L	05/10/23 10:10	06/02/23 10:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	89.1		30 - 110					05/10/23 10:10	06/02/23 10:18	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	0.157	U	0.363	0.364	1.00	0.636	pCi/L	05/10/23 11:22	05/30/23 16:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	89.1		30 - 110					05/10/23 11:22	05/30/23 16:33	1
Y Carrier	74.7		30 - 110					05/10/23 11:22	05/30/23 16:33	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-307
 Date Collected: 04/24/23 14:50
 Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-8
 Matrix: Water

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	0.258	U	0.384	0.385	5.00	0.636	pCi/L		06/02/23 22:41	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	519.61				ft			04/24/23 14:50	1
Oxidation Reduction Potential	110.6				millivolts			04/24/23 14:50	1
Oxygen, Dissolved, Client Supplied	0.13				mg/L			04/24/23 14:50	1
pH, Field	8.35				SU			04/24/23 14:50	1
Specific Conductance, Field	634.9				umhos/cm			04/24/23 14:50	1
Temperature, Field	13.7				Degrees C			04/24/23 14:50	1
Turbidity, Field	3.93				NTU			04/24/23 14:50	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-307A
 Date Collected: 04/24/23 15:50
 Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-9
 Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1100		100	36	ug/L		05/02/23 08:45	05/08/23 22:45	1
Lithium	7.0	J	10	2.5	ug/L		05/02/23 08:45	05/08/23 22:45	1
Molybdenum	4.3		2.0	0.91	ug/L		05/02/23 08:45	05/08/23 22:45	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	520.77				ft			04/24/23 15:50	1
Oxidation Reduction Potential	-117.1				millivolts			04/24/23 15:50	1
Oxygen, Dissolved, Client Supplied	0.12				mg/L			04/24/23 15:50	1
pH, Field	7.63				SU			04/24/23 15:50	1
Specific Conductance, Field	477				umhos/cm			04/24/23 15:50	1
Temperature, Field	7.7				Degrees C			04/24/23 15:50	1
Turbidity, Field	0.02				NTU			04/24/23 15:50	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-307B

Lab Sample ID: 310-254670-10

Date Collected: 04/24/23 16:45

Matrix: Water

Date Received: 04/28/23 16:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1400		100	36	ug/L		05/02/23 08:45	05/14/23 20:37	1
Lithium	6.8	J	10	2.5	ug/L		05/02/23 08:45	05/14/23 20:37	1
Molybdenum	7.5		2.0	0.91	ug/L		05/02/23 08:45	05/14/23 20:37	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	520.77				ft			04/24/23 16:45	1
Oxidation Reduction Potential	-48.4				millivolts			04/24/23 16:45	1
Oxygen, Dissolved, Client Supplied	2.08				mg/L			04/24/23 16:45	1
pH, Field	7.49				SU			04/24/23 16:45	1
Specific Conductance, Field	434.6				umhos/cm			04/24/23 16:45	1
Temperature, Field	13.4				Degrees C			04/24/23 16:45	1
Turbidity, Field	1.08				NTU			04/24/23 16:45	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-308

Lab Sample ID: 310-254670-11

Date Collected: 04/24/23 13:45

Matrix: Water

Date Received: 04/28/23 16:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26		5.0	2.3	mg/L			05/15/23 20:58	5
Fluoride	<0.38		1.0	0.38	mg/L			05/15/23 20:58	5
Sulfate	240		5.0	2.1	mg/L			05/15/23 20:58	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		05/02/23 08:45	05/09/23 17:49	1
Arsenic	1.9	J	2.0	0.53	ug/L		05/02/23 08:45	05/09/23 17:49	1
Barium	87		2.0	0.64	ug/L		05/02/23 08:45	05/09/23 17:49	1
Beryllium	<0.33		1.0	0.33	ug/L		05/02/23 08:45	05/09/23 17:49	1
Boron	5700		700	530	ug/L		05/02/23 08:45	05/16/23 18:29	7
Cadmium	0.15	J	0.20	0.10	ug/L		05/02/23 08:45	05/09/23 17:49	1
Calcium	61		0.50	0.19	mg/L		05/02/23 08:45	05/09/23 17:49	1
Chromium	<1.1		5.0	1.1	ug/L		05/02/23 08:45	05/09/23 17:49	1
Cobalt	0.18	J	0.50	0.17	ug/L		05/02/23 08:45	05/09/23 17:49	1
Iron	54	J	100	36	ug/L		05/02/23 08:45	05/09/23 17:49	1
Lead	<0.24		0.50	0.24	ug/L		05/02/23 08:45	05/09/23 17:49	1
Lithium	73		10	2.5	ug/L		05/02/23 08:45	05/09/23 17:49	1
Molybdenum	480		2.0	0.91	ug/L		05/02/23 08:45	05/09/23 17:49	1
Selenium	<1.4		5.0	1.4	ug/L		05/02/23 08:45	05/09/23 17:49	1
Thallium	<0.26		1.0	0.26	ug/L		05/02/23 08:45	05/09/23 17:49	1

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		05/08/23 11:06	05/09/23 12:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	650		50	34	mg/L			05/01/23 14:37	1
pH (SM 4500 H+ B)	7.6	HF	0.1	0.1	SU			04/28/23 19:55	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	0.0960	U	0.143	0.143	1.00	0.245	pCi/L	05/10/23 10:10	06/02/23 10:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	88.3		30 - 110					05/10/23 10:10	06/02/23 10:18	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	1.05		0.570	0.578	1.00	0.800	pCi/L	05/10/23 11:22	05/30/23 16:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	88.3		30 - 110					05/10/23 11:22	05/30/23 16:33	1
Y Carrier	72.2		30 - 110					05/10/23 11:22	05/30/23 16:33	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-308
 Date Collected: 04/24/23 13:45
 Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-11
 Matrix: Water

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		0.588	0.595	5.00	0.800	pCi/L		06/02/23 22:41	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	521.08				ft			04/24/23 13:45	1
Oxidation Reduction Potential	122.6				millivolts			04/24/23 13:45	1
Oxygen, Dissolved, Client Supplied	0.10				mg/L			04/24/23 13:45	1
pH, Field	7.49				SU			04/24/23 13:45	1
Specific Conductance, Field	994				umhos/cm			04/24/23 13:45	1
Temperature, Field	14.2				Degrees C			04/24/23 13:45	1
Turbidity, Field	10.8				NTU			04/24/23 13:45	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-309

Lab Sample ID: 310-254670-12

Date Collected: 04/27/23 12:40

Matrix: Water

Date Received: 04/28/23 16:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	39		5.0	2.3	mg/L			05/15/23 21:11	5
Fluoride	0.43	J	1.0	0.38	mg/L			05/15/23 21:11	5
Sulfate	210		5.0	2.1	mg/L			05/15/23 21:11	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		05/02/23 08:45	05/08/23 23:46	1
Arsenic	21		2.0	0.53	ug/L		05/02/23 08:45	05/08/23 23:46	1
Barium	220		2.0	0.64	ug/L		05/02/23 08:45	05/08/23 23:46	1
Beryllium	<0.33		1.0	0.33	ug/L		05/02/23 08:45	05/08/23 23:46	1
Boron	12000		700	530	ug/L		05/02/23 08:45	05/16/23 18:33	7
Cadmium	<0.10		0.20	0.10	ug/L		05/02/23 08:45	05/08/23 23:46	1
Calcium	82		0.50	0.19	mg/L		05/02/23 08:45	05/08/23 23:46	1
Chromium	<1.1		5.0	1.1	ug/L		05/02/23 08:45	05/08/23 23:46	1
Cobalt	1.3		0.50	0.17	ug/L		05/02/23 08:45	05/08/23 23:46	1
Iron	22000		100	36	ug/L		05/02/23 08:45	05/08/23 23:46	1
Lead	0.41	J	0.50	0.24	ug/L		05/02/23 08:45	05/08/23 23:46	1
Lithium	4.9	J	10	2.5	ug/L		05/02/23 08:45	05/08/23 23:46	1
Molybdenum	69		2.0	0.91	ug/L		05/02/23 08:45	05/08/23 23:46	1
Selenium	<1.4		5.0	1.4	ug/L		05/02/23 08:45	05/08/23 23:46	1
Thallium	<0.26		1.0	0.26	ug/L		05/02/23 08:45	05/08/23 23:46	1

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		05/08/23 11:06	05/09/23 12:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	550		50	34	mg/L			05/02/23 15:34	1
pH (SM 4500 H+ B)	6.9	HF	0.1	0.1	SU			04/28/23 19:57	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	0.443		0.286	0.289	1.00	0.392	pCi/L	05/10/23 10:10	06/02/23 10:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	79.6		30 - 110					05/10/23 10:10	06/02/23 10:20	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	0.688	U G	0.770	0.773	1.00	1.26	pCi/L	05/10/23 11:22	05/30/23 16:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	79.6		30 - 110					05/10/23 11:22	05/30/23 16:33	1
Y Carrier	75.0		30 - 110					05/10/23 11:22	05/30/23 16:33	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-309
 Date Collected: 04/27/23 12:40
 Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-12
 Matrix: Water

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	1.13	U	0.821	0.825	5.00	1.26	pCi/L		06/02/23 22:41	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	523.02				ft			04/27/23 12:40	1
Oxidation Reduction Potential	-117.2				millivolts			04/27/23 12:40	1
Oxygen, Dissolved, Client Supplied	0.07				mg/L			04/27/23 12:40	1
pH, Field	6.93				SU			04/27/23 12:40	1
Specific Conductance, Field	1004				umhos/cm			04/27/23 12:40	1
Temperature, Field	13.0				Degrees C			04/27/23 12:40	1
Turbidity, Field	55.8				NTU			04/27/23 12:40	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-310

Lab Sample ID: 310-254670-13

Date Collected: 04/27/23 10:45

Matrix: Water

Date Received: 04/28/23 16:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.7		5.0	2.3	mg/L			05/15/23 21:25	5
Fluoride	0.39	J	1.0	0.38	mg/L			05/15/23 21:25	5
Sulfate	340		5.0	2.1	mg/L			05/15/23 21:25	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		05/02/23 08:45	05/08/23 23:50	1
Arsenic	32		2.0	0.53	ug/L		05/02/23 08:45	05/08/23 23:50	1
Barium	330		2.0	0.64	ug/L		05/02/23 08:45	05/08/23 23:50	1
Beryllium	<0.33		1.0	0.33	ug/L		05/02/23 08:45	05/08/23 23:50	1
Boron	150		100	76	ug/L		05/02/23 08:45	05/16/23 18:36	1
Cadmium	<0.10		0.20	0.10	ug/L		05/02/23 08:45	05/08/23 23:50	1
Calcium	120		0.50	0.19	mg/L		05/02/23 08:45	05/08/23 23:50	1
Chromium	<1.1		5.0	1.1	ug/L		05/02/23 08:45	05/08/23 23:50	1
Cobalt	3.1		0.50	0.17	ug/L		05/02/23 08:45	05/08/23 23:50	1
Iron	24000		100	36	ug/L		05/02/23 08:45	05/08/23 23:50	1
Lead	<0.24		0.50	0.24	ug/L		05/02/23 08:45	05/08/23 23:50	1
Lithium	<2.5		10	2.5	ug/L		05/02/23 08:45	05/08/23 23:50	1
Molybdenum	1.9	J	2.0	0.91	ug/L		05/02/23 08:45	05/08/23 23:50	1
Selenium	<1.4		5.0	1.4	ug/L		05/02/23 08:45	05/08/23 23:50	1
Thallium	<0.26		1.0	0.26	ug/L		05/02/23 08:45	05/08/23 23:50	1

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		05/08/23 11:06	05/09/23 12:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	580		50	34	mg/L			05/02/23 15:34	1
pH (SM 4500 H+ B)	7.0	HF	0.1	0.1	SU			04/28/23 20:02	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	0.388		0.155	0.159	1.00	0.171	pCi/L	05/10/23 10:10	06/02/23 10:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	97.6		30 - 110					05/10/23 10:10	06/02/23 10:21	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	0.308	U	0.359	0.360	1.00	0.591	pCi/L	05/10/23 11:22	05/30/23 16:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	97.6		30 - 110					05/10/23 11:22	05/30/23 16:34	1
Y Carrier	73.0		30 - 110					05/10/23 11:22	05/30/23 16:34	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-310
 Date Collected: 04/27/23 10:45
 Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-13
 Matrix: Water

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	0.696		0.391	0.394	5.00	0.591	pCi/L		06/02/23 22:41	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	518.44				ft			04/27/23 10:45	1
Oxidation Reduction Potential	-146.4				millivolts			04/27/23 10:45	1
Oxygen, Dissolved, Client Supplied	0.23				mg/L			04/27/23 10:45	1
pH, Field	7.13				SU			04/27/23 10:45	1
Specific Conductance, Field	999				umhos/cm			04/27/23 10:45	1
Temperature, Field	10.6				Degrees C			04/27/23 10:45	1
Turbidity, Field	11.8				NTU			04/27/23 10:45	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-310A

Lab Sample ID: 310-254670-14

Date Collected: 04/27/23 13:00

Matrix: Water

Date Received: 04/28/23 16:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.4		5.0	2.3	mg/L			05/15/23 21:38	5
Fluoride	0.57	J	1.0	0.38	mg/L			05/15/23 21:38	5
Sulfate	100		5.0	2.1	mg/L			05/15/23 21:38	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		05/02/23 08:45	05/08/23 23:53	1
Arsenic	1.2	J	2.0	0.53	ug/L		05/02/23 08:45	05/08/23 23:53	1
Barium	55		2.0	0.64	ug/L		05/02/23 08:45	05/08/23 23:53	1
Beryllium	<0.33		1.0	0.33	ug/L		05/02/23 08:45	05/08/23 23:53	1
Boron	870		100	76	ug/L		05/02/23 08:45	05/16/23 18:38	1
Cadmium	<0.10		0.20	0.10	ug/L		05/02/23 08:45	05/08/23 23:53	1
Calcium	48		0.50	0.19	mg/L		05/02/23 08:45	05/08/23 23:53	1
Chromium	<1.1		5.0	1.1	ug/L		05/02/23 08:45	05/08/23 23:53	1
Cobalt	0.34	J	0.50	0.17	ug/L		05/02/23 08:45	05/08/23 23:53	1
Iron	180		100	36	ug/L		05/02/23 08:45	05/08/23 23:53	1
Lead	<0.24		0.50	0.24	ug/L		05/02/23 08:45	05/08/23 23:53	1
Lithium	33		10	2.5	ug/L		05/02/23 08:45	05/08/23 23:53	1
Molybdenum	11		2.0	0.91	ug/L		05/02/23 08:45	05/08/23 23:53	1
Selenium	<1.4		5.0	1.4	ug/L		05/02/23 08:45	05/08/23 23:53	1
Thallium	<0.26		1.0	0.26	ug/L		05/02/23 08:45	05/08/23 23:53	1

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		05/08/23 11:06	05/09/23 12:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	530		50	34	mg/L			05/02/23 15:34	1
pH (SM 4500 H+ B)	7.6	HF	0.1	0.1	SU			04/28/23 20:06	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	0.607		0.288	0.293	1.00	0.349	pCi/L	05/10/23 10:10	06/02/23 10:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	59.4		30 - 110					05/10/23 10:10	06/02/23 10:21	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	0.212	U G	0.571	0.571	1.00	1.02	pCi/L	05/10/23 11:22	05/30/23 16:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	59.4		30 - 110					05/10/23 11:22	05/30/23 16:34	1
Y Carrier	84.6		30 - 110					05/10/23 11:22	05/30/23 16:34	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-310A

Lab Sample ID: 310-254670-14

Date Collected: 04/27/23 13:00

Matrix: Water

Date Received: 04/28/23 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	0.818	U	0.640	0.642	5.00	1.02	pCi/L		06/02/23 22:41	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	509.69				ft			04/27/23 13:00	1
Oxidation Reduction Potential	-21.9				millivolts			04/27/23 13:00	1
Oxygen, Dissolved, Client Supplied	7.56				mg/L			04/27/23 13:00	1
pH, Field	7.05				SU			04/27/23 13:00	1
Specific Conductance, Field	1010				umhos/cm			04/27/23 13:00	1
Temperature, Field	12.6				Degrees C			04/27/23 13:00	1
Turbidity, Field	ND				NTU			04/27/23 13:00	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-311

Lab Sample ID: 310-254670-15

Date Collected: 04/27/23 11:45

Matrix: Water

Date Received: 04/28/23 16:20

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		5.0	2.3	mg/L			05/15/23 22:17	5
Fluoride	0.45	J	1.0	0.38	mg/L			05/15/23 22:17	5
Sulfate	290		5.0	2.1	mg/L			05/15/23 22:17	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		05/02/23 08:45	05/08/23 23:57	1
Arsenic	4.7		2.0	0.53	ug/L		05/02/23 08:45	05/08/23 23:57	1
Barium	220		2.0	0.64	ug/L		05/02/23 08:45	05/08/23 23:57	1
Beryllium	<0.33		1.0	0.33	ug/L		05/02/23 08:45	05/08/23 23:57	1
Boron	1200		100	76	ug/L		05/02/23 08:45	05/16/23 18:40	1
Cadmium	<0.10		0.20	0.10	ug/L		05/02/23 08:45	05/08/23 23:57	1
Calcium	160		0.50	0.19	mg/L		05/02/23 08:45	05/08/23 23:57	1
Chromium	<1.1		5.0	1.1	ug/L		05/02/23 08:45	05/08/23 23:57	1
Cobalt	3.8		0.50	0.17	ug/L		05/02/23 08:45	05/08/23 23:57	1
Iron	13000		100	36	ug/L		05/02/23 08:45	05/08/23 23:57	1
Lead	<0.24		0.50	0.24	ug/L		05/02/23 08:45	05/08/23 23:57	1
Lithium	<2.5		10	2.5	ug/L		05/02/23 08:45	05/08/23 23:57	1
Molybdenum	3.4		2.0	0.91	ug/L		05/02/23 08:45	05/08/23 23:57	1
Selenium	<1.4		5.0	1.4	ug/L		05/02/23 08:45	05/08/23 23:57	1
Thallium	<0.26		1.0	0.26	ug/L		05/02/23 08:45	05/08/23 23:57	1

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		05/08/23 11:06	05/09/23 12:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	750		50	34	mg/L			05/02/23 15:34	1
pH (SM 4500 H+ B)	7.0	HF	0.1	0.1	SU			04/28/23 20:07	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	0.214		0.139	0.141	1.00	0.190	pCi/L	05/10/23 10:10	06/02/23 10:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	81.8		30 - 110					05/10/23 10:10	06/02/23 10:21	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	1.05		0.425	0.435	1.00	0.533	pCi/L	05/10/23 11:22	05/30/23 16:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	81.8		30 - 110					05/10/23 11:22	05/30/23 16:34	1
Y Carrier	85.4		30 - 110					05/10/23 11:22	05/30/23 16:34	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-311

Lab Sample ID: 310-254670-15

Date Collected: 04/27/23 11:45

Matrix: Water

Date Received: 04/28/23 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	1.26		0.447	0.457	5.00	0.533	pCi/L		06/02/23 22:41	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	522.07				ft			04/27/23 11:45	1
Oxidation Reduction Potential	-81.9				millivolts			04/27/23 11:45	1
Oxygen, Dissolved, Client Supplied	0.10				mg/L			04/27/23 11:45	1
pH, Field	6.83				SU			04/27/23 11:45	1
Specific Conductance, Field	1225				umhos/cm			04/27/23 11:45	1
Temperature, Field	10.9				Degrees C			04/27/23 11:45	1
Turbidity, Field	2.75				NTU			04/27/23 11:45	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-312
 Date Collected: 04/26/23 10:50
 Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-16
 Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	3900		100	36	ug/L		05/02/23 08:45	05/09/23 00:00	1
Lithium	11		10	2.5	ug/L		05/02/23 08:45	05/09/23 00:00	1
Molybdenum	28		2.0	0.91	ug/L		05/02/23 08:45	05/09/23 00:00	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	524.68				ft			04/26/23 10:50	1
Oxidation Reduction Potential	-30.3				millivolts			04/26/23 10:50	1
Oxygen, Dissolved, Client Supplied	1.27				mg/L			04/26/23 10:50	1
pH, Field	6.86				SU			04/26/23 10:50	1
Specific Conductance, Field	853				umhos/cm			04/26/23 10:50	1
Temperature, Field	6.9				Degrees C			04/26/23 10:50	1
Turbidity, Field	9.97				NTU			04/26/23 10:50	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-313
 Date Collected: 04/25/23 15:15
 Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-17
 Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	6600		100	36	ug/L		05/02/23 08:45	05/09/23 00:03	1
Lithium	9.9	J	10	2.5	ug/L		05/02/23 08:45	05/09/23 00:03	1
Magnesium	10000		500	150	ug/L		05/02/23 08:45	05/09/23 00:03	1
Manganese	3200		10	3.6	ug/L		05/02/23 08:45	05/09/23 00:03	1
Molybdenum	18		2.0	0.91	ug/L		05/02/23 08:45	05/09/23 00:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	160		5.0	2.5	mg/L			05/01/23 21:32	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<2.5		5.0	2.5	mg/L			05/01/23 21:32	1
Total Alkalinity as CaCO3 (SM 2320B)	160		5.0	2.5	mg/L			05/01/23 21:32	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	524.37				ft			04/25/23 15:15	1
Oxidation Reduction Potential	-95.7				millivolts			04/25/23 15:15	1
Oxygen, Dissolved, Client Supplied	0.13				mg/L			04/25/23 15:15	1
pH, Field	7.20				SU			04/25/23 15:15	1
Specific Conductance, Field	643.3				umhos/cm			04/25/23 15:15	1
Temperature, Field	7.1				Degrees C			04/25/23 15:15	1
Turbidity, Field	1.91				NTU			04/25/23 15:15	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-313A

Lab Sample ID: 310-254670-18

Date Collected: 04/25/23 16:05

Matrix: Water

Date Received: 04/28/23 16:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2000		100	36	ug/L		05/02/23 08:45	05/09/23 00:07	1
Lithium	<2.5		10	2.5	ug/L		05/02/23 08:45	05/09/23 00:07	1
Molybdenum	2.8		2.0	0.91	ug/L		05/02/23 08:45	05/09/23 00:07	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	524.29				ft			04/25/23 16:05	1
Oxidation Reduction Potential	-108.6				millivolts			04/25/23 16:05	1
Oxygen, Dissolved, Client Supplied	0.16				mg/L			04/25/23 16:05	1
pH, Field	7.59				SU			04/25/23 16:05	1
Specific Conductance, Field	437.3				umhos/cm			04/25/23 16:05	1
Temperature, Field	5.5				Degrees C			04/25/23 16:05	1
Turbidity, Field	0.02				NTU			04/25/23 16:05	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-313B

Lab Sample ID: 310-254670-19

Date Collected: 04/25/23 17:10

Matrix: Water

Date Received: 04/28/23 16:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	3400		100	36	ug/L		05/02/23 08:45	05/09/23 00:28	1
Lithium	4.9	J	10	2.5	ug/L		05/02/23 08:45	05/09/23 00:28	1
Molybdenum	14		2.0	0.91	ug/L		05/02/23 08:45	05/09/23 00:28	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ground Water Elevation	524.39				ft			04/25/23 17:10	1
Oxidation Reduction Potential	-66.0				millivolts			04/25/23 17:10	1
Oxygen, Dissolved, Client Supplied	1.33				mg/L			04/25/23 17:10	1
pH, Field	7.41				SU			04/25/23 17:10	1
Specific Conductance, Field	571.9				umhos/cm			04/25/23 17:10	1
Temperature, Field	9.7				Degrees C			04/25/23 17:10	1
Turbidity, Field	13.7				NTU			04/25/23 17:10	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: Field Blank

Lab Sample ID: 310-254670-20

Date Collected: 04/27/23 12:00

Matrix: Water

Date Received: 04/28/23 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 22:30	1
Fluoride	<0.075		0.20	0.075	mg/L			05/15/23 22:30	1
Sulfate	<0.42		1.0	0.42	mg/L			05/15/23 22:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		05/02/23 08:45	05/09/23 00:31	1
Arsenic	<0.53		2.0	0.53	ug/L		05/02/23 08:45	05/09/23 00:31	1
Barium	<0.64		2.0	0.64	ug/L		05/02/23 08:45	05/09/23 00:31	1
Beryllium	<0.33		1.0	0.33	ug/L		05/02/23 08:45	05/09/23 00:31	1
Boron	<76		100	76	ug/L		05/02/23 08:45	05/16/23 18:43	1
Cadmium	<0.10		0.20	0.10	ug/L		05/02/23 08:45	05/09/23 00:31	1
Calcium	<0.19		0.50	0.19	mg/L		05/02/23 08:45	05/09/23 00:31	1
Chromium	<1.1		5.0	1.1	ug/L		05/02/23 08:45	05/09/23 00:31	1
Cobalt	<0.17		0.50	0.17	ug/L		05/02/23 08:45	05/09/23 00:31	1
Iron	<36		100	36	ug/L		05/02/23 08:45	05/09/23 00:31	1
Lead	<0.24		0.50	0.24	ug/L		05/02/23 08:45	05/09/23 00:31	1
Lithium	<2.5		10	2.5	ug/L		05/02/23 08:45	05/09/23 00:31	1
Molybdenum	<0.91		2.0	0.91	ug/L		05/02/23 08:45	05/09/23 00:31	1
Selenium	<1.4		5.0	1.4	ug/L		05/02/23 08:45	05/09/23 00:31	1
Thallium	<0.26		1.0	0.26	ug/L		05/02/23 08:45	05/09/23 00:31	1

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		05/22/23 10:55	05/23/23 12:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	<34		50	34	mg/L			05/03/23 14:02	1
pH (SM 4500 H+ B)	7.2	HF	0.1	0.1	SU			04/28/23 20:09	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	-0.00605	U	0.111	0.111	1.00	0.221	pCi/L	05/10/23 10:10	06/02/23 10:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	88.8		30 - 110					05/10/23 10:10	06/02/23 10:21	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	0.413	U	0.450	0.452	1.00	0.736	pCi/L	05/10/23 11:22	05/30/23 16:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Barium	88.8		30 - 110					05/10/23 11:22	05/30/23 16:34	1
Y Carrier	81.7		30 - 110					05/10/23 11:22	05/30/23 16:34	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: Field Blank

Lab Sample ID: 310-254670-20

Date Collected: 04/27/23 12:00

Matrix: Water

Date Received: 04/28/23 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	0.413	U	0.463	0.465	5.00	0.736	pCi/L		06/02/23 22:41	1

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Definitions/Glossary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Qualifiers

HPLC/IC

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.

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

QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Method: 9056A - Anions, Ion Chromatography

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: MB 310-388666/3
Matrix: Water
Analysis Batch: 388666

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			05/24/23 09:41	1
Fluoride	<0.075		0.20	0.075	mg/L			05/24/23 09:41	1
Sulfate	<0.42		1.0	0.42	mg/L			05/24/23 09:41	1

Lab Sample ID: LCS 310-388666/40
Matrix: Water
Analysis Batch: 388666

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.00	1.89		mg/L		95	90 - 110

Lab Sample ID: LCS 310-388666/5
Matrix: Water
Analysis Batch: 388666

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	9.38		mg/L		94	90 - 110
Sulfate	10.0	11.0		mg/L		110	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-386038/1-A
Matrix: Water
Analysis Batch: 386886

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386038

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		05/02/23 08:45	05/08/23 21:07	1
Arsenic	<0.53		2.0	0.53	ug/L		05/02/23 08:45	05/08/23 21:07	1
Barium	<0.64		2.0	0.64	ug/L		05/02/23 08:45	05/08/23 21:07	1
Magnesium	<150		500	150	ug/L		05/02/23 08:45	05/08/23 21:07	1
Beryllium	<0.33		1.0	0.33	ug/L		05/02/23 08:45	05/08/23 21:07	1
Manganese	<3.6		10	3.6	ug/L		05/02/23 08:45	05/08/23 21:07	1

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

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

Lab Sample ID: MB 310-386038/1-A
Matrix: Water
Analysis Batch: 386886

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386038

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.10		0.20	0.10	ug/L		05/02/23 08:45	05/08/23 21:07	1
Calcium	<0.19		0.50	0.19	mg/L		05/02/23 08:45	05/08/23 21:07	1
Chromium	<1.1		5.0	1.1	ug/L		05/02/23 08:45	05/08/23 21:07	1
Cobalt	<0.17		0.50	0.17	ug/L		05/02/23 08:45	05/08/23 21:07	1
Iron	<36		100	36	ug/L		05/02/23 08:45	05/08/23 21:07	1
Lead	<0.24		0.50	0.24	ug/L		05/02/23 08:45	05/08/23 21:07	1
Lithium	<2.5		10	2.5	ug/L		05/02/23 08:45	05/08/23 21:07	1
Molybdenum	<0.91		2.0	0.91	ug/L		05/02/23 08:45	05/08/23 21:07	1
Selenium	<1.4		5.0	1.4	ug/L		05/02/23 08:45	05/08/23 21:07	1
Thallium	<0.26		1.0	0.26	ug/L		05/02/23 08:45	05/08/23 21:07	1

Lab Sample ID: MB 310-386038/1-A
Matrix: Water
Analysis Batch: 387030

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386038

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<76		100	76	ug/L		05/02/23 08:45	05/09/23 16:28	1

Lab Sample ID: LCS 310-386038/2-A
Matrix: Water
Analysis Batch: 386886

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386038

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	200	203		ug/L		102	80 - 120
Arsenic	200	208		ug/L		104	80 - 120
Barium	100	99.5		ug/L		100	80 - 120
Magnesium	2000	1950		ug/L		98	80 - 120
Beryllium	100	91.7		ug/L		92	80 - 120
Manganese	100	98.2		ug/L		98	80 - 120
Cadmium	100	97.5		ug/L		97	80 - 120
Calcium	2.00	1.85		mg/L		93	80 - 120
Chromium	100	98.4		ug/L		98	80 - 120
Cobalt	100	96.3		ug/L		96	80 - 120
Iron	200	201		ug/L		101	80 - 120
Lead	200	198		ug/L		99	80 - 120
Lithium	200	180		ug/L		90	80 - 120
Molybdenum	200	195		ug/L		98	80 - 120
Selenium	400	389		ug/L		97	80 - 120
Thallium	200	179		ug/L		89	80 - 120

Lab Sample ID: LCS 310-386038/2-A
Matrix: Water
Analysis Batch: 387030

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386038

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	200	195		ug/L		98	80 - 120

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

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

Lab Sample ID: 310-254670-1 MS
Matrix: Water
Analysis Batch: 387030

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 386038

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result			Result	Qualifier				
Antimony	<4.0		200	192		ug/L		96	75 - 125
Arsenic	2.1	J	200	204		ug/L		102	75 - 125
Barium	67		100	161		ug/L		94	75 - 125
Beryllium	<1.3		100	90.1		ug/L		90	75 - 125
Boron	5100		200	5670	4	ug/L		269	75 - 125
Cadmium	0.54	J	100	90.6		ug/L		90	75 - 125
Calcium	200		2.00	211	4	mg/L		397	75 - 125
Chromium	<4.4		100	93.9		ug/L		94	75 - 125
Cobalt	4.8		100	95.4		ug/L		91	75 - 125
Iron	340	J	200	543		ug/L		103	75 - 125
Lead	<0.96		200	177		ug/L		88	75 - 125
Lithium	<10		200	181		ug/L		91	75 - 125
Molybdenum	29		200	213		ug/L		92	75 - 125
Selenium	6.3	J	400	369		ug/L		91	75 - 125
Thallium	11	F1	200	119	F1	ug/L		54	75 - 125

Lab Sample ID: 310-254670-1 MSD
Matrix: Water
Analysis Batch: 387030

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 386038

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
	Result			Result	Qualifier						
Antimony	<4.0		200	193		ug/L		96	75 - 125	1	20
Arsenic	2.1	J	200	203		ug/L		102	75 - 125	0	20
Barium	67		100	163		ug/L		96	75 - 125	1	20
Beryllium	<1.3		100	97.1		ug/L		97	75 - 125	7	20
Boron	5100		200	5680	4	ug/L		272	75 - 125	0	20
Cadmium	0.54	J	100	92.8		ug/L		92	75 - 125	2	20
Calcium	200		2.00	211	4	mg/L		440	75 - 125	0	20
Chromium	<4.4		100	94.0		ug/L		94	75 - 125	0	20
Cobalt	4.8		100	97.0		ug/L		92	75 - 125	2	20
Iron	340	J	200	538		ug/L		100	75 - 125	1	20
Lead	<0.96		200	179		ug/L		89	75 - 125	1	20
Lithium	<10		200	188		ug/L		94	75 - 125	4	20
Molybdenum	29		200	215		ug/L		93	75 - 125	1	20
Selenium	6.3	J	400	379		ug/L		93	75 - 125	3	20
Thallium	11	F1	200	124	F1	ug/L		57	75 - 125	5	20

Lab Sample ID: 310-254670-11 DU
Matrix: Water
Analysis Batch: 387789

Client Sample ID: MW-308
Prep Type: Total/NA
Prep Batch: 386038

Analyte	Sample	Sample Qualifier	DU	DU	Unit	D	RPD	RPD Limit
	Result		Result	Qualifier				
Boron	5700		6160		ug/L		8	20

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-386756/1-A
Matrix: Water
Analysis Batch: 386952

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386756

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		05/08/23 11:06	05/09/23 11:41	1

Lab Sample ID: LCS 310-386756/2-A
Matrix: Water
Analysis Batch: 386952

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386756

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.67	1.62		ug/L		97	80 - 120

Lab Sample ID: MB 310-388223/1-A
Matrix: Water
Analysis Batch: 388429

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388223

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		05/22/23 10:54	05/23/23 12:18	1

Lab Sample ID: LCS 310-388223/2-A
Matrix: Water
Analysis Batch: 388429

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388223

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.67	1.78		ug/L		107	80 - 120

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 310-386079/3
Matrix: Water
Analysis Batch: 386079

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	<2.5		5.0	2.5	mg/L			05/01/23 17:15	1
Carbonate Alkalinity as CaCO3	<2.5		5.0	2.5	mg/L			05/01/23 17:15	1
Total Alkalinity as CaCO3	<2.5		5.0	2.5	mg/L			05/01/23 17:15	1

Lab Sample ID: LCS 310-386079/2
Matrix: Water
Analysis Batch: 386079

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	993		mg/L		99	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-386021/1
Matrix: Water
Analysis Batch: 386021

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			05/01/23 14:37	1

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 310-386021/2
Matrix: Water
Analysis Batch: 386021

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 310-386153/1
Matrix: Water
Analysis Batch: 386153

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			05/02/23 14:53	1

Lab Sample ID: LCS 310-386153/2
Matrix: Water
Analysis Batch: 386153

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	936		mg/L		94	90 - 110

Lab Sample ID: MB 310-386161/1
Matrix: Water
Analysis Batch: 386161

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			05/02/23 15:34	1

Lab Sample ID: LCS 310-386161/2
Matrix: Water
Analysis Batch: 386161

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	958		mg/L		96	90 - 110

Lab Sample ID: MB 310-386284/1
Matrix: Water
Analysis Batch: 386284

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			05/03/23 14:02	1

Lab Sample ID: LCS 310-386284/2
Matrix: Water
Analysis Batch: 386284

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	926		mg/L		93	90 - 110

Lab Sample ID: 310-254670-7 DU
Matrix: Water
Analysis Batch: 386284

Client Sample ID: MW-306
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	310		296		mg/L		5	20

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-385885/1
 Matrix: Water
 Analysis Batch: 385885

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: 310-254670-2 DU
 Matrix: Water
 Analysis Batch: 385885

Client Sample ID: MW-302
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	6.2	HF	6.2		SU		0	20

Lab Sample ID: 310-254670-13 DU
 Matrix: Water
 Analysis Batch: 385885

Client Sample ID: MW-310
 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		1	20

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-610852/1-A
 Matrix: Water
 Analysis Batch: 614273

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 610852

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226	0.04167	U	0.0830	0.0830	1.00	0.150	pCi/L	05/10/23 10:10	06/02/23 10:14	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Barium	94.4		30 - 110		05/10/23 10:10	06/02/23 10:14	1			

Lab Sample ID: LCS 160-610852/2-A
 Matrix: Water
 Analysis Batch: 614273

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 610852

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium 226	11.3	10.36		1.17	1.00	0.165	pCi/L	91	75 - 113
Carrier	LCS %Yield	LCS Qualifier	Limits						
Barium	91.2		30 - 110						

Lab Sample ID: LCSD 160-610852/3-A
 Matrix: Water
 Analysis Batch: 614273

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 610852

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium 226	11.3	9.748		1.10	1.00	0.157	pCi/L	86	75 - 113	0.27	1

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCSD 160-610852/3-A
 Matrix: Water
 Analysis Batch: 614273

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 610852

Carrier	LCS D %Yield	LCS D Qualifier	Limits
Barium	96.6		30 - 110

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-610863/1-A
 Matrix: Water
 Analysis Batch: 613641

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 610863

Analyte	MB MB		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium 228	0.5630		0.348	0.352	1.00	0.504	pCi/L	05/10/23 11:22	05/30/23 16:30	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Barium	94.4		30 - 110		05/10/23 11:22	05/30/23 16:30	1			
Y Carrier	80.3		30 - 110		05/10/23 11:22	05/30/23 16:30	1			

Lab Sample ID: LCS 160-610863/2-A
 Matrix: Water
 Analysis Batch: 613641

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 610863

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	
									RER	Limit
Radium 228	8.16	8.805		1.22	1.00	0.538	pCi/L	108	75 - 125	
Carrier	LCS %Yield	LCS Qualifier	Limits							
Barium	91.2		30 - 110							
Y Carrier	86.2		30 - 110							

Lab Sample ID: LCSD 160-610863/3-A
 Matrix: Water
 Analysis Batch: 613641

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 610863

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		RER	RER Limit
									RER	Limit		
Radium 228	8.16	9.448		1.30	1.00	0.604	pCi/L	116	75 - 125	0.26	1	
Carrier	LCSD %Yield	LCSD Qualifier	Limits									
Barium	96.6		30 - 110									
Y Carrier	80.6		30 - 110									

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

HPLC/IC

Analysis Batch: 388279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-4	MW-303	Total/NA	Water	9056A	
310-254670-5	MW-304	Total/NA	Water	9056A	
310-254670-6	MW-305	Total/NA	Water	9056A	
310-254670-7	MW-306	Total/NA	Water	9056A	
310-254670-8	MW-307	Total/NA	Water	9056A	
310-254670-11	MW-308	Total/NA	Water	9056A	
310-254670-12	MW-309	Total/NA	Water	9056A	
310-254670-13	MW-310	Total/NA	Water	9056A	
310-254670-14	MW-310A	Total/NA	Water	9056A	
310-254670-15	MW-311	Total/NA	Water	9056A	
310-254670-20	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	

Analysis Batch: 388666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-1	MW-301	Total/NA	Water	9056A	
310-254670-2	MW-302	Total/NA	Water	9056A	
MB 310-388666/3	Method Blank	Total/NA	Water	9056A	
LCS 310-388666/40	Lab Control Sample	Total/NA	Water	9056A	
LCS 310-388666/5	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 386038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-1	MW-301	Total/NA	Water	3005A	
310-254670-2	MW-302	Total/NA	Water	3005A	
310-254670-3	MW-302A	Total/NA	Water	3005A	
310-254670-4	MW-303	Total/NA	Water	3005A	
310-254670-5	MW-304	Total/NA	Water	3005A	
310-254670-6	MW-305	Total/NA	Water	3005A	
310-254670-7	MW-306	Total/NA	Water	3005A	
310-254670-8	MW-307	Total/NA	Water	3005A	
310-254670-9	MW-307A	Total/NA	Water	3005A	
310-254670-10	MW-307B	Total/NA	Water	3005A	
310-254670-11	MW-308	Total/NA	Water	3005A	
310-254670-12	MW-309	Total/NA	Water	3005A	
310-254670-13	MW-310	Total/NA	Water	3005A	
310-254670-14	MW-310A	Total/NA	Water	3005A	
310-254670-15	MW-311	Total/NA	Water	3005A	
310-254670-16	MW-312	Total/NA	Water	3005A	
310-254670-17	MW-313	Total/NA	Water	3005A	
310-254670-18	MW-313A	Total/NA	Water	3005A	
310-254670-19	MW-313B	Total/NA	Water	3005A	
310-254670-20	Field Blank	Total/NA	Water	3005A	
MB 310-386038/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-386038/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-254670-1 MS	MW-301	Total/NA	Water	3005A	
310-254670-1 MSD	MW-301	Total/NA	Water	3005A	
310-254670-11 DU	MW-308	Total/NA	Water	3005A	

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QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Metals

Prep Batch: 386756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-1	MW-301	Total/NA	Water	7470A	
310-254670-2	MW-302	Total/NA	Water	7470A	
310-254670-4	MW-303	Total/NA	Water	7470A	
310-254670-5	MW-304	Total/NA	Water	7470A	
310-254670-6	MW-305	Total/NA	Water	7470A	
310-254670-7	MW-306	Total/NA	Water	7470A	
310-254670-8	MW-307	Total/NA	Water	7470A	
310-254670-11	MW-308	Total/NA	Water	7470A	
310-254670-12	MW-309	Total/NA	Water	7470A	
310-254670-13	MW-310	Total/NA	Water	7470A	
310-254670-14	MW-310A	Total/NA	Water	7470A	
310-254670-15	MW-311	Total/NA	Water	7470A	
MB 310-386756/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-386756/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 386886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-2	MW-302	Total/NA	Water	6020B	386038
310-254670-3	MW-302A	Total/NA	Water	6020B	386038
310-254670-4	MW-303	Total/NA	Water	6020B	386038
310-254670-5	MW-304	Total/NA	Water	6020B	386038
310-254670-6	MW-305	Total/NA	Water	6020B	386038
310-254670-7	MW-306	Total/NA	Water	6020B	386038
310-254670-8	MW-307	Total/NA	Water	6020B	386038
310-254670-9	MW-307A	Total/NA	Water	6020B	386038
310-254670-12	MW-309	Total/NA	Water	6020B	386038
310-254670-13	MW-310	Total/NA	Water	6020B	386038
310-254670-14	MW-310A	Total/NA	Water	6020B	386038
310-254670-15	MW-311	Total/NA	Water	6020B	386038
310-254670-16	MW-312	Total/NA	Water	6020B	386038
310-254670-17	MW-313	Total/NA	Water	6020B	386038
310-254670-18	MW-313A	Total/NA	Water	6020B	386038
310-254670-19	MW-313B	Total/NA	Water	6020B	386038
310-254670-20	Field Blank	Total/NA	Water	6020B	386038
MB 310-386038/1-A	Method Blank	Total/NA	Water	6020B	386038
LCS 310-386038/2-A	Lab Control Sample	Total/NA	Water	6020B	386038

Analysis Batch: 386952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-1	MW-301	Total/NA	Water	7470A	386756
310-254670-2	MW-302	Total/NA	Water	7470A	386756
310-254670-4	MW-303	Total/NA	Water	7470A	386756
310-254670-5	MW-304	Total/NA	Water	7470A	386756
310-254670-6	MW-305	Total/NA	Water	7470A	386756
310-254670-7	MW-306	Total/NA	Water	7470A	386756
310-254670-8	MW-307	Total/NA	Water	7470A	386756
310-254670-11	MW-308	Total/NA	Water	7470A	386756
310-254670-12	MW-309	Total/NA	Water	7470A	386756
310-254670-13	MW-310	Total/NA	Water	7470A	386756
310-254670-14	MW-310A	Total/NA	Water	7470A	386756
310-254670-15	MW-311	Total/NA	Water	7470A	386756

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Metals (Continued)

Analysis Batch: 386952 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-386756/1-A	Method Blank	Total/NA	Water	7470A	386756
LCS 310-386756/2-A	Lab Control Sample	Total/NA	Water	7470A	386756

Analysis Batch: 387030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-1	MW-301	Total/NA	Water	6020B	386038
310-254670-2	MW-302	Total/NA	Water	6020B	386038
310-254670-4	MW-303	Total/NA	Water	6020B	386038
310-254670-5	MW-304	Total/NA	Water	6020B	386038
310-254670-11	MW-308	Total/NA	Water	6020B	386038
MB 310-386038/1-A	Method Blank	Total/NA	Water	6020B	386038
LCS 310-386038/2-A	Lab Control Sample	Total/NA	Water	6020B	386038
310-254670-1 MS	MW-301	Total/NA	Water	6020B	386038
310-254670-1 MSD	MW-301	Total/NA	Water	6020B	386038

Analysis Batch: 387481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-10	MW-307B	Total/NA	Water	6020B	386038

Analysis Batch: 387789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-6	MW-305	Total/NA	Water	6020B	386038
310-254670-7	MW-306	Total/NA	Water	6020B	386038
310-254670-8	MW-307	Total/NA	Water	6020B	386038
310-254670-11	MW-308	Total/NA	Water	6020B	386038
310-254670-12	MW-309	Total/NA	Water	6020B	386038
310-254670-13	MW-310	Total/NA	Water	6020B	386038
310-254670-14	MW-310A	Total/NA	Water	6020B	386038
310-254670-15	MW-311	Total/NA	Water	6020B	386038
310-254670-20	Field Blank	Total/NA	Water	6020B	386038
310-254670-11 DU	MW-308	Total/NA	Water	6020B	386038

Prep Batch: 388223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-20	Field Blank	Total/NA	Water	7470A	
MB 310-388223/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-388223/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 388429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-20	Field Blank	Total/NA	Water	7470A	388223
MB 310-388223/1-A	Method Blank	Total/NA	Water	7470A	388223
LCS 310-388223/2-A	Lab Control Sample	Total/NA	Water	7470A	388223

Analysis Batch: 389899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-1	MW-301	Total/NA	Water	6020B	386038
310-254670-2	MW-302	Total/NA	Water	6020B	386038

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

General Chemistry

Analysis Batch: 385885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-1	MW-301	Total/NA	Water	SM 4500 H+ B	
310-254670-2	MW-302	Total/NA	Water	SM 4500 H+ B	
310-254670-4	MW-303	Total/NA	Water	SM 4500 H+ B	
310-254670-5	MW-304	Total/NA	Water	SM 4500 H+ B	
310-254670-6	MW-305	Total/NA	Water	SM 4500 H+ B	
310-254670-7	MW-306	Total/NA	Water	SM 4500 H+ B	
310-254670-8	MW-307	Total/NA	Water	SM 4500 H+ B	
310-254670-11	MW-308	Total/NA	Water	SM 4500 H+ B	
310-254670-12	MW-309	Total/NA	Water	SM 4500 H+ B	
310-254670-13	MW-310	Total/NA	Water	SM 4500 H+ B	
310-254670-14	MW-310A	Total/NA	Water	SM 4500 H+ B	
310-254670-15	MW-311	Total/NA	Water	SM 4500 H+ B	
310-254670-20	Field Blank	Total/NA	Water	SM 4500 H+ B	
LCS 310-385885/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-254670-2 DU	MW-302	Total/NA	Water	SM 4500 H+ B	
310-254670-13 DU	MW-310	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 386021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-8	MW-307	Total/NA	Water	SM 2540C	
310-254670-11	MW-308	Total/NA	Water	SM 2540C	
MB 310-386021/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-386021/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 386079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-17	MW-313	Total/NA	Water	SM 2320B	
MB 310-386079/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 310-386079/2	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 386153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-1	MW-301	Total/NA	Water	SM 2540C	
310-254670-2	MW-302	Total/NA	Water	SM 2540C	
310-254670-4	MW-303	Total/NA	Water	SM 2540C	
310-254670-5	MW-304	Total/NA	Water	SM 2540C	
310-254670-6	MW-305	Total/NA	Water	SM 2540C	
MB 310-386153/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-386153/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 386161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-12	MW-309	Total/NA	Water	SM 2540C	
310-254670-13	MW-310	Total/NA	Water	SM 2540C	
310-254670-14	MW-310A	Total/NA	Water	SM 2540C	
310-254670-15	MW-311	Total/NA	Water	SM 2540C	
MB 310-386161/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-386161/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

General Chemistry

Analysis Batch: 386284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-7	MW-306	Total/NA	Water	SM 2540C	
310-254670-20	Field Blank	Total/NA	Water	SM 2540C	
MB 310-386284/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-386284/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-254670-7 DU	MW-306	Total/NA	Water	SM 2540C	

Rad

Prep Batch: 610852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-1	MW-301	Total/NA	Water	PrecSep-21	
310-254670-2	MW-302	Total/NA	Water	PrecSep-21	
310-254670-4	MW-303	Total/NA	Water	PrecSep-21	
310-254670-5	MW-304	Total/NA	Water	PrecSep-21	
310-254670-6	MW-305	Total/NA	Water	PrecSep-21	
310-254670-7	MW-306	Total/NA	Water	PrecSep-21	
310-254670-8	MW-307	Total/NA	Water	PrecSep-21	
310-254670-11	MW-308	Total/NA	Water	PrecSep-21	
310-254670-12	MW-309	Total/NA	Water	PrecSep-21	
310-254670-13	MW-310	Total/NA	Water	PrecSep-21	
310-254670-14	MW-310A	Total/NA	Water	PrecSep-21	
310-254670-15	MW-311	Total/NA	Water	PrecSep-21	
310-254670-20	Field Blank	Total/NA	Water	PrecSep-21	
MB 160-610852/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-610852/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCS 160-610852/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 610863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-1	MW-301	Total/NA	Water	PrecSep_0	
310-254670-2	MW-302	Total/NA	Water	PrecSep_0	
310-254670-4	MW-303	Total/NA	Water	PrecSep_0	
310-254670-5	MW-304	Total/NA	Water	PrecSep_0	
310-254670-6	MW-305	Total/NA	Water	PrecSep_0	
310-254670-7	MW-306	Total/NA	Water	PrecSep_0	
310-254670-8	MW-307	Total/NA	Water	PrecSep_0	
310-254670-11	MW-308	Total/NA	Water	PrecSep_0	
310-254670-12	MW-309	Total/NA	Water	PrecSep_0	
310-254670-13	MW-310	Total/NA	Water	PrecSep_0	
310-254670-14	MW-310A	Total/NA	Water	PrecSep_0	
310-254670-15	MW-311	Total/NA	Water	PrecSep_0	
310-254670-20	Field Blank	Total/NA	Water	PrecSep_0	
MB 160-610863/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-610863/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCS 160-610863/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 387364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-1	MW-301	Total/NA	Water	Field Sampling	
310-254670-2	MW-302	Total/NA	Water	Field Sampling	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Field Service / Mobile Lab (Continued)

Analysis Batch: 387364 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-254670-3	MW-302A	Total/NA	Water	Field Sampling	
310-254670-4	MW-303	Total/NA	Water	Field Sampling	
310-254670-5	MW-304	Total/NA	Water	Field Sampling	
310-254670-6	MW-305	Total/NA	Water	Field Sampling	
310-254670-7	MW-306	Total/NA	Water	Field Sampling	
310-254670-8	MW-307	Total/NA	Water	Field Sampling	
310-254670-9	MW-307A	Total/NA	Water	Field Sampling	
310-254670-10	MW-307B	Total/NA	Water	Field Sampling	
310-254670-11	MW-308	Total/NA	Water	Field Sampling	
310-254670-12	MW-309	Total/NA	Water	Field Sampling	
310-254670-13	MW-310	Total/NA	Water	Field Sampling	
310-254670-14	MW-310A	Total/NA	Water	Field Sampling	
310-254670-15	MW-311	Total/NA	Water	Field Sampling	
310-254670-16	MW-312	Total/NA	Water	Field Sampling	
310-254670-17	MW-313	Total/NA	Water	Field Sampling	
310-254670-18	MW-313A	Total/NA	Water	Field Sampling	
310-254670-19	MW-313B	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-301
Date Collected: 04/26/23 16:10
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		20	388666	QTZ5	EET CF	05/24/23 10:35
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		4	387030	ZRI4	EET CF	05/09/23 16:35
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		4	389899	A6US	EET CF	06/06/23 13:50
Total/NA	Prep	7470A			386756	XXW3	EET CF	05/08/23 11:06
Total/NA	Analysis	7470A		1	386952	XXW3	EET CF	05/09/23 12:12
Total/NA	Analysis	SM 2540C		1	386153	ENB7	EET CF	05/02/23 14:53
Total/NA	Analysis	SM 4500 H+ B		1	385885	DN3P	EET CF	04/28/23 19:45
Total/NA	Prep	PrecSep-21			610852	KAC	EET SL	05/10/23 10:10
Total/NA	Analysis	903.0		1	614273	FLC	EET SL	06/02/23 10:15
Total/NA	Prep	PrecSep_0			610863	KAC	EET SL	05/10/23 11:22
Total/NA	Analysis	904.0		1	613641	SCB	EET SL	05/30/23 16:32
Total/NA	Analysis	Ra226_Ra228 Pos		1	614417	SCB	EET SL	06/02/23 22:41
Total/NA	Analysis	Field Sampling		1	387364	BJOR	EET CF	04/26/23 16:10

Client Sample ID: MW-302
Date Collected: 04/26/23 14:35
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		20	388666	QTZ5	EET CF	05/24/23 10:50
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	386886	ZRI4	EET CF	05/08/23 22:21
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		4	387030	ZRI4	EET CF	05/09/23 16:45
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		4	389899	A6US	EET CF	06/06/23 13:53
Total/NA	Prep	7470A			386756	XXW3	EET CF	05/08/23 11:06
Total/NA	Analysis	7470A		1	386952	XXW3	EET CF	05/09/23 12:14
Total/NA	Analysis	SM 2540C		1	386153	ENB7	EET CF	05/02/23 14:53
Total/NA	Analysis	SM 4500 H+ B		1	385885	DN3P	EET CF	04/28/23 19:42
Total/NA	Prep	PrecSep-21			610852	KAC	EET SL	05/10/23 10:10
Total/NA	Analysis	903.0		1	614273	FLC	EET SL	06/02/23 10:15
Total/NA	Prep	PrecSep_0			610863	KAC	EET SL	05/10/23 11:22
Total/NA	Analysis	904.0		1	613641	SCB	EET SL	05/30/23 16:32
Total/NA	Analysis	Ra226_Ra228 Pos		1	614417	SCB	EET SL	06/02/23 22:41
Total/NA	Analysis	Field Sampling		1	387364	BJOR	EET CF	04/26/23 14:35

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-302A

Lab Sample ID: 310-254670-3

Date Collected: 04/26/23 14:00

Matrix: Water

Date Received: 04/28/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	386886	ZRI4	EET CF	05/08/23 22:25
Total/NA	Analysis	Field Sampling		1	387364	BJ0R	EET CF	04/26/23 14:00

Client Sample ID: MW-303

Lab Sample ID: 310-254670-4

Date Collected: 04/26/23 15:20

Matrix: Water

Date Received: 04/28/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	388279	QTZ5	EET CF	05/15/23 19:53
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	386886	ZRI4	EET CF	05/08/23 22:28
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	387030	ZRI4	EET CF	05/09/23 16:49
Total/NA	Prep	7470A			386756	XXW3	EET CF	05/08/23 11:06
Total/NA	Analysis	7470A		1	386952	XXW3	EET CF	05/09/23 12:16
Total/NA	Analysis	SM 2540C		1	386153	ENB7	EET CF	05/02/23 14:53
Total/NA	Analysis	SM 4500 H+ B		1	385885	DN3P	EET CF	04/28/23 19:47
Total/NA	Prep	PrecSep-21			610852	KAC	EET SL	05/10/23 10:10
Total/NA	Analysis	903.0		1	614273	FLC	EET SL	06/02/23 10:15
Total/NA	Prep	PrecSep_0			610863	KAC	EET SL	05/10/23 11:22
Total/NA	Analysis	904.0		1	613641	SCB	EET SL	05/30/23 16:32
Total/NA	Analysis	Ra226_Ra228 Pos		1	614417	SCB	EET SL	06/02/23 22:41
Total/NA	Analysis	Field Sampling		1	387364	BJ0R	EET CF	04/26/23 15:20

Client Sample ID: MW-304

Lab Sample ID: 310-254670-5

Date Collected: 04/26/23 17:05

Matrix: Water

Date Received: 04/28/23 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	388279	QTZ5	EET CF	05/15/23 20:06
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	386886	ZRI4	EET CF	05/08/23 22:32
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	387030	ZRI4	EET CF	05/09/23 16:52
Total/NA	Prep	7470A			386756	XXW3	EET CF	05/08/23 11:06
Total/NA	Analysis	7470A		1	386952	XXW3	EET CF	05/09/23 12:19
Total/NA	Analysis	SM 2540C		1	386153	ENB7	EET CF	05/02/23 14:53
Total/NA	Analysis	SM 4500 H+ B		1	385885	DN3P	EET CF	04/28/23 19:49
Total/NA	Prep	PrecSep-21			610852	KAC	EET SL	05/10/23 10:10
Total/NA	Analysis	903.0		1	614273	FLC	EET SL	06/02/23 10:15
Total/NA	Prep	PrecSep_0			610863	KAC	EET SL	05/10/23 11:22
Total/NA	Analysis	904.0		1	613641	SCB	EET SL	05/30/23 16:32
Total/NA	Analysis	Ra226_Ra228 Pos		1	614417	SCB	EET SL	06/02/23 22:41

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-304
Date Collected: 04/26/23 17:05
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Field Sampling		1	387364	BJOR	EET CF	04/26/23 17:05

Client Sample ID: MW-305
Date Collected: 04/26/23 11:45
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	388279	QTZ5	EET CF	05/15/23 20:19
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	386886	ZRI4	EET CF	05/08/23 22:35
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	387789	ZRI4	EET CF	05/16/23 18:03
Total/NA	Prep	7470A			386756	XXW3	EET CF	05/08/23 11:06
Total/NA	Analysis	7470A		1	386952	XXW3	EET CF	05/09/23 12:21
Total/NA	Analysis	SM 2540C		1	386153	ENB7	EET CF	05/02/23 14:53
Total/NA	Analysis	SM 4500 H+ B		1	385885	DN3P	EET CF	04/28/23 19:50
Total/NA	Prep	PrecSep-21			610852	KAC	EET SL	05/10/23 10:10
Total/NA	Analysis	903.0		1	614272	SCB	EET SL	06/02/23 10:17
Total/NA	Prep	PrecSep_0			610863	KAC	EET SL	05/10/23 11:22
Total/NA	Analysis	904.0		1	613641	SCB	EET SL	05/30/23 16:32
Total/NA	Analysis	Ra226_Ra228 Pos		1	614417	SCB	EET SL	06/02/23 22:41
Total/NA	Analysis	Field Sampling		1	387364	BJOR	EET CF	04/26/23 11:45

Client Sample ID: MW-306
Date Collected: 04/27/23 08:55
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	388279	QTZ5	EET CF	05/15/23 20:32
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	386886	ZRI4	EET CF	05/08/23 22:39
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		4	387789	ZRI4	EET CF	05/16/23 18:05
Total/NA	Prep	7470A			386756	XXW3	EET CF	05/08/23 11:06
Total/NA	Analysis	7470A		1	386952	XXW3	EET CF	05/09/23 12:23
Total/NA	Analysis	SM 2540C		1	386284	ENB7	EET CF	05/03/23 14:02
Total/NA	Analysis	SM 4500 H+ B		1	385885	DN3P	EET CF	04/28/23 19:52
Total/NA	Prep	PrecSep-21			610852	KAC	EET SL	05/10/23 10:10
Total/NA	Analysis	903.0		1	614272	SCB	EET SL	06/02/23 10:17
Total/NA	Prep	PrecSep_0			610863	KAC	EET SL	05/10/23 11:22
Total/NA	Analysis	904.0		1	613641	SCB	EET SL	05/30/23 16:32
Total/NA	Analysis	Ra226_Ra228 Pos		1	614417	SCB	EET SL	06/02/23 22:41
Total/NA	Analysis	Field Sampling		1	387364	BJOR	EET CF	04/27/23 08:55

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Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-307
Date Collected: 04/24/23 14:50
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	388279	QTZ5	EET CF	05/15/23 20:45
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	386886	ZRI4	EET CF	05/08/23 22:42
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		4	387789	ZRI4	EET CF	05/16/23 18:26
Total/NA	Prep	7470A			386756	XXW3	EET CF	05/08/23 11:06
Total/NA	Analysis	7470A		1	386952	XXW3	EET CF	05/09/23 12:25
Total/NA	Analysis	SM 2540C		1	386021	ENB7	EET CF	05/01/23 14:37
Total/NA	Analysis	SM 4500 H+ B		1	385885	DN3P	EET CF	04/28/23 19:54
Total/NA	Prep	PrecSep-21			610852	KAC	EET SL	05/10/23 10:10
Total/NA	Analysis	903.0		1	614272	SCB	EET SL	06/02/23 10:18
Total/NA	Prep	PrecSep_0			610863	KAC	EET SL	05/10/23 11:22
Total/NA	Analysis	904.0		1	613643	SCB	EET SL	05/30/23 16:33
Total/NA	Analysis	Ra226_Ra228 Pos		1	614417	SCB	EET SL	06/02/23 22:41
Total/NA	Analysis	Field Sampling		1	387364	BJ0R	EET CF	04/24/23 14:50

Client Sample ID: MW-307A
Date Collected: 04/24/23 15:50
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	386886	ZRI4	EET CF	05/08/23 22:45
Total/NA	Analysis	Field Sampling		1	387364	BJ0R	EET CF	04/24/23 15:50

Client Sample ID: MW-307B
Date Collected: 04/24/23 16:45
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	387481	ZRI4	EET CF	05/14/23 20:37
Total/NA	Analysis	Field Sampling		1	387364	BJ0R	EET CF	04/24/23 16:45

Client Sample ID: MW-308
Date Collected: 04/24/23 13:45
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	388279	QTZ5	EET CF	05/15/23 20:58
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	387030	ZRI4	EET CF	05/09/23 17:49
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		7	387789	ZRI4	EET CF	05/16/23 18:29

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-308
Date Collected: 04/24/23 13:45
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			386756	XXW3	EET CF	05/08/23 11:06
Total/NA	Analysis	7470A		1	386952	XXW3	EET CF	05/09/23 12:27
Total/NA	Analysis	SM 2540C		1	386021	ENB7	EET CF	05/01/23 14:37
Total/NA	Analysis	SM 4500 H+ B		1	385885	DN3P	EET CF	04/28/23 19:55
Total/NA	Prep	PrecSep-21			610852	KAC	EET SL	05/10/23 10:10
Total/NA	Analysis	903.0		1	614272	SCB	EET SL	06/02/23 10:18
Total/NA	Prep	PrecSep_0			610863	KAC	EET SL	05/10/23 11:22
Total/NA	Analysis	904.0		1	613643	SCB	EET SL	05/30/23 16:33
Total/NA	Analysis	Ra226_Ra228 Pos		1	614417	SCB	EET SL	06/02/23 22:41
Total/NA	Analysis	Field Sampling		1	387364	BJ0R	EET CF	04/24/23 13:45

Client Sample ID: MW-309
Date Collected: 04/27/23 12:40
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	388279	QTZ5	EET CF	05/15/23 21:11
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	386886	ZRI4	EET CF	05/08/23 23:46
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		7	387789	ZRI4	EET CF	05/16/23 18:33
Total/NA	Prep	7470A			386756	XXW3	EET CF	05/08/23 11:06
Total/NA	Analysis	7470A		1	386952	XXW3	EET CF	05/09/23 12:34
Total/NA	Analysis	SM 2540C		1	386161	ENB7	EET CF	05/02/23 15:34
Total/NA	Analysis	SM 4500 H+ B		1	385885	DN3P	EET CF	04/28/23 19:57
Total/NA	Prep	PrecSep-21			610852	KAC	EET SL	05/10/23 10:10
Total/NA	Analysis	903.0		1	614272	SCB	EET SL	06/02/23 10:20
Total/NA	Prep	PrecSep_0			610863	KAC	EET SL	05/10/23 11:22
Total/NA	Analysis	904.0		1	613643	SCB	EET SL	05/30/23 16:33
Total/NA	Analysis	Ra226_Ra228 Pos		1	614417	SCB	EET SL	06/02/23 22:41
Total/NA	Analysis	Field Sampling		1	387364	BJ0R	EET CF	04/27/23 12:40

Client Sample ID: MW-310
Date Collected: 04/27/23 10:45
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	388279	QTZ5	EET CF	05/15/23 21:25
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	386886	ZRI4	EET CF	05/08/23 23:50
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	387789	ZRI4	EET CF	05/16/23 18:36
Total/NA	Prep	7470A			386756	XXW3	EET CF	05/08/23 11:06
Total/NA	Analysis	7470A		1	386952	XXW3	EET CF	05/09/23 12:36

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Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-310
Date Collected: 04/27/23 10:45
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	386161	ENB7	EET CF	05/02/23 15:34
Total/NA	Analysis	SM 4500 H+ B		1	385885	DN3P	EET CF	04/28/23 20:02
Total/NA	Prep	PrecSep-21			610852	KAC	EET SL	05/10/23 10:10
Total/NA	Analysis	903.0		1	614272	SCB	EET SL	06/02/23 10:21
Total/NA	Prep	PrecSep_0			610863	KAC	EET SL	05/10/23 11:22
Total/NA	Analysis	904.0		1	613643	SCB	EET SL	05/30/23 16:34
Total/NA	Analysis	Ra226_Ra228 Pos		1	614417	SCB	EET SL	06/02/23 22:41
Total/NA	Analysis	Field Sampling		1	387364	BJ0R	EET CF	04/27/23 10:45

Client Sample ID: MW-310A
Date Collected: 04/27/23 13:00
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	388279	QTZ5	EET CF	05/15/23 21:38
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	386886	ZRI4	EET CF	05/08/23 23:53
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	387789	ZRI4	EET CF	05/16/23 18:38
Total/NA	Prep	7470A			386756	XXW3	EET CF	05/08/23 11:06
Total/NA	Analysis	7470A		1	386952	XXW3	EET CF	05/09/23 12:38
Total/NA	Analysis	SM 2540C		1	386161	ENB7	EET CF	05/02/23 15:34
Total/NA	Analysis	SM 4500 H+ B		1	385885	DN3P	EET CF	04/28/23 20:06
Total/NA	Prep	PrecSep-21			610852	KAC	EET SL	05/10/23 10:10
Total/NA	Analysis	903.0		1	614272	SCB	EET SL	06/02/23 10:21
Total/NA	Prep	PrecSep_0			610863	KAC	EET SL	05/10/23 11:22
Total/NA	Analysis	904.0		1	613643	SCB	EET SL	05/30/23 16:34
Total/NA	Analysis	Ra226_Ra228 Pos		1	614417	SCB	EET SL	06/02/23 22:41
Total/NA	Analysis	Field Sampling		1	387364	BJ0R	EET CF	04/27/23 13:00

Client Sample ID: MW-311
Date Collected: 04/27/23 11:45
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	388279	QTZ5	EET CF	05/15/23 22:17
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	386886	ZRI4	EET CF	05/08/23 23:57
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	387789	ZRI4	EET CF	05/16/23 18:40
Total/NA	Prep	7470A			386756	XXW3	EET CF	05/08/23 11:06
Total/NA	Analysis	7470A		1	386952	XXW3	EET CF	05/09/23 12:40
Total/NA	Analysis	SM 2540C		1	386161	ENB7	EET CF	05/02/23 15:34
Total/NA	Analysis	SM 4500 H+ B		1	385885	DN3P	EET CF	04/28/23 20:07

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: MW-311
Date Collected: 04/27/23 11:45
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			610852	KAC	EET SL	05/10/23 10:10
Total/NA	Analysis	903.0		1	614272	SCB	EET SL	06/02/23 10:21
Total/NA	Prep	PrecSep_0			610863	KAC	EET SL	05/10/23 11:22
Total/NA	Analysis	904.0		1	613643	SCB	EET SL	05/30/23 16:34
Total/NA	Analysis	Ra226_Ra228 Pos		1	614417	SCB	EET SL	06/02/23 22:41
Total/NA	Analysis	Field Sampling		1	387364	BJOR	EET CF	04/27/23 11:45

Client Sample ID: MW-312
Date Collected: 04/26/23 10:50
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	386886	ZRI4	EET CF	05/09/23 00:00
Total/NA	Analysis	Field Sampling		1	387364	BJOR	EET CF	04/26/23 10:50

Client Sample ID: MW-313
Date Collected: 04/25/23 15:15
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	386886	ZRI4	EET CF	05/09/23 00:03
Total/NA	Analysis	SM 2320B		1	386079	MAQ3	EET CF	05/01/23 21:32
Total/NA	Analysis	Field Sampling		1	387364	BJOR	EET CF	04/25/23 15:15

Client Sample ID: MW-313A
Date Collected: 04/25/23 16:05
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	386886	ZRI4	EET CF	05/09/23 00:07
Total/NA	Analysis	Field Sampling		1	387364	BJOR	EET CF	04/25/23 16:05

Client Sample ID: MW-313B
Date Collected: 04/25/23 17:10
Date Received: 04/28/23 16:20

Lab Sample ID: 310-254670-19
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	386886	ZRI4	EET CF	05/09/23 00:28
Total/NA	Analysis	Field Sampling		1	387364	BJOR	EET CF	04/25/23 17:10

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

Client Sample ID: Field Blank

Lab Sample ID: 310-254670-20

Date Collected: 04/27/23 12:00

Matrix: Water

Date Received: 04/28/23 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 22:30
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	386886	ZRI4	EET CF	05/09/23 00:31
Total/NA	Prep	3005A			386038	DHM5	EET CF	05/02/23 08:45
Total/NA	Analysis	6020B		1	387789	ZRI4	EET CF	05/16/23 18:43
Total/NA	Prep	7470A			388223	XXW3	EET CF	05/22/23 10:55
Total/NA	Analysis	7470A		1	388429	XXW3	EET CF	05/23/23 12:37
Total/NA	Analysis	SM 2540C		1	386284	ENB7	EET CF	05/03/23 14:02
Total/NA	Analysis	SM 4500 H+ B		1	385885	DN3P	EET CF	04/28/23 20:09
Total/NA	Prep	PrecSep-21			610852	KAC	EET SL	05/10/23 10:10
Total/NA	Analysis	903.0		1	614272	SCB	EET SL	06/02/23 10:21
Total/NA	Prep	PrecSep_0			610863	KAC	EET SL	05/10/23 11:22
Total/NA	Analysis	904.0		1	613643	SCB	EET SL	05/30/23 16:34
Total/NA	Analysis	Ra226_Ra228 Pos		1	614417	SCB	EET SL	06/02/23 22:41

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
 Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

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
Florida	NELAP	E87689	06-30-23
HI - RadChem Recognition	State	n/a	06-30-23
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana (All)	NELAP	04080	06-30-23
Louisiana (DW)	State	LA011	12-31-23
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	03-31-24
North Carolina (DW)	State	29700	07-31-23
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
Project/Site: Burlington Generating Station 25223066

Job ID: 310-254670-1

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 2320B	Alkalinity	SM	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.

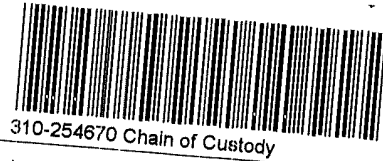
Laboratory References:

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



Environment Testing
America



Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY <u>Madison</u>	STATE <u>WA</u>	Project:
Receipt Information			
Date/Time Received:	DATE <u>4-28-23</u>	TIME <u>1620</u>	Received By: <u>CC</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>1</u> of <u>4</u>	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>R</u>	Correction Factor (°C): <u>0.2</u>		
Temp Blank Temperature - If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>2.1</u>	Corrected Temp (°C): <u>2.3</u>		
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? <input type="checkbox"/> Yes <input type="checkbox"/> No			
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			





Environment Testing
America

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Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY <u>Madison</u>	STATE <u>WA</u>	Project:
Receipt Information			
Date/Time Received:	DATE <u>4-28-23</u>	TIME <u>1620</u>	Received By: <u>CC</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID:	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>2</u> of <u>4</u>	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>R</u>	Correction Factor (°C): <u>0.2</u>		
Temp Blank: Temperature - If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>5.0</u>	Corrected Temp (°C): <u>5.2</u>		
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? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			
<u>Received 1L unpreserved empty and 1L nitric with < 20% volume for MW-310A</u>			



Environment Testing
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Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY <u>Mudison</u>	STATE <u>WA</u>	Project:
Receipt Information			
Date/Time Received:	DATE <u>4-28-23</u>	TIME <u>1620</u>	Received By: <u>CC</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>3</u> of <u>4</u>	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>R</u>	Correction Factor (°C): <u>0.2</u>		
Temp Blank Temperature - If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>3.1</u>	Corrected Temp (°C): <u>3.3</u>		
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? <input type="checkbox"/> Yes <input type="checkbox"/> No			
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Environment Testing
America

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Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY <u>Madison</u>	STATE <u>WA</u>	Project:
Receipt Information			
Date/Time Received:	DATE <u>4-28-23</u>	TIME <u>1620</u>	Received By: <u>CC</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>4</u> of <u>4</u>	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____	<input type="checkbox"/> NONE	
Thermometer ID: <u>R</u>	Correction Factor (°C): <u>0.2</u>		
Temp Blank Temperature - If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>1.9</u>	Corrected Temp (°C): <u>2.1</u>		
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? <input type="checkbox"/> Yes <input type="checkbox"/> No			
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Chain of Custody Record

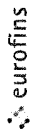
Client Information Client Contact: Meghan Bloodgett SCS Engineers Address: 2830 Dairy Drive City: Madison State/Zip: WI 53718 Phone: 608-224-2830 Email: mbloodgett@scsengineers.com Project Name: Burlington Generating Station 25223066 Site: Burlington IA	Sampler: Tyler Stuckey Phone: 515 505 2716 PWSID:	Lab PMI: Sandie Fredrick E-Mail: Sandra.Fredrick@eurofins.com	Carrier Tracking No(s): State of Origin:	COC No: Job #: 25223066	Analysis Requested SM 2320B Bicarbonate & carbonate alkalinity EPA 903/904 Radium 226 + 228 9056A Chloride Fluoride Sulfate TDS and pH 6020 Metals, total (Fe Li Mo) 6020 Metals, total (Fe Li Mo) 7470A Mercury total 6020 Metals total (Sb As Ba Be B Ca Cd Cr Co Fe Pb Li Mo Se Ti)	Preservation Codes A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSD4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4 Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)
Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				Total Number of Containers:		
Due Date Requested TAT Requested (days) Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: 25223066 WO #: Project #: 25223066 SSGW #:	Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (Water, Solid, O=Soil, O=Sludge, O=Tissue A=All)		Special Instructions/Note			
MW-301	4/26/23	4 10	G	W	X	
MW-302	4/26/23	2 55	G	W	X	
MW-302A	4/26/23	2 00	G	W	X	
MW-303	4/26/23	3 20	G	W	X	
MW-304	4/26/23	5 05	G	W	X	
MW-305	4/26/23	11 45	G	W	X	
MW-306	4/27/23	8 55	G	W	X	
MW-307	4/24/23	2 50	G	W	X	
MW-307A	4/24/23	3 50	G	W	X	
MW-307B	4/24/23	4 45	G	W	X	
MW-308	4/24/23	1 45	G	W	X	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested I II III IV Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements	
Empty Kit Relinquished by: <i>[Signature]</i>	Method of Shipment:
Relinquished by: <i>[Signature]</i>	Date/Time: 4/25/23 2:00
Relinquished by:	Date/Time:
Relinquished by:	Date/Time:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Cooler Temperature(s) °C and Other Remarks:

Chain of Custody Record



Client Information Client Contact: <u>Meghan Bloodgett</u> Company: <u>SCS Engineers</u> Address: <u>2830 Dairy Drive</u> City: <u>Madison</u> State/Zip: <u>WI 53718</u> Phone: <u>608-224-2830</u> Email: <u>mbloodgett@scsengineers.com</u> Project Name: <u>Burlington Generating Station 25223066</u> Site: <u>Burlington IA</u>		Lab PM: <u>Sandie Fredrick</u> E-Mail: <u>Sandie.Fredrick@et.eurofins.com</u> State of Origin: _____ Carrier Tracking No(s): _____ COC No: _____	
Due Date Requested: _____ TAT Requested (days): _____ Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PO #: <u>25223066</u> WO #: _____ Project #: <u>25223066</u> SSOW #: _____		Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> 6020 Metals total (Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Fe, Pb, Li) <input checked="" type="checkbox"/> 6020 Metals total (Fe, Li, Mn, Mo) <input checked="" type="checkbox"/> 6020 Metals total (Fe, Li, Mg, Mn, Mo) <input checked="" type="checkbox"/> TDS and pH <input checked="" type="checkbox"/> 9056 Chloride Fluoride Sulfate <input checked="" type="checkbox"/> EPA 903/904 Radium 226 + 228 <input checked="" type="checkbox"/> SM 2320B Bicarbonate & carbonate alkalinity <input checked="" type="checkbox"/>	
Sample Identification Sample Date: _____ Sample Time: _____ Sample Type (C=Comp, G=grab) _____ Matrix (W=water, S=solid, O=soil, BT=Tissue, A=air) _____ Preservation Code: _____		Total Number of containers: _____ Special Instructions/Note: _____	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Skin Corrosive <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I II III IV Other (specify) _____		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by: _____ Relinquished by: <u>you ls</u> Relinquished by: _____ Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Custody Seal No: _____		Method of Shipment: _____ Received by: _____ Date/Time: _____ Received by: _____ Date/Time: _____ Received by: _____ Date/Time: _____ Cooler Temperature(s) °C and Other Remarks: _____	



Table 1. Sampling Points and Parameters, CCR Rule Sampling Program Assessment Monitoring Groundwater Monitoring - Burlington Generating Station / SCS Engineers Project #2222086

Parameter	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-306	MW-307	MW-307A	MW-307B	MW-308	MW-309	MW-310	MW-310A	MW-311	MW-312	MW-313	MW-313A	MW-313B	MW-314	TW-101	TW-102	Field Blank	TOTAL	
Appendix III Parameters	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Barium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Calcium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Chloride	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Fluoride	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
pH	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Sulfate	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
TDS	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Compliance Parameters																									
Antimony	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Arsenic	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Barium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Beryllium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Cadmium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Chromium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Cobalt	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Copper	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Fluoride	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Lead	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Lithium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Mercury	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	21	
Molybdenum	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Selenium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Titanium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Radium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	14	
Field Parameters																									
Groundwater Elevation	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	22	
pH (field)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20	
Specific Conductance	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20	
Dissolved Oxygen	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20	
ORP	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20	
Temperature	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20	
Turbidity	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20	
Color	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20	
Odor	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20	
Additional Parameters																									
Bicarbonate (total)																									1
Carbonate (total)																									1
Iron (total)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	20	
Magnesium (total)																									1
Manganese (total)																									1
Potassium (total)																									0
Sodium (total)																									0

Notes:
 1:\2222086\00Data and Calculations\Field Work Requests\April 2023\Table_1_BGS_CCR_Rule_Sampling_2304_updated.xlsx\Sheet1



Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Fredrick, Sandle	Carrier Tracking No(s): 310-60871.1
Shipping/Receiving		E-Mail: Sandra.Fredrick@et.eurofins.com	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Iowa	Job #: 310-254670-1
Address: 13715 Rider Trail North, Earth City State, Zip: MO, 63045		Due Date Requested: 5/22/2023	Preservation Codes: 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)
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		TAT Requested (days):	Other:
Email:		PO #:	
Project Name: Burlington Generating Station 25223066		WO #:	
Site: 31011020		Project #:	
SSOW#:		SSOW#:	

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Hewlett, Swadlow, Ovenshik, BT=Tease, AA=AP)	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)	R226_228GFPC_P/Combined Radium-226 and Radium-228	Total Number of Containers	Special Instructions/Note:
MW-301 (310-254670-1)	4/26/23	16:10 Central	Water	Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-302 (310-254670-2)	4/26/23	14:35 Central	Water	Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-303 (310-254670-4)	4/26/23	15:20 Central	Water	Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-304 (310-254670-5)	4/26/23	17:05 Central	Water	Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-305 (310-254670-6)	4/26/23	11:45 Central	Water	Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-306 (310-254670-7)	4/27/23	08:55 Central	Water	Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-307 (310-254670-8)	4/24/23	14:50 Central	Water	Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-308 (310-254670-11)	4/24/23	13:45 Central	Water	Water	X	X	X	X		2	DO NOT SHIP ON ICE TO ST. LOUIS
MW-309 (310-254670-12)	4/27/23	12:40 Central	Water	Water	X	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/test/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
 Return To Client
 Disposal By Lab
 Archive For
 Months

Special Instructions/QC Requirements:

Primary Deliverable Rank: 2

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: _____ Date: _____
 Relinquished by: _____ Date: _____

Received by: _____ Date/Time: _____
 Received by: *Carol Bassett* Date/Time: *03 MAY 03 2023*
 Received by: _____ Date/Time: _____

Company: _____
 Company: *ETA STL*
 Company: _____

Custody Seals Intact: _____
 Δ Yes Δ No

Custody Seal No.: _____
 Cooler Temperature(s) °C and Other Remarks:



Chain of Custody Record

Euofrins Cedar Falls
 3019 Venture Way
 Cedar Falls, IA 50613
 Phone: 319-277-2401 Fax: 319-277-2425

Client Information (Sub Contract Lab)		Lab PM: Fredrick, Sandie		Carrier Tracking No(s): 310-60871.2	
Client Contact:	Phone:	E-Mail:	State of Origin:		Page:
Shipping/Receiving Company:	Address:		Job #:		Page 2 of 2
Tes/America Laboratories, Inc.	13715 Rider Trail North, Earth City		310-254670-1		
Address:	City:	State, Zip	Preservation Codes:		
13715 Rider Trail North,	Earth City	MO, 63045	A - HCL	M - Hexane	
Phone:	PO #:		B - NaOH	N - None	
314-298-8566(Tel) 314-298-8757(Fax)	WO #:		C - Zn Acetate	O - As/AsO2	
Email:	Project #:		D - Nitric Acid	P - Na2O/S	
	31011020		E - NaHSO4	Q - Na2SO3	
Project Name:	SSOW#:		F - MeOH	R - Na2SO3	
Burlington Generating Station 25223066			G - Amchlor	S - H2SO4	
Site:			H - Ascorbic Acid	T - TSP Dodecahydrate	
			I - Ice	U - Acetone	
			J - DI Water	V - MCAA	
			K - EDTA	W - pH 4-5	
			L - EDA	Y - Trizma	
			Other:	Z - other (specify)	

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=organic)	Preservation Code:	Analysis Requested							Total Number of Containers	Special Instructions/Note:		
						Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		903.0/Presep_21 Radium-226 (GFC)					904.0/Presep_0 Radium-228 (GFC)	
						Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/Presep_21 Radium-226 (GFC)	904.0/Presep_0 Radium-228 (GFC)	Ra226, 228GFC_P/ Combined Radium-226 and Radium-228						
MW-310 (310-254670-13)	4/27/23	10:45 Central	Water	Water				X	X	X			2	DO NOT SHIP ON ICE TO ST. LOUIS		
MW-310A (310-254670-14)	4/27/23	13:00 Central	Water	Water				X	X	X			2	DO NOT SHIP ON ICE TO ST. LOUIS		
MW-311 (310-254670-15)	4/27/23	11:45 Central	Water	Water				X	X	X			2	DO NOT SHIP ON ICE TO ST. LOUIS		
Field Blank (310-254670-20)	4/27/23	12:00 Central	Water	Water				X	X	X			2	DO NOT SHIP ON ICE TO ST. LOUIS		

Note: Since laboratory accreditations are subject to change, Euofrins 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/its/matrix being analyzed, the samples must be shipped back to the Euofrins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Euofrins 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 Euofrins Environment Testing North Central, LLC.

Possible Hazard Identification

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: _____ Method of Shipment: _____

Relinquished by: _____ Date/Time: 5/23 11:35 Company: _____

Relinquished by: _____ Date/Time: _____ Received by: FEDEX Date/Time: MAY 03 2023 Company: STA 516

Relinquished by: _____ Date/Time: _____ Received by: *Caron Forcell* Date/Time: _____ Company: _____

Custody Seal No.: _____ Custer Temperature(s) °C and Other Remarks: _____

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-254670-1

Login Number: 254670

List Number: 1

Creator: Muehling, Angela C

List Source: Eurofins Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <math><6\text{mm}</math> (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: 310-254670-1

Login Number: 254670

List Number: 2

Creator: Farrell, Conor P

List Source: Eurofins St. Louis

List Creation: 05/03/23 11:16 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <math><6\text{mm}</math> (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: Burlington Generating Station 25223066

Job ID: 310-254670-1

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)
310-254670-1	MW-301	94.2
310-254670-2	MW-302	91.0
310-254670-4	MW-303	91.7
310-254670-5	MW-304	86.1
310-254670-6	MW-305	82.2
310-254670-7	MW-306	87.1
310-254670-8	MW-307	89.1
310-254670-11	MW-308	88.3
310-254670-12	MW-309	79.6
310-254670-13	MW-310	97.6
310-254670-14	MW-310A	59.4
310-254670-15	MW-311	81.8
310-254670-20	Field Blank	88.8
LCS 160-610852/2-A	Lab Control Sample	91.2
LCSD 160-610852/3-A	Lab Control Sample Dup	96.6
MB 160-610852/1-A	Method Blank	94.4

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)
310-254670-1	MW-301	94.2	87.1
310-254670-2	MW-302	91.0	81.5
310-254670-4	MW-303	91.7	89.9
310-254670-5	MW-304	86.1	88.5
310-254670-6	MW-305	82.2	90.7
310-254670-7	MW-306	87.1	87.4
310-254670-8	MW-307	89.1	74.7
310-254670-11	MW-308	88.3	72.2
310-254670-12	MW-309	79.6	75.0
310-254670-13	MW-310	97.6	73.0
310-254670-14	MW-310A	59.4	84.6
310-254670-15	MW-311	81.8	85.4
310-254670-20	Field Blank	88.8	81.7
LCS 160-610863/2-A	Lab Control Sample	91.2	86.2
LCSD 160-610863/3-A	Lab Control Sample Dup	96.6	80.6
MB 160-610863/1-A	Method Blank	94.4	80.3

Tracer/Carrier Legend

Ba = Barium

Y = Y Carrier

Eurofins Cedar Falls

Table 1. Groundwater Monitoring Results - Field Parameters
Burlington Generating Station / SCS Engineers Project #25223066.00
April 2023

Sample	Sample Date/Time	Temperature (Deg. C)	pH (Std. Units)	Dissolved Oxygen (mg/L)	Specific Conductivity (µmhos/cm)	ORP (mV)	Turbidity	Groundwater Elevation (amsl)
MW-301	4/26/2023 1610	11.7	6.83	0.20	2,584	48.6	9.39	524.21
MW-302	4/26/2023 1435	12.4	6.11	0.10	2,283	21.4	7.19	525.56
MW-302A	4/26/2023 1400	7.9	7.52	0.37	466.9	-98.2	0.02	525.51
MW-303	4/26/2023 1520	12.6	6.92	0.13	757	25.3	0.02	525.42
MW-304	4/26/2023 1705	11.3	7.03	0.09	855	-71.6	10.6	525.20
MW-305	4/26/2023 1145	11.4	5.18	0.14	977	40.5	0.02	517.35
MW-306	4/27/2023 0855	12.5	8.77	0.11	577	48.4	0.02	522.20
MW-307	4/24/2023 1450	13.7	8.35	0.13	634.9	110.6	3.93	519.61
MW-307A	4/24/2023 1550	7.7	7.63	0.12	477	-117.1	0.02	520.77
MW-307B	4/24/2023 1645	13.4	7.49	2.08	434.6	-48.4	1.08	520.77
MW-308	4/24/2023 1345	14.2	7.49	0.10	994	122.6	10.8	521.08
MW-309	4/27/2023 1240	13.0	6.93	0.07	1,004	-117.2	55.8	523.02
MW-310	4/27/2023 1045	10.6	7.13	0.23	999	-146.4	11.8	518.44
MW-310A	4/27/2023 1300	12.6	7.05	7.56	1,010	-21.9	NM	509.69
MW-311	4/27/2023 1145	10.9	6.83	0.10	1,225	-81.9	2.75	522.07
MW-312	4/26/2023 1050	6.9	6.86	1.27	853	-30.3	9.97	524.68
MW-313	4/25/2023 1515	7.1	7.20	0.13	643.3	-95.7	1.91	524.37
MW-313A	4/25/2023 1605	5.5	7.59	0.16	437.3	-108.6	0.02	524.29
MW-313B	4/25/2023 1710	9.7	7.41	1.33	571.9	-66.0	13.7	524.39

Abbreviations:

mg/L = milligrams per liter
mV = millivolts

amsl = above mean sea level
µmhos/cm = micromohs per cm

-- = Not Applicable
NM = not measured

Created by: MDB
Last revision by: MDB
Checked by: JSN

Date: 5/10/2023
Date: 5/10/2023
Date: 5/12/2023

C:\Users\hld0\AppData\Local\Microsoft\Windows\NetCache\Content.Outlook\USG3GGGC\[2304 - BGS_CCR_Field.xlsx]GW Field Parameters

C3 August 2023 Assessment Monitoring – Supplemental Event

 **ANALYTICAL REPORT****PREPARED FOR**

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

Generated 9/19/2023 10:53:21 AM Revision 2

JOB DESCRIPTION

Burlington Generating Station - 25223066

JOB NUMBER

310-261930-1

Eurofins Cedar Falls

Job Notes

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Authorization



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Revision 2

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Case Narrative

Client: SCS Engineers
Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Job ID: 310-261930-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative 310-261930-1

Comments

No additional comments.

Revision

The report being provided is a revision of the original report sent on 8/15/2023. The report (revision 1) is being revised due to: Updated field data for MW-304. Updated units for Ca to mg/L

Revision (2) - combined reports. Thallium/Mercury slight carryover suspected for initial detections per lab.

Receipt

The samples were received on 8/4/2023 4:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.6° C and 1.9° C.

HPLC/IC

Method 9056A: The following samples were diluted due to the nature of the sample matrix: MW-301 (310-261930-1) and MW-302 (310-261930-2). Elevated reporting limits (RLs) are provided.

Method 9056A: The following samples were diluted due to the nature of the sample matrix: MW-303 (310-261930-4), MW-304 (310-261930-5), MW-305 (310-261930-6), MW-306 (310-261930-7), MW-307 (310-261930-8), MW-308 (310-261930-11), MW-309 (310-261930-12), MW-310 (310-261930-13), MW-310A (310-261930-14), MW-311 (310-261930-15) and MW-314 (310-261930-20). 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

Method 6020B: The following sample was diluted due to the nature of the sample matrix: (310-261944-A-9-A ^2). 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.

General Chemistry

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

Narrative

Job Narrative 310-261930-2

Comments

Reanalysis added by client

Receipt

The samples were received on 8/4/2023 4:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.6° C and 1.9° C.

Metals

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

Sample Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-261930-1	MW-301	Water	08/03/23 11:45	08/04/23 16:30
310-261930-2	MW-302	Water	08/01/23 17:25	08/04/23 16:30
310-261930-3	MW-302A	Water	08/01/23 16:35	08/04/23 16:30
310-261930-4	MW-303	Water	08/01/23 18:40	08/04/23 16:30
310-261930-5	MW-304	Water	08/01/23 12:35	08/04/23 16:30
310-261930-6	MW-305	Water	08/01/23 10:30	08/04/23 16:30
310-261930-7	MW-306	Water	08/02/23 16:15	08/04/23 16:30
310-261930-8	MW-307	Water	08/01/23 14:05	08/04/23 16:30
310-261930-9	MW-307A	Water	08/01/23 14:50	08/04/23 16:30
310-261930-10	MW-307B	Water	08/02/23 14:20	08/04/23 16:30
310-261930-11	MW-308	Water	08/01/23 11:10	08/04/23 16:30
310-261930-12	MW-309	Water	08/02/23 17:50	08/04/23 16:30
310-261930-13	MW-310	Water	08/03/23 14:20	08/04/23 16:30
310-261930-14	MW-310A	Water	08/03/23 14:35	08/04/23 16:30
310-261930-15	MW-311	Water	08/03/23 13:00	08/04/23 16:30
310-261930-16	MW-312	Water	08/01/23 09:45	08/04/23 16:30
310-261930-17	MW-313	Water	08/01/23 12:50	08/04/23 16:30
310-261930-18	MW-313A	Water	08/02/23 11:45	08/04/23 16:30
310-261930-19	MW-313B	Water	08/02/23 10:50	08/04/23 16:30
310-261930-20	MW-314	Water	08/03/23 10:20	08/04/23 16:30
310-261930-21	Field Blank	Water	08/03/23 15:00	08/04/23 16:30

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-301

Lab Sample ID: 310-261930-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	16		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	810		20	8.4	mg/L	20		9056A	Total/NA
Arsenic	9.8	F1 F2	2.0	0.53	ug/L	1		6020B	Total/NA
Barium	79	F1 F2	2.0	0.64	ug/L	1		6020B	Total/NA
Boron	5600		400	300	ug/L	4		6020B	Total/NA
Cadmium	0.12	J F1 F2	0.20	0.10	ug/L	1		6020B	Total/NA
Calcium	160		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	8.8	F1 F2	0.50	0.17	ug/L	1		6020B	Total/NA
Iron	5800		100	36	ug/L	1		6020B	Total/NA
Lead	0.51	F1 F2	0.50	0.24	ug/L	1		6020B	Total/NA
Lithium	11	F1 F2	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	73	F2	2.0	0.91	ug/L	1		6020B	Total/NA
Thallium	1.5	F1 F2	1.0	0.26	ug/L	1		6020B	Total/NA
Total Dissolved Solids	1600		250	170	mg/L	1		SM 2540C	Total/NA
pH	7.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	518.33				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-41.4				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.14				mg/L	1		Field Sampling	Total/NA
Field pH	6.87				SU	1		Field Sampling	Total/NA
Field Conductivity	2261				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	12.2				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	34.67				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-302

Lab Sample ID: 310-261930-2

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	750		20	8.4	mg/L	20		9056A	Total/NA
Arsenic	15		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	54		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	4600		400	300	ug/L	4		6020B	Total/NA
Cadmium	0.36		0.20	0.10	ug/L	1		6020B	Total/NA
Calcium	250		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	41		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	19000		100	36	ug/L	1		6020B	Total/NA
Lead	0.77		0.50	0.24	ug/L	1		6020B	Total/NA
Lithium	51		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	58		2.0	0.91	ug/L	1		6020B	Total/NA
Selenium	2.3	J	5.0	1.4	ug/L	1		6020B	Total/NA
Thallium	2.2		1.0	0.26	ug/L	1		6020B	Total/NA
Total Dissolved Solids	1100		250	170	mg/L	1		SM 2540C	Total/NA
pH	6.4	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	518.19				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	4.5				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.04				mg/L	1		Field Sampling	Total/NA
Field pH	6.31				SU	1		Field Sampling	Total/NA
Field Conductivity	1535				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	11.0				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	18.62				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-302A

Lab Sample ID: 310-261930-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	4000		100	36	ug/L	1		6020B	Total/NA
Lithium	3.3	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	7.4		2.0	0.91	ug/L	1		6020B	Total/NA
Groundwater Elevation	518.09				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-151.4				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.29				mg/L	1		Field Sampling	Total/NA
Field pH	7.78				SU	1		Field Sampling	Total/NA
Field Conductivity	458.3				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	8.3				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	4.13				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-303

Lab Sample ID: 310-261930-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	27		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	150		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	12		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	150		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	2600		100	76	ug/L	1		6020B	Total/NA
Calcium	100		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	1.4		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	8100		100	36	ug/L	1		6020B	Total/NA
Lead	0.45	J	0.50	0.24	ug/L	1		6020B	Total/NA
Lithium	27		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	150		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	430		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
Groundwater Elevation	517.91				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-100.4				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.03				mg/L	1		Field Sampling	Total/NA
Field pH	7.09				SU	1		Field Sampling	Total/NA
Field Conductivity	762				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	11.5				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	11.58				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-304

Lab Sample ID: 310-261930-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	27		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	850		10	4.2	mg/L	10		9056A	Total/NA
Arsenic	9.6		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	58		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	7800		400	300	ug/L	4		6020B	Total/NA
Cadmium	0.12	J	0.20	0.10	ug/L	1		6020B	Total/NA
Calcium	240		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	81		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	63000		100	36	ug/L	1		6020B	Total/NA
Lead	0.45	J	0.50	0.24	ug/L	1		6020B	Total/NA
Lithium	160		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	100		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	1300		50	34	mg/L	1		SM 2540C	Total/NA
pH	6.5	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-304 (Continued)

Lab Sample ID: 310-261930-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Groundwater Elevation	518.19				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-71.9				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.05				mg/L	1		Field Sampling	Total/NA
Field pH	6.45				SU	1		Field Sampling	Total/NA
Field Conductivity	1602				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	12.4				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	15.72				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-305

Lab Sample ID: 310-261930-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	29		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	370		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	2.0		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	44		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	1300		100	76	ug/L	1		6020B	Total/NA
Calcium	130		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	9.2		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	24000		100	36	ug/L	1		6020B	Total/NA
Lead	0.25	J	0.50	0.24	ug/L	1		6020B	Total/NA
Lithium	18		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	1.3	J	2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	700		50	34	mg/L	1		SM 2540C	Total/NA
pH	6.6	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	518.03				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-21.2				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.02				mg/L	1		Field Sampling	Total/NA
Field pH	6.39				SU	1		Field Sampling	Total/NA
Field Conductivity	1081				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	10.9				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	3.63				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-306

Lab Sample ID: 310-261930-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	31		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	270		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	32		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	110		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	5700		400	300	ug/L	4		6020B	Total/NA
Calcium	140		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	0.31	J	0.50	0.17	ug/L	1		6020B	Total/NA
Iron	340		100	36	ug/L	1		6020B	Total/NA
Lead	1.5		0.50	0.24	ug/L	1		6020B	Total/NA
Lithium	49		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	71		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	630		50	34	mg/L	1		SM 2540C	Total/NA
pH	8.6	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	518.07				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-129.0				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.19				mg/L	1		Field Sampling	Total/NA
Field pH	8.81				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-306 (Continued)

Lab Sample ID: 310-261930-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Field Conductivity	937				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	12.9				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	15.54				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-307

Lab Sample ID: 310-261930-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	24		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	330		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	8.2		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	92		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	3700		400	300	ug/L	4		6020B	Total/NA
Cadmium	0.24		0.20	0.10	ug/L	1		6020B	Total/NA
Calcium	76		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	0.92		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	640		100	36	ug/L	1		6020B	Total/NA
Lead	1.1		0.50	0.24	ug/L	1		6020B	Total/NA
Lithium	100		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	280		2.0	0.91	ug/L	1		6020B	Total/NA
Mercury	0.30		0.20	0.14	ug/L	1		7470A	Total/NA
Total Dissolved Solids	550		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.4	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	518.04				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-111.6				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.05				mg/L	1		Field Sampling	Total/NA
Field pH	7.62				SU	1		Field Sampling	Total/NA
Field Conductivity	872				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	12.6				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	15.09				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-307A

Lab Sample ID: 310-261930-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1900		100	36	ug/L	1		6020B	Total/NA
Lithium	6.2	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	5.4		2.0	0.91	ug/L	1		6020B	Total/NA
Groundwater Elevation	519.42				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-154.0				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.04				mg/L	1		Field Sampling	Total/NA
Field pH	7.78				SU	1		Field Sampling	Total/NA
Field Conductivity	487.5				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	7.6				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	4.61				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-307B

Lab Sample ID: 310-261930-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1700		100	36	ug/L	1		6020B	Total/NA
Lithium	4.7	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	4.6		2.0	0.91	ug/L	1		6020B	Total/NA
Groundwater Elevation	518.20				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-130.0				mV	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-307B (Continued)

Lab Sample ID: 310-261930-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Oxygen, Dissolved	0.29				mg/L	1		Field Sampling	Total/NA
Field pH	7.62				SU	1		Field Sampling	Total/NA
Field Conductivity	435				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	10.3				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	8.79				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-308

Lab Sample ID: 310-261930-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	37		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	570		10	4.2	mg/L	10		9056A	Total/NA
Arsenic	5.7		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	150		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	6800		1000	760	ug/L	10		6020B	Total/NA
Cadmium	0.12	J	0.20	0.10	ug/L	1		6020B	Total/NA
Calcium	140		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	4.1		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	5800		100	36	ug/L	1		6020B	Total/NA
Lead	0.27	J	0.50	0.24	ug/L	1		6020B	Total/NA
Lithium	180		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	220		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	1000		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
Groundwater Elevation	518.22				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-121.7				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.44				mg/L	1		Field Sampling	Total/NA
Field pH	7.33				SU	1		Field Sampling	Total/NA
Field Conductivity	1483				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	13.2				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	0.98				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-309

Lab Sample ID: 310-261930-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	28		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	140		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	22		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	190		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	14000		1000	760	ug/L	10		6020B	Total/NA
Calcium	94		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	0.61		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	22000		100	36	ug/L	1		6020B	Total/NA
Lithium	3.5	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	84		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	530		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
Groundwater Elevation	518.22				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-155.0				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.00				mg/L	1		Field Sampling	Total/NA
Field pH	7.06				SU	1		Field Sampling	Total/NA
Field Conductivity	890				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	13.7				Degrees C	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-309 (Continued)

Lab Sample ID: 310-261930-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Field Turbidity	21.44				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-310

Lab Sample ID: 310-261930-13

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	340		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	47		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	410		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	260		100	76	ug/L	1		6020B	Total/NA
Calcium	170		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	3.8		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	31000		100	36	ug/L	1		6020B	Total/NA
Molybdenum	2.7		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	730		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
Groundwater Elevation	520.29				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-174.9				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.03				mg/L	1		Field Sampling	Total/NA
Field pH	7.10				SU	1		Field Sampling	Total/NA
Field Conductivity	1168				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	15.7				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	7.38				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-310A

Lab Sample ID: 310-261930-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	110		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	0.91	J	2.0	0.53	ug/L	1		6020B	Total/NA
Barium	58		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	830		100	76	ug/L	1		6020B	Total/NA
Calcium	57		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	0.58		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	140		100	36	ug/L	1		6020B	Total/NA
Lead	0.35	J	0.50	0.24	ug/L	1		6020B	Total/NA
Lithium	37		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	10		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	610		50	34	mg/L	1		SM 2540C	Total/NA
pH	7.4	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	490.83				ft	1		Field Sampling	Total/NA
Field pH	7.39				SU	1		Field Sampling	Total/NA
Field Conductivity	1100				umhos/cm	1		Field Sampling	Total/NA

Client Sample ID: MW-311

Lab Sample ID: 310-261930-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	31		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	240		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	5.3		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	230		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	1700		100	76	ug/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-311 (Continued)

Lab Sample ID: 310-261930-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	160		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	1.5		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	15000		100	36	ug/L	1		6020B	Total/NA
Lead	0.40	J	0.50	0.24	ug/L	1		6020B	Total/NA
Molybdenum	5.6		2.0	0.91	ug/L	1		6020B	Total/NA
Total Dissolved Solids	720		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
Groundwater Elevation	518.28				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-130.4				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.07				mg/L	1		Field Sampling	Total/NA
Field pH	6.95				SU	1		Field Sampling	Total/NA
Field Conductivity	1163				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	12.3				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	6.88				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-312

Lab Sample ID: 310-261930-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	24000		100	36	ug/L	1		6020B	Total/NA
Lithium	18		10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	37		2.0	0.91	ug/L	1		6020B	Total/NA
Groundwater Elevation	517.93				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-108.6				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	1.81				mg/L	1		Field Sampling	Total/NA
Field pH	6.95				SU	1		Field Sampling	Total/NA
Field Conductivity	1030				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	10.8				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	36.50				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-313

Lab Sample ID: 310-261930-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	19000		100	36	ug/L	1		6020B	Total/NA
Lithium	12		10	2.5	ug/L	1		6020B	Total/NA
Magnesium	17000		500	150	ug/L	1		6020B	Total/NA
Manganese	6200		70	25	ug/L	7		6020B	Total/NA
Molybdenum	44		2.0	0.91	ug/L	1		6020B	Total/NA
Bicarbonate Alkalinity as CaCO3	230		5.0	2.5	mg/L	1		SM 2320B	Total/NA
Total Alkalinity as CaCO3	230		5.0	2.5	mg/L	1		SM 2320B	Total/NA
Groundwater Elevation	518.09				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-152.0				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	-0.02				mg/L	1		Field Sampling	Total/NA
Field pH	7.10				SU	1		Field Sampling	Total/NA
Field Conductivity	817				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	9.4				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	45.12				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-313A

Lab Sample ID: 310-261930-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	2300		100	36	ug/L	1		6020B	Total/NA
Lithium	4.1	J	10	2.5	ug/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-313A (Continued)

Lab Sample ID: 310-261930-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	4.6		2.0	0.91	ug/L	1		6020B	Total/NA
Groundwater Elevation	518.00				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-174.0				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.27				mg/L	1		Field Sampling	Total/NA
Field pH	7.69				SU	1		Field Sampling	Total/NA
Field Conductivity	457				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	7.3				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	0.81				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-313B

Lab Sample ID: 310-261930-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	2800		100	36	ug/L	1		6020B	Total/NA
Lithium	5.1	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	9.3		2.0	0.91	ug/L	1		6020B	Total/NA
Groundwater Elevation	518.01				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-145.8				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	1.06				mg/L	1		Field Sampling	Total/NA
Field pH	7.47				SU	1		Field Sampling	Total/NA
Field Conductivity	512				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	8.4				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	1.76				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-314

Lab Sample ID: 310-261930-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	16		5.0	2.3	mg/L	5		9056A	Total/NA
Sulfate	110		5.0	2.1	mg/L	5		9056A	Total/NA
Arsenic	3.7		2.0	0.53	ug/L	1		6020B	Total/NA
Barium	320		2.0	0.64	ug/L	1		6020B	Total/NA
Boron	240		100	76	ug/L	1		6020B	Total/NA
Calcium	150		0.50	0.19	mg/L	1		6020B	Total/NA
Cobalt	0.86		0.50	0.17	ug/L	1		6020B	Total/NA
Iron	34000		100	36	ug/L	1		6020B	Total/NA
Lead	1.3		0.50	0.24	ug/L	1		6020B	Total/NA
Lithium	5.8	J	10	2.5	ug/L	1		6020B	Total/NA
Molybdenum	2.1		2.0	0.91	ug/L	1		6020B	Total/NA
Selenium	1.9	J	5.0	1.4	ug/L	1		6020B	Total/NA
Thallium	2.4		1.0	0.26	ug/L	1		6020B	Total/NA
Mercury	0.20		0.20	0.14	ug/L	1		7470A	Total/NA
Total Dissolved Solids	640		50	34	mg/L	1		SM 2540C	Total/NA
pH	6.8	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Groundwater Elevation	518.28				ft	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-111.0				mV	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.3				mg/L	1		Field Sampling	Total/NA
Field pH	6.68				SU	1		Field Sampling	Total/NA
Field Conductivity	1149				umhos/cm	1		Field Sampling	Total/NA
Field Temperature	12.3				Degrees C	1		Field Sampling	Total/NA
Field Turbidity	38.36				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: Field Blank

Lab Sample ID: 310-261930-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.90	J	2.0	0.64	ug/L	1		6020B	Total/NA
pH	6.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-301

Lab Sample ID: 310-261930-1

Date Collected: 08/03/23 11:45

Matrix: Water

Date Received: 08/04/23 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16		5.0	2.3	mg/L			08/11/23 22:15	5
Fluoride	<0.38		1.0	0.38	mg/L			08/11/23 22:15	5
Sulfate	810		20	8.4	mg/L			08/14/23 10:05	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0	F1 F2	2.0	1.0	ug/L		08/08/23 09:00	08/11/23 13:10	1
Arsenic	9.8	F1 F2	2.0	0.53	ug/L		08/08/23 09:00	08/11/23 13:10	1
Barium	79	F1 F2	2.0	0.64	ug/L		08/08/23 09:00	08/11/23 13:10	1
Beryllium	<0.33	F1 F2	1.0	0.33	ug/L		08/08/23 09:00	08/11/23 13:10	1
Boron	5600		400	300	ug/L		08/08/23 09:00	08/14/23 10:36	4
Cadmium	0.12	J F1 F2	0.20	0.10	ug/L		08/08/23 09:00	08/11/23 13:10	1
Calcium	160		0.50	0.19	mg/L		08/08/23 09:00	08/11/23 13:10	1
Chromium	<1.1	F1 F2	5.0	1.1	ug/L		08/08/23 09:00	08/11/23 13:10	1
Cobalt	8.8	F1 F2	0.50	0.17	ug/L		08/08/23 09:00	08/11/23 13:10	1
Iron	5800		100	36	ug/L		08/08/23 09:00	08/11/23 13:10	1
Lead	0.51	F1 F2	0.50	0.24	ug/L		08/08/23 09:00	08/11/23 13:10	1
Lithium	11	F1 F2	10	2.5	ug/L		08/08/23 09:00	08/11/23 13:10	1
Molybdenum	73	F2	2.0	0.91	ug/L		08/08/23 09:00	08/11/23 13:10	1
Selenium	<5.6	F1 F2	20	5.6	ug/L		08/08/23 09:00	08/14/23 10:36	4
Thallium	1.5	F1 F2	1.0	0.26	ug/L		08/08/23 09:00	08/11/23 13:10	1

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		08/10/23 10:52	08/11/23 10:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1600		250	170	mg/L			08/07/23 16:12	1
pH (SM 4500 H+ B)	7.1	HF	0.1	0.1	SU			08/04/23 21:27	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.33				ft			08/03/23 11:45	1
Oxidation Reduction Potential	-41.4				mV			08/03/23 11:45	1
Oxygen, Dissolved	0.14				mg/L			08/03/23 11:45	1
Field pH	6.87				SU			08/03/23 11:45	1
Field Conductivity	2261				umhos/cm			08/03/23 11:45	1
Field Temperature	12.2				Degrees C			08/03/23 11:45	1
Field Turbidity	34.67				NTU			08/03/23 11:45	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-302

Lab Sample ID: 310-261930-2

Date Collected: 08/01/23 17:25

Matrix: Water

Date Received: 08/04/23 16:30

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			08/11/23 22:27	5
Fluoride	<0.38		1.0	0.38	mg/L			08/11/23 22:27	5
Sulfate	750		20	8.4	mg/L			08/14/23 10:17	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		08/08/23 09:00	08/11/23 13:21	1
Arsenic	15		2.0	0.53	ug/L		08/08/23 09:00	08/11/23 13:21	1
Barium	54		2.0	0.64	ug/L		08/08/23 09:00	08/11/23 13:21	1
Beryllium	<0.33		1.0	0.33	ug/L		08/08/23 09:00	08/11/23 13:21	1
Boron	4600		400	300	ug/L		08/08/23 09:00	08/14/23 10:43	4
Cadmium	0.36		0.20	0.10	ug/L		08/08/23 09:00	08/11/23 13:21	1
Calcium	250		0.50	0.19	mg/L		08/08/23 09:00	08/11/23 13:21	1
Chromium	<1.1		5.0	1.1	ug/L		08/08/23 09:00	08/11/23 13:21	1
Cobalt	41		0.50	0.17	ug/L		08/08/23 09:00	08/11/23 13:21	1
Iron	19000		100	36	ug/L		08/08/23 09:00	08/11/23 13:21	1
Lead	0.77		0.50	0.24	ug/L		08/08/23 09:00	08/11/23 13:21	1
Thallium	<0.26		1.0	0.26	ug/L		08/31/23 08:58	09/05/23 20:47	1
Lithium	51		10	2.5	ug/L		08/08/23 09:00	08/11/23 13:21	1
Molybdenum	58		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 13:21	1
Selenium	2.3 J		5.0	1.4	ug/L		08/08/23 09:00	08/11/23 13:21	1
Thallium	2.2		1.0	0.26	ug/L		08/08/23 09:00	08/11/23 13:21	1

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		08/10/23 10:52	08/11/23 10:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1100		250	170	mg/L			08/07/23 16:12	1
pH (SM 4500 H+ B)	6.4	HF	0.1	0.1	SU			08/04/23 21:29	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.19				ft			08/01/23 17:25	1
Oxidation Reduction Potential	4.5				mV			08/01/23 17:25	1
Oxygen, Dissolved	0.04				mg/L			08/01/23 17:25	1
Field pH	6.31				SU			08/01/23 17:25	1
Field Conductivity	1535				umhos/cm			08/01/23 17:25	1
Field Temperature	11.0				Degrees C			08/01/23 17:25	1
Field Turbidity	18.62				NTU			08/01/23 17:25	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-302A

Lab Sample ID: 310-261930-3

Date Collected: 08/01/23 16:35

Matrix: Water

Date Received: 08/04/23 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	4000		100	36	ug/L		08/08/23 09:00	08/11/23 13:23	1
Lithium	3.3	J	10	2.5	ug/L		08/08/23 09:00	08/11/23 13:23	1
Molybdenum	7.4		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 13:23	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.09				ft			08/01/23 16:35	1
Oxidation Reduction Potential	-151.4				mV			08/01/23 16:35	1
Oxygen, Dissolved	0.29				mg/L			08/01/23 16:35	1
Field pH	7.78				SU			08/01/23 16:35	1
Field Conductivity	458.3				umhos/cm			08/01/23 16:35	1
Field Temperature	8.3				Degrees C			08/01/23 16:35	1
Field Turbidity	4.13				NTU			08/01/23 16:35	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-303

Lab Sample ID: 310-261930-4

Date Collected: 08/01/23 18:40

Matrix: Water

Date Received: 08/04/23 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	27		5.0	2.3	mg/L			08/14/23 11:41	5
Fluoride	<0.38		1.0	0.38	mg/L			08/14/23 11:41	5
Sulfate	150		5.0	2.1	mg/L			08/14/23 11:41	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		08/08/23 09:00	08/11/23 13:25	1
Arsenic	12		2.0	0.53	ug/L		08/08/23 09:00	08/11/23 13:25	1
Barium	150		2.0	0.64	ug/L		08/08/23 09:00	08/11/23 13:25	1
Beryllium	<0.33		1.0	0.33	ug/L		08/08/23 09:00	08/11/23 13:25	1
Boron	2600		100	76	ug/L		08/08/23 09:00	08/11/23 13:25	1
Cadmium	<0.10		0.20	0.10	ug/L		08/08/23 09:00	08/11/23 13:25	1
Calcium	100		0.50	0.19	mg/L		08/08/23 09:00	08/11/23 13:25	1
Chromium	<1.1		5.0	1.1	ug/L		08/08/23 09:00	08/11/23 13:25	1
Cobalt	1.4		0.50	0.17	ug/L		08/08/23 09:00	08/11/23 13:25	1
Iron	8100		100	36	ug/L		08/08/23 09:00	08/11/23 13:25	1
Lead	0.45	J	0.50	0.24	ug/L		08/08/23 09:00	08/11/23 13:25	1
Lithium	27		10	2.5	ug/L		08/08/23 09:00	08/11/23 13:25	1
Molybdenum	150		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 13:25	1
Selenium	<1.4		5.0	1.4	ug/L		08/08/23 09:00	08/11/23 13:25	1
Thallium	<0.26		1.0	0.26	ug/L		08/08/23 09:00	08/11/23 13:25	1

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		08/10/23 10:52	08/11/23 10:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	430		50	34	mg/L			08/07/23 16:12	1
pH (SM 4500 H+ B)	7.1	HF	0.1	0.1	SU			08/04/23 21:30	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	517.91				ft			08/01/23 18:40	1
Oxidation Reduction Potential	-100.4				mV			08/01/23 18:40	1
Oxygen, Dissolved	0.03				mg/L			08/01/23 18:40	1
Field pH	7.09				SU			08/01/23 18:40	1
Field Conductivity	762				umhos/cm			08/01/23 18:40	1
Field Temperature	11.5				Degrees C			08/01/23 18:40	1
Field Turbidity	11.58				NTU			08/01/23 18:40	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-304

Lab Sample ID: 310-261930-5

Date Collected: 08/01/23 12:35

Matrix: Water

Date Received: 08/04/23 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	27		5.0	2.3	mg/L			08/14/23 12:18	5
Fluoride	<0.38		1.0	0.38	mg/L			08/14/23 12:18	5
Sulfate	850		10	4.2	mg/L			08/14/23 14:55	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		08/08/23 09:00	08/11/23 13:39	1
Arsenic	9.6		2.0	0.53	ug/L		08/08/23 09:00	08/11/23 13:39	1
Barium	58		2.0	0.64	ug/L		08/08/23 09:00	08/11/23 13:39	1
Beryllium	<0.33		1.0	0.33	ug/L		08/08/23 09:00	08/11/23 13:39	1
Boron	7800		400	300	ug/L		08/08/23 09:00	08/14/23 10:45	4
Cadmium	0.12	J	0.20	0.10	ug/L		08/08/23 09:00	08/11/23 13:39	1
Calcium	240		0.50	0.19	mg/L		08/08/23 09:00	08/11/23 13:39	1
Chromium	<1.1		5.0	1.1	ug/L		08/08/23 09:00	08/11/23 13:39	1
Cobalt	81		0.50	0.17	ug/L		08/08/23 09:00	08/11/23 13:39	1
Iron	63000		100	36	ug/L		08/08/23 09:00	08/11/23 13:39	1
Lead	0.45	J	0.50	0.24	ug/L		08/08/23 09:00	08/11/23 13:39	1
Lithium	160		10	2.5	ug/L		08/08/23 09:00	08/11/23 13:39	1
Molybdenum	100		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 13:39	1
Selenium	<1.4		5.0	1.4	ug/L		08/08/23 09:00	08/11/23 13:39	1
Thallium	<0.26		1.0	0.26	ug/L		08/08/23 09:00	08/11/23 13:39	1

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		08/10/23 10:52	08/11/23 10:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1300		50	34	mg/L			08/07/23 16:12	1
pH (SM 4500 H+ B)	6.5	HF	0.1	0.1	SU			08/04/23 21:31	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.19				ft			08/01/23 12:35	1
Oxidation Reduction Potential	-71.9				mV			08/01/23 12:35	1
Oxygen, Dissolved	0.05				mg/L			08/01/23 12:35	1
Field pH	6.45				SU			08/01/23 12:35	1
Field Conductivity	1602				umhos/cm			08/01/23 12:35	1
Field Temperature	12.4				Degrees C			08/01/23 12:35	1
Field Turbidity	15.72				NTU			08/01/23 12:35	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-305

Lab Sample ID: 310-261930-6

Date Collected: 08/01/23 10:30

Matrix: Water

Date Received: 08/04/23 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29		5.0	2.3	mg/L			08/14/23 12:30	5
Fluoride	<0.38		1.0	0.38	mg/L			08/14/23 12:30	5
Sulfate	370		5.0	2.1	mg/L			08/14/23 12:30	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		08/08/23 09:00	08/11/23 13:41	1
Arsenic	2.0		2.0	0.53	ug/L		08/08/23 09:00	08/11/23 13:41	1
Barium	44		2.0	0.64	ug/L		08/08/23 09:00	08/11/23 13:41	1
Beryllium	<0.33		1.0	0.33	ug/L		08/08/23 09:00	08/11/23 13:41	1
Boron	1300		100	76	ug/L		08/08/23 09:00	08/14/23 10:47	1
Cadmium	<0.10		0.20	0.10	ug/L		08/08/23 09:00	08/11/23 13:41	1
Calcium	130		0.50	0.19	mg/L		08/08/23 09:00	08/11/23 13:41	1
Chromium	<1.1		5.0	1.1	ug/L		08/08/23 09:00	08/11/23 13:41	1
Cobalt	9.2		0.50	0.17	ug/L		08/08/23 09:00	08/11/23 13:41	1
Iron	24000		100	36	ug/L		08/08/23 09:00	08/11/23 13:41	1
Lead	0.25	J	0.50	0.24	ug/L		08/08/23 09:00	08/11/23 13:41	1
Lithium	18		10	2.5	ug/L		08/08/23 09:00	08/11/23 13:41	1
Molybdenum	1.3	J	2.0	0.91	ug/L		08/08/23 09:00	08/11/23 13:41	1
Selenium	<1.4		5.0	1.4	ug/L		08/08/23 09:00	08/11/23 13:41	1
Thallium	<0.26		1.0	0.26	ug/L		08/08/23 09:00	08/11/23 13:41	1

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		08/10/23 10:52	08/11/23 10:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	700		50	34	mg/L			08/07/23 16:12	1
pH (SM 4500 H+ B)	6.6	HF	0.1	0.1	SU			08/04/23 21:32	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.03				ft			08/01/23 10:30	1
Oxidation Reduction Potential	-21.2				mV			08/01/23 10:30	1
Oxygen, Dissolved	0.02				mg/L			08/01/23 10:30	1
Field pH	6.39				SU			08/01/23 10:30	1
Field Conductivity	1081				umhos/cm			08/01/23 10:30	1
Field Temperature	10.9				Degrees C			08/01/23 10:30	1
Field Turbidity	3.63				NTU			08/01/23 10:30	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-306

Lab Sample ID: 310-261930-7

Date Collected: 08/02/23 16:15

Matrix: Water

Date Received: 08/04/23 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31		5.0	2.3	mg/L			08/14/23 12:42	5
Fluoride	<0.38		1.0	0.38	mg/L			08/14/23 12:42	5
Sulfate	270		5.0	2.1	mg/L			08/14/23 12:42	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		08/08/23 09:00	08/11/23 13:43	1
Arsenic	32		2.0	0.53	ug/L		08/08/23 09:00	08/11/23 13:43	1
Barium	110		2.0	0.64	ug/L		08/08/23 09:00	08/11/23 13:43	1
Beryllium	<0.33		1.0	0.33	ug/L		08/08/23 09:00	08/11/23 13:43	1
Boron	5700		400	300	ug/L		08/08/23 09:00	08/14/23 10:49	4
Cadmium	<0.10		0.20	0.10	ug/L		08/08/23 09:00	08/11/23 13:43	1
Calcium	140		0.50	0.19	mg/L		08/08/23 09:00	08/11/23 13:43	1
Chromium	<1.1		5.0	1.1	ug/L		08/08/23 09:00	08/11/23 13:43	1
Cobalt	0.31	J	0.50	0.17	ug/L		08/08/23 09:00	08/11/23 13:43	1
Iron	340		100	36	ug/L		08/08/23 09:00	08/11/23 13:43	1
Lead	1.5		0.50	0.24	ug/L		08/08/23 09:00	08/11/23 13:43	1
Lithium	49		10	2.5	ug/L		08/08/23 09:00	08/11/23 13:43	1
Molybdenum	71		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 13:43	1
Selenium	<1.4		5.0	1.4	ug/L		08/08/23 09:00	08/11/23 13:43	1
Thallium	<0.26		1.0	0.26	ug/L		08/08/23 09:00	08/11/23 13:43	1

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		08/10/23 10:52	08/11/23 10:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	630		50	34	mg/L			08/07/23 16:12	1
pH (SM 4500 H+ B)	8.6	HF	0.1	0.1	SU			08/04/23 21:37	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.07				ft			08/02/23 16:15	1
Oxidation Reduction Potential	-129.0				mV			08/02/23 16:15	1
Oxygen, Dissolved	0.19				mg/L			08/02/23 16:15	1
Field pH	8.81				SU			08/02/23 16:15	1
Field Conductivity	937				umhos/cm			08/02/23 16:15	1
Field Temperature	12.9				Degrees C			08/02/23 16:15	1
Field Turbidity	15.54				NTU			08/02/23 16:15	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-307

Lab Sample ID: 310-261930-8

Date Collected: 08/01/23 14:05

Matrix: Water

Date Received: 08/04/23 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24		5.0	2.3	mg/L			08/14/23 12:54	5
Fluoride	<0.38		1.0	0.38	mg/L			08/14/23 12:54	5
Sulfate	330		5.0	2.1	mg/L			08/14/23 12:54	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		08/08/23 09:00	08/11/23 13:45	1
Arsenic	8.2		2.0	0.53	ug/L		08/08/23 09:00	08/11/23 13:45	1
Barium	92		2.0	0.64	ug/L		08/08/23 09:00	08/11/23 13:45	1
Beryllium	<0.33		1.0	0.33	ug/L		08/08/23 09:00	08/11/23 13:45	1
Boron	3700		400	300	ug/L		08/08/23 09:00	08/14/23 10:52	4
Cadmium	0.24		0.20	0.10	ug/L		08/08/23 09:00	08/11/23 13:45	1
Calcium	76		0.50	0.19	mg/L		08/08/23 09:00	08/11/23 13:45	1
Chromium	<1.1		5.0	1.1	ug/L		08/08/23 09:00	08/11/23 13:45	1
Cobalt	0.92		0.50	0.17	ug/L		08/08/23 09:00	08/11/23 13:45	1
Iron	640		100	36	ug/L		08/08/23 09:00	08/11/23 13:45	1
Lead	1.1		0.50	0.24	ug/L		08/08/23 09:00	08/11/23 13:45	1
Lithium	100		10	2.5	ug/L		08/08/23 09:00	08/11/23 13:45	1
Molybdenum	280		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 13:45	1
Selenium	<1.4		5.0	1.4	ug/L		08/08/23 09:00	08/11/23 13:45	1
Thallium	<0.26		1.0	0.26	ug/L		08/08/23 09:00	08/11/23 13:45	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.30		0.20	0.14	ug/L		08/10/23 10:52	08/11/23 10:54	1
Mercury	<0.14	H	0.20	0.14	ug/L		08/30/23 11:42	08/31/23 10:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	550		50	34	mg/L			08/07/23 16:12	1
pH (SM 4500 H+ B)	7.4	HF	0.1	0.1	SU			08/04/23 21:39	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.04				ft			08/01/23 14:05	1
Oxidation Reduction Potential	-111.6				mV			08/01/23 14:05	1
Oxygen, Dissolved	0.05				mg/L			08/01/23 14:05	1
Field pH	7.62				SU			08/01/23 14:05	1
Field Conductivity	872				umhos/cm			08/01/23 14:05	1
Field Temperature	12.6				Degrees C			08/01/23 14:05	1
Field Turbidity	15.09				NTU			08/01/23 14:05	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-307A

Lab Sample ID: 310-261930-9

Date Collected: 08/01/23 14:50

Matrix: Water

Date Received: 08/04/23 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1900		100	36	ug/L		08/08/23 09:00	08/11/23 13:47	1
Lithium	6.2	J	10	2.5	ug/L		08/08/23 09:00	08/11/23 13:47	1
Molybdenum	5.4		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 13:47	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	519.42				ft			08/01/23 14:50	1
Oxidation Reduction Potential	-154.0				mV			08/01/23 14:50	1
Oxygen, Dissolved	0.04				mg/L			08/01/23 14:50	1
Field pH	7.78				SU			08/01/23 14:50	1
Field Conductivity	487.5				umhos/cm			08/01/23 14:50	1
Field Temperature	7.6				Degrees C			08/01/23 14:50	1
Field Turbidity	4.61				NTU			08/01/23 14:50	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-307B

Lab Sample ID: 310-261930-10

Date Collected: 08/02/23 14:20

Matrix: Water

Date Received: 08/04/23 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1700		100	36	ug/L		08/08/23 09:00	08/11/23 13:50	1
Lithium	4.7	J	10	2.5	ug/L		08/08/23 09:00	08/11/23 13:50	1
Molybdenum	4.6		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 13:50	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.20				ft			08/02/23 14:20	1
Oxidation Reduction Potential	-130.0				mV			08/02/23 14:20	1
Oxygen, Dissolved	0.29				mg/L			08/02/23 14:20	1
Field pH	7.62				SU			08/02/23 14:20	1
Field Conductivity	435				umhos/cm			08/02/23 14:20	1
Field Temperature	10.3				Degrees C			08/02/23 14:20	1
Field Turbidity	8.79				NTU			08/02/23 14:20	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-308

Lab Sample ID: 310-261930-11

Date Collected: 08/01/23 11:10

Matrix: Water

Date Received: 08/04/23 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37		5.0	2.3	mg/L			08/14/23 13:06	5
Fluoride	<0.38		1.0	0.38	mg/L			08/14/23 13:06	5
Sulfate	570		10	4.2	mg/L			08/14/23 15:07	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		08/08/23 09:00	08/11/23 13:52	1
Arsenic	5.7		2.0	0.53	ug/L		08/08/23 09:00	08/11/23 13:52	1
Barium	150		2.0	0.64	ug/L		08/08/23 09:00	08/11/23 13:52	1
Beryllium	<0.33		1.0	0.33	ug/L		08/08/23 09:00	08/11/23 13:52	1
Boron	6800		1000	760	ug/L		08/08/23 09:00	08/14/23 11:05	10
Cadmium	0.12	J	0.20	0.10	ug/L		08/08/23 09:00	08/11/23 13:52	1
Calcium	140		0.50	0.19	mg/L		08/08/23 09:00	08/11/23 13:52	1
Chromium	<1.1		5.0	1.1	ug/L		08/08/23 09:00	08/11/23 13:52	1
Cobalt	4.1		0.50	0.17	ug/L		08/08/23 09:00	08/11/23 13:52	1
Iron	5800		100	36	ug/L		08/08/23 09:00	08/11/23 13:52	1
Lead	0.27	J	0.50	0.24	ug/L		08/08/23 09:00	08/11/23 13:52	1
Lithium	180		10	2.5	ug/L		08/08/23 09:00	08/11/23 13:52	1
Molybdenum	220		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 13:52	1
Selenium	<1.4		5.0	1.4	ug/L		08/08/23 09:00	08/11/23 13:52	1
Thallium	<0.26		1.0	0.26	ug/L		08/08/23 09:00	08/11/23 13:52	1

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		08/10/23 10:52	08/11/23 10:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1000		50	34	mg/L			08/07/23 16:12	1
pH (SM 4500 H+ B)	7.3	HF	0.1	0.1	SU			08/04/23 21:40	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.22				ft			08/01/23 11:10	1
Oxidation Reduction Potential	-121.7				mV			08/01/23 11:10	1
Oxygen, Dissolved	0.44				mg/L			08/01/23 11:10	1
Field pH	7.33				SU			08/01/23 11:10	1
Field Conductivity	1483				umhos/cm			08/01/23 11:10	1
Field Temperature	13.2				Degrees C			08/01/23 11:10	1
Field Turbidity	0.98				NTU			08/01/23 11:10	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-309

Lab Sample ID: 310-261930-12

Date Collected: 08/02/23 17:50

Matrix: Water

Date Received: 08/04/23 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28		5.0	2.3	mg/L			08/14/23 13:18	5
Fluoride	<0.38		1.0	0.38	mg/L			08/14/23 13:18	5
Sulfate	140		5.0	2.1	mg/L			08/14/23 13:18	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		08/08/23 09:00	08/11/23 13:56	1
Arsenic	22		2.0	0.53	ug/L		08/08/23 09:00	08/11/23 13:56	1
Barium	190		2.0	0.64	ug/L		08/08/23 09:00	08/11/23 13:56	1
Beryllium	<0.33		1.0	0.33	ug/L		08/08/23 09:00	08/11/23 13:56	1
Boron	14000		1000	760	ug/L		08/08/23 09:00	08/14/23 11:10	10
Cadmium	<0.10		0.20	0.10	ug/L		08/08/23 09:00	08/11/23 13:56	1
Calcium	94		0.50	0.19	mg/L		08/08/23 09:00	08/11/23 13:56	1
Chromium	<1.1		5.0	1.1	ug/L		08/08/23 09:00	08/11/23 13:56	1
Cobalt	0.61		0.50	0.17	ug/L		08/08/23 09:00	08/11/23 13:56	1
Iron	22000		100	36	ug/L		08/08/23 09:00	08/11/23 13:56	1
Lead	<0.24		0.50	0.24	ug/L		08/08/23 09:00	08/11/23 13:56	1
Lithium	3.5 J		10	2.5	ug/L		08/08/23 09:00	08/11/23 13:56	1
Molybdenum	84		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 13:56	1
Selenium	<1.4		5.0	1.4	ug/L		08/08/23 09:00	08/11/23 13:56	1
Thallium	<0.26		1.0	0.26	ug/L		08/08/23 09:00	08/11/23 13:56	1

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		08/10/23 10:52	08/11/23 10:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	530		50	34	mg/L			08/07/23 16:12	1
pH (SM 4500 H+ B)	7.1	HF	0.1	0.1	SU			08/04/23 21:41	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.22				ft			08/02/23 17:50	1
Oxidation Reduction Potential	-155.0				mV			08/02/23 17:50	1
Oxygen, Dissolved	0.00				mg/L			08/02/23 17:50	1
Field pH	7.06				SU			08/02/23 17:50	1
Field Conductivity	890				umhos/cm			08/02/23 17:50	1
Field Temperature	13.7				Degrees C			08/02/23 17:50	1
Field Turbidity	21.44				NTU			08/02/23 17:50	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-310

Lab Sample ID: 310-261930-13

Date Collected: 08/03/23 14:20

Matrix: Water

Date Received: 08/04/23 16:30

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			08/14/23 13:55	5
Fluoride	<0.38		1.0	0.38	mg/L			08/14/23 13:55	5
Sulfate	340		5.0	2.1	mg/L			08/14/23 13:55	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		08/08/23 09:00	08/11/23 13:58	1
Arsenic	47		2.0	0.53	ug/L		08/08/23 09:00	08/11/23 13:58	1
Barium	410		2.0	0.64	ug/L		08/08/23 09:00	08/11/23 13:58	1
Beryllium	<0.33		1.0	0.33	ug/L		08/08/23 09:00	08/11/23 13:58	1
Boron	260		100	76	ug/L		08/08/23 09:00	08/14/23 11:12	1
Cadmium	<0.10		0.20	0.10	ug/L		08/08/23 09:00	08/11/23 13:58	1
Calcium	170		0.50	0.19	mg/L		08/08/23 09:00	08/11/23 13:58	1
Chromium	<1.1		5.0	1.1	ug/L		08/08/23 09:00	08/11/23 13:58	1
Cobalt	3.8		0.50	0.17	ug/L		08/08/23 09:00	08/11/23 13:58	1
Iron	31000		100	36	ug/L		08/08/23 09:00	08/11/23 13:58	1
Lead	<0.24		0.50	0.24	ug/L		08/08/23 09:00	08/11/23 13:58	1
Lithium	<2.5		10	2.5	ug/L		08/08/23 09:00	08/11/23 13:58	1
Molybdenum	2.7		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 13:58	1
Selenium	<1.4		5.0	1.4	ug/L		08/08/23 09:00	08/11/23 13:58	1
Thallium	<0.26		1.0	0.26	ug/L		08/08/23 09:00	08/11/23 13:58	1

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		08/10/23 10:52	08/11/23 11:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	730		50	34	mg/L			08/07/23 16:12	1
pH (SM 4500 H+ B)	7.0	HF	0.1	0.1	SU			08/04/23 21:50	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	520.29				ft			08/03/23 14:20	1
Oxidation Reduction Potential	-174.9				mV			08/03/23 14:20	1
Oxygen, Dissolved	0.03				mg/L			08/03/23 14:20	1
Field pH	7.10				SU			08/03/23 14:20	1
Field Conductivity	1168				umhos/cm			08/03/23 14:20	1
Field Temperature	15.7				Degrees C			08/03/23 14:20	1
Field Turbidity	7.38				NTU			08/03/23 14:20	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-310A

Lab Sample ID: 310-261930-14

Date Collected: 08/03/23 14:35

Matrix: Water

Date Received: 08/04/23 16:30

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			08/14/23 14:07	5
Fluoride	<0.38		1.0	0.38	mg/L			08/14/23 14:07	5
Sulfate	110		5.0	2.1	mg/L			08/14/23 14:07	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		08/08/23 09:00	08/11/23 14:12	1
Arsenic	0.91	J	2.0	0.53	ug/L		08/08/23 09:00	08/11/23 14:12	1
Barium	58		2.0	0.64	ug/L		08/08/23 09:00	08/11/23 14:12	1
Beryllium	<0.33		1.0	0.33	ug/L		08/08/23 09:00	08/11/23 14:12	1
Boron	830		100	76	ug/L		08/08/23 09:00	08/14/23 11:14	1
Cadmium	<0.10		0.20	0.10	ug/L		08/08/23 09:00	08/11/23 14:12	1
Calcium	57		0.50	0.19	mg/L		08/08/23 09:00	08/11/23 14:12	1
Chromium	<1.1		5.0	1.1	ug/L		08/08/23 09:00	08/11/23 14:12	1
Cobalt	0.58		0.50	0.17	ug/L		08/08/23 09:00	08/11/23 14:12	1
Iron	140		100	36	ug/L		08/08/23 09:00	08/11/23 14:12	1
Lead	0.35	J	0.50	0.24	ug/L		08/08/23 09:00	08/11/23 14:12	1
Lithium	37		10	2.5	ug/L		08/08/23 09:00	08/11/23 14:12	1
Molybdenum	10		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 14:12	1
Selenium	<1.4		5.0	1.4	ug/L		08/08/23 09:00	08/11/23 14:12	1
Thallium	<0.26		1.0	0.26	ug/L		08/08/23 09:00	08/11/23 14:12	1

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		08/10/23 10:52	08/11/23 11:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	610		50	34	mg/L			08/07/23 16:12	1
pH (SM 4500 H+ B)	7.4	HF	0.1	0.1	SU			08/04/23 21:52	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	490.83				ft			08/03/23 14:35	1
Oxidation Reduction Potential	ND				mV			08/03/23 14:35	1
Oxygen, Dissolved	ND				mg/L			08/03/23 14:35	1
Field pH	7.39				SU			08/03/23 14:35	1
Field Conductivity	1100				umhos/cm			08/03/23 14:35	1
Field Temperature	ND				Degrees C			08/03/23 14:35	1
Field Turbidity	ND				NTU			08/03/23 14:35	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-311

Lab Sample ID: 310-261930-15

Date Collected: 08/03/23 13:00

Matrix: Water

Date Received: 08/04/23 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31		5.0	2.3	mg/L			08/14/23 14:19	5
Fluoride	<0.38		1.0	0.38	mg/L			08/14/23 14:19	5
Sulfate	240		5.0	2.1	mg/L			08/14/23 14:19	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		08/08/23 09:00	08/11/23 14:14	1
Arsenic	5.3		2.0	0.53	ug/L		08/08/23 09:00	08/11/23 14:14	1
Barium	230		2.0	0.64	ug/L		08/08/23 09:00	08/11/23 14:14	1
Beryllium	<0.33		1.0	0.33	ug/L		08/08/23 09:00	08/11/23 14:14	1
Boron	1700		100	76	ug/L		08/08/23 09:00	08/14/23 11:16	1
Cadmium	<0.10		0.20	0.10	ug/L		08/08/23 09:00	08/11/23 14:14	1
Calcium	160		0.50	0.19	mg/L		08/08/23 09:00	08/11/23 14:14	1
Chromium	<1.1		5.0	1.1	ug/L		08/08/23 09:00	08/11/23 14:14	1
Cobalt	1.5		0.50	0.17	ug/L		08/08/23 09:00	08/11/23 14:14	1
Iron	15000		100	36	ug/L		08/08/23 09:00	08/11/23 14:14	1
Lead	0.40	J	0.50	0.24	ug/L		08/08/23 09:00	08/11/23 14:14	1
Lithium	<2.5		10	2.5	ug/L		08/08/23 09:00	08/11/23 14:14	1
Molybdenum	5.6		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 14:14	1
Selenium	<1.4		5.0	1.4	ug/L		08/08/23 09:00	08/11/23 14:14	1
Thallium	<0.26		1.0	0.26	ug/L		08/08/23 09:00	08/11/23 14:14	1

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		08/10/23 10:52	08/11/23 11:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	720		50	34	mg/L			08/07/23 16:12	1
pH (SM 4500 H+ B)	7.0	HF	0.1	0.1	SU			08/04/23 21:53	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.28				ft			08/03/23 13:00	1
Oxidation Reduction Potential	-130.4				mV			08/03/23 13:00	1
Oxygen, Dissolved	0.07				mg/L			08/03/23 13:00	1
Field pH	6.95				SU			08/03/23 13:00	1
Field Conductivity	1163				umhos/cm			08/03/23 13:00	1
Field Temperature	12.3				Degrees C			08/03/23 13:00	1
Field Turbidity	6.88				NTU			08/03/23 13:00	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-312
 Date Collected: 08/01/23 09:45
 Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-16
 Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	24000		100	36	ug/L		08/08/23 09:00	08/11/23 14:16	1
Lithium	18		10	2.5	ug/L		08/08/23 09:00	08/11/23 14:16	1
Molybdenum	37		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 14:16	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	517.93				ft			08/01/23 09:45	1
Oxidation Reduction Potential	-108.6				mV			08/01/23 09:45	1
Oxygen, Dissolved	1.81				mg/L			08/01/23 09:45	1
Field pH	6.95				SU			08/01/23 09:45	1
Field Conductivity	1030				umhos/cm			08/01/23 09:45	1
Field Temperature	10.8				Degrees C			08/01/23 09:45	1
Field Turbidity	36.50				NTU			08/01/23 09:45	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-313
 Date Collected: 08/01/23 12:50
 Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-17
 Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	19000		100	36	ug/L		08/08/23 09:00	08/11/23 14:18	1
Lithium	12		10	2.5	ug/L		08/08/23 09:00	08/11/23 14:18	1
Magnesium	17000		500	150	ug/L		08/08/23 09:00	08/11/23 14:18	1
Manganese	6200		70	25	ug/L		08/08/23 09:00	08/14/23 13:40	7
Molybdenum	44		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 14:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	230		5.0	2.5	mg/L			08/10/23 13:24	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<2.5		5.0	2.5	mg/L			08/10/23 13:24	1
Total Alkalinity as CaCO3 (SM 2320B)	230		5.0	2.5	mg/L			08/10/23 13:24	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.09				ft			08/01/23 12:50	1
Oxidation Reduction Potential	-152.0				mV			08/01/23 12:50	1
Oxygen, Dissolved	-0.02				mg/L			08/01/23 12:50	1
Field pH	7.10				SU			08/01/23 12:50	1
Field Conductivity	817				umhos/cm			08/01/23 12:50	1
Field Temperature	9.4				Degrees C			08/01/23 12:50	1
Field Turbidity	45.12				NTU			08/01/23 12:50	1



Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-313A
 Date Collected: 08/02/23 11:45
 Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-18
 Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2300		100	36	ug/L		08/08/23 09:00	08/11/23 14:21	1
Lithium	4.1	J	10	2.5	ug/L		08/08/23 09:00	08/11/23 14:21	1
Molybdenum	4.6		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 14:21	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.00				ft			08/02/23 11:45	1
Oxidation Reduction Potential	-174.0				mV			08/02/23 11:45	1
Oxygen, Dissolved	0.27				mg/L			08/02/23 11:45	1
Field pH	7.69				SU			08/02/23 11:45	1
Field Conductivity	457				umhos/cm			08/02/23 11:45	1
Field Temperature	7.3				Degrees C			08/02/23 11:45	1
Field Turbidity	0.81				NTU			08/02/23 11:45	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-313B
 Date Collected: 08/02/23 10:50
 Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-19
 Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2800		100	36	ug/L		08/08/23 09:00	08/11/23 14:23	1
Lithium	5.1	J	10	2.5	ug/L		08/08/23 09:00	08/11/23 14:23	1
Molybdenum	9.3		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 14:23	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.01				ft			08/02/23 10:50	1
Oxidation Reduction Potential	-145.8				mV			08/02/23 10:50	1
Oxygen, Dissolved	1.06				mg/L			08/02/23 10:50	1
Field pH	7.47				SU			08/02/23 10:50	1
Field Conductivity	512				umhos/cm			08/02/23 10:50	1
Field Temperature	8.4				Degrees C			08/02/23 10:50	1
Field Turbidity	1.76				NTU			08/02/23 10:50	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-314

Lab Sample ID: 310-261930-20

Date Collected: 08/03/23 10:20

Matrix: Water

Date Received: 08/04/23 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16		5.0	2.3	mg/L			08/14/23 14:31	5
Fluoride	<0.38		1.0	0.38	mg/L			08/14/23 14:31	5
Sulfate	110		5.0	2.1	mg/L			08/14/23 14:31	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		08/08/23 09:00	08/14/23 11:45	1
Arsenic	3.7		2.0	0.53	ug/L		08/08/23 09:00	08/14/23 11:45	1
Barium	320		2.0	0.64	ug/L		08/08/23 09:00	08/14/23 11:45	1
Beryllium	<0.33		1.0	0.33	ug/L		08/08/23 09:00	08/14/23 11:45	1
Boron	240		100	76	ug/L		08/08/23 09:00	08/14/23 11:45	1
Cadmium	<0.10		0.20	0.10	ug/L		08/08/23 09:00	08/14/23 11:45	1
Calcium	150		0.50	0.19	mg/L		08/08/23 09:00	08/14/23 11:45	1
Chromium	<1.1		5.0	1.1	ug/L		08/08/23 09:00	08/14/23 11:45	1
Cobalt	0.86		0.50	0.17	ug/L		08/08/23 09:00	08/14/23 11:45	1
Iron	34000		100	36	ug/L		08/08/23 09:00	08/14/23 11:45	1
Lead	1.3		0.50	0.24	ug/L		08/08/23 09:00	08/14/23 11:45	1
Thallium	<0.26		1.0	0.26	ug/L		08/31/23 08:58	09/05/23 20:52	1
Lithium	5.8 J		10	2.5	ug/L		08/08/23 09:00	08/14/23 11:45	1
Molybdenum	2.1		2.0	0.91	ug/L		08/08/23 09:00	08/14/23 11:45	1
Selenium	1.9 J		5.0	1.4	ug/L		08/08/23 09:00	08/14/23 11:45	1
Thallium	2.4		1.0	0.26	ug/L		08/08/23 09:00	08/14/23 11:45	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20		0.20	0.14	ug/L		08/10/23 10:52	08/11/23 11:11	1
Mercury	<0.14		0.20	0.14	ug/L		08/30/23 11:42	08/31/23 10:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	640		50	34	mg/L			08/07/23 16:12	1
pH (SM 4500 H+ B)	6.8	HF	0.1	0.1	SU			08/04/23 21:54	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	518.28				ft			08/03/23 10:20	1
Oxidation Reduction Potential	-111.0				mV			08/03/23 10:20	1
Oxygen, Dissolved	0.3				mg/L			08/03/23 10:20	1
Field pH	6.68				SU			08/03/23 10:20	1
Field Conductivity	1149				umhos/cm			08/03/23 10:20	1
Field Temperature	12.3				Degrees C			08/03/23 10:20	1
Field Turbidity	38.36				NTU			08/03/23 10:20	1

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Client Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: Field Blank

Lab Sample ID: 310-261930-21

Date Collected: 08/03/23 15:00

Matrix: Water

Date Received: 08/04/23 16:30

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			08/14/23 14:43	1
Fluoride	<0.075		0.20	0.075	mg/L			08/14/23 14:43	1
Sulfate	<0.42		1.0	0.42	mg/L			08/14/23 14:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		08/08/23 09:00	08/14/23 11:48	1
Arsenic	<0.53		2.0	0.53	ug/L		08/08/23 09:00	08/14/23 11:48	1
Barium	0.90	J	2.0	0.64	ug/L		08/08/23 09:00	08/14/23 11:48	1
Beryllium	<0.33		1.0	0.33	ug/L		08/08/23 09:00	08/14/23 11:48	1
Boron	<76		100	76	ug/L		08/08/23 09:00	08/14/23 11:48	1
Cadmium	<0.10		0.20	0.10	ug/L		08/08/23 09:00	08/14/23 11:48	1
Calcium	<0.19		0.50	0.19	mg/L		08/08/23 09:00	08/14/23 11:48	1
Chromium	<1.1		5.0	1.1	ug/L		08/08/23 09:00	08/14/23 11:48	1
Cobalt	<0.17		0.50	0.17	ug/L		08/08/23 09:00	08/14/23 11:48	1
Iron	<36		100	36	ug/L		08/08/23 09:00	08/14/23 11:48	1
Lead	<0.24		0.50	0.24	ug/L		08/08/23 09:00	08/14/23 11:48	1
Lithium	<2.5		10	2.5	ug/L		08/08/23 09:00	08/14/23 11:48	1
Molybdenum	<0.91		2.0	0.91	ug/L		08/08/23 09:00	08/14/23 11:48	1
Selenium	<1.4		5.0	1.4	ug/L		08/08/23 09:00	08/14/23 11:48	1
Thallium	<0.26		1.0	0.26	ug/L		08/08/23 09:00	08/14/23 11:48	1

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		08/10/23 10:52	08/11/23 11:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	<34		50	34	mg/L			08/07/23 16:12	1
pH (SM 4500 H+ B)	6.2	HF	0.1	0.1	SU			08/04/23 21:58	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

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.

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.
F2	MS/MSD RPD exceeds control limits
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
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	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-396539/3
Matrix: Water
Analysis Batch: 396539

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<0.45		1.0	0.45	mg/L			08/11/23 16:24	1
Fluoride	<0.075		0.20	0.075	mg/L			08/11/23 16:24	1
Sulfate	<0.42		1.0	0.42	mg/L			08/11/23 16:24	1

Lab Sample ID: LCS 310-396539/4
Matrix: Water
Analysis Batch: 396539

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	Limits
Fluoride	2.00	1.96		mg/L		98	90 - 110	
Sulfate	10.0	10.5		mg/L		105	90 - 110	

Lab Sample ID: MB 310-396570/3
Matrix: Water
Analysis Batch: 396570

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<0.45		1.0	0.45	mg/L			08/14/23 10:53	1
Fluoride	<0.075		0.20	0.075	mg/L			08/14/23 10:53	1
Sulfate	<0.42		1.0	0.42	mg/L			08/14/23 10:53	1

Lab Sample ID: LCS 310-396570/6
Matrix: Water
Analysis Batch: 396570

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	Limits
Fluoride	2.00	1.98		mg/L		99	90 - 110	
Sulfate	10.0	10.4		mg/L		104	90 - 110	

Lab Sample ID: 310-261930-4 MS
Matrix: Water
Analysis Batch: 396570

Client Sample ID: MW-303
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec	Limits
Fluoride	<0.38		5.00	5.24		mg/L		105	80 - 120	
Sulfate	150		25.0	175	4	mg/L		92	80 - 120	

Lab Sample ID: 310-261930-4 MSD
Matrix: Water
Analysis Batch: 396570

Client Sample ID: MW-303
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec	Limits	RPD	Limit
Fluoride	<0.38		5.00	5.23		mg/L		105	80 - 120	0	15	
Sulfate	150		25.0	173	4	mg/L		82	80 - 120	1	15	

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-395829/1-A
Matrix: Water
Analysis Batch: 396422

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 395829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		2.0	1.0	ug/L		08/08/23 09:00	08/11/23 13:06	1
Arsenic	<0.53		2.0	0.53	ug/L		08/08/23 09:00	08/11/23 13:06	1
Barium	<0.64		2.0	0.64	ug/L		08/08/23 09:00	08/11/23 13:06	1
Magnesium	<150		500	150	ug/L		08/08/23 09:00	08/11/23 13:06	1
Beryllium	<0.33		1.0	0.33	ug/L		08/08/23 09:00	08/11/23 13:06	1
Manganese	<3.6		10	3.6	ug/L		08/08/23 09:00	08/11/23 13:06	1
Boron	<76		100	76	ug/L		08/08/23 09:00	08/11/23 13:06	1
Cadmium	<0.10		0.20	0.10	ug/L		08/08/23 09:00	08/11/23 13:06	1
Calcium	<0.19		0.50	0.19	mg/L		08/08/23 09:00	08/11/23 13:06	1
Chromium	<1.1		5.0	1.1	ug/L		08/08/23 09:00	08/11/23 13:06	1
Cobalt	<0.17		0.50	0.17	ug/L		08/08/23 09:00	08/11/23 13:06	1
Iron	<36		100	36	ug/L		08/08/23 09:00	08/11/23 13:06	1
Lead	<0.24		0.50	0.24	ug/L		08/08/23 09:00	08/11/23 13:06	1
Lithium	<2.5		10	2.5	ug/L		08/08/23 09:00	08/11/23 13:06	1
Molybdenum	<0.91		2.0	0.91	ug/L		08/08/23 09:00	08/11/23 13:06	1
Selenium	<1.4		5.0	1.4	ug/L		08/08/23 09:00	08/11/23 13:06	1
Thallium	<0.26		1.0	0.26	ug/L		08/08/23 09:00	08/11/23 13:06	1

Lab Sample ID: LCS 310-395829/2-A
Matrix: Water
Analysis Batch: 396422

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 395829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	400	408		ug/L		102	80 - 120
Arsenic	400	381		ug/L		95	80 - 120
Barium	200	196		ug/L		98	80 - 120
Beryllium	200	188		ug/L		94	80 - 120
Boron	400	368		ug/L		92	80 - 120
Cadmium	200	193		ug/L		96	80 - 120
Calcium	4.00	3.97		mg/L		99	80 - 120
Chromium	200	196		ug/L		98	80 - 120
Cobalt	200	202		ug/L		101	80 - 120
Iron	400	423		ug/L		106	80 - 120
Lead	400	386		ug/L		96	80 - 120
Lithium	400	375		ug/L		94	80 - 120
Molybdenum	400	420		ug/L		105	80 - 120
Thallium	400	321		ug/L		80	80 - 120

Lab Sample ID: LCS 310-395829/2-A ^2
Matrix: Water
Analysis Batch: 396550

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 395829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Selenium	800	741		ug/L		93	80 - 120

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

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

Lab Sample ID: 310-261930-1 MS
Matrix: Water
Analysis Batch: 396422

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 395829

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec	
	Result	Qualifier		Added	Result				Qualifier	Limits
Antimony	<1.0	F1 F2	400	290	F1	ug/L		72	75 - 125	
Arsenic	9.8	F1 F2	400	281	F1	ug/L		68	75 - 125	
Barium	79	F1 F2	200	216	F1	ug/L		69	75 - 125	
Magnesium	39000		4000	40800	4	ug/L		56	75 - 125	
Beryllium	<0.33	F1 F2	200	122	F1	ug/L		61	75 - 125	
Cadmium	0.12	J F1 F2	200	127	F1	ug/L		63	75 - 125	
Calcium	160		4.00	162	4	mg/L		100	75 - 125	
Chromium	<1.1	F1 F2	200	134	F1	ug/L		67	75 - 125	
Cobalt	8.8	F1 F2	200	145	F1	ug/L		68	75 - 125	
Iron	5800		400	5980	4	ug/L		49	75 - 125	
Lead	0.51	F1 F2	400	254	F1	ug/L		63	75 - 125	
Lithium	11	F1 F2	400	246	F1	ug/L		59	75 - 125	
Molybdenum	73	F2	400	387		ug/L		78	75 - 125	
Thallium	1.5	F1 F2	400	217	F1	ug/L		54	75 - 125	

Lab Sample ID: 310-261930-1 MS
Matrix: Water
Analysis Batch: 396546

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 395829

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec	
	Result	Qualifier		Added	Result				Qualifier	Limits
Manganese	11000		200	11000	4	ug/L		-64	75 - 125	
Boron	5600		400	5780	4	ug/L		35	75 - 125	
Selenium	<5.6	F1 F2	800	490	F1	ug/L		61	75 - 125	

Lab Sample ID: 310-261930-1 MSD
Matrix: Water
Analysis Batch: 396422

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 395829

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec		RPD	
	Result	Qualifier		Added	Result				Qualifier	Limits	RPD	Limit
Antimony	<1.0	F1 F2	400	449	F2	ug/L		112	75 - 125	43	20	
Arsenic	9.8	F1 F2	400	436	F2	ug/L		106	75 - 125	43	20	
Barium	79	F1 F2	200	297	F2	ug/L		109	75 - 125	32	20	
Magnesium	39000		4000	41800	4	ug/L		81	75 - 125	2	20	
Beryllium	<0.33	F1 F2	200	191	F2	ug/L		96	75 - 125	44	20	
Cadmium	0.12	J F1 F2	200	202	F2	ug/L		101	75 - 125	46	20	
Calcium	160		4.00	163	4	mg/L		147	75 - 125	1	20	
Chromium	<1.1	F1 F2	200	204	F2	ug/L		102	75 - 125	41	20	
Cobalt	8.8	F1 F2	200	218	F2	ug/L		105	75 - 125	40	20	
Iron	5800		400	6140	4	ug/L		90	75 - 125	3	20	
Lead	0.51	F1 F2	400	396	F2	ug/L		99	75 - 125	44	20	
Lithium	11	F1 F2	400	383	F2	ug/L		93	75 - 125	43	20	
Molybdenum	73	F2	400	561	F2	ug/L		122	75 - 125	37	20	
Thallium	1.5	F1 F2	400	337	F2	ug/L		84	75 - 125	43	20	

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

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

Lab Sample ID: 310-261930-1 MSD
Matrix: Water
Analysis Batch: 396546

Client Sample ID: MW-301
Prep Type: Total/NA
Prep Batch: 395829

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Manganese	11000		200	10900	4	ug/L		-74	75 - 125	0	20
Boron	5600		400	5950	4	ug/L		79	75 - 125	3	20
Selenium	<5.6	F1 F2	800	768	F2	ug/L		96	75 - 125	44	20

Lab Sample ID: 310-261930-11 DU
Matrix: Water
Analysis Batch: 396422

Client Sample ID: MW-308
Prep Type: Total/NA
Prep Batch: 395829

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier		Result				
Antimony	<1.0		<1.0		ug/L		NC	20
Arsenic	5.7		5.74		ug/L		1	20
Barium	150		157		ug/L		2	20
Magnesium	26000		26300		ug/L		0.06	20
Beryllium	<0.33		<0.33		ug/L		NC	20
Cadmium	0.12	J	0.120	J	ug/L		3	20
Calcium	140		145		mg/L		0.9	20
Chromium	<1.1		<1.1		ug/L		NC	20
Cobalt	4.1		4.15		ug/L		0.5	20
Iron	5800		5890		ug/L		2	20
Lead	0.27	J	<0.24		ug/L		NC	20
Lithium	180		179		ug/L		1	20
Molybdenum	220		222		ug/L		2	20
Selenium	<1.4		<1.4		ug/L		NC	20
Thallium	<0.26		<0.26		ug/L		NC	20

Lab Sample ID: 310-261930-11 DU
Matrix: Water
Analysis Batch: 396546

Client Sample ID: MW-308
Prep Type: Total/NA
Prep Batch: 395829

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier		Result				
Boron	6800		7110		ug/L		4	20

Lab Sample ID: MB 310-395830/1-A
Matrix: Water
Analysis Batch: 396546

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 395830

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<1.0		2.0	1.0	ug/L		08/08/23 09:00	08/14/23 11:30	1
Arsenic	<0.53		2.0	0.53	ug/L		08/08/23 09:00	08/14/23 11:30	1
Barium	<0.64		2.0	0.64	ug/L		08/08/23 09:00	08/14/23 11:30	1
Beryllium	<0.33		1.0	0.33	ug/L		08/08/23 09:00	08/14/23 11:30	1
Boron	<76		100	76	ug/L		08/08/23 09:00	08/14/23 11:30	1
Cadmium	<0.10		0.20	0.10	ug/L		08/08/23 09:00	08/14/23 11:30	1
Calcium	<0.19		0.50	0.19	mg/L		08/08/23 09:00	08/14/23 11:30	1
Chromium	<1.1		5.0	1.1	ug/L		08/08/23 09:00	08/14/23 11:30	1
Cobalt	<0.17		0.50	0.17	ug/L		08/08/23 09:00	08/14/23 11:30	1
Iron	<36		100	36	ug/L		08/08/23 09:00	08/14/23 11:30	1
Lead	<0.24		0.50	0.24	ug/L		08/08/23 09:00	08/14/23 11:30	1
Lithium	<2.5		10	2.5	ug/L		08/08/23 09:00	08/14/23 11:30	1

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

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

Lab Sample ID: MB 310-395830/1-A
Matrix: Water
Analysis Batch: 396546

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 395830

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.91		2.0	0.91	ug/L		08/08/23 09:00	08/14/23 11:30	1
Selenium	<1.4		5.0	1.4	ug/L		08/08/23 09:00	08/14/23 11:30	1
Thallium	<0.26		1.0	0.26	ug/L		08/08/23 09:00	08/14/23 11:30	1

Lab Sample ID: LCS 310-395830/2-A
Matrix: Water
Analysis Batch: 396546

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 395830

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

Lab Sample ID: LCS 310-395830/2-A
Matrix: Water
Analysis Batch: 396546

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 395830

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	200	215		ug/L		107	80 - 120
Arsenic	200	193		ug/L		97	80 - 120
Barium	100	98.7		ug/L		99	80 - 120
Beryllium	100	98.7		ug/L		99	80 - 120
Boron	200	201		ug/L		101	80 - 120
Cadmium	100	97.2		ug/L		97	80 - 120
Calcium	2.00	1.99		mg/L		100	80 - 120
Chromium	100	93.3		ug/L		93	80 - 120
Cobalt	100	108		ug/L		108	80 - 120
Iron	200	209		ug/L		104	80 - 120
Lead	200	197		ug/L		99	80 - 120
Lithium	200	203		ug/L		101	80 - 120
Molybdenum	200	186		ug/L		93	80 - 120
Selenium	400	378		ug/L		95	80 - 120

Lab Sample ID: MB 310-398222/1-A
Matrix: Water
Analysis Batch: 398697

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 398222

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.26		1.0	0.26	ug/L		08/31/23 08:58	09/05/23 20:11	1

Lab Sample ID: LCS 310-398222/2-A
Matrix: Water
Analysis Batch: 398770

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 398222

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Thallium	200	159		ug/L		80	80 - 120

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-396196/1-A
Matrix: Water
Analysis Batch: 396420

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396196

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		08/10/23 10:52	08/11/23 10:19	1

Lab Sample ID: LCS 310-396196/2-A
Matrix: Water
Analysis Batch: 396420

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 396196

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.67	1.61		ug/L		97	80 - 120

Lab Sample ID: 310-261930-2 MS
Matrix: Water
Analysis Batch: 396420

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 396196

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.14		1.67	1.83		ug/L		110	80 - 120

Lab Sample ID: 310-261930-2 MSD
Matrix: Water
Analysis Batch: 396420

Client Sample ID: MW-302
Prep Type: Total/NA
Prep Batch: 396196

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	<0.14		1.67	1.87		ug/L		112	80 - 120	2	20

Lab Sample ID: MB 310-398169/1-A
Matrix: Water
Analysis Batch: 398357

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 398169

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.14		0.20	0.14	ug/L		08/30/23 11:42	08/31/23 10:37	1

Lab Sample ID: LCS 310-398169/2-A
Matrix: Water
Analysis Batch: 398357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 398169

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.67	1.68		ug/L		101	80 - 120

Method: SM 2320B - Alkalinity

Lab Sample ID: LCS 310-396303/3
Matrix: Water
Analysis Batch: 396303

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	971		mg/L		97	90 - 110

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QC Sample Results

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-395826/1
Matrix: Water
Analysis Batch: 395826

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			08/07/23 16:12	1

Lab Sample ID: LCS 310-395826/2
Matrix: Water
Analysis Batch: 395826

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	1010		mg/L		101	90 - 110

Lab Sample ID: 310-261930-12 DU
Matrix: Water
Analysis Batch: 395826

Client Sample ID: MW-309
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	530		546		mg/L		2	20

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-395689/1
Matrix: Water
Analysis Batch: 395689

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: 310-261930-1 DU
Matrix: Water
Analysis Batch: 395689

Client Sample ID: MW-301
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.1	HF	7.1		SU		0.1	20

Lab Sample ID: 310-261930-13 DU
Matrix: Water
Analysis Batch: 395689

Client Sample ID: MW-310
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	20

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

HPLC/IC

Analysis Batch: 396539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-1	MW-301	Total/NA	Water	9056A	
310-261930-1	MW-301	Total/NA	Water	9056A	
310-261930-2	MW-302	Total/NA	Water	9056A	
310-261930-2	MW-302	Total/NA	Water	9056A	
MB 310-396539/3	Method Blank	Total/NA	Water	9056A	
LCS 310-396539/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 396570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-4	MW-303	Total/NA	Water	9056A	
310-261930-5	MW-304	Total/NA	Water	9056A	
310-261930-5	MW-304	Total/NA	Water	9056A	
310-261930-6	MW-305	Total/NA	Water	9056A	
310-261930-7	MW-306	Total/NA	Water	9056A	
310-261930-8	MW-307	Total/NA	Water	9056A	
310-261930-11	MW-308	Total/NA	Water	9056A	
310-261930-11	MW-308	Total/NA	Water	9056A	
310-261930-12	MW-309	Total/NA	Water	9056A	
310-261930-13	MW-310	Total/NA	Water	9056A	
310-261930-14	MW-310A	Total/NA	Water	9056A	
310-261930-15	MW-311	Total/NA	Water	9056A	
310-261930-20	MW-314	Total/NA	Water	9056A	
310-261930-21	Field Blank	Total/NA	Water	9056A	
MB 310-396570/3	Method Blank	Total/NA	Water	9056A	
LCS 310-396570/6	Lab Control Sample	Total/NA	Water	9056A	
310-261930-4 MS	MW-303	Total/NA	Water	9056A	
310-261930-4 MSD	MW-303	Total/NA	Water	9056A	

Metals

Prep Batch: 395829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-1	MW-301	Total/NA	Water	3005A	
310-261930-2	MW-302	Total/NA	Water	3005A	
310-261930-3	MW-302A	Total/NA	Water	3005A	
310-261930-4	MW-303	Total/NA	Water	3005A	
310-261930-5	MW-304	Total/NA	Water	3005A	
310-261930-6	MW-305	Total/NA	Water	3005A	
310-261930-7	MW-306	Total/NA	Water	3005A	
310-261930-8	MW-307	Total/NA	Water	3005A	
310-261930-9	MW-307A	Total/NA	Water	3005A	
310-261930-10	MW-307B	Total/NA	Water	3005A	
310-261930-11	MW-308	Total/NA	Water	3005A	
310-261930-12	MW-309	Total/NA	Water	3005A	
310-261930-13	MW-310	Total/NA	Water	3005A	
310-261930-14	MW-310A	Total/NA	Water	3005A	
310-261930-15	MW-311	Total/NA	Water	3005A	
310-261930-16	MW-312	Total/NA	Water	3005A	
310-261930-17	MW-313	Total/NA	Water	3005A	
310-261930-18	MW-313A	Total/NA	Water	3005A	
310-261930-19	MW-313B	Total/NA	Water	3005A	

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QC Association Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Metals (Continued)

Prep Batch: 395829 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-395829/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-395829/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCS 310-395829/2-A ^2	Lab Control Sample	Total/NA	Water	3005A	
310-261930-1 MS	MW-301	Total/NA	Water	3005A	
310-261930-1 MSD	MW-301	Total/NA	Water	3005A	
310-261930-11 DU	MW-308	Total/NA	Water	3005A	

Prep Batch: 395830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-20	MW-314	Total/NA	Water	3005A	
310-261930-21	Field Blank	Total/NA	Water	3005A	
MB 310-395830/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-395830/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 396196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-1	MW-301	Total/NA	Water	7470A	
310-261930-2	MW-302	Total/NA	Water	7470A	
310-261930-4	MW-303	Total/NA	Water	7470A	
310-261930-5	MW-304	Total/NA	Water	7470A	
310-261930-6	MW-305	Total/NA	Water	7470A	
310-261930-7	MW-306	Total/NA	Water	7470A	
310-261930-8	MW-307	Total/NA	Water	7470A	
310-261930-11	MW-308	Total/NA	Water	7470A	
310-261930-12	MW-309	Total/NA	Water	7470A	
310-261930-13	MW-310	Total/NA	Water	7470A	
310-261930-14	MW-310A	Total/NA	Water	7470A	
310-261930-15	MW-311	Total/NA	Water	7470A	
310-261930-20	MW-314	Total/NA	Water	7470A	
310-261930-21	Field Blank	Total/NA	Water	7470A	
MB 310-396196/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-396196/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-261930-2 MS	MW-302	Total/NA	Water	7470A	
310-261930-2 MSD	MW-302	Total/NA	Water	7470A	

Analysis Batch: 396420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-1	MW-301	Total/NA	Water	7470A	396196
310-261930-2	MW-302	Total/NA	Water	7470A	396196
310-261930-4	MW-303	Total/NA	Water	7470A	396196
310-261930-5	MW-304	Total/NA	Water	7470A	396196
310-261930-6	MW-305	Total/NA	Water	7470A	396196
310-261930-7	MW-306	Total/NA	Water	7470A	396196
310-261930-8	MW-307	Total/NA	Water	7470A	396196
310-261930-11	MW-308	Total/NA	Water	7470A	396196
310-261930-12	MW-309	Total/NA	Water	7470A	396196
310-261930-13	MW-310	Total/NA	Water	7470A	396196
310-261930-14	MW-310A	Total/NA	Water	7470A	396196
310-261930-15	MW-311	Total/NA	Water	7470A	396196
310-261930-20	MW-314	Total/NA	Water	7470A	396196
310-261930-21	Field Blank	Total/NA	Water	7470A	396196

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Metals (Continued)

Analysis Batch: 396420 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-396196/1-A	Method Blank	Total/NA	Water	7470A	396196
LCS 310-396196/2-A	Lab Control Sample	Total/NA	Water	7470A	396196
310-261930-2 MS	MW-302	Total/NA	Water	7470A	396196
310-261930-2 MSD	MW-302	Total/NA	Water	7470A	396196

Analysis Batch: 396422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-1	MW-301	Total/NA	Water	6020B	395829
310-261930-2	MW-302	Total/NA	Water	6020B	395829
310-261930-3	MW-302A	Total/NA	Water	6020B	395829
310-261930-4	MW-303	Total/NA	Water	6020B	395829
310-261930-5	MW-304	Total/NA	Water	6020B	395829
310-261930-6	MW-305	Total/NA	Water	6020B	395829
310-261930-7	MW-306	Total/NA	Water	6020B	395829
310-261930-8	MW-307	Total/NA	Water	6020B	395829
310-261930-9	MW-307A	Total/NA	Water	6020B	395829
310-261930-10	MW-307B	Total/NA	Water	6020B	395829
310-261930-11	MW-308	Total/NA	Water	6020B	395829
310-261930-12	MW-309	Total/NA	Water	6020B	395829
310-261930-13	MW-310	Total/NA	Water	6020B	395829
310-261930-14	MW-310A	Total/NA	Water	6020B	395829
310-261930-15	MW-311	Total/NA	Water	6020B	395829
310-261930-16	MW-312	Total/NA	Water	6020B	395829
310-261930-17	MW-313	Total/NA	Water	6020B	395829
310-261930-18	MW-313A	Total/NA	Water	6020B	395829
310-261930-19	MW-313B	Total/NA	Water	6020B	395829
MB 310-395829/1-A	Method Blank	Total/NA	Water	6020B	395829
LCS 310-395829/2-A	Lab Control Sample	Total/NA	Water	6020B	395829
310-261930-1 MS	MW-301	Total/NA	Water	6020B	395829
310-261930-1 MSD	MW-301	Total/NA	Water	6020B	395829
310-261930-11 DU	MW-308	Total/NA	Water	6020B	395829

Analysis Batch: 396546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-1	MW-301	Total/NA	Water	6020B	395829
310-261930-2	MW-302	Total/NA	Water	6020B	395829
310-261930-5	MW-304	Total/NA	Water	6020B	395829
310-261930-6	MW-305	Total/NA	Water	6020B	395829
310-261930-7	MW-306	Total/NA	Water	6020B	395829
310-261930-8	MW-307	Total/NA	Water	6020B	395829
310-261930-11	MW-308	Total/NA	Water	6020B	395829
310-261930-12	MW-309	Total/NA	Water	6020B	395829
310-261930-13	MW-310	Total/NA	Water	6020B	395829
310-261930-14	MW-310A	Total/NA	Water	6020B	395829
310-261930-15	MW-311	Total/NA	Water	6020B	395829
310-261930-20	MW-314	Total/NA	Water	6020B	395830
310-261930-21	Field Blank	Total/NA	Water	6020B	395830
MB 310-395830/1-A	Method Blank	Total/NA	Water	6020B	395830
LCS 310-395830/2-A	Lab Control Sample	Total/NA	Water	6020B	395830
LCS 310-395830/2-A	Lab Control Sample	Total/NA	Water	6020B	395830
310-261930-1 MS	MW-301	Total/NA	Water	6020B	395829

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Metals (Continued)

Analysis Batch: 396546 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-1 MSD	MW-301	Total/NA	Water	6020B	395829
310-261930-11 DU	MW-308	Total/NA	Water	6020B	395829

Analysis Batch: 396550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-17	MW-313	Total/NA	Water	6020B	395829
LCS 310-395829/2-A ^2	Lab Control Sample	Total/NA	Water	6020B	395829

Prep Batch: 398169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-8	MW-307	Total/NA	Water	7470A	
310-261930-20	MW-314	Total/NA	Water	7470A	
MB 310-398169/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-398169/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 398222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-2	MW-302	Total/NA	Water	3005A	
310-261930-20	MW-314	Total/NA	Water	3005A	
MB 310-398222/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-398222/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 398357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-8	MW-307	Total/NA	Water	7470A	398169
310-261930-20	MW-314	Total/NA	Water	7470A	398169
MB 310-398169/1-A	Method Blank	Total/NA	Water	7470A	398169
LCS 310-398169/2-A	Lab Control Sample	Total/NA	Water	7470A	398169

Analysis Batch: 398697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-2	MW-302	Total/NA	Water	6020B	398222
310-261930-20	MW-314	Total/NA	Water	6020B	398222
MB 310-398222/1-A	Method Blank	Total/NA	Water	6020B	398222

Analysis Batch: 398770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-398222/2-A	Lab Control Sample	Total/NA	Water	6020B	398222

General Chemistry

Analysis Batch: 395689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-1	MW-301	Total/NA	Water	SM 4500 H+ B	
310-261930-2	MW-302	Total/NA	Water	SM 4500 H+ B	
310-261930-4	MW-303	Total/NA	Water	SM 4500 H+ B	
310-261930-5	MW-304	Total/NA	Water	SM 4500 H+ B	
310-261930-6	MW-305	Total/NA	Water	SM 4500 H+ B	
310-261930-7	MW-306	Total/NA	Water	SM 4500 H+ B	
310-261930-8	MW-307	Total/NA	Water	SM 4500 H+ B	
310-261930-11	MW-308	Total/NA	Water	SM 4500 H+ B	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

General Chemistry (Continued)

Analysis Batch: 395689 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-12	MW-309	Total/NA	Water	SM 4500 H+ B	
310-261930-13	MW-310	Total/NA	Water	SM 4500 H+ B	
310-261930-14	MW-310A	Total/NA	Water	SM 4500 H+ B	
310-261930-15	MW-311	Total/NA	Water	SM 4500 H+ B	
310-261930-20	MW-314	Total/NA	Water	SM 4500 H+ B	
310-261930-21	Field Blank	Total/NA	Water	SM 4500 H+ B	
LCS 310-395689/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-261930-1 DU	MW-301	Total/NA	Water	SM 4500 H+ B	
310-261930-13 DU	MW-310	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 395826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-1	MW-301	Total/NA	Water	SM 2540C	
310-261930-2	MW-302	Total/NA	Water	SM 2540C	
310-261930-4	MW-303	Total/NA	Water	SM 2540C	
310-261930-5	MW-304	Total/NA	Water	SM 2540C	
310-261930-6	MW-305	Total/NA	Water	SM 2540C	
310-261930-7	MW-306	Total/NA	Water	SM 2540C	
310-261930-8	MW-307	Total/NA	Water	SM 2540C	
310-261930-11	MW-308	Total/NA	Water	SM 2540C	
310-261930-12	MW-309	Total/NA	Water	SM 2540C	
310-261930-13	MW-310	Total/NA	Water	SM 2540C	
310-261930-14	MW-310A	Total/NA	Water	SM 2540C	
310-261930-15	MW-311	Total/NA	Water	SM 2540C	
310-261930-20	MW-314	Total/NA	Water	SM 2540C	
310-261930-21	Field Blank	Total/NA	Water	SM 2540C	
MB 310-395826/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-395826/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-261930-12 DU	MW-309	Total/NA	Water	SM 2540C	

Analysis Batch: 396303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-17	MW-313	Total/NA	Water	SM 2320B	
LCS 310-396303/3	Lab Control Sample	Total/NA	Water	SM 2320B	

Field Service / Mobile Lab

Analysis Batch: 396532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-1	MW-301	Total/NA	Water	Field Sampling	
310-261930-2	MW-302	Total/NA	Water	Field Sampling	
310-261930-3	MW-302A	Total/NA	Water	Field Sampling	
310-261930-4	MW-303	Total/NA	Water	Field Sampling	
310-261930-5	MW-304	Total/NA	Water	Field Sampling	
310-261930-6	MW-305	Total/NA	Water	Field Sampling	
310-261930-7	MW-306	Total/NA	Water	Field Sampling	
310-261930-8	MW-307	Total/NA	Water	Field Sampling	
310-261930-9	MW-307A	Total/NA	Water	Field Sampling	
310-261930-10	MW-307B	Total/NA	Water	Field Sampling	
310-261930-11	MW-308	Total/NA	Water	Field Sampling	
310-261930-12	MW-309	Total/NA	Water	Field Sampling	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Field Service / Mobile Lab (Continued)

Analysis Batch: 396532 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-261930-13	MW-310	Total/NA	Water	Field Sampling	
310-261930-14	MW-310A	Total/NA	Water	Field Sampling	
310-261930-15	MW-311	Total/NA	Water	Field Sampling	
310-261930-16	MW-312	Total/NA	Water	Field Sampling	
310-261930-17	MW-313	Total/NA	Water	Field Sampling	
310-261930-18	MW-313A	Total/NA	Water	Field Sampling	
310-261930-19	MW-313B	Total/NA	Water	Field Sampling	
310-261930-20	MW-314	Total/NA	Water	Field Sampling	

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Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-301

Lab Sample ID: 310-261930-1

Date Collected: 08/03/23 11:45

Matrix: Water

Date Received: 08/04/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	396539	QTZ5	EET CF	08/11/23 22:15
Total/NA	Analysis	9056A		20	396539	QTZ5	EET CF	08/14/23 10:05
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 13:10
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		4	396546	A6US	EET CF	08/14/23 10:36
Total/NA	Prep	7470A			396196	NFT2	EET CF	08/10/23 10:52
Total/NA	Analysis	7470A		1	396420	NFT2	EET CF	08/11/23 10:32
Total/NA	Analysis	SM 2540C		1	395826	ENB7	EET CF	08/07/23 16:12
Total/NA	Analysis	SM 4500 H+ B		1	395689	ZJX4	EET CF	08/04/23 21:27
Total/NA	Analysis	Field Sampling		1	396532	BJOR	EET CF	08/03/23 11:45

Client Sample ID: MW-302

Lab Sample ID: 310-261930-2

Date Collected: 08/01/23 17:25

Matrix: Water

Date Received: 08/04/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	396539	QTZ5	EET CF	08/11/23 22:27
Total/NA	Analysis	9056A		20	396539	QTZ5	EET CF	08/14/23 10:17
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 13:21
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		4	396546	A6US	EET CF	08/14/23 10:43
Total/NA	Prep	3005A			398222	KCK5	EET CF	08/31/23 08:58
Total/NA	Analysis	6020B		1	398697	DHM5	EET CF	09/05/23 20:47
Total/NA	Prep	7470A			396196	NFT2	EET CF	08/10/23 10:52
Total/NA	Analysis	7470A		1	396420	NFT2	EET CF	08/11/23 10:34
Total/NA	Analysis	SM 2540C		1	395826	ENB7	EET CF	08/07/23 16:12
Total/NA	Analysis	SM 4500 H+ B		1	395689	ZJX4	EET CF	08/04/23 21:29
Total/NA	Analysis	Field Sampling		1	396532	BJOR	EET CF	08/01/23 17:25

Client Sample ID: MW-302A

Lab Sample ID: 310-261930-3

Date Collected: 08/01/23 16:35

Matrix: Water

Date Received: 08/04/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 13:23
Total/NA	Analysis	Field Sampling		1	396532	BJOR	EET CF	08/01/23 16:35

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-303
Date Collected: 08/01/23 18:40
Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	396570	QTZ5	EET CF	08/14/23 11:41
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 13:25
Total/NA	Prep	7470A			396196	NFT2	EET CF	08/10/23 10:52
Total/NA	Analysis	7470A		1	396420	NFT2	EET CF	08/11/23 10:45
Total/NA	Analysis	SM 2540C		1	395826	ENB7	EET CF	08/07/23 16:12
Total/NA	Analysis	SM 4500 H+ B		1	395689	ZJX4	EET CF	08/04/23 21:30
Total/NA	Analysis	Field Sampling		1	396532	BJOR	EET CF	08/01/23 18:40

Client Sample ID: MW-304
Date Collected: 08/01/23 12:35
Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	396570	QTZ5	EET CF	08/14/23 12:18
Total/NA	Analysis	9056A		10	396570	QTZ5	EET CF	08/14/23 14:55
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 13:39
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		4	396546	A6US	EET CF	08/14/23 10:45
Total/NA	Prep	7470A			396196	NFT2	EET CF	08/10/23 10:52
Total/NA	Analysis	7470A		1	396420	NFT2	EET CF	08/11/23 10:47
Total/NA	Analysis	SM 2540C		1	395826	ENB7	EET CF	08/07/23 16:12
Total/NA	Analysis	SM 4500 H+ B		1	395689	ZJX4	EET CF	08/04/23 21:31
Total/NA	Analysis	Field Sampling		1	396532	BJOR	EET CF	08/01/23 12:35

Client Sample ID: MW-305
Date Collected: 08/01/23 10:30
Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	396570	QTZ5	EET CF	08/14/23 12:30
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 13:41
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396546	A6US	EET CF	08/14/23 10:47
Total/NA	Prep	7470A			396196	NFT2	EET CF	08/10/23 10:52
Total/NA	Analysis	7470A		1	396420	NFT2	EET CF	08/11/23 10:49
Total/NA	Analysis	SM 2540C		1	395826	ENB7	EET CF	08/07/23 16:12
Total/NA	Analysis	SM 4500 H+ B		1	395689	ZJX4	EET CF	08/04/23 21:32
Total/NA	Analysis	Field Sampling		1	396532	BJOR	EET CF	08/01/23 10:30

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-306
Date Collected: 08/02/23 16:15
Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	396570	QTZ5	EET CF	08/14/23 12:42
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 13:43
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		4	396546	A6US	EET CF	08/14/23 10:49
Total/NA	Prep	7470A			396196	NFT2	EET CF	08/10/23 10:52
Total/NA	Analysis	7470A		1	396420	NFT2	EET CF	08/11/23 10:51
Total/NA	Analysis	SM 2540C		1	395826	ENB7	EET CF	08/07/23 16:12
Total/NA	Analysis	SM 4500 H+ B		1	395689	ZJX4	EET CF	08/04/23 21:37
Total/NA	Analysis	Field Sampling		1	396532	BJ0R	EET CF	08/02/23 16:15

Client Sample ID: MW-307
Date Collected: 08/01/23 14:05
Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	396570	QTZ5	EET CF	08/14/23 12:54
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 13:45
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		4	396546	A6US	EET CF	08/14/23 10:52
Total/NA	Prep	7470A			396196	NFT2	EET CF	08/10/23 10:52
Total/NA	Analysis	7470A		1	396420	NFT2	EET CF	08/11/23 10:54
Total/NA	Prep	7470A			398169	NFT2	EET CF	08/30/23 11:42
Total/NA	Analysis	7470A		1	398357	NFT2	EET CF	08/31/23 10:41
Total/NA	Analysis	SM 2540C		1	395826	ENB7	EET CF	08/07/23 16:12
Total/NA	Analysis	SM 4500 H+ B		1	395689	ZJX4	EET CF	08/04/23 21:39
Total/NA	Analysis	Field Sampling		1	396532	BJ0R	EET CF	08/01/23 14:05

Client Sample ID: MW-307A
Date Collected: 08/01/23 14:50
Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 13:47
Total/NA	Analysis	Field Sampling		1	396532	BJ0R	EET CF	08/01/23 14:50

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-307B

Lab Sample ID: 310-261930-10

Date Collected: 08/02/23 14:20

Matrix: Water

Date Received: 08/04/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 13:50
Total/NA	Analysis	Field Sampling		1	396532	BJ0R	EET CF	08/02/23 14:20

Client Sample ID: MW-308

Lab Sample ID: 310-261930-11

Date Collected: 08/01/23 11:10

Matrix: Water

Date Received: 08/04/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	396570	QTZ5	EET CF	08/14/23 13:06
Total/NA	Analysis	9056A		10	396570	QTZ5	EET CF	08/14/23 15:07
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 13:52
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		10	396546	A6US	EET CF	08/14/23 11:05
Total/NA	Prep	7470A			396196	NFT2	EET CF	08/10/23 10:52
Total/NA	Analysis	7470A		1	396420	NFT2	EET CF	08/11/23 10:56
Total/NA	Analysis	SM 2540C		1	395826	ENB7	EET CF	08/07/23 16:12
Total/NA	Analysis	SM 4500 H+ B		1	395689	ZJX4	EET CF	08/04/23 21:40
Total/NA	Analysis	Field Sampling		1	396532	BJ0R	EET CF	08/01/23 11:10

Client Sample ID: MW-309

Lab Sample ID: 310-261930-12

Date Collected: 08/02/23 17:50

Matrix: Water

Date Received: 08/04/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	396570	QTZ5	EET CF	08/14/23 13:18
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 13:56
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		10	396546	A6US	EET CF	08/14/23 11:10
Total/NA	Prep	7470A			396196	NFT2	EET CF	08/10/23 10:52
Total/NA	Analysis	7470A		1	396420	NFT2	EET CF	08/11/23 10:58
Total/NA	Analysis	SM 2540C		1	395826	ENB7	EET CF	08/07/23 16:12
Total/NA	Analysis	SM 4500 H+ B		1	395689	ZJX4	EET CF	08/04/23 21:41
Total/NA	Analysis	Field Sampling		1	396532	BJ0R	EET CF	08/02/23 17:50

Client Sample ID: MW-310

Lab Sample ID: 310-261930-13

Date Collected: 08/03/23 14:20

Matrix: Water

Date Received: 08/04/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	396570	QTZ5	EET CF	08/14/23 13:55

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
 Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-310
Date Collected: 08/03/23 14:20
Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 13:58
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396546	A6US	EET CF	08/14/23 11:12
Total/NA	Prep	7470A			396196	NFT2	EET CF	08/10/23 10:52
Total/NA	Analysis	7470A		1	396420	NFT2	EET CF	08/11/23 11:00
Total/NA	Analysis	SM 2540C		1	395826	ENB7	EET CF	08/07/23 16:12
Total/NA	Analysis	SM 4500 H+ B		1	395689	ZJX4	EET CF	08/04/23 21:50
Total/NA	Analysis	Field Sampling		1	396532	BJ0R	EET CF	08/03/23 14:20

Client Sample ID: MW-310A
Date Collected: 08/03/23 14:35
Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	396570	QTZ5	EET CF	08/14/23 14:07
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 14:12
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396546	A6US	EET CF	08/14/23 11:14
Total/NA	Prep	7470A			396196	NFT2	EET CF	08/10/23 10:52
Total/NA	Analysis	7470A		1	396420	NFT2	EET CF	08/11/23 11:06
Total/NA	Analysis	SM 2540C		1	395826	ENB7	EET CF	08/07/23 16:12
Total/NA	Analysis	SM 4500 H+ B		1	395689	ZJX4	EET CF	08/04/23 21:52
Total/NA	Analysis	Field Sampling		1	396532	BJ0R	EET CF	08/03/23 14:35

Client Sample ID: MW-311
Date Collected: 08/03/23 13:00
Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	396570	QTZ5	EET CF	08/14/23 14:19
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 14:14
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396546	A6US	EET CF	08/14/23 11:16
Total/NA	Prep	7470A			396196	NFT2	EET CF	08/10/23 10:52
Total/NA	Analysis	7470A		1	396420	NFT2	EET CF	08/11/23 11:09
Total/NA	Analysis	SM 2540C		1	395826	ENB7	EET CF	08/07/23 16:12
Total/NA	Analysis	SM 4500 H+ B		1	395689	ZJX4	EET CF	08/04/23 21:53
Total/NA	Analysis	Field Sampling		1	396532	BJ0R	EET CF	08/03/23 13:00

Lab Chronicle

Client: SCS Engineers
Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-312

Date Collected: 08/01/23 09:45

Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 14:16
Total/NA	Analysis	Field Sampling		1	396532	BJ0R	EET CF	08/01/23 09:45

Client Sample ID: MW-313

Date Collected: 08/01/23 12:50

Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 14:18
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		7	396550	A6US	EET CF	08/14/23 13:40
Total/NA	Analysis	SM 2320B		1	396303	WZC8	EET CF	08/10/23 13:24
Total/NA	Analysis	Field Sampling		1	396532	BJ0R	EET CF	08/01/23 12:50

Client Sample ID: MW-313A

Date Collected: 08/02/23 11:45

Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-18

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 14:21
Total/NA	Analysis	Field Sampling		1	396532	BJ0R	EET CF	08/02/23 11:45

Client Sample ID: MW-313B

Date Collected: 08/02/23 10:50

Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-19

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			395829	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396422	A6US	EET CF	08/11/23 14:23
Total/NA	Analysis	Field Sampling		1	396532	BJ0R	EET CF	08/02/23 10:50

Client Sample ID: MW-314

Date Collected: 08/03/23 10:20

Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	396570	QTZ5	EET CF	08/14/23 14:31
Total/NA	Prep	3005A			395830	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396546	A6US	EET CF	08/14/23 11:45
Total/NA	Prep	3005A			398222	KCK5	EET CF	08/31/23 08:58
Total/NA	Analysis	6020B		1	398697	DHM5	EET CF	09/05/23 20:52

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

Client Sample ID: MW-314
Date Collected: 08/03/23 10:20
Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-20
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			396196	NFT2	EET CF	08/10/23 10:52
Total/NA	Analysis	7470A		1	396420	NFT2	EET CF	08/11/23 11:11
Total/NA	Prep	7470A			398169	NFT2	EET CF	08/30/23 11:42
Total/NA	Analysis	7470A		1	398357	NFT2	EET CF	08/31/23 10:43
Total/NA	Analysis	SM 2540C		1	395826	ENB7	EET CF	08/07/23 16:12
Total/NA	Analysis	SM 4500 H+ B		1	395689	ZJX4	EET CF	08/04/23 21:54
Total/NA	Analysis	Field Sampling		1	396532	BJ0R	EET CF	08/03/23 10:20

Client Sample ID: Field Blank
Date Collected: 08/03/23 15:00
Date Received: 08/04/23 16:30

Lab Sample ID: 310-261930-21
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	396570	QTZ5	EET CF	08/14/23 14:43
Total/NA	Prep	3005A			395830	KCK5	EET CF	08/08/23 09:00
Total/NA	Analysis	6020B		1	396546	A6US	EET CF	08/14/23 11:48
Total/NA	Prep	7470A			396196	NFT2	EET CF	08/10/23 10:52
Total/NA	Analysis	7470A		1	396420	NFT2	EET CF	08/11/23 11:13
Total/NA	Analysis	SM 2540C		1	395826	ENB7	EET CF	08/07/23 16:12
Total/NA	Analysis	SM 4500 H+ B		1	395689	ZJX4	EET CF	08/04/23 21:58

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Method Summary

Client: SCS Engineers
Project/Site: Burlington Generating Station - 25223066

Job ID: 310-261930-1

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 2320B	Alkalinity	SM	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



Sandra Fredrick

From: Burris, Natalie <NBurris@scsengineers.com>
Sent: Tuesday, August 8, 2023 8:38 AM
To: Sandra Fredrick
Cc: Blodgett, Meghan; Matzuk, Ryan; Clark, Sherren; Karwoski, Thomas
Subject: RE: Eurofins Environment Testing North Central, LLC Sample Login Confirmation files from 310-261930 Burlington Generating Station - 25223066

EXTERNAL EMAIL*

Hi Sandie,

Here are the sample location data and times that we have in our records:

BGS Sample data and times (August 2023)

- MW-301 – 8/3/2023, 11:45
- MW-302 – 8/1/2023, 17:25
- MW-302A – 8/1/2023, 16:35
- MW-303 – 8/1/2023, 18:40
- MW-304 – 8/1/2023, 12:35
- MW-305 – 8/1/2023, 10:30
- MW-306 – 8/2/2023, 16:15
- MW-307 – 8/1/2023, 14:05
- MW-307A – 8/1/2023, 14:50
- MW-307B – 8/2/2023, 14:20
- MW-308 – 8/1/2023, 11:10
- MW-309 – 8/2/2023, 17:50
- MW-310 – 8/3/2023, 14:20
- MW-310A – 8/3/2023, 14:35
- MW-311 – 8/3/2023, 13:00
- MW-312 – 8/1/2023, 9:45
- MW-313 – 8/1/2023, 12:50
- MW-313A – 8/2/2023, 11:45
- MW-313B – 8/2/2023, 10:50
- MW-314 – 8/3/2023, 10:20
- Field Blank – 8/3/2023, 15:00

If you need anything else, please feel free to reach out.

Thanks!

Natalie L. Burris, PG*
SCS Engineers
Madison, WI
608-224-2830 (W)
316-518-4107 (C)
nburris@scsengineers.com
*Licensed in KS, MO & NE

www.scsengineers.com

From: Sandie Fredrick <Sandra.Fredrick@et.eurofinsus.com>
Sent: Monday, August 7, 2023 2:01 PM
To: Blodgett, Meghan <mblodgett@scsengineers.com>; Burris, Natalie <NBurris@scsengineers.com>; Matzuk, Ryan <RMatzuk@scsengineers.com>; Clark, Sherren <SClark@scsengineers.com>; Karwoski, Thomas <TKarwoski@scsengineers.com>
Subject: Eurofins Environment Testing North Central, LLC Sample Login Confirmation files from 310-261930 Burlington Generating Station - 25223066

This email originated from outside of SCS Engineers. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello All,

Please confirm the dates/times.

Attached, please find the Sample Confirmation files for job 310-261930; Burlington Generating Station - 25223066

Please feel free to contact me if you have any questions.

Thank you.

Sandie Fredrick
Project Manager

Eurofins Environment Testing
Phone: 920-261-1660

E-mail: Sandra.Fredrick@et.eurofinsus.com
www.eurofinsus.com/env



Reference: [310-657226]
Attachments: 3

* WARNING - EXTERNAL: This email originated from outside of Eurofins Environment Testing America. Do not click any links or open any attachments unless you trust the sender and know that the content is safe!



Environment Testing
America



310-261930 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received	DATE	TIME	Received By:
	<u>8-4-23</u>	<u>1630</u>	<u>CC</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee			
<input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes: Cooler ID:</i>			
Multiple Coolers? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes: Cooler # <u>1</u> of <u>2</u></i>			
Cooler Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No</i>			
Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No</i>			
Trip Blank Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes: Which VOA samples are in cooler? <u>↓</u></i>			
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>F</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>1.6</u>		Corrected Temp (°C): <u>1.6</u>	
• 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? <input type="checkbox"/> Yes <input type="checkbox"/> No			
a) <i>If yes: Is there evidence that the chilling process began?</i> <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



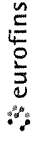
Environment Testing
America

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE <u>8/4/23</u>	TIME <u>16:30</u>	Received By: <u>CC</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID:	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>2</u> of <u>2</u>	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____	<input type="checkbox"/> NONE	
Thermometer ID:	<u>P</u>	Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C):	<u>1.9</u>	Corrected Temp (°C): <u>1.9</u>	
• Sample Container Temperature			
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Chain of Custody Record



Eurofins
 Environmental
 Analytical

Client Information
 Company: SCS Engineers
 Address: 2830 Dairy Drive, Madison, WI 53718
 State: WI, Zip: 53718
 Phone: 608-224-2830
 Email: mblodgett@scsengineers.com
 Project Name: Burlington Generating Station 25223066
 Site: Burlington IA

Sampler: Tyler Stirling
 Phone: 510-805-2776
 PWSID

Lab PM: Sandie Fredrick
 E-Mail: Sandra.Fredrick@et.eurofinsus.com

Carrier Tracking No(s): IA
 State of Origin: IA
 Job #: 20223066

Analysis Requested:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020 Metals total (Sb, As, Ba, Be, B, Ca, Cd, Cr, Co, Fe, Pb, Li, Mo, Se, Ti)	7470A Mercury total	6020 Metals total (Fe, Li, Mn, Mo)	TDS and pH	9056A Chloride Fluoride Sulfate	SM 2320B Bicarbonate & carbonate alkalinity	Total Number of containers	Special Instructions/Note
MW-301			G	W	N	X	X	X	X	X	X	X	X	
MW-302			G	W	N	X	X	X	X	X	X	X	X	
MW-302A			G	W	N	X	X	X	X	X	X	X	X	
MW-303			G	W	N	X	X	X	X	X	X	X	X	
MW-304			G	W	N	X	X	X	X	X	X	X	X	
MW-305			G	W	N	X	X	X	X	X	X	X	X	
MW-306			G	W	N	X	X	X	X	X	X	X	X	
MW-307			G	W	N	X	X	X	X	X	X	X	X	
MW-307A			G	W	N	X	X	X	X	X	X	X	X	
MW-307B			G	W	N	X	X	X	X	X	X	X	X	
MW-308			G	W	N	X	X	X	X	X	X	X	X	

Preservation Codes:
 M - Hexane, N - None, O - AshNaO2, P - Na2SO4, Q - Na2SO3, R - Na2SO4, S - H2SO4, T - TSP Docecahydrate, U - Acetone, V - MCAA, W - pH 4-5, X - EDTA, Y - Other (Specify)

Analysis Requested (Checkboxes):
 Return To Client, Disposal By Lab, Archive For Months
 Non-Hazard, Flammable, Skin Irritant, Poison B, Unknown, Radiological
 Deliverable Requested I, II, III, IV Other (specify)

Possible Hazard Identification
 Non-Hazard, Flammable, Skin Irritant, Poison B, Unknown, Radiological
 Deliverable Requested I, II, III, IV Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client, Disposal By Lab, Archive For Months

Special Instructions/QC Requirements

Empty Kit Relinquished by
 Relinquished by: Tyler Stirling
 Date/Time: 8/14/23 @ 1:00
 Company: SCS
 Relinquished by: Tyler Stirling
 Date/Time: Tyler Stirling
 Company: SCS

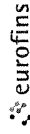
Custody Seal No
 Custody Seal No: 1630
 Company: SCS

Chain of Custody:
 Relinquished by: Tyler Stirling
 Date/Time: 8/14/23 @ 1:00
 Company: SCS
 Relinquished by: Tyler Stirling
 Date/Time: Tyler Stirling
 Company: SCS
 Relinquished by: Tyler Stirling
 Date/Time: Tyler Stirling
 Company: SCS

Cooler Temperature(s) °C and Other Remarks:



Chain of Custody Record



Client Information		Sampler		Lab PM		Carrier Tracking No(s)		COC No	
Meghan Bloodgett SCS Engineers		Tyler C Stucky 515-808-2716		Sandie Fredrick		IA			
Address 2830 Dairy Drive Madison State Zip WI 53718		City Madison		E-Mail Sandie.Fredrick@eurofins.com		State of Origin		Page 2 of 2	
Phone 608-224-2830		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		Due Date Requested		Analysis Requested		Job # 25223066	
Email mbloodgett@scsengineers.com		PO # 25223066		TAT Requested (days)		Perform MS/MSD (Yes or No)		Preservation Codes	
Project Name Burlington Generating Station 25223066		WO #		Sample Date		Field Filtered Sample (Yes or No)		A HCL 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)	
Site Burlington IA		Sample Time		Sample Type (C=Comp, G=grab)		6020 Metals total (Sb As Ba Be B Ca Cd Cr Co Fe Pb Li Mo Se Tl)		Other:	
Sample Identification		Sample Date		Sample Time		7470A Mercury total		Total Number of containers	
MW-309				G		D		Special Instructions/Note	
MW-310				G		X			
MW-310A				G		X			
MW-311				G		X			
MW-312				G		X			
MW-313				G		X			
MW-313A				G		X			
MW-313B				G		X			
MW-314				G		X			
Field Blank				G		X			
<p>Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I II III IV Other (specify)</p> <p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Special Instructions/QC Requirements</p>									
Empty Kit Relinquished by		Date		Time		Method of Shipment:			
Relinquished by <i>[Signature]</i>		Date/Time 8/4/23 10:30		Company SCS		Received by 55		Date/Time 8/4/23 10:30	
Relinquished by		Date/Time		Company		Received by		Date/Time	
Relinquished by		Date/Time		Company		Received by		Date/Time	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks.					



Table 1. Sampling Points and Parameters CCR Rule Sampling Program Assessment Monitoring
Groundwater Monitoring - Burlington Generating Station / SCS Engineers Project #2522686

Parameter	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-306	MW-307	MW-307A	MW-307B	MW-308	MW-309	MW-310	MW-310A	MW-311	MW-312	MW-313	MW-313A	MW-313B	MW-314	TW-101	TW-102	Field Blank	TOTAL
Appendix III Parameters	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Compliance Parameters																								
Appendix IV Parameters																								
Field Parameters																								
Additional Parameters																								
Boron																								14
Calcium																								14
Chloride																								14
Fluoride																								14
pH																								14
Sulfate																								14
TDS																								14
Antimony																								14
Arsenic																								14
Barium																								14
Beryllium																								14
Cadmium																								14
Chromium																								14
Cobalt																								14
Fluoride																								14
Lead																								14
Lithium																								14
Mercury																								14
Molybdenum																								14
Seismium																								14
Thallium																								14
Groundwater Elevation																								22
pH (field)																								20
Specific Conductance																								20
Dissolved Oxygen																								20
ORP																								20
Temperature																								20
Turbidity																								20
Color																								20
Odor																								20
Bicarbonate (total)																								1
Carbonate (total)																								20
Iron (total)																								1
Magnesium (total)																								1
Manganese (total)																								1
Potassium (total)																								0
Sodium (total)																								0

Notes: \\25223066-00Data and Calculations\Feld Work Requests\August 2023\Table_1_BGS_CCR_Rule_Sampling_2307_(example.xls)Sheet1



Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-261930-1

Login Number: 261930

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Tucker, Sarah L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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.	False	No sample date and/or time on COC, logged in per email from client
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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Table 1. Groundwater Monitoring Results - Field Parameters
Burlington Generating Station / SCS Engineers Project #25223066.00
August 2023

Sample	Temperature (Deg. C)	pH (Std. Units)	Dissolved Oxygen (mg/L)	Specific Conductivity (µmhos/cm)	ORP (mV)	Turbidity	Groundwater Elevation (amsl)
MW-301	12.2	6.87	0.14	2,261	-41.4	34.67	518.33
MW-302	11.0	6.31	0.04	1,535	4.5	18.62	518.19
MW-302A	8.3	7.78	0.29	458.3	-151.4	4.13	518.09
MW-303	11.5	7.09	0.03	762	-100.4	11.58	517.91
MW-304	12.4	6.45	0.05	1,602	-71.9	15.72	518.19
MW-305	10.9	6.39	0.02	1,081	-21.2	3.63	518.03
MW-306	12.9	8.81	0.19	937	-129.0	15.54	518.07
MW-307	12.6	7.62	0.05	872	-111.6	15.09	518.04
MW-307A	7.6	7.78	0.04	487.5	-154.0	4.61	519.42
MW-307B	10.3	7.62	0.29	435	-130.0	8.79	518.20
MW-308	13.2	7.33	0.44	1,483	-121.7	0.98	518.22
MW-309	13.7	7.06	0.00	890	-155.0	21.44	518.22
MW-310	15.7	7.10	0.03	1,168	-174.9	7.38	520.29
MW-310A	--	7.39	--	1,100	--	--	490.83
MW-311	12.3	6.95	0.07	1,163	-130.4	6.88	518.28
MW-312	10.8	6.95	1.81	1,030	-108.6	36.50	517.93
MW-313	9.4	7.10	-0.02	817	-152.0	45.12	518.09
MW-313A	7.3	7.69	0.27	457	-174.0	0.81	518.00
MW-313B	8.4	7.47	1.06	512	-145.8	1.76	518.01
MW-314	12.3	6.68	0.3	1149	-111.0	38.36	518.28

Abbreviations:

mg/L = milligrams per liter
mV = millivolts


amsl = above mean sea level
µmhos/cm = micromohs per cm

-- = Not Applicable
NM = not measured

Created by: MDB
Last revision by: RM
Checked by: REO

Date: 5/10/2023
Date: 8/10/2023
Date: 8/11/2023

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Appendix D

Historical Monitoring Results

Single Location
Name: IPL - Burlington

Location ID: MW-301

Number of Sampling Dates: 23

Parameter Name	Units	4/20/2016	6/6/2016	8/16/2016	10/3/2016	1/10/2017	4/3/2017	6/12/2017	8/16/2017
Boron	ug/L	12400	10600	13100	10500	12000	14500	10500	14000
Calcium	mg/L	156	100	178	131	140	220	156	211
Chloride	mg/L	23.3	22.4	22.3	21.6	21.3	20.7	21.5	20.8
Fluoride	mg/L	0.55	0.29	0.43	0.3	0.37	0.36	0.23	0.45
Field pH	Std. Units	7.27	7.65	7.53	7.61	7.41	7.37	7.36	6.89
Sulfate	mg/L	193	170	206	378	385	215	511	327
Total Dissolved Solids	mg/L	782	630	857	729	816	1020	960	1190
Antimony	ug/L	0.062	0.12	0.13	0.073	<0.058	0.049	<0.026	0.2
Arsenic	ug/L	39.4	35	44.1	36.9	39.7	46.1	33.4	42.7
Barium	ug/L	381	239	406	294	343	464	380	479
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.046	<0.012	0.014
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	0.032	<0.018	<0.018	<0.018
Chromium	ug/L	0.67	0.38	0.56	<0.34	0.44	0.34	0.17	0.49
Cobalt	ug/L	0.64	<0.5	0.52	<0.5	<0.5	0.57	0.16	0.46
Lead	ug/L	0.31	<0.19	<0.19	<0.19	<0.19	0.091	0.12	0.23
Lithium	ug/L	10.3	11.7	<4.9	22.8	20.1	13.2	29.4	18.2
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046
Molybdenum	ug/L	108	116	94.5	114	113	82.8	116	98.5
Selenium	ug/L	0.34	<0.18	0.29	<0.18	<0.18	0.4	0.1	0.35
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.08	0.08	0.059
Total Radium	pCi/L	1.33	0.933	2.03	0.643	0.512	1.16	1.86	1.81
Radium-226	pCi/L	0.6	0.144	0.367	0	0.0709	0.347	0.901	1.14
Radium-228	pCi/L	0.729	0.789	1.66	0.643	0.441	0.817	0.954	0.671
Collected By		--	0	0	--	0	0	0	0
Field Oxidation Potential	mV	-135.3	-110.7	-162.3	-156.4	-146.1	-164.7	-89.6	-90.4
Field Specific Conductance	umhos/cm	898	1702	2499	1776	1985	2507	859	1925
Field Temperature	deg C	12.6	13.2	13.5	14.1	13.6	12.9	13	13.8
Groundwater Elevation	feet	522.63	521.07	521.81	527.48	525.38	523.08	523.21	519.96
Oxygen, Dissolved	mg/L	0.09	1.12	0.11	0.5	0.1	0.12	0.17	0.05
Turbidity	NTU	10.49	1	0.51	0.54	0.9	1.12	2.02	0.4
Collected Date		--	--	--	--	--	--	--	--
Collected Time		--	--	--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	7	7.1	7	7.2	7.2	7.4	6.9	7.1
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-301
Number of Sampling Dates: 23

Parameter Name	Units	10/16/2017	5/9/2018	8/13/2018	10/9/2018	3/12/2019	4/3/2019	10/10/2019	6/3/2020
Boron	ug/L	9900	9140	12800	8040	--	12000	8100	10000
Calcium	mg/L	140	85.3	174	103	--	150	130	140
Chloride	mg/L	22	22.7	21.7	21.5	--	21	20	22
Fluoride	mg/L	0.27	0.36	0.52	0.26	--	0.77	<0.23	0.26
Field pH	Std. Units	7.58	7.4	7.91	7.34	6.38	7.53	6.85	6.99
Sulfate	mg/L	454	188	187	358	--	190	390	250
Total Dissolved Solids	mg/L	780	568	960	656	--	890	690	910
Antimony	ug/L	--	<0.026	<0.15	0.08	--	<0.53	<0.53	<0.58
Arsenic	ug/L	--	34.9	40.1	37.7	--	42	40	46
Barium	ug/L	--	198	420	276	--	380	320	330
Beryllium	ug/L	--	<0.012	<0.12	<0.089	--	<0.27	<0.27	<0.27
Cadmium	ug/L	--	0.04	<0.07	<0.033	--	<0.077	<0.039	<0.039
Chromium	ug/L	--	0.25	0.36	0.12	--	<0.98	<0.98	<1.1
Cobalt	ug/L	--	0.15	0.45	0.1	--	0.44	0.18	0.31
Lead	ug/L	--	0.17	0.13	<0.13	--	<0.27	<0.27	<0.27
Lithium	ug/L	--	17.8	18.9	24.5	--	13	26	16
Mercury	ug/L	--	<0.09	--	<0.09	--	<0.1	--	<0.1
Molybdenum	ug/L	--	113	81.7	120	62.7	77	130	110
Selenium	ug/L	--	0.25	0.28	0.13	--	<1	<1	<1
Thallium	ug/L	--	<0.036	--	<0.099	--	<0.27	--	<0.26
Total Radium	pCi/L	--	0.712	1.15	1.5	--	1.15	1.03	0.928/0.928
Radium-226	pCi/L	--	0.712	0.693	0.534	--	0.411	0.498	0.553/0.553
Radium-228	pCi/L	--	-0.016	0.459	0.966	--	0.736	0.527	<0.411/0.376
Collected By		0	--	--	--	0	--	--	--
Field Oxidation Potential	mV	38	-167.1	-145	-63.5	-73.1	-144.7	-162.9	37.1
Field Specific Conductance	umhos/cm	1065	600.8	1400	892	1055	1213	1063	1167
Field Temperature	deg C	13.8	12.9	16.8	17.2	12.56	12.35	13.9	13.4
Groundwater Elevation	feet	522.13	525.51	520.19	528.01	523.38	528.15	--	523.94
Oxygen, Dissolved	mg/L	0.12	0.08	0.35	0.24	2.61	0.59	0.23	0.25
Turbidity	NTU	1.26	4.23	5.78	8.43	17.1	21.1	12.55	20.15
Collected Date		--	--	--	--	3	--	--	--
Collected Time		--	--	--	--	937	--	--	--
pH at 25 Degrees C	Std. Units	7.2	7.2	7.2	7	--	7	7.1	7
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-301
Number of Sampling Dates: 23

Parameter Name	Units	10/16/2020	3/1/2021	4/19/2021	10/13/2021	4/6/2022	4/26/2023	8/3/2023	
Boron	ug/L	12000	--	9600	7300	11000	5100	5600	
Calcium	mg/L	220	--	240	260	260	200	160	
Chloride	mg/L	20	--	18	19	19	26	16	
Fluoride	mg/L	<0.23	--	0.58	<0.28	<0.22	<1.5	<0.38	
Field pH	Std. Units	7.07	6.88	7.03	7.01	6.96	6.83	6.87	
Sulfate	mg/L	170	--	240	630	550	910	810	
Total Dissolved Solids	mg/L	970	--	1200	1500	1300	1900	1600	
Antimony	ug/L	<0.51	--	<1.1	<1.1	<0.69	<4	<1	
Arsenic	ug/L	54	--	61	66	80	2.1	9.8	
Barium	ug/L	500	--	560	170	190	67	79	
Beryllium	ug/L	<0.27	--	<0.27	<0.27	<0.27	<1.3	<0.33	
Cadmium	ug/L	<0.049	--	0.066	0.098	0.19	0.54	0.12	
Chromium	ug/L	<1.1	--	<1.1	<1.1	<1.1	<4.4	<1.1	
Cobalt	ug/L	0.7	--	0.81	0.74	0.7	4.8	8.8	
Lead	ug/L	<0.11	--	<0.21	<0.21	<0.24	<0.96	0.51	
Lithium	ug/L	10	--	10	11	12	<10	11	
Mercury	ug/L	<0.1	--	<0.15	--	<0.11	<0.14	<0.14	
Molybdenum	ug/L	67	--	46	47	55	29	73	
Selenium	ug/L	<1	--	1.3	0.97	<0.96	<5.6	<5.6	
Thallium	ug/L	--	--	1	<0.26	<0.26	<1	1.5	
Total Radium	pCi/L	1	--	1.02	0.97	1.69	0.0545	--	
Radium-226	pCi/L	0.57	--	0.774	0.406	0.719	0.00695	--	
Radium-228	pCi/L	0.43	--	0.247	0.564	0.973	0.0475	--	
Collected By		--	--	--	--	--	--	--	
Field Oxidation Potential	mV	-187.5	-176.6	-162.4	-142.8	-156.9	48.6	-41.4	
Field Specific Conductance	umhos/cm	1503	1562	1760	1858	1982	2584	2261	
Field Temperature	deg C	13.7	12.2	12.3	13.6	12.3	11.7	12.2	
Groundwater Elevation	feet	519.26	521.1	522.87	519.4	522.99	524.21	518.33	
Oxygen, Dissolved	mg/L	0.09	0.16	1.61	0.17	0.13	0.2	0.14	
Turbidity	NTU	3.41	3.5	3.82	14.1	21	9.39	34.67	
Collected Date		--	--	--	--	--	--	--	
Collected Time		--	--	--	--	--	--	--	
pH at 25 Degrees C	Std. Units	7.8	--	7.1	7	7.1	7	7.1	
Bicarbonate Alkalinity as CaCO3	mg/L	760	800	720	650	740	--	--	
Carbonate Alkalinity as CaCO3	mg/L	<3.8	<4.6	<4.6	<4.6	<4.6	--	--	
Iron, dissolved	ug/L	34000	41000	39000	39000	40000	340	--	
Manganese, dissolved	ug/L	13000	13000	14000	16000	22000	--	--	
Molybdenum, dissolved	ug/L	66	41	44	49	53	--	--	
Total Alkalinity as CaCO3	mg/L	760	800	720	650	740	--	--	
Iron, total	ug/L	34000	40000	41000	38000	43000	--	5800	
Magnesium, total	ug/L	63000	68000	75000	72000	78000	--	--	
Manganese, total	ug/L	12000	13000	15000	15000	19000	--	--	
Potassium, total	ug/L	4100	4000	3700	3300	3700	--	--	
Sodium, total	ug/L	45000	50000	63000	110000	130000	--	--	
Lithium, dissolved	ug/L	--	--	--	10	13	--	--	

Single Location
Name: IPL - Burlington

Location ID: MW-302
Number of Sampling Dates: 24

Parameter Name	Units	4/20/2016	6/6/2016	8/16/2016	10/3/2016	1/10/2017	4/3/2017	6/12/2017	8/15/2017
Boron	ug/L	8570	8400	9050	9500	9590	10100	10700	9450
Calcium	mg/L	242	243	231	251	225	232	216	225
Chloride	mg/L	18.3	15.2	16.1	15.4	15.2	16.6	15	15.7
Fluoride	mg/L	0.11	<0.073	0.08	0.086	<0.027	<0.1	<0.1	<0.1
Field pH	Std. Units	8.17	8.06	8.3	8.24	8.22	8.71	8.06	8.38
Sulfate	mg/L	666	525	669	579	536	540	552	512
Total Dissolved Solids	mg/L	1040	1140	988	977	969	945	937	989
Antimony	ug/L	0.14	0.15	<0.058	0.096	<0.058	0.043	0.04	0.16
Arsenic	ug/L	71.3	68.4	64.1	73.5	64.9	49.1	72	58.5
Barium	ug/L	430	476	361	446	355	356	370	348
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.023	<0.012	0.012
Cadmium	ug/L	0.043	<0.029	<0.029	<0.029	<0.029	<0.018	0.021	<0.018
Chromium	ug/L	<0.34	<0.34	0.45	<0.34	0.46	0.15	0.11	0.31
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.19	0.24	0.24
Lead	ug/L	0.21	<0.19	<0.19	<0.19	<0.19	0.058	0.064	0.22
Lithium	ug/L	60.5	69.6	37.6	64.2	62.6	57.3	60.7	56.9
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046
Molybdenum	ug/L	85.8	84.4	92.5	105	104	105	131	113
Selenium	ug/L	0.3	0.22	0.27	0.2	<0.18	0.24	0.23	0.24
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.04	0.078	0.41
Total Radium	pCi/L	1.82	1.11	0.202	1.24	1.59	1.13	1.84	1.2
Radium-226	pCi/L	0	0.392	0	0.803	0.604	0.639	0.713	0.238
Radium-228	pCi/L	1.82	0.715	0.202	0.439	0.987	0.494	1.13	0.962
Collected By		--	0	0	--	0	0	0	0
Field Oxidation Potential	mV	-181.1	-147	-167.1	-194.3	-182.6	-227.8	-154.4	-179.2
Field Specific Conductance	umhos/cm	1032	2053	34.4	2202	2167	2037	833	1752
Field Temperature	deg C	12.7	12.7	13.6	13.8	13.7	13.2	12.94	13.7
Groundwater Elevation	feet	521.91	521.21	521.35	527.54	525.5	522.84	522.84	519.39
Oxygen, Dissolved	mg/L	0.1	0.8	9.35	0.39	0.21	0.12	0.13	0.18
Turbidity	NTU	10.65	2.56	0.19	1.36	0.47	1.99	0.59	0.25
Collected Date		--	--	--	--	--	--	--	--
Collected Time		--	--	--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	7.8	7.8	7.6	7.8	7.9	8	7.6	7.8
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-302
Number of Sampling Dates: 24

Parameter Name	Units	10/17/2017	5/9/2018	8/13/2018	10/9/2018	3/12/2019	4/3/2019	10/10/2019	6/3/2020
Boron	ug/L	10000	10200	10000	10400	--	12000	11000	13000
Calcium	mg/L	231	231	210	219	--	220	220	210
Chloride	mg/L	16.4	14.1	14.7	13.5	--	13	11	12
Fluoride	mg/L	0.11	0.11	<0.063	<0.19	--	0.37	<0.23	<0.23
Field pH	Std. Units	8.72	8.19	9.32	7.89	6.94	8.7	7.49	7.88
Sulfate	mg/L	541	553	542	658	--	510	510	490
Total Dissolved Solids	mg/L	951	1080	1000	1030	--	1000	960	1000
Antimony	ug/L	--	<0.026	<0.15	0.082	--	<0.53	<0.53	<0.58
Arsenic	ug/L	--	56.2	49.6	76.4	--	53	73	110
Barium	ug/L	--	363	340	180	--	320	260	340
Beryllium	ug/L	--	<0.012	<0.12	<0.089	--	<0.27	<0.27	<0.27
Cadmium	ug/L	--	0.037	<0.07	0.04	--	<0.077	<0.039	0.045
Chromium	ug/L	--	0.22	0.33	0.097	--	<0.98	<0.98	<1.1
Cobalt	ug/L	--	0.19	0.15	0.18	--	0.19	0.23	0.21
Lead	ug/L	--	0.17	<0.12	<0.13	--	0.58	<0.27	<0.27
Lithium	ug/L	--	65.4	61.4	57.8	59.9	56	57	55
Mercury	ug/L	--	<0.09	--	<0.09	--	<0.1	--	<0.1
Molybdenum	ug/L	--	118	121	122	123	100	100	140
Selenium	ug/L	--	0.25	0.22	0.23	--	<1	<1	<1
Thallium	ug/L	--	<0.036	--	<0.099	--	<0.27	--	<0.26
Total Radium	pCi/L	--	1.51	1.53	2.15	--	0.872	0.644	0.626/0.626
Radium-226	pCi/L	--	0.621	0.443	1.1	--	0.362	0.374	0.263/0.263
Radium-228	pCi/L	--	0.886	1.09	1.05	--	0.51	0.27	<0.394/0.363
Collected By		0	--	--	--	0	--	--	--
Field Oxidation Potential	mV	-49.7	-217.2	-237	-198	-70.3	-215.8	-186.8	36.7
Field Specific Conductance	umhos/cm	1165	1268	1226	1334	792	1164	1249	1245
Field Temperature	deg C	13.9	13	14.9	15.2	12.16	11.41	14.46	12.9
Groundwater Elevation	feet	522.2	525.81	519.87	528.08	522.83	528.21	--	523.98
Oxygen, Dissolved	mg/L	0.09	1	0.15	0.3	2.68	0.58	0.28	0.18
Turbidity	NTU	2.04	2.25	3.75	6.48	22.1	18.8	1.16	25.27
Collected Date		--	--	--	--	3	--	--	--
Collected Time		--	--	--	--	1028	--	--	--
pH at 25 Degrees C	Std. Units	8	7.9	8	7.7	--	8.1	7.7	7.6
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-302
Number of Sampling Dates: 24

Parameter Name	Units	10/16/2020	3/1/2021	4/19/2021	10/12/2021	2/22/2022	4/5/2022	4/26/2023	8/1/2023
Boron	ug/L	11000	--	11000	10000	--	11000	5600	4600
Calcium	mg/L	200	--	200	160	--	190	370	250
Chloride	mg/L	10	--	10	12	--	12	21	22
Fluoride	mg/L	<0.23	--	<0.28	<0.28	--	<0.22	<1.5	<0.38
Field pH	Std. Units	7.87	7.95	8.15	8.28	8.16	8.05	6.11	6.31
Sulfate	mg/L	460	--	410	280	--	310	1300	750
Total Dissolved Solids	mg/L	910	--	860	680	--	770	1900	1100
Antimony	ug/L	<0.51	--	<1.1	<1.1	--	<0.69	<1	<1
Arsenic	ug/L	76	--	75	100	94	86	3.1	15
Barium	ug/L	250	--	320	270	--	320	38	54
Beryllium	ug/L	<0.27	--	<0.27	<0.27	--	<0.27	1.1	<0.33
Cadmium	ug/L	0.11	--	0.089	0.12	--	0.055	0.89	0.36
Chromium	ug/L	<1.1	--	<1.1	<1.1	--	<1.1	<1.1	<1.1
Cobalt	ug/L	0.26	--	0.21	0.27	--	0.21	78	41
Lead	ug/L	0.17	--	<0.21	<0.21	--	<0.24	0.37	0.77
Lithium	ug/L	64	--	64	64	--	78	66	51
Mercury	ug/L	<0.1	--	<0.15	--	--	<0.11	<0.14	<0.14
Molybdenum	ug/L	130	--	130	91	--	89	26	58
Selenium	ug/L	1.1	--	1.4	<0.96	--	<0.96	<5.6	2.3
Thallium	ug/L	--	--	1.2	<0.26	--	1.8	<1	<0.26
Total Radium	pCi/L	0.245	--	0.906	1.22	--	0.687	0.438	--
Radium-226	pCi/L	0.245	--	0.493	0.605	--	0.401	0.106	--
Radium-228	pCi/L	-0.113	--	0.413	0.611	--	0.286	0.332	--
Collected By		--	--	--	--	--	--	--	--
Field Oxidation Potential	mV	-237.1	-236.9	-225.8	-193.7	207.4	-198.6	21.4	4.5
Field Specific Conductance	umhos/cm	1168	1101	1169	1043	1082	989	2283	1535
Field Temperature	deg C	12.9	12.3	12	13.8	12.5	12.3	12.4	11
Groundwater Elevation	feet	518.94	520.21	522.27	518.75	519.03	522.34	525.56	518.19
Oxygen, Dissolved	mg/L	0.08	0.11	0.07	0.18	0.13	0.07	0.1	0.04
Turbidity	NTU	0.07	2.7	4.07	31.2	2.1	9	7.19	18.62
Collected Date		--	--	--	--	--	--	--	--
Collected Time		--	--	--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	8.2	--	8.2	7.9	--	8.1	6.2	6.4
Bicarbonate Alkalinity as CaCO3	mg/L	240	190	220	560	--	310	--	--
Carbonate Alkalinity as CaCO3	mg/L	<3.8	<4.2	<4.6	<4.6	--	<4.6	--	--
Iron, dissolved	ug/L	3200	2000	1600	2900	--	1300	3700	--
Manganese, dissolved	ug/L	1600	1300	1100	1700	--	1000	--	--
Molybdenum, dissolved	ug/L	120	130	120	110	--	89	--	--
Total Alkalinity as CaCO3	mg/L	240	190	220	560	--	310	--	--
Iron, total	ug/L	2900	2400	2000	3600	--	1200	--	19000
Magnesium, total	ug/L	18000	15000	15000	17000	--	14000	--	--
Manganese, total	ug/L	1400	1300	1200	1700	--	930	--	--
Potassium, total	ug/L	12000	13000	13000	12000	--	14000	--	--
Sodium, total	ug/L	24000	27000	30000	28000	--	33000	--	--
Lithium, dissolved	ug/L	64	66	59	63	--	80	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-302A
Number of Sampling Dates: 9

Parameter Name	Units	9/9/2020	10/16/2020	3/1/2021	4/19/2021	10/12/2021	4/5/2022	10/20/2022	4/26/2023
Boron	ug/L	11000	11000	--	9400	9000	15000	1600	--
Calcium	mg/L	120	130	--	140	140	160	160	--
Chloride	mg/L	27	23	--	17	20	21	13	--
Fluoride	mg/L	<0.23	<0.23	--	<0.28	<0.28	<0.22	<0.22	--
Field pH	Std. Units	7.31	7.26	7.2	7.34	7.69	7.25	7.09	7.52
Sulfate	mg/L	340	330	--	310	410	450	170	--
Total Dissolved Solids	mg/L	730	710	--	710	780	910	630	--
Antimony	ug/L	<0.51	1.7	--	<1.1	<1.1	<0.69	<0.69	--
Arsenic	ug/L	2.9	2.9	--	2.1	1.7	3	2.3	--
Barium	ug/L	270	280	--	310	230	310	420	--
Beryllium	ug/L	<0.27	<0.27	--	<0.27	<0.27	<0.27	<0.27	--
Cadmium	ug/L	<0.049	0.065	--	<0.051	<0.051	0.087	<0.055	--
Chromium	ug/L	<1.1	<1.1	--	<1.1	<1.1	<1.1	<1.1	--
Cobalt	ug/L	0.12	0.11	--	0.11	<0.19	0.2	<0.19	--
Lead	ug/L	0.11	<0.11	--	<0.21	<0.21	<0.24	<0.24	--
Lithium	ug/L	11	11	11	9.6	12	22	13	<2.5
Mercury	ug/L	<0.1	<0.1	--	<0.15	--	<0.11	<0.11	--
Molybdenum	ug/L	120	110	87	95	93	120	36	3.4
Selenium	ug/L	<1	<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	1.15	0.785	--	1.4	2.08	2.14	2.65	--
Radium-226	pCi/L	0.421	-0.0548	--	0.641	0.854	0.694	0.82	--
Radium-228	pCi/L	0.727	0.785	--	0.755	1.22	1.45	1.83	--
Field Oxidation Potential	mV	-142	-175.3	-165.6	-150.2	-115.3	-153.2	-115	-98.2
Field Specific Conductance	umhos/cm	1013	951	975	1026	1124	1108	1090	466.9
Field Temperature	deg C	13.3	13.1	12.5	12.7	13.6	12.7	16.7	7.9
Groundwater Elevation	feet	519.71	518.79	520.14	522.25	518.64	522.28	506.87	525.51
Oxygen, Dissolved	mg/L	0.27	0.19	0.16	0.18	0.26	0.12	0	0.37
Turbidity	NTU	0.01	3.82	0.48	2.94	11.2	5	5	0.02
pH at 25 Degrees C	Std. Units	7.4	8	--	7.4	7.3	7.3	7.1	--
Bicarbonate Alkalinity as CaCO3	mg/L	--	150	180	190	200	250	430	--
Carbonate Alkalinity as CaCO3	mg/L	--	<3.8	<4.2	<2.3	<4.6	<4.6	<4.6	--
Iron, dissolved	ug/L	--	8600	8600	7500	6600	8400	11000	2800
Manganese, dissolved	ug/L	--	3800	3500	3500	3300	3800	3700	--
Molybdenum, dissolved	ug/L	--	120	90	89	99	120	36	--
Total Alkalinity as CaCO3	mg/L	--	150	180	190	200	250	430	--
Iron, total	ug/L	--	8400	8300	8000	6900	8800	11000	--
Magnesium, total	ug/L	--	28000	32000	34000	33000	34000	33000	--
Manganese, total	ug/L	--	3600	3300	3600	3500	4000	4300	--
Potassium, total	ug/L	--	3600	3600	3500	3600	4400	6900	--
Sodium, total	ug/L	--	34000	32000	33000	51000	70000	14000	--
Lithium, dissolved	ug/L	--	--	12	9.1	12	21	14	--

Single Location
Name: IPL - Burlington

Location ID: MW-302A
 Number of Sampling Dates: 9

Parameter Name	Units	8/1/2023							
Boron	ug/L	--							
Calcium	mg/L	--							
Chloride	mg/L	--							
Fluoride	mg/L	--							
Field pH	Std. Units	7.78							
Sulfate	mg/L	--							
Total Dissolved Solids	mg/L	--							
Antimony	ug/L	--							
Arsenic	ug/L	--							
Barium	ug/L	--							
Beryllium	ug/L	--							
Cadmium	ug/L	--							
Chromium	ug/L	--							
Cobalt	ug/L	--							
Lead	ug/L	--							
Lithium	ug/L	3.3							
Mercury	ug/L	--							
Molybdenum	ug/L	7.4							
Selenium	ug/L	--							
Thallium	ug/L	--							
Total Radium	pCi/L	--							
Radium-226	pCi/L	--							
Radium-228	pCi/L	--							
Field Oxidation Potential	mV	-151.4							
Field Specific Conductance	umhos/cm	458.3							
Field Temperature	deg C	8.3							
Groundwater Elevation	feet	518.09							
Oxygen, Dissolved	mg/L	0.29							
Turbidity	NTU	4.13							
pH at 25 Degrees C	Std. Units	--							
Bicarbonate Alkalinity as CaCO3	mg/L	--							
Carbonate Alkalinity as CaCO3	mg/L	--							
Iron, dissolved	ug/L	--							
Manganese, dissolved	ug/L	--							
Molybdenum, dissolved	ug/L	--							
Total Alkalinity as CaCO3	mg/L	--							
Iron, total	ug/L	4000							
Magnesium, total	ug/L	--							
Manganese, total	ug/L	--							
Potassium, total	ug/L	--							
Sodium, total	ug/L	--							
Lithium, dissolved	ug/L	--							

Single Location
Name: IPL - Burlington

Location ID: MW-303
Number of Sampling Dates: 23

Parameter Name	Units	4/20/2016	6/6/2016	8/16/2016	10/3/2016	1/10/2017	4/3/2017	6/12/2017	8/15/2017
Boron	ug/L	25800	27500	26700	26100	25400	28800	26600	24100
Calcium	mg/L	86.3	79.9	81.3	87.8	71.2	88.6	105	79.4
Chloride	mg/L	17	16	16.3	16.1	14.4	15.2	17.3	15.3
Fluoride	mg/L	0.43	0.16	0.28	0.28	0.18	0.2	0.22	0.24
Field pH	Std. Units	7.39	7.48	7.57	7.56	7.64	7.57	7.24	6.97
Sulfate	mg/L	34.6	23.3	14.8	6.6	34.1	24.1	3.9	46
Total Dissolved Solids	mg/L	450	441	440	447	404	454	557	434
Antimony	ug/L	0.55	0.12	<0.058	0.09	<0.058	0.029	<0.026	0.13
Arsenic	ug/L	38.6	26.5	44.5	33	12.8	21.7	48.1	30.9
Barium	ug/L	361	250	230	237	267	334	386	281
Beryllium	ug/L	0.9	<0.08	<0.08	<0.08	<0.08	0.019	0.018	0.02
Cadmium	ug/L	0.58	<0.029	<0.029	<0.029	<0.029	<0.018	<0.018	0.018
Chromium	ug/L	23.4	0.48	0.4	<0.34	0.78	0.2	0.43	0.38
Cobalt	ug/L	7.8	0.56	0.55	0.64	<0.5	0.38	0.68	0.42
Lead	ug/L	21	<0.19	<0.19	<0.19	0.21	0.047	<0.033	0.14
Lithium	ug/L	35.8	34.6	24	30.3	48.8	46.6	26.2	45.1
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046
Molybdenum	ug/L	67.4	55.4	39.4	34.2	52.8	51.7	33.8	73.1
Selenium	ug/L	2.2	<0.18	0.3	0.22	0.26	0.28	0.3	0.23
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.063	<0.036	0.13
Total Radium	pCi/L	2.18	0.522	1.59	0.464	1.98	1.53	1.86	2.19
Radium-226	pCi/L	0.866	0	0.269	0.393	0.677	0.542	0.734	1.37
Radium-228	pCi/L	1.31	0.522	1.32	0.0706	1.3	0.99	1.13	0.821
Collected By		--	0	0	--	0	0	0	0
Field Oxidation Potential	mV	-101.6	-113	-184.4	-164.5	-150.6	-163.9	-102.9	-132
Field Specific Conductance	umhos/cm	513	1009	1271	1175	1024	1100	599.8	887
Field Temperature	deg C	13.8	13.9	14.2	14.8	14.3	14.1	14.2	14.4
Groundwater Elevation	feet	521.76	521.26	521.31	527.57	525.56	522.81	522.8	519.3
Oxygen, Dissolved	mg/L	0.08	1.02	1.31	0.48	0.1	0.1	0.2	0.07
Turbidity	NTU	487.4	2.45	0.24	3.76	3.85	4.42	2.57	0.46
Collected Date		--	--	--	--	--	--	--	--
Collected Time		--	--	--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	7.2	7.4	7.2	7.3	7.6	7.6	6.9	7.2
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-303
Number of Sampling Dates: 23

Parameter Name	Units	10/17/2017	5/9/2018	8/13/2018	10/10/2018	3/12/2019	4/3/2019	10/10/2019	6/3/2020
Boron	ug/L	25400	22900	24500	24500	--	22000	21000	23000
Calcium	mg/L	84.5	87	85.9	87.8	--	86	91	120
Chloride	mg/L	15.3	15.1	15.7	16.3	--	15	16	18
Fluoride	mg/L	0.25	0.22	0.44	0.27	--	0.43	<0.23	0.27
Field pH	Std. Units	8.59	7.51	8.03	7.1	6.46	7.79	7.13	7.12
Sulfate	mg/L	42.1	128	78.7	31.8	--	120	84	100
Total Dissolved Solids	mg/L	436	502	520	462	--	540	420	640
Antimony	ug/L	--	<0.026	<0.15	<0.078	--	<0.53	<0.53	<0.58
Arsenic	ug/L	--	7.9	52	29.8	--	6.4	17	18
Barium	ug/L	--	412	354	415	--	440	440	610
Beryllium	ug/L	--	<0.012	<0.12	<0.089	--	<0.27	<0.27	<0.27
Cadmium	ug/L	--	0.028	<0.07	<0.033	--	<0.077	<0.039	<0.039
Chromium	ug/L	--	0.27	0.29	0.69	--	<0.98	<0.98	<1.1
Cobalt	ug/L	--	0.31	0.46	0.62	--	0.36	0.45	0.56
Lead	ug/L	--	0.21	0.22	0.54	--	0.49	<0.27	0.29
Lithium	ug/L	--	50.7	42.1	35.8	51.6	52	46	48
Mercury	ug/L	--	<0.09	--	<0.09	--	<0.1	--	<0.1
Molybdenum	ug/L	--	75.4	77.9	56.5	--	110	76	66
Selenium	ug/L	--	0.19	0.24	0.33	--	<1	<1	<1
Thallium	ug/L	--	<0.036	--	<0.099	--	<0.27	--	<0.26
Total Radium	pCi/L	--	1.64	1.79	1.91	--	1.26	1.04	0.892/0.892
Radium-226	pCi/L	--	0.677	0.462	0.997	--	0.552	0.728	0.804/0.804
Radium-228	pCi/L	--	0.965	1.33	0.913	--	0.703	0.316	<0.511/0.0877
Collected By		0	--	--	--	0	--	--	--
Field Oxidation Potential	mV	21.3	-165.5	-153	-132	-68.1	-122.8	-161	58.1
Field Specific Conductance	umhos/cm	612.6	535.7	748	774	549	711	767	934
Field Temperature	deg C	14.5	13.8	16.8	15.6	13.62	12.63	14.91	14.8
Groundwater Elevation	feet	522.23	525.8	519.78	528.78	522.74	528.22	--	523.97
Oxygen, Dissolved	mg/L	0.13	0.11	0.24	1	2.38	0.67	0.26	0.18
Turbidity	NTU	2.79	0.97	14.26	17.3	19.4	18.2	5.36	16.03
Collected Date		--	--	--	--	3	--	--	--
Collected Time		--	--	--	--	11	--	--	--
pH at 25 Degrees C	Std. Units	7.3	7.4	7.3	7.1	--	7.4	7.4	7.2
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	8.92
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-303
Number of Sampling Dates: 23

Parameter Name	Units	10/16/2020	3/1/2021	4/19/2021	10/13/2021	4/5/2022	4/26/2023	8/1/2023
Boron	ug/L	19000	--	16000	17000	22000	3200	2600
Calcium	mg/L	120	--	140	130	140	85	100
Chloride	mg/L	17	--	15	17	16	25	27
Fluoride	mg/L	<0.23	--	<0.28	<0.28	<0.22	<0.38	<0.38
Field pH	Std. Units	7.19	7.15	7.25	7.25	7.36	6.92	7.09
Sulfate	mg/L	190	--	250	250	310	180	150
Total Dissolved Solids	mg/L	630	--	670	610	650	430	430
Antimony	ug/L	0.57	--	<1.1	<1.1	<0.69	<1	<1
Arsenic	ug/L	14	--	15	14	5.7	4	12
Barium	ug/L	480	--	450	360	270	65	150
Beryllium	ug/L	<0.27	--	<0.27	<0.27	<0.27	<0.33	<0.33
Cadmium	ug/L	<0.049	--	<0.051	0.051	0.097	<0.1	<0.1
Chromium	ug/L	<1.1	--	<1.1	<1.1	<1.1	<1.1	<1.1
Cobalt	ug/L	0.49	--	0.42	0.42	0.35	1.3	1.4
Lead	ug/L	0.18	--	<0.21	<0.21	<0.24	<0.24	0.45
Lithium	ug/L	59	--	66	61	80	23	27
Mercury	ug/L	<0.1	--	<0.15	--	<0.11	<0.14	<0.14
Molybdenum	ug/L	84	--	120	120	190	94	150
Selenium	ug/L	<1	--	<0.96	<0.96	<0.96	<1.4	<1.4
Thallium	ug/L	--	--	<0.26	<0.26	<0.26	<0.26	<0.26
Total Radium	pCi/L	1.26	--	2.21	0.678	1.52	0.53	--
Radium-226	pCi/L	0.317	--	0.866	0.628	0.795	0.0889	--
Radium-228	pCi/L	0.944	--	1.35	0.0509	0.723	0.441	--
Collected By		--	--	--	--	--	--	--
Field Oxidation Potential	mV	-185.6	-174.2	-144.8	-118.4	-155.8	757	-100.4
Field Specific Conductance	umhos/cm	902	916	995	843	845	25.3	762
Field Temperature	deg C	13.7	13.6	13.2	13.9	12.7	12.6	11.5
Groundwater Elevation	feet	518.78	520.09	522.13	518.58	522.2	525.42	517.91
Oxygen, Dissolved	mg/L	0.12	0.12	0.19	0.16	0.1	0.13	0.03
Turbidity	NTU	2.03	1.82	4.35	13.6	21	0.02	11.58
Collected Date		--	--	--	--	--	--	--
Collected Time		--	--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	8	--	7.3	7.3	7.5	7.1	7.1
Bicarbonate Alkalinity as CaCO3	mg/L	290	210	280	270	210	--	--
Carbonate Alkalinity as CaCO3	mg/L	<3.8	<4.6	<4.6	<4.6	<4.6	--	--
Iron, dissolved	ug/L	8700	7600	7500	7000	4400	750	--
Manganese, dissolved	ug/L	3900	3400	3800	4000	3400	--	--
Molybdenum, dissolved	ug/L	85	120	110	130	180	--	--
Total Alkalinity as CaCO3	mg/L	290	210	280	270	210	--	--
Iron, total	ug/L	8500	7600	7900	6900	4600	--	8100
Magnesium, total	ug/L	21000	20000	22000	20000	16000	--	--
Manganese, total	ug/L	3700	3400	4000	4000	3500	--	--
Potassium, total	ug/L	22000	22000	23000	18000	22000	--	--
Sodium, total	ug/L	30000	33000	34000	28000	29000	--	--
Lithium, dissolved	ug/L	59	66	59	62	77	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-304
Number of Sampling Dates: 23

Parameter Name	Units	4/20/2016	6/6/2016	8/16/2016	10/3/2016	1/9/2017	4/3/2017	6/12/2017	8/15/2017
Boron	ug/L	5020	5050	5050	4910	5350	5340	5160	5370
Calcium	mg/L	142	137	144	155	136	118	90.1	97.2
Chloride	mg/L	34.7	30	28.2	30.7	47.7	39.2	35.2	30.2
Fluoride	mg/L	0.092	<0.073	<0.027	0.072	<0.027	<0.1	<0.1	<0.1
Field pH	Std. Units	9.2	8.65	9.42	9.25	9.44	8.58	7.93	8.71
Sulfate	mg/L	397	324	383	431	330	263	211	216
Total Dissolved Solids	mg/L	706	678	718	721	651	593	519	501
Antimony	ug/L	0.77	0.77	0.76	0.51	0.8	0.63	0.51	0.88
Arsenic	ug/L	60	59.4	64.3	58.9	68.7	60	58.4	65.6
Barium	ug/L	112	127	115	130	117	131	126	84.7
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.036	<0.012	<0.012
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018	<0.018	<0.018
Chromium	ug/L	<0.34	<0.34	0.58	0.42	<0.34	0.16	0.087	0.3
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.13	0.11	0.1
Lead	ug/L	<0.19	<0.19	<0.19	<0.19	<0.19	<0.033	<0.033	0.9
Lithium	ug/L	52.4	57.8	48.5	61	70.7	52.1	44.1	51
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046
Molybdenum	ug/L	101	105	118	131	121	90.6	67.4	66.8
Selenium	ug/L	<0.18	<0.18	0.23	0.24	0.24	0.31	0.19	0.26
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.068	<0.036	0.12
Total Radium	pCi/L	1.26	0.659	1.1	1.16	0.455	0.742	1.29	0.752
Radium-226	pCi/L	0	0.0649	0.22	0.458	0.067	0.48	0.928	0.404
Radium-228	pCi/L	1.26	0.594	0.881	0.704	0.388	0.262	0.362	0.348
Collected By		--	0	0	--	0	0	0	0
Field Oxidation Potential	mV	-309.5	-153	-301	-251.4	-274.8	-260.1	-160.6	-231.3
Field Specific Conductance	umhos/cm	766	1455	1840	1712	1634	1427	512.5	971
Field Temperature	deg C	13.9	14	14.4	15.3	15	14.1	14.3	14.8
Groundwater Elevation	feet	521.78	521.28	521.37	527.57	525.62	522.87	522.9	519.23
Oxygen, Dissolved	mg/L	0.04	1.55	4.79	0.43	0.11	0.11	0.17	0.03
Turbidity	NTU	1.43	1.26	0.01	0.3	0	0.61	0.23	0.26
Collected Date		--	--	--	--	--	--	--	--
Collected Time		--	--	--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	8.8	8.9	8.8	8.8	8.2	7.9	7.9	8.8
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-304
Number of Sampling Dates: 23

Parameter Name	Units	10/17/2017	5/9/2018	8/13/2018	10/10/2018	3/12/2019	4/3/2019	10/10/2019	6/3/2020
Boron	ug/L	5580	5140	5440	6180	--	6300	5100	6400
Calcium	mg/L	103	107	102	88.5	--	72	140	150
Chloride	mg/L	46.5	58.1	25.9	50.3	--	39	25	21
Fluoride	mg/L	0.12	0.11	0.13	<0.19	--	0.35	<0.23	<0.23
Field pH	Std. Units	9.52	8.51	7.6	9.01	6.94	8.56	7.17	7.23
Sulfate	mg/L	248	273	188	271	--	140	220	250
Total Dissolved Solids	mg/L	540	657	551	537	--	460	710	750
Antimony	ug/L	--	0.75	0.3	0.77	--	0.66	<0.53	<0.58
Arsenic	ug/L	--	57.2	45.4	58.3	--	59	36	35
Barium	ug/L	--	115	140	92	--	90	210	220
Beryllium	ug/L	--	<0.012	<0.12	<0.089	--	<0.27	<0.27	<0.27
Cadmium	ug/L	--	<0.018	<0.07	0.054	--	<0.077	<0.039	<0.039
Chromium	ug/L	--	0.22	0.34	0.091	--	<0.98	<0.98	<1.1
Cobalt	ug/L	--	0.098	<0.15	0.19	--	0.11	0.13	0.15
Lead	ug/L	--	<0.033	<0.12	<0.13	--	<0.27	<0.27	<0.27
Lithium	ug/L	--	63.8	34.3	82.4	35.9	52	38	47
Mercury	ug/L	--	<0.09	--	<0.09	--	<0.1	--	0.11
Molybdenum	ug/L	--	126	74.9	113	47.4	58	47	45
Selenium	ug/L	--	0.24	0.21	0.26	--	<1	<1	<1
Thallium	ug/L	--	<0.036	--	<0.099	--	<0.27	--	<0.26
Total Radium	pCi/L	--	0.589	0.725	0.706	--	0.408	0.781	0.573/0.573
Radium-226	pCi/L	--	0.405	0.151	0.233	--	0.116	0.353	0.3/0.3
Radium-228	pCi/L	--	0.184	0.574	0.473	--	0.292	0.428	<0.375/0.272
Collected By		0	--	--	--	0	--	--	--
Field Oxidation Potential	mV	5.9	-273	-202	-100.2	-73.8	-216.7	-157.5	52.4
Field Specific Conductance	umhos/cm	756	906	836	780	460	658	934	1087
Field Temperature	deg C	15.1	13.5	18.1	17.41	13.87	12.96	15.64	14.6
Groundwater Elevation	feet	522.32	525.85	519.81	528.82	522.8	528.27	--	524.02
Oxygen, Dissolved	mg/L	0.1	1.4	0.09	0.23	2.11	0.39	0.28	0.15
Turbidity	NTU	1.89	2.84	4.26	1.36	9.28	6.22	1.18	18.18
Collected Date		--	--	--	--	3	--	--	--
Collected Time		--	--	--	--	1141	--	--	--
pH at 25 Degrees C	Std. Units	8.9	8.3	7.5	8.6	--	8	7.5	7.4
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-304
Number of Sampling Dates: 23

Parameter Name	Units	10/15/2020	3/1/2021	4/19/2021	10/13/2021	4/5/2022	4/26/2023	8/1/2023	
Boron	ug/L	7400	--	7700	7600	12000	1400	7800	
Calcium	mg/L	150	--	110	130	130	100	240	
Chloride	mg/L	21	--	18	23	27	26	27	
Fluoride	mg/L	<0.23	--	<0.28	<0.28	<0.22	<0.38	<0.38	
Field pH	Std. Units	8.46	8.26	8.32	7.53	8.08	7.03	6.45	
Sulfate	mg/L	420	--	280	220	240	220	850	
Total Dissolved Solids	mg/L	820	--	640	570	640	470	1300	
Antimony	ug/L	0.52	--	<1.1	<1.1	<0.69	<1	<1	
Arsenic	ug/L	49	--	41	32	44	1.4	9.6	
Barium	ug/L	170	--	180	160	140	57	58	
Beryllium	ug/L	<0.27	--	<0.27	<0.27	<0.27	<0.33	<0.33	
Cadmium	ug/L	<0.049	--	<0.051	<0.051	<0.055	<0.1	0.12	
Chromium	ug/L	<4.4	--	<1.1	<1.1	<1.1	<1.1	<1.1	
Cobalt	ug/L	<0.36	--	<0.091	<0.19	<0.19	1.3	81	
Lead	ug/L	<0.11	--	<0.21	<0.21	<0.24	<0.24	0.45	
Lithium	ug/L	92	--	75	60	74	63	160	
Mercury	ug/L	<0.1	--	<0.15	--	<0.11	<0.14	<0.14	
Molybdenum	ug/L	140	--	100	59	85	190	100	
Selenium	ug/L	<4	--	<0.96	<0.96	<0.96	<1.4	<1.4	
Thallium	ug/L	--	--	<0.26	<0.26	<0.26	<0.26	<0.26	
Total Radium	pCi/L	0.304	--	0.699	0.797	0.469	0.689	--	
Radium-226	pCi/L	0.0765	--	0.213	0.201	0.0974	0.193	--	
Radium-228	pCi/L	0.227	--	0.486	0.596	0.371	0.496	--	
Collected By		--	--	--	--	--	--	--	
Field Oxidation Potential	mV	-282.6	-280.2	-257.8	-149	-204.7	-71.6	-71.9	
Field Specific Conductance	umhos/cm	1062	971	935	806	825	855	1603	
Field Temperature	deg C	14.7	14.1	13.2	14.5	13.2	11.3	12.4	
Groundwater Elevation	feet	518.69	520.15	522.24	518.68	522.41	525.2	518.19	
Oxygen, Dissolved	mg/L	0.08	0.07	0.07	0.15	0.07	0.09	0.05	
Turbidity	NTU	0.02	0.02	3.34	7.7	9	10.6	15.72	
Collected Date		--	--	--	--	--	--	--	
Collected Time		--	--	--	--	--	--	--	
pH at 25 Degrees C	Std. Units	8.4	--	8.3	8	7.9	7.1	6.5	
Bicarbonate Alkalinity as CaCO3	mg/L	130	130	150	250	250	--	--	
Carbonate Alkalinity as CaCO3	mg/L	<3.8	<2.6	<2.3	<4.6	<4.6	--	--	
Iron, dissolved	ug/L	720	1100	1300	1900	830	11000	--	
Manganese, dissolved	ug/L	440	760	680	1100	880	--	--	
Molybdenum, dissolved	ug/L	140	140	99	90	83	--	--	
Total Alkalinity as CaCO3	mg/L	130	130	150	250	250	--	--	
Iron, total	ug/L	660	1200	1500	2000	990	--	63000	
Magnesium, total	ug/L	3800	5200	6300	6600	6400	--	--	
Manganese, total	ug/L	380	750	710	1100	920	--	--	
Potassium, total	ug/L	14000	15000	11000	12000	13000	--	--	
Sodium, total	ug/L	51000	46000	53000	46000	51000	--	--	
Lithium, dissolved	ug/L	93	86	57	61	72	--	--	

Single Location
Name: IPL - Burlington

Location ID: MW-305
Number of Sampling Dates: 22

Parameter Name	Units	4/20/2016	6/6/2016	8/17/2016	10/3/2016	1/10/2017	4/3/2017	6/13/2017	8/16/2017
Boron	ug/L	1990	2040	1750	1730	1910	1880	2180	1950
Calcium	mg/L	116	119	95.1	93.1	88.8	82.8	96.3	80.2
Chloride	mg/L	34.8	32.9	34.5	32.3	34.8	34.2	37	34.3
Fluoride	mg/L	0.45	0.28	0.3	0.43	0.34	0.42	0.43	0.48
Field pH	Std. Units	7.25	7.75	7.54	7.63	7.48	7.55	7.74	7
Sulfate	mg/L	35.7	68	26.9	38.1	19.2	10.2	35	13.4
Total Dissolved Solids	mg/L	574	590	502	467	455	410	532	435
Antimony	ug/L	0.11	0.11	<0.058	0.082	<0.058	<0.026	<0.026	0.13
Arsenic	ug/L	0.91	0.4	0.33	0.61	0.23	0.32	0.22	0.32
Barium	ug/L	231	242	208	190	208	178	231	186
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.038	0.013	0.018
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018	<0.018	<0.018
Chromium	ug/L	0.43	0.36	0.57	0.76	0.54	0.29	0.27	0.43
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.14	0.2	0.15
Lead	ug/L	0.22	<0.19	<0.19	<0.19	<0.19	0.19	0.11	0.24
Lithium	ug/L	24	29.8	17.2	25.2	28.5	25	26	26.6
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046
Molybdenum	ug/L	0.6	0.79	1.2	1.2	0.76	0.89	1.1	1.3
Selenium	ug/L	<0.18	<0.18	0.19	<0.18	<0.18	0.19	<0.086	0.18
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.036	<0.036	0.15
Total Radium	pCi/L	1.73	1.58	1.55	1.54	1.31	0.73	1.35	1.14
Radium-226	pCi/L	0.125	0.529	0.143	0.43	0.467	0.128	0.551	0.454
Radium-228	pCi/L	1.6	1.05	1.41	1.11	0.847	0.602	0.795	0.683
Collected By		--	0	0	--	0	0	0	0
Field Oxidation Potential	mV	-142	-120	-133.3	-133.6	-119.8	-145.1	-80.8	-94.7
Field Specific Conductance	umhos/cm	807	1919	1611	1328	1371	1195	624	972
Field Temperature	deg C	14.9	14.9	15	15.1	14.7	14.9	15.5	15.4
Groundwater Elevation	feet	521.96	521.48	521.46	527.71	525.74	523.03	522.78	519.93
Oxygen, Dissolved	mg/L	0.13	1.18	0.92	0.44	0.16	0.13	0.09	0.11
Turbidity	NTU	10.6	1.79	0.41	1.15	0.46	1.88	0.89	0.25
pH at 25 Degrees C	Std. Units	7.1	7.2	7	7.4	7.8	7.5	7.1	7.3
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-305
Number of Sampling Dates: 22

Parameter Name	Units	10/16/2017	5/9/2018	8/13/2018	10/10/2018	4/3/2019	10/11/2019	6/3/2020	10/15/2020
Boron	ug/L	2480	2000	2400	2040	2000	2100	2200	2400
Calcium	mg/L	92.2	82.5	103	93.2	83	90	120	120
Chloride	mg/L	35.8	34.8	34.8	34.9	33	33	36	32
Fluoride	mg/L	0.43	0.48	0.45	0.44	0.75	0.37	0.45	<0.23
Field pH	Std. Units	7.78	7.72	7.81	7.29	7.8	7.36	7.12	7.23
Sulfate	mg/L	24.6	11.7	24.8	19.6	10	8.8	33	54
Total Dissolved Solids	mg/L	437	441	542	490	470	490	640	600
Antimony	ug/L	--	<0.026	<0.15	<0.078	<0.53	<0.53	<0.58	<0.51
Arsenic	ug/L	--	0.28	0.39	0.44	<0.75	<0.75	<0.88	<0.88
Barium	ug/L	--	173	219	197	160	180	230	250
Beryllium	ug/L	--	<0.012	<0.12	<0.089	<0.27	<0.27	<0.27	<0.27
Cadmium	ug/L	--	<0.018	<0.07	<0.033	<0.077	<0.039	<0.039	<0.049
Chromium	ug/L	--	0.25	0.21	0.27	<0.98	<0.98	<1.1	<1.1
Cobalt	ug/L	--	0.14	<0.15	0.17	0.16	0.13	0.18	0.15
Lead	ug/L	--	0.034	<0.12	0.2	<0.27	<0.27	<0.27	<0.11
Lithium	ug/L	--	27.8	33.6	27.6	29	26	28	34
Mercury	ug/L	--	<0.09	--	<0.09	<0.1	--	0.12	<0.1
Molybdenum	ug/L	--	0.87	1	0.72	<1.1	<1.1	<1.1	1.1
Selenium	ug/L	--	0.24	0.16	0.16	<1	<1	<1	<1
Thallium	ug/L	--	<0.036	--	<0.099	<0.27	--	<0.26	--
Total Radium	pCi/L	--	2.11	1.78	1.22	0.519	0.441	0.759/0.759	0.55
Radium-226	pCi/L	--	0.992	0.411	0.423	0.154	0.256	0.248/0.248	0.282
Radium-228	pCi/L	--	1.12	1.37	0.8	0.365	0.185	0.511/0.511	0.269
Collected By		0	--	--	--	--	--	--	--
Field Oxidation Potential	mV	44.9	-146.8	-134	-140	-133.5	-132.9	39.8	-175
Field Specific Conductance	umhos/cm	759	733	901	846	733	795	972	987
Field Temperature	deg C	15.1	15.2	16.3	16.2	14.47	14.29	15.9	14.6
Groundwater Elevation	feet	522.48	526.06	520.29	528.97	528.36	--	524.12	519
Oxygen, Dissolved	mg/L	0.14	1.4	0.35	0.2	0.59	0.2	0.14	0.37
Turbidity	NTU	0.71	0.64	3.85	4.94	3.88	3.02	13.46	0.02
pH at 25 Degrees C	Std. Units	7.2	7.5	7.5	7.3	7.4	7.5	7.3	8.1
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	470
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	<3.8
Iron, dissolved	ug/L	--	--	--	--	--	--	--	3000
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	2900
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	470
Iron, total	ug/L	--	--	--	--	--	--	--	3000
Magnesium, total	ug/L	--	--	--	--	--	--	--	26000
Manganese, total	ug/L	--	--	--	--	--	--	--	2800
Potassium, total	ug/L	--	--	--	--	--	--	--	5700
Sodium, total	ug/L	--	--	--	--	--	--	--	54000
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-305
Number of Sampling Dates: 22

Parameter Name	Units	3/2/2021	4/20/2021	10/14/2021	4/6/2022	4/26/2023	8/1/2023		
Boron	ug/L	--	2200	2400	2400	1100	1300		
Calcium	mg/L	--	110	130	110	97	130		
Chloride	mg/L	--	28	34	31	27	29		
Fluoride	mg/L	--	0.45	0.31	<0.22	<0.38	<0.38		
Field pH	Std. Units	7.29	7.3	7.24	7.25	5.18	6.39		
Sulfate	mg/L	--	28	52	19	450	370		
Total Dissolved Solids	mg/L	--	420	570	490	640	700		
Antimony	ug/L	--	<1.1	<1.1	<0.69	<1	<1		
Arsenic	ug/L	--	<0.75	<0.75	0.92	<0.53	2		
Barium	ug/L	--	220	240	210	38	44		
Beryllium	ug/L	--	<0.27	<0.27	<0.27	<0.33	<0.33		
Cadmium	ug/L	--	<0.051	<0.051	<0.055	0.45	<0.1		
Chromium	ug/L	--	<1.1	<1.1	<1.1	<1.1	<1.1		
Cobalt	ug/L	--	0.14	0.21	0.22	290	9.2		
Lead	ug/L	--	<0.21	<0.21	<0.24	<0.24	0.25		
Lithium	ug/L	--	36	32	36	37	18		
Mercury	ug/L	--	<0.15	--	<0.11	<0.14	<0.14		
Molybdenum	ug/L	--	<1.3	<1.3	<1.2	1.5	1.3		
Selenium	ug/L	--	<0.96	<0.96	<0.96	<1.4	<1.4		
Thallium	ug/L	--	<0.26	<0.26	<0.26	<0.26	<0.26		
Total Radium	pCi/L	--	0.761	0.871	0.768	0.449	--		
Radium-226	pCi/L	--	0.264	0.332	0.47	0.17	--		
Radium-228	pCi/L	--	0.496	0.539	0.298	0.28	--		
Collected By		--	--	--	--	--	--		
Field Oxidation Potential	mV	-154	-135.7	-95.1	-116.2	40.5	-21.2		
Field Specific Conductance	umhos/cm	865	839	911	870	977	1081		
Field Temperature	deg C	14.8	14.7	14.7	14.3	11.4	10.9		
Groundwater Elevation	feet	520.48	522.31	519.18	522.6	517.35	518.03		
Oxygen, Dissolved	mg/L	0.44	0.11	0.17	0.06	0.14	0.02		
Turbidity	NTU	0.02	1.97	9	9	0.02	3.63		
pH at 25 Degrees C	Std. Units	--	7.5	7.4	7.4	5.4	6.6		
Bicarbonate Alkalinity as CaCO3	mg/L	410	390	550	470	--	--		
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.3	<4.6	<4.6	--	--		
Iron, dissolved	ug/L	1800	1700	2100	1500	2500	--		
Manganese, dissolved	ug/L	1900	2000	2900	2300	--	--		
Molybdenum, dissolved	ug/L	--	--	<1.3	1.5	--	--		
Total Alkalinity as CaCO3	mg/L	410	390	550	470	--	--		
Iron, total	ug/L	1900	1800	2100	1700	--	24000		
Magnesium, total	ug/L	21000	22000	24000	21000	--	--		
Manganese, total	ug/L	1900	2100	2800	2400	--	--		
Potassium, total	ug/L	6300	5500	6100	6000	--	--		
Sodium, total	ug/L	47000	51000	53000	49000	--	--		
Lithium, dissolved	ug/L	--	--	31	34	--	--		

Single Location
Name: IPL - Burlington

Location ID: MW-306
Number of Sampling Dates: 23

Parameter Name	Units	4/21/2016	6/6/2016	8/17/2016	10/3/2016	1/10/2017	4/4/2017	6/13/2017	8/16/2017
Boron	ug/L	3460	3340	3300	3340	3630	3770	3350	3700
Calcium	mg/L	37.5	38.1	41.2	40.8	37.5	40.3	34.5	38.9
Chloride	mg/L	22.9	22.6	20.6	21.1	20.6	20.2	20.6	20.6
Fluoride	mg/L	0.093	<0.073	0.03	0.075	0.052	<0.1	<0.1	<0.1
Field pH	Std. Units	10.4	10.36	6.37	6.5	6.33	6.29	11.25	6.59
Sulfate	mg/L	152	132	135	137	123	120	126	93.4
Total Dissolved Solids	mg/L	333	321	348	333	307	302	305	312
Antimony	ug/L	1.2	1.2	1	1.2	1.3	1.2	1.4	0.92
Arsenic	ug/L	56.6	47.4	43.9	46.4	53.4	50.5	48.1	43.2
Barium	ug/L	21.2	18.2	18.8	15.5	14.4	14.8	14.1	14.3
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.024	0.054	<0.012
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018	0.036	<0.018
Chromium	ug/L	<0.34	<0.34	0.4	<0.34	0.45	0.49	0.31	0.43
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.034	0.046	0.054
Lead	ug/L	0.28	<0.19	<0.19	<0.19	0.19	0.16	0.25	0.3
Lithium	ug/L	33.5	37.9	39.5	35.9	44.1	41.2	41.4	46.8
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046
Molybdenum	ug/L	95.7	84.1	80.9	83.7	88.9	87.4	80.4	94.4
Selenium	ug/L	0.66	0.54	0.81	0.46	0.55	0.48	0.74	0.52
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.036	<0.036	0.15
Total Radium	pCi/L	1.28	0.858	0.208	0.0727	0.744	1.19	0.254	1.03
Radium-226	pCi/L	0.438	0.144	0	-0.143	0.0633	0.457	0.157	0.424
Radium-228	pCi/L	0.841	0.714	0.208	0.0727	0.681	0.731	0.0974	0.604
Collected By		--	0	0	--	0	0	0	0
Field Oxidation Potential	mV	-127.8	-181	-155.5	-96.8	-26.7	-64.7	-151	-52.5
Field Specific Conductance	umhos/cm	398	977	1000	874	864	823	331.7	662
Field Temperature	deg C	14.5	14.4	14.8	14.8	14.4	14.5	15.8	14.9
Groundwater Elevation	feet	521.74	521.43	521.53	527.67	525.67	523.07	522.87	519.82
Oxygen, Dissolved	mg/L	0.11	0.57	1.91	0.14	0.06	0.12	0.22	0.03
Turbidity	NTU	0.4	0.1	0.4	0.97	0.19	0.14	0.81	0.1
Collected Date		--	--	--	--	--	--	--	--
Collected Time		--	--	--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	9.9	10.2	6.1	6.8	7.1	6.8	10.2	6.8
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-306
Number of Sampling Dates: 23

Parameter Name	Units	10/16/2017	5/9/2018	8/14/2018	10/10/2018	3/11/2019	4/3/2019	10/11/2019	6/4/2020
Boron	ug/L	3680	3480	3430	3350	--	2900	3100	3200
Calcium	mg/L	35.3	32	33.5	34.6	--	37	38	41
Chloride	mg/L	20.6	20.3	20.6	20.9	--	21	20	21
Fluoride	mg/L	0.15	0.12	0.1	<0.19	--	0.36	<0.23	<0.23
Field pH	Std. Units	10.66	6.8	10.33	6.04	6.27	6.69	10.53	10.48
Sulfate	mg/L	97.5	107	111	121	--	110	110	120
Total Dissolved Solids	mg/L	301	396	303	289	--	320	290	320
Antimony	ug/L	--	1.2	1.4	1.2	--	1.1	1.2	1.1
Arsenic	ug/L	--	52.6	48	50.6	--	50	46	50
Barium	ug/L	--	13.6	15.5	14.8	--	14	14	16
Beryllium	ug/L	--	<0.012	0.14	<0.089	--	<0.27	<0.27	<0.27
Cadmium	ug/L	--	0.029	0.18	<0.033	--	<0.077	<0.039	<0.039
Chromium	ug/L	--	0.24	0.25	0.18	--	<0.98	<0.98	<1.1
Cobalt	ug/L	--	0.035	0.18	<0.062	--	<0.091	<0.091	<0.091
Lead	ug/L	--	0.26	0.69	0.37	--	<0.27	0.44	0.33
Lithium	ug/L	--	36.6	46.8	41.4	39.2	45	46	43
Mercury	ug/L	--	<0.09	--	<0.09	--	<0.1	--	0.1
Molybdenum	ug/L	--	84.7	82.9	83.5	--	78	84	86
Selenium	ug/L	--	0.66	0.97	0.6	--	<1	<1	<1
Thallium	ug/L	--	<0.036	--	<0.099	--	<0.27	--	<0.26
Total Radium	pCi/L	--	0.482	1.04	1.1	--	0.165	0.526	<0.313/0.0769
Radium-226	pCi/L	--	0.174	0.397	0.383	--	0.0333	0.21	<0.0638/0.0516
Radium-228	pCi/L	--	0.308	0.64	0.712	--	0.132	0.316	<0.313/0.0253
Collected By		0	--	--	--	0	--	--	--
Field Oxidation Potential	mV	286.2	-104.3	-265	58.1	-88.9	-92.8	-165.1	59
Field Specific Conductance	umhos/cm	447.9	354.2	447	478	343	4711	473	482
Field Temperature	deg C	14.8	14.7	15.9	17.25	14.27	13.44	14.28	14.4
Groundwater Elevation	feet	522.72	526	520.14	528.95	523.21	528.4	--	524.45
Oxygen, Dissolved	mg/L	0.37	0.05	0.3	0.38	0.8	0.69	0.21	0.16
Turbidity	NTU	0.35	0.71	2.88	2.67	0.56	0.81	1.84	15.96
Collected Date		--	--	--	--	3	--	--	--
Collected Time		--	--	--	--	17	--	--	--
pH at 25 Degrees C	Std. Units	9.7	6.5	10	6	--	6	10.5	10.3
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-306
Number of Sampling Dates: 23

Parameter Name	Units	10/15/2020	3/2/2021	4/19/2021	10/11/2021	4/5/2022	4/27/2023	8/2/2023	
Boron	ug/L	3200	--	3000	2800	3300	4100	5700	
Calcium	mg/L	37	--	41	42	45	70	140	
Chloride	mg/L	18	--	17	19	19	31	31	
Fluoride	mg/L	<0.23	--	<0.28	<0.28	<0.22	<0.38	<0.38	
Field pH	Std. Units	10	9.46	10.02	5.83	5.95	8.77	8.81	
Sulfate	mg/L	71	--	110	120	120	50	270	
Total Dissolved Solids	mg/L	300	--	260	250	310	310	630	
Antimony	ug/L	0.9	--	1.4	<1.1	<0.69	<1	<1	
Arsenic	ug/L	46	--	53	43	48	36	32	
Barium	ug/L	16	--	19	17	19	61	110	
Beryllium	ug/L	<0.27	--	<0.27	<0.27	<0.27	<0.33	<0.33	
Cadmium	ug/L	<0.049	--	<0.051	<0.051	<0.055	<0.1	<0.1	
Chromium	ug/L	<1.1	--	<1.1	<1.1	<1.1	<1.1	<1.1	
Cobalt	ug/L	<0.091	--	<0.091	<0.19	<0.19	0.42	0.31	
Lead	ug/L	0.43	--	<0.21	0.26	<0.24	<0.24	1.5	
Lithium	ug/L	42	--	43	41	42	34	49	
Mercury	ug/L	<0.1	--	<0.15	--	<0.11	<0.14	<0.14	
Molybdenum	ug/L	82	--	87	69	74	12	71	
Selenium	ug/L	<1	--	<0.96	1.2	<0.96	<1.4	<1.4	
Thallium	ug/L	--	--	<0.26	<0.26	<0.26	<0.26	<0.26	
Total Radium	pCi/L	0.119	--	0.415	0.114	0.489	0.735	--	
Radium-226	pCi/L	0.0226	--	0.121	0.11	0.0776	0.212	--	
Radium-228	pCi/L	0.0962	--	0.294	0.00348	0.412	0.523	--	
Collected By		--	--	--	--	--	--	--	
Field Oxidation Potential	mV	-273.7	-196	-188	12.3	-75.3	48.4	-129	
Field Specific Conductance	umhos/cm	453.7	415	442	476.1	468.4	577	937	
Field Temperature	deg C	14.1	14.1	13.8	16	13.6	12.5	12.9	
Groundwater Elevation	feet	519.05	520.65	522.52	519.15	522.63	522.2	518.07	
Oxygen, Dissolved	mg/L	0.11	0.39	0.34	0.28	0.14	0.11	0.19	
Turbidity	NTU	0.02	0.02	0.02	6.9	4	0.02	15.54	
Collected Date		--	--	--	--	--	--	--	
Collected Time		--	--	--	--	--	--	--	
pH at 25 Degrees C	Std. Units	9.6	--	10.3	6.2	6.2	8.9	8.6	
Bicarbonate Alkalinity as CaCO3	mg/L	52	68	<2.3	95	100	--	--	
Carbonate Alkalinity as CaCO3	mg/L	82	46	50	<4.6	<4.6	--	--	
Iron, dissolved	ug/L	<50	<36	<36	<36	<36	<36	--	
Manganese, dissolved	ug/L	<4	5.4	<4.4	8	5.7	--	--	
Molybdenum, dissolved	ug/L	--	--	--	77	81	--	--	
Total Alkalinity as CaCO3	mg/L	130	110	74	95	100	--	--	
Iron, total	ug/L	<50	54	<36	<36	<36	--	340	
Magnesium, total	ug/L	<100	<100	<100	120	<150	--	--	
Manganese, total	ug/L	5.4	6.5	<4.4	7.7	6	--	--	
Potassium, total	ug/L	20000	19000	23000	20000	22000	--	--	
Sodium, total	ug/L	46000	50000	40000	45000	46000	--	--	
Lithium, dissolved	ug/L	42	29	41	38	37	--	--	

Single Location
Name: IPL - Burlington

Location ID: MW-307
Number of Sampling Dates: 23

Parameter Name	Units	4/20/2016	6/6/2016	8/17/2016	10/3/2016	1/10/2017	4/4/2017	6/13/2017	8/16/2017
Boron	ug/L	3720	3760	3720	3880	3960	4050	3740	3780
Calcium	mg/L	31.9	30.8	31.3	34.1	31.3	32.3	28.1	29.8
Chloride	mg/L	23.5	22.6	21.4	21.6	21.3	20.9	21.3	20.7
Fluoride	mg/L	0.099	<0.073	0.032	0.079	0.057	<0.1	<0.1	<0.1
Field pH	Std. Units	10.28	10.19	10.6	10.5	10.82	10.94	10.74	10.8
Sulfate	mg/L	183	150	160	161	145	135	136	130
Total Dissolved Solids	mg/L	408	385	386	374	355	354	353	356
Antimony	ug/L	0.46	0.62	0.48	0.64	0.53	0.48	0.48	0.54
Arsenic	ug/L	53	57.4	57.1	59.2	59.2	56.2	55.8	52.8
Barium	ug/L	38.3	42.2	38.7	38.4	34.7	33.4	33	31.1
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.033	<0.012	<0.012
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018	<0.018	0.023
Chromium	ug/L	<0.34	0.84	0.5	0.62	<0.34	0.19	0.24	0.33
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.037	0.042	0.034
Lead	ug/L	0.48	1.1	0.36	0.36	0.45	0.43	0.43	0.46
Lithium	ug/L	43.1	45.6	42.4	45.1	49.6	48.4	42.2	47.5
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	0.047	<0.046	<0.046
Molybdenum	ug/L	146	155	142	150	154	154	155	152
Selenium	ug/L	0.47	0.45	0.46	0.45	0.44	0.42	0.46	0.42
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.036	<0.036	0.18
Total Radium	pCi/L	1.6	0.194	0.882	0.552	0	0.651	0.85	0.673
Radium-226	pCi/L	0.153	-0.064	0.068	0.197	-0.075	-0.156	0.735	0.393
Radium-228	pCi/L	1.45	0.258	0.814	0.355	-0.0697	0.651	0.115	0.28
Collected By		--	0	0	--	0	0	0	0
Field Oxidation Potential	mV	-201.7	-168	-212.1	-289.4	-253.6	-287.1	-177.1	-168.9
Field Specific Conductance	umhos/cm	480.2	1142	1064	958	940	901	368.3	735
Field Temperature	deg C	14.2	14.1	14.2	14.6	14.4	14.4	14.9	14.6
Groundwater Elevation	feet	522.38	521.75	521.91	527.81	525.81	523.14	523.17	520.16
Oxygen, Dissolved	mg/L	0.08	0.6	6.01	0.29	0.11	0.28	0.12	0.19
Turbidity	NTU	1.54	0.46	0.6	1.4	0.6	0.14	3.11	1.98
Collected Date		--	--	--	--	--	--	--	--
Collected Time		--	--	--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	9.8	10	9.8	10.1	9.6	9.8	9.8	9.8
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-307
Number of Sampling Dates: 23

Parameter Name	Units	10/16/2017	5/9/2018	8/14/2018	10/10/2018	3/11/2019	4/3/2019	10/11/2019	6/4/2020
Boron	ug/L	3920	3910	4090	3720	--	3400	3700	3600
Calcium	mg/L	31.3	27.3	27.2	27.6	--	29	31	37
Chloride	mg/L	20.8	20.1	20.1	21.6	--	21	19	21
Fluoride	mg/L	0.13	0.11	0.094	<0.19	--	0.51	<0.23	<0.23
Field pH	Std. Units	10.46	10.3	10.12	9.88	9.71	10.39	10.14	10.03
Sulfate	mg/L	126	119	119	143	--	120	130	180
Total Dissolved Solids	mg/L	341	347	340	336	--	420	340	390
Antimony	ug/L	--	0.5	0.58	0.62	--	<0.53	<0.53	<0.58
Arsenic	ug/L	--	54.3	52.3	52.8	--	43	47	47
Barium	ug/L	--	32.3	29	31.1	--	29	31	36
Beryllium	ug/L	--	<0.012	<0.12	<0.089	--	<0.27	<0.27	<0.27
Cadmium	ug/L	--	0.12	<0.07	0.068	--	<0.077	<0.039	0.044
Chromium	ug/L	--	0.27	0.36	0.15	--	<0.98	<0.98	<1.1
Cobalt	ug/L	--	0.033	<0.15	<0.062	--	<0.091	<0.091	<0.091
Lead	ug/L	--	0.39	0.43	0.49	--	0.37	0.41	<0.27
Lithium	ug/L	--	47.8	56.1	45.4	50.7	50	48	48
Mercury	ug/L	--	<0.09	--	<0.09	--	<0.1	--	0.12
Molybdenum	ug/L	--	154	155	159	156	100	130	130
Selenium	ug/L	--	0.36	0.41	0.36	--	<1	<1	<1
Thallium	ug/L	--	<0.036	--	<0.099	--	<0.27	--	<0.26
Total Radium	pCi/L	--	0.0587	0.415	1.43	--	0.447	0.232	<0.471/0.277
Radium-226	pCi/L	--	0.0587	0	0.988	--	0.0752	0.218	<0.101/0.0806
Radium-228	pCi/L	--	-0.024	0.415	0.439	--	0.372	0.0141	<0.471/0.197
Collected By		0	--	--	--	0	--	--	--
Field Oxidation Potential	mV	-78.9	-168.6	-221	-87.3	-78.3	-167.8	-126.3	60.2
Field Specific Conductance	umhos/cm	485.7	499.9	512	497	367	500	536	586
Field Temperature	deg C	14.7	14.4	15.6	15.64	14.36	13.56	14.37	14.8
Groundwater Elevation	feet	522.55	526.06	520.46	529.08	523.49	528.63	--	524.62
Oxygen, Dissolved	mg/L	0.18	1.1	0.49	0.22	1.07	0.68	0.24	0.3
Turbidity	NTU	0.32	1.87	5.09	1.85	1.05	3.1	3.23	14.33
Collected Date		--	--	--	--	3	--	--	--
Collected Time		--	--	--	--	1633	--	--	--
pH at 25 Degrees C	Std. Units	9.8	9.9	9.9	9.9	--	10	10.2	10
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-307
Number of Sampling Dates: 23

Parameter Name	Units	10/15/2020	3/2/2021	4/20/2021	10/11/2021	4/5/2022	4/24/2023	8/1/2023	
Boron	ug/L	3400	--	3400	3000	3300	4800	3700	
Calcium	mg/L	36	--	39	42	46	53	76	
Chloride	mg/L	17	--	17	19	20	28	24	
Fluoride	mg/L	<0.23	--	<0.28	<0.28	<0.22	<0.38	<0.38	
Field pH	Std. Units	10.05	9.96	10.02	9.89	9.88	8.35	7.62	
Sulfate	mg/L	160	--	140	170	190	100	330	
Total Dissolved Solids	mg/L	370	--	330	280	360	390	550	
Antimony	ug/L	0.56	--	<1.1	<1.1	<0.69	<1	<1	
Arsenic	ug/L	47	--	52	34	41	8.8	8.2	
Barium	ug/L	39	--	39	39	41	76	92	
Beryllium	ug/L	<0.27	--	<0.27	<0.27	<0.27	<0.33	<0.33	
Cadmium	ug/L	<0.049	--	<0.051	<0.051	<0.055	0.12	0.24	
Chromium	ug/L	<1.1	--	<1.1	<1.1	<1.1	<1.1	<1.1	
Cobalt	ug/L	<0.091	--	<0.091	<0.19	<0.19	0.31	0.92	
Lead	ug/L	0.19	--	<0.21	<0.21	<0.24	<0.24	1.1	
Lithium	ug/L	51	--	53	52	50	72	100	
Mercury	ug/L	<0.1	--	<0.15	--	<0.11	<0.14	<0.14	
Molybdenum	ug/L	140	--	140	85	100	320	280	
Selenium	ug/L	<1	--	<0.96	<0.96	<0.96	<1.4	<1.4	
Thallium	ug/L	--	--	<0.26	<0.26	<0.26	<0.26	<0.26	
Total Radium	pCi/L	0.18	--	0.0114	1.14	0.134	0.258	--	
Radium-226	pCi/L	0.18	--	0.0114	0.103	0.0536	0.101	--	
Radium-228	pCi/L	-2.16	--	-0.01	1.04	0.0809	0.157	--	
Collected By		--	--	--	--	--	--	--	
Field Oxidation Potential	mV	-269.7	-233	-242.4	-215.3	-218.8	110.6	-111.6	
Field Specific Conductance	umhos/cm	564.8	552	546	547.9	549.8	634.9	872	
Field Temperature	deg C	14	14	13.9	14.4	13.4	13.7	12.6	
Groundwater Elevation	feet	519.33	521.01	522.89	519.55	522.91	519.61	518.04	
Oxygen, Dissolved	mg/L	0.11	0.38	0.08	0.16	0.03	0.13	0.05	
Turbidity	NTU	0.02	0.49	2.38	8.2	4	3.93	15.09	
Collected Date		--	--	--	--	--	--	--	
Collected Time		--	--	--	--	--	--	--	
pH at 25 Degrees C	Std. Units	9.5	--	10.4	10.2	9.9	8.3	7.4	
Bicarbonate Alkalinity as CaCO3	mg/L	<1.9	35	<4.6	9.5	21	--	--	
Carbonate Alkalinity as CaCO3	mg/L	79	49	79	110	82	--	--	
Iron, dissolved	ug/L	<50	<36	<36	<36	<36	<36	--	
Manganese, dissolved	ug/L	6.6	5.3	5.1	6.5	6.8	--	--	
Molybdenum, dissolved	ug/L	140	130	140	90	140	--	--	
Total Alkalinity as CaCO3	mg/L	84	84	89	120	100	--	--	
Iron, total	ug/L	<50	<36	<36	<36	<36	--	640	
Magnesium, total	ug/L	<100	<100	<100	<100	<150	--	--	
Manganese, total	ug/L	6.4	5.4	5.5	6.4	7.5	--	--	
Potassium, total	ug/L	36000	38000	37000	36000	38000	--	--	
Sodium, total	ug/L	54000	52000	53000	49000	56000	--	--	
Lithium, dissolved	ug/L	50	52	51	50	47	--	--	

Single Location
Name: IPL - Burlington

Location ID: MW-307A
Number of Sampling Dates: 9

Parameter Name	Units	9/9/2020	10/14/2020	3/2/2021	4/20/2021	10/11/2021	4/5/2022	10/20/2022	4/24/2023
Boron	ug/L	3900	4100	--	4100	4300	4000	4100	--
Calcium	mg/L	10	11	--	11	10	11	27	--
Chloride	mg/L	34	31	--	28	31	37	47	--
Fluoride	mg/L	<0.23	<0.23	--	0.38	<0.28	<0.22	<0.22	--
Field pH	Std. Units	7.83	7.8	7.66	7.74	7.83	7.78	7.69	7.63
Sulfate	mg/L	110	110	--	110	140	120	190	--
Total Dissolved Solids	mg/L	370	360	--	330	310	360	470	--
Antimony	ug/L	<0.51	<0.51	--	<1.1	<1.1	<0.69	<0.69	--
Arsenic	ug/L	<0.88	<0.88	--	<0.75	<0.75	<0.75	<0.75	--
Barium	ug/L	45	47	--	48	43	46	110	--
Beryllium	ug/L	<0.27	<0.27	--	<0.27	<0.27	<0.27	<0.27	--
Cadmium	ug/L	0.058	0.052	--	<0.051	0.069	0.084	<0.055	--
Chromium	ug/L	<1.1	<1.1	--	<1.1	<1.1	<1.1	<1.1	--
Cobalt	ug/L	0.11	0.15	--	<0.091	<0.19	<0.19	<0.19	--
Lead	ug/L	0.69	0.63	--	0.59	0.77	1.2	<0.24	--
Lithium	ug/L	6.8	8.3	9.1	8.7	7.7	8.5	12	7
Mercury	ug/L	<0.1	<0.1	--	<0.15	--	<0.11	<0.11	--
Molybdenum	ug/L	110	120	120	120	110	120	120	4.3
Selenium	ug/L	<1	<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	0.605	0.412	--	0.307	0.981	0.326	1.15	--
Radium-226	pCi/L	0.168	0.169	--	0.133	0.0614	0.326	0.268	--
Radium-228	pCi/L	0.438	0.243	--	0.175	0.92	-0.0921	0.883	--
Field Oxidation Potential	mV	-154.2	-189.9	-171	-167.3	-133.4	-154	-131	-117.1
Field Specific Conductance	umhos/cm	585	553.6	568	566	551	547.4	791	477
Field Temperature	deg C	14.4	14.6	14	13.7	14.4	13.4	15.47	7.7
Groundwater Elevation	feet	519.97	519	520.52	522.39	519.09	522.47	508.27	520.77
Oxygen, Dissolved	mg/L	0.17	0.18	0.29	0.13	0.12	0.06	0	0.12
Turbidity	NTU	0	2.96	0.95	2.89	7.4	5	0.3	0.02
pH at 25 Degrees C	Std. Units	8	7.9	--	8.1	7.8	7.8	7.7	--
Bicarbonate Alkalinity as CaCO3	mg/L	--	110	94	93	100	150	170	--
Carbonate Alkalinity as CaCO3	mg/L	--	<1.9	<2.3	<2.3	<4.6	<4.6	<4.6	--
Iron, dissolved	ug/L	--	460	450	430	390	440	1000	1100
Manganese, dissolved	ug/L	--	420	360	390	390	400	870	--
Molybdenum, dissolved	ug/L	--	120	120	120	120	120	120	--
Total Alkalinity as CaCO3	mg/L	--	110	94	93	100	150	170	--
Iron, total	ug/L	--	610	510	500	450	530	1200	--
Magnesium, total	ug/L	--	1700	1500	1600	1500	1600	4300	--
Manganese, total	ug/L	--	430	360	410	390	420	940	--
Potassium, total	ug/L	--	3100	3200	3100	2800	3100	4200	--
Sodium, total	ug/L	--	110000	110000	110000	100000	110000	130000	--
Lithium, dissolved	ug/L	--	--	9.6	8.3	6.9	7.7	11	--

Single Location
Name: IPL - Burlington

Location ID: MW-307A
 Number of Sampling Dates: 9

Parameter Name	Units	8/1/2023							
Boron	ug/L	--							
Calcium	mg/L	--							
Chloride	mg/L	--							
Fluoride	mg/L	--							
Field pH	Std. Units	7.78							
Sulfate	mg/L	--							
Total Dissolved Solids	mg/L	--							
Antimony	ug/L	--							
Arsenic	ug/L	--							
Barium	ug/L	--							
Beryllium	ug/L	--							
Cadmium	ug/L	--							
Chromium	ug/L	--							
Cobalt	ug/L	--							
Lead	ug/L	--							
Lithium	ug/L	6.2							
Mercury	ug/L	--							
Molybdenum	ug/L	5.4							
Selenium	ug/L	--							
Thallium	ug/L	--							
Total Radium	pCi/L	--							
Radium-226	pCi/L	--							
Radium-228	pCi/L	--							
Field Oxidation Potential	mV	-154							
Field Specific Conductance	umhos/cm	487.5							
Field Temperature	deg C	7.6							
Groundwater Elevation	feet	519.42							
Oxygen, Dissolved	mg/L	0.04							
Turbidity	NTU	4.61							
pH at 25 Degrees C	Std. Units	--							
Bicarbonate Alkalinity as CaCO3	mg/L	--							
Carbonate Alkalinity as CaCO3	mg/L	--							
Iron, dissolved	ug/L	--							
Manganese, dissolved	ug/L	--							
Molybdenum, dissolved	ug/L	--							
Total Alkalinity as CaCO3	mg/L	--							
Iron, total	ug/L	1900							
Magnesium, total	ug/L	--							
Manganese, total	ug/L	--							
Potassium, total	ug/L	--							
Sodium, total	ug/L	--							
Lithium, dissolved	ug/L	--							

Single Location
Name: IPL - Burlington

Location ID: MW-307B

Number of Sampling Dates: 7

Parameter Name	Units	7/1/2021	10/11/2021	2/22/2022	4/5/2022	10/20/2022	4/24/2023	8/2/2023
Boron	ug/L	4700	2700	4000	6700	1400	--	--
Calcium	mg/L	75	66	71	84	59	--	--
Chloride	mg/L	28	18	25	35	11	--	--
Fluoride	mg/L	<0.28	<0.28	<0.22	<0.22	<0.22	--	--
Field pH	Std. Units	7.67	7.72	7.43	7.36	7.1	7.49	7.62
Sulfate	mg/L	110	77	120	180	68	--	--
Total Dissolved Solids	mg/L	330	230	310	410	260	--	--
Antimony	ug/L	<1.1	<1.1	<2.8	<0.69	<0.69	--	--
Arsenic	ug/L	<0.75	<0.75	<0.75	<0.75	1.4	--	--
Barium	ug/L	260	310	350	450	310	--	--
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.27	<0.27	--	--
Cadmium	ug/L	<0.051	0.065	<0.055	<0.055	0.055	--	--
Chromium	ug/L	<1.1	<1.1	<1.1	<1.1	<1.1	--	--
Cobalt	ug/L	0.26	<0.19	<0.19	<0.19	<0.19	--	--
Lead	ug/L	<0.21	<0.21	<0.24	<0.24	<0.24	--	--
Lithium	ug/L	9.6	7	9.4	11	6.1	6.8	4.7
Mercury	ug/L	<0.15	--	<0.11	<0.11	<0.11	--	--
Molybdenum	ug/L	40	25	37	59	32	7.5	4.6
Selenium	ug/L	<0.96	<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	0.955	1.38	0.71	1.5	1.43	--	--
Radium-226	pCi/L	0.289	0.377	0.453	0.674	0.515	--	--
Radium-228	pCi/L	0.666	1.01	0.257	0.83	0.911	--	--
Field Oxidation Potential	mV	-76.5	-130.6	211.7	-147	-34	-48.4	-130
Field Specific Conductance	umhos/cm	587.1	459.6	570	627.3	492	434.6	435
Field Temperature	deg C	15.3	14.4	13.1	13.5	14.11	13.4	10.3
Groundwater Elevation	feet	520.12	519.13	519.37	522.37	508.35	520.77	518.2
Oxygen, Dissolved	mg/L	0.41	0.1	0.18	0.08	0	2.08	0.29
Turbidity	NTU	1.26	10.1	2.64	6	17	1.08	8.79
pH at 25 Degrees C	Std. Units	7.6	7.6	7.5	7.5	7.6	--	--
Bicarbonate Alkalinity as CaCO3	mg/L	150	160	160	130	190	--	--
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	<4.6	<4.6	<4.6	--	--
Iron, dissolved	ug/L	1700	1200	1700	2100	1500	1400	--
Manganese, dissolved	ug/L	800	330	470	770	370	--	--
Molybdenum, dissolved	ug/L	40	28	37	58	35	--	--
Total Alkalinity as CaCO3	mg/L	150	160	160	130	190	--	--
Iron, total	ug/L	2100	1300	1900	2300	3000	--	1700
Magnesium, total	ug/L	15000	16000	15000	15000	14000	--	--
Manganese, total	ug/L	850	310	500	810	360	--	--
Potassium, total	ug/L	3000	1600	2200	3200	1600	--	--
Sodium, total	ug/L	23000	16000	23000	35000	19000	--	--
Lithium, dissolved	ug/L	9.5	7	7.9	10	6.7	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-308
Number of Sampling Dates: 23

Parameter Name	Units	4/21/2016	6/6/2016	8/17/2016	10/3/2016	1/10/2017	4/4/2017	6/13/2017	8/16/2017
Boron	ug/L	4960	4980	4870	4760	4980	5160	4680	4910
Calcium	mg/L	39.8	36.8	35.1	33.5	33.2	34.2	30.1	32.3
Chloride	mg/L	72.3	65.7	53.1	47.8	43.5	42.6	40.6	39.8
Fluoride	mg/L	0.16	0.095	0.078	0.13	0.084	0.11	0.12	0.14
Field pH	Std. Units	9.77	9.76	9.95	10.17	10.21	10.34	9.99	10.15
Sulfate	mg/L	222	187	180	194	192	175	188	181
Total Dissolved Solids	mg/L	577	548	541	495	474	494	501	483
Antimony	ug/L	0.29	0.34	0.22	0.38	0.33	0.28	0.32	0.3
Arsenic	ug/L	83.8	80.5	84.2	82.6	86.4	83.1	80.3	77.9
Barium	ug/L	130	110	110	89.8	90.6	85.1	81.5	76.2
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.017	<0.012	<0.012
Cadmium	ug/L	<0.029	<0.029	<0.029	0.097	0.034	<0.018	0.035	<0.018
Chromium	ug/L	0.46	0.41	0.52	<0.34	0.37	0.22	0.16	0.38
Cobalt	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.06	0.068	0.069
Lead	ug/L	0.33	<0.19	<0.19	0.28	0.27	0.21	0.34	0.33
Lithium	ug/L	45.6	45.8	41.5	41.2	47	46.9	42.4	44.1
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	0.047	<0.046	<0.046
Molybdenum	ug/L	153	139	133	138	140	140	136	137
Selenium	ug/L	0.69	0.47	0.58	0.45	0.68	0.4	0.3	0.47
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.036	<0.036	<0.036
Total Radium	pCi/L	0.712	1.22	0.376	0.549	0	0.854	0.881	0.229
Radium-226	pCi/L	0.0744	0	0.0777	0.312	0	0.213	0.4	0.063
Radium-228	pCi/L	0.638	1.22	0.298	0.237	-0.059	0.641	0.481	0.166
Collected By		--	0	0	--	0	0	0	0
Field Oxidation Potential	mV	-77.2	-149	-213.7	-239.6	-163.8	-300.6	-162.3	-139.8
Field Specific Conductance	umhos/cm	712	1678	1533	1306	1303	1258	514.6	1039
Field Temperature	deg C	14.2	14.2	14.3	14.6	13.7	14.1	14.9	14.5
Groundwater Elevation	feet	521.93	521.43	521.56	527.62	525.65	523.07	522.9	519.8
Oxygen, Dissolved	mg/L	0.09	0.81	0.16	0.55	0.11	0.16	0.2	0.21
Turbidity	NTU	1.83	0.42	0.34	0.73	1.27	0.43	1.56	0.61
Collected Date		--	--	--	--	--	--	--	--
Collected Time		--	--	--	--	--	--	--	--
pH at 25 Degrees C	Std. Units	9.4	9.6	9.3	9.7	9.4	9.2	9.5	9.4
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-308
Number of Sampling Dates: 23

Parameter Name	Units	10/17/2017	5/8/2018	8/13/2018	10/10/2018	3/12/2019	4/3/2019	10/10/2019	6/4/2020
Boron	ug/L	4850	5030	5070	4710	--	4300	4500	4700
Calcium	mg/L	32.6	28.7	28.7	28.5	--	32	30	34
Chloride	mg/L	38.2	36.2	36.7	35.9	--	38	40	58
Fluoride	mg/L	0.17	0.17	0.16	<0.19	--	0.37	<0.23	0.37
Field pH	Std. Units	9.75	9.75	9.86	9.82	7.72	9.97	9.42	9.65
Sulfate	mg/L	177	164	167	193	--	170	160	190
Total Dissolved Solids	mg/L	472	494	468	440	--	490	400	470
Antimony	ug/L	--	0.32	0.32	0.36	--	<0.53	<0.53	<0.58
Arsenic	ug/L	--	79.1	82.5	79.5	--	78	72	76
Barium	ug/L	--	64.3	67.1	66.5	--	70	70	66
Beryllium	ug/L	--	<0.012	<0.12	<0.089	--	<0.27	<0.27	<0.27
Cadmium	ug/L	--	0.02	<0.07	0.058	--	<0.077	<0.039	0.044
Chromium	ug/L	--	0.25	<0.19	0.16	--	<0.98	<0.98	<1.1
Cobalt	ug/L	--	0.057	<0.15	0.074	--	<0.091	<0.091	<0.091
Lead	ug/L	--	0.25	0.27	0.45	--	<0.27	<0.27	0.4
Lithium	ug/L	--	46	52	43.6	48.9	50	52	48
Mercury	ug/L	--	<0.09	--	<0.09	--	<0.1	--	0.13
Molybdenum	ug/L	--	140	140	145	135	110	120	120
Selenium	ug/L	--	0.31	0.43	0.4	--	<1	<1	<1
Thallium	ug/L	--	<0.036	--	<0.099	--	<0.27	--	<0.26
Total Radium	pCi/L	--	0.283	0.0726	0.334	--	0.328	0.288	<0.42/0.268
Radium-226	pCi/L	--	0.182	0.0726	0.275	--	0.0363	0.202	<0.118/0.109
Radium-228	pCi/L	--	0.101	-0.068	0.0585	--	0.291	0.0862	<0.42/0.159
Collected By		0	--	--	--	0	--	--	--
Field Oxidation Potential	mV	-109.4	-158.2	-238	-201	-60.7	-142.3	-82.6	28
Field Specific Conductance	umhos/cm	689	698	710	709	500	681	671	713
Field Temperature	deg C	14.6	14.4	15.4	15.3	14.06	14.04	14.64	15.4
Groundwater Elevation	feet	522.46	525.62	520.22	528.98	523.13	528.39	--	524.1
Oxygen, Dissolved	mg/L	0.09	1.5	0.11	0.2	2.57	1.16	0.21	0.23
Turbidity	NTU	0.6	1.26	4.63	1.35	1.68	1.66	2.93	13.38
Collected Date		--	--	--	--	3	--	--	--
Collected Time		--	--	--	--	9	--	--	--
pH at 25 Degrees C	Std. Units	9.4	9.4	9.4	9.5	--	9.6	9.9	9.6
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-308
Number of Sampling Dates: 23

Parameter Name	Units	10/14/2020	3/2/2021	4/20/2021	10/12/2021	4/4/2022	4/24/2023	8/1/2023	
Boron	ug/L	4500	--	4300	3900	4400	5700	6800	
Calcium	mg/L	37	--	38	38	42	61	140	
Chloride	mg/L	45	--	39	41	37	26	37	
Fluoride	mg/L	<0.23	--	<0.28	<0.28	<0.22	<0.38	<0.38	
Field pH	Std. Units	9.7	9.4	9.56	9.97	9.58	7.49	7.33	
Sulfate	mg/L	160	--	140	190	190	240	570	
Total Dissolved Solids	mg/L	460	--	430	410	470	650	1000	
Antimony	ug/L	<0.51	--	<1.1	<1.1	<0.69	<1	<1	
Arsenic	ug/L	69	--	73	59	62	1.9	5.7	
Barium	ug/L	74	--	79	82	85	87	150	
Beryllium	ug/L	<0.27	--	<0.27	<0.27	<0.27	<0.33	<0.33	
Cadmium	ug/L	<0.049	--	<0.051	<0.051	<0.055	0.15	0.12	
Chromium	ug/L	<1.1	--	<1.1	<1.1	<1.1	<1.1	<1.1	
Cobalt	ug/L	<0.091	--	<0.091	<0.19	<0.19	0.18	4.1	
Lead	ug/L	0.15	--	<0.21	<0.21	<0.24	<0.24	0.27	
Lithium	ug/L	51	--	54	58	57	73	180	
Mercury	ug/L	<0.1	--	<0.15	--	<0.11	<0.14	<0.14	
Molybdenum	ug/L	110	--	120	81	100	480	220	
Selenium	ug/L	<1	--	<0.96	<0.96	<0.96	<1.4	<1.4	
Thallium	ug/L	--	--	<0.26	<0.26	<0.26	<0.26	<0.26	
Total Radium	pCi/L	0.106	--	0.0966	-0.00135	0.321	1.14	--	
Radium-226	pCi/L	-0.0615	--	-0.0307	-0.00135	0.321	0.096	--	
Radium-228	pCi/L	0.106	--	0.0966	0	-0.143	1.05	--	
Collected By		--	--	--	--	--	--	--	
Field Oxidation Potential	mV	-264.6	-207.2	-172.9	-219.8	-246.6	122.6	-121.7	
Field Specific Conductance	umhos/cm	682	695	690	728	680	994	1483	
Field Temperature	deg C	14.7	13.9	14.1	15	13.9	14.2	13.2	
Groundwater Elevation	feet	519.02	520.7	522.57	519.25	522.61	521.08	518.22	
Oxygen, Dissolved	mg/L	0.1	0.11	0.08	0.06	0.08	0.1	0.44	
Turbidity	NTU	0.15	0.02	1.77	8.8	5	10.8	0.98	
Collected Date		--	--	--	--	--	--	--	
Collected Time		--	--	--	--	--	--	--	
pH at 25 Degrees C	Std. Units	9.6	--	9.8	10	9.6	7.6	7.3	
Bicarbonate Alkalinity as CaCO3	mg/L	54	69	38	4.7	21	--	--	
Carbonate Alkalinity as CaCO3	mg/L	89	39	75	95	82	--	--	
Iron, dissolved	ug/L	<50	<36	<36	<36	<36	54	--	
Manganese, dissolved	ug/L	290	210	250	30	120	--	--	
Molybdenum, dissolved	ug/L	110	110	110	82	110	--	--	
Total Alkalinity as CaCO3	mg/L	140	110	110	99	100	--	--	
Iron, total	ug/L	<50	<36	<36	<36	<36	--	5800	
Magnesium, total	ug/L	1700	1600	1800	420	1300	--	--	
Manganese, total	ug/L	280	210	250	32	130	--	--	
Potassium, total	ug/L	35000	38000	37000	40000	39000	--	--	
Sodium, total	ug/L	84000	85000	88000	79000	87000	--	--	
Lithium, dissolved	ug/L	53	54	51	57	54	--	--	

Single Location
Name: IPL - Burlington

Location ID: MW-309
Number of Sampling Dates: 22

Parameter Name	Units	4/21/2016	6/7/2016	8/16/2016	10/3/2016	1/10/2017	4/4/2017	6/13/2017	8/16/2017
Boron	ug/L	5270	5590	5180	5140	4880	3800	4070	4310
Calcium	mg/L	118	100	99.2	126	141	156	118	130
Chloride	mg/L	145	152	126	117	104	82.7	89.5	92.5
Fluoride	mg/L	0.57	0.36	0.35	0.39	0.39	0.41	0.5	0.4
Field pH	Std. Units	7.33	7.43	7.66	7.66	7.37	7.31	7.1	7.62
Sulfate	mg/L	49	51.2	100	104	127	198	171	136
Total Dissolved Solids	mg/L	768	728	726	772	839	955	841	859
Antimony	ug/L	0.087	0.12	<0.058	0.09	<0.058	0.039	0.03	0.051
Arsenic	ug/L	31.5	27.3	29.3	31.5	34.5	30	36.2	34.6
Barium	ug/L	384	337	316	364	362	264	256	274
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.037	0.012	<0.012
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018	0.021	<0.018
Chromium	ug/L	0.38	0.35	0.53	<0.34	0.4	0.23	0.18	0.49
Cobalt	ug/L	2.1	1.2	0.98	1.1	1.7	6.5	2.9	1.3
Lead	ug/L	<0.19	<0.19	<0.19	<0.19	<0.19	<0.033	0.12	0.26
Lithium	ug/L	<4.9	<4.9	<4.9	<4.9	<4.9	5	<2.9	6.3
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046
Molybdenum	ug/L	30.7	31.1	43.5	49.1	44.8	41.5	60.8	67.5
Selenium	ug/L	0.39	0.25	0.24	0.31	0.25	0.44	0.35	0.34
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.036	<0.036	<0.036
Total Radium	pCi/L	2.55	2.28	1.74	1.38	0.455	1.76	0.846	1.09
Radium-226	pCi/L	0.991	0.561	0.67	0.694	0.65	0.573	0.292	0.615
Radium-228	pCi/L	1.56	1.72	1.07	0.69	0.39	1.19	0.554	0.47
Collected By		--	0	0	--	0	0	0	0
Field Oxidation Potential	mV	-138.9	-121	-150.9	-176.2	-131.4	-138	-60.7	-112.8
Field Specific Conductance	umhos/cm	1034	2369	228.5	2265	2502	2528	936	1853
Field Temperature	deg C	13.4	13.4	13.8	14.6	14.3	13.9	14.2	14.6
Groundwater Elevation	feet	522.09	521.39	521.7	527.57	525.57	523.1	522.91	519.93
Oxygen, Dissolved	mg/L	0.1	0.78	2.36	0.54	0.11	0.2	0.15	0.2
Turbidity	NTU	3.93	0.59	0.58	0.72	5.84	15.11	4.62	4.61
pH at 25 Degrees C	Std. Units	7	7	7	7.2	7.3	7.4	6.9	7.2
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-309
Number of Sampling Dates: 22

Parameter Name	Units	10/17/2017	5/8/2018	8/14/2018	10/10/2018	4/4/2019	10/11/2019	6/3/2020	10/14/2020
Boron	ug/L	4400	4720	4930	4720	4200	4300	4400	4400
Calcium	mg/L	101	83.6	74.1	72.4	73	68	82	59
Chloride	mg/L	85.4	112	111	105	100	74	84	64
Fluoride	mg/L	0.47	0.4	0.43	0.4	0.71	0.29	0.58	<0.23
Field pH	Std. Units	8.5	7.25	7.39	7.46	7.45	7.19	7.09	7.61
Sulfate	mg/L	149	107	98.9	111	78	160	180	160
Total Dissolved Solids	mg/L	671	688	668	650	650	610	730	550
Antimony	ug/L	--	<0.026	<0.15	<0.078	<0.53	<0.53	<0.58	<0.51
Arsenic	ug/L	--	28.2	33.3	35.6	30	34	34	33
Barium	ug/L	--	154	180	194	130	180	260	220
Beryllium	ug/L	--	0.012	<0.12	<0.089	<0.27	<0.54	<0.27	<0.27
Cadmium	ug/L	--	0.021	<0.07	<0.033	<0.077	<0.039	<0.039	<0.049
Chromium	ug/L	--	0.32	0.22	0.18	<0.98	<0.98	<1.1	<1.1
Cobalt	ug/L	--	4.9	0.82	0.68	1.3	0.52	0.57	0.33
Lead	ug/L	--	0.045	<0.12	<0.13	<0.27	<0.27	<0.27	<0.11
Lithium	ug/L	--	<4.6	<4.6	<4.6	3.3	<5.4	2.4	<2.5
Mercury	ug/L	--	<0.09	--	<0.09	<0.1	--	<0.1	<0.1
Molybdenum	ug/L	--	43.4	52.8	71.8	47	90	87	100
Selenium	ug/L	--	0.3	0.31	0.29	<1	<1	<1	<1
Thallium	ug/L	--	<0.036	--	<0.099	<0.27	--	<0.26	--
Total Radium	pCi/L	--	0.218	0.96	1.05	0.42	0.596	<0.398/0.296	0.372
Radium-226	pCi/L	--	-0.061	0.28	0.127	0.126	0.274	0.182/0.182	0.142
Radium-228	pCi/L	--	0.218	0.68	0.919	0.295	0.322	<0.398/0.114	0.23
Collected By		0	--	--	--	--	--	--	--
Field Oxidation Potential	mV	-31	-139.2	-143	-53.5	-99.4	-165.6	37	-208.4
Field Specific Conductance	umhos/cm	1058	813	1093	1038	997	1040	1086	851
Field Temperature	deg C	14.6	13.5	14.2	15.67	12.6	13.73	14.8	14.3
Groundwater Elevation	feet	522.67	525.54	520.22	528.93	528.4	--	524.06	519.28
Oxygen, Dissolved	mg/L	0.08	0.05	0.14	0.18	0.51	0.21	0.23	0.14
Turbidity	NTU	3.08	6.49	12.67	34.45	20.1	8.93	18.88	18.9
pH at 25 Degrees C	Std. Units	7	7.4	7.3	7.1	7.1	7.2	7.2	7.2
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	190
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	<3.8
Iron, dissolved	ug/L	--	--	--	--	--	--	--	11000
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	3400
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	190
Iron, total	ug/L	--	--	--	--	--	--	--	12000
Magnesium, total	ug/L	--	--	--	--	--	--	--	18000
Manganese, total	ug/L	--	--	--	--	--	--	--	3200
Potassium, total	ug/L	--	--	--	--	--	--	--	1800
Sodium, total	ug/L	--	--	--	--	--	--	--	90000
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-309
Number of Sampling Dates: 22

Parameter Name	Units	3/1/2021	4/19/2021	10/12/2021	4/4/2022	4/27/2023	8/2/2023		
Boron	ug/L	--	5000	4400	3900	12000	14000		
Calcium	mg/L	--	76	71	59	82	94		
Chloride	mg/L	--	85	79	53	39	28		
Fluoride	mg/L	--	0.36	0.39	<0.22	0.43	<0.38		
Field pH	Std. Units	7.22	7.26	7.18	7.18	6.93	7.06		
Sulfate	mg/L	--	57	120	99	210	140		
Total Dissolved Solids	mg/L	--	570	470	450	550	530		
Antimony	ug/L	--	<1.1	<1.1	<0.69	<1	<1		
Arsenic	ug/L	--	30	24	21	21	22		
Barium	ug/L	--	340	370	260	220	190		
Beryllium	ug/L	--	<0.27	<0.27	<0.27	<0.33	<0.33		
Cadmium	ug/L	--	<0.051	<0.051	<0.055	<0.1	<0.1		
Chromium	ug/L	--	<1.1	<1.1	<1.1	<1.1	<1.1		
Cobalt	ug/L	--	0.39	0.29	0.42	1.3	0.61		
Lead	ug/L	--	<0.21	<0.21	<0.24	0.41	<0.24		
Lithium	ug/L	--	3.8	2.8	2.9	4.9	3.5		
Mercury	ug/L	--	<0.15	--	<0.11	<0.14	<0.14		
Molybdenum	ug/L	--	50	39	62	69	84		
Selenium	ug/L	--	<0.96	<0.96	<0.96	<1.4	<1.4		
Thallium	ug/L	--	<0.26	<0.26	<0.26	<0.26	<0.26		
Total Radium	pCi/L	--	0.509	0.618	0.847	1.13	--		
Radium-226	pCi/L	--	0.336	0.553	0.358	0.443	--		
Radium-228	pCi/L	--	0.172	0.065	0.489	0.688	--		
Collected By		--	--	--	--	--	--		
Field Oxidation Potential	mV	-196.3	-170.7	-155.1	-139.4	-117.2	-155		
Field Specific Conductance	umhos/cm	816	1017	927	748	1004	890		
Field Temperature	deg C	13.7	13.2	15.3	13	13	13.7		
Groundwater Elevation	feet	520.75	522.72	519.43	522.74	523.02	518.22		
Oxygen, Dissolved	mg/L	0.12	0.16	0.17	0.24	0.07	0		
Turbidity	NTU	13.8	21.2	19.6	21	55.8	21.44		
pH at 25 Degrees C	Std. Units	--	7.3	7.2	7.3	6.9	7.1		
Bicarbonate Alkalinity as CaCO3	mg/L	250	310	280	240	--	--		
Carbonate Alkalinity as CaCO3	mg/L	<2.3	<4.6	<4.6	<4.6	--	--		
Iron, dissolved	ug/L	9300	12000	14000	9100	22000	--		
Manganese, dissolved	ug/L	2500	3700	3500	2800	--	--		
Molybdenum, dissolved	ug/L	56	49	39	59	--	--		
Total Alkalinity as CaCO3	mg/L	250	310	280	240	--	--		
Iron, total	ug/L	11000	14000	15000	11000	--	22000		
Magnesium, total	ug/L	18000	24000	22000	18000	--	--		
Manganese, total	ug/L	2500	3700	3500	3000	--	--		
Potassium, total	ug/L	2600	2900	2600	2100	--	--		
Sodium, total	ug/L	97000	100000	79000	81000	--	--		
Lithium, dissolved	ug/L	--	--	2.8	2.7	--	--		

Single Location
Name: IPL - Burlington

Location ID: MW-310
Number of Sampling Dates: 21

Parameter Name	Units	4/21/2016	6/7/2016	8/16/2016	10/3/2016	1/9/2017	4/4/2017	6/12/2017	8/16/2017
Boron	ug/L	437	422	326	400	413	503	2210	365
Calcium	mg/L	166	181	140	167	145	180	116	139
Chloride	mg/L	154	196	96.9	143	113	187	94.7	121
Fluoride	mg/L	0.39	0.28	0.29	0.34	0.33	0.26	0.32	0.32
Field pH	Std. Units	7.37	7.21	7.7	7.71	7.38	7.5	7.3	7.5
Sulfate	mg/L	53.1	47.7	54	62.6	48.5	34.3	101	41.3
Total Dissolved Solids	mg/L	879	1040	703	743	653	853	625	760
Antimony	ug/L	<0.058	0.12	<0.058	0.099	<0.058	0.032	0.048	0.1
Arsenic	ug/L	60.6	60.2	64.1	74	72.6	79.8	64	68.2
Barium	ug/L	813	829	589	734	605	825	586	665
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.019	<0.012	<0.012
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018	0.025	<0.018
Chromium	ug/L	<0.34	<0.34	0.85	0.5	0.45	0.19	0.2	0.52
Cobalt	ug/L	2.6	2.7	1.8	2	1.6	1.9	1.4	1.8
Lead	ug/L	<0.19	<0.19	<0.19	<0.19	<0.19	<0.033	0.081	0.64
Lithium	ug/L	<4.9	<4.9	<9.8	<4.9	<4.9	<2.9	<2.9	7.7
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046
Molybdenum	ug/L	5.1	3.9	4.4	4.8	4.4	3.4	10	4.1
Selenium	ug/L	<0.18	<0.18	<0.18	<0.18	<0.18	0.24	0.18	0.2
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.036	<0.036	0.35
Total Radium	pCi/L	2.41	1.28	1.99	1.34	0.941	3.17	1.7	2.21
Radium-226	pCi/L	0.951	0.839	0.644	0.796	0.527	0.175	0.505	0.793
Radium-228	pCi/L	1.46	0.437	1.35	0.54	0.414	2.99	1.19	1.42
Collected By		--	0	0	--	0	0	0	0
Field Oxidation Potential	mV	-125.4	-122	-172.9	-184	-161.2	-175.4	-101.1	102.8
Field Specific Conductance	umhos/cm	1082	3170	2224	2295	2116	2528	742	1783
Field Temperature	deg C	11.7	12.2	15.1	16.6	14.3	12	13.5	15.4
Groundwater Elevation	feet	525.43	524.13	524.84	527.58	525.78	525.52	524.94	523.89
Oxygen, Dissolved	mg/L	0.19	0.98	2.4	0.43	0.19	0.2	0.13	0.21
Turbidity	NTU	3	0.2	0.83	4.23	4.64	2.23	2.55	1.2
pH at 25 Degrees C	Std. Units	7.1	7	7	7.2	7.2	7.3	6.9	7.1
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-310
Number of Sampling Dates: 21

Parameter Name	Units	10/16/2017	5/8/2018	8/14/2018	10/10/2018	4/4/2019	10/11/2019	6/2/2020	10/14/2020
Boron	ug/L	305	217	256	268	560	380	500	290
Calcium	mg/L	105	104	102	107	120	120	130	92
Chloride	mg/L	38.3	24.4	33.8	67.1	88	59	87	17
Fluoride	mg/L	0.39	0.33	0.39	0.4	0.55	0.34	0.65	<0.23
Field pH	Std. Units	7.92	7.46	7.44	7.2	7.84	6.95	7.3	7.34
Sulfate	mg/L	35.1	28.8	27.2	37.9	21	51	100	19
Total Dissolved Solids	mg/L	445	462	472	512	600	410	590	390
Antimony	ug/L	--	<0.026	<0.15	<0.078	<0.53	<0.53	<0.58	1.9
Arsenic	ug/L	--	57.8	56.2	62.1	65	61	55	63
Barium	ug/L	--	403	398	450	560	500	550	400
Beryllium	ug/L	--	<0.012	<0.12	<0.089	<0.27	<0.27	<0.27	<0.27
Cadmium	ug/L	--	<0.018	<0.07	<0.033	<0.077	<0.039	<0.039	<0.049
Chromium	ug/L	--	0.16	<0.19	0.082	<0.98	<0.98	<1.1	<1.1
Cobalt	ug/L	--	1.2	1.4	1.4	1.9	1.9	2.3	1.5
Lead	ug/L	--	0.044	<0.12	<0.13	<0.27	<0.27	<0.27	<0.11
Lithium	ug/L	--	<4.6	5.3	<4.6	<2.7	<2.7	<2.3	<2.5
Mercury	ug/L	--	<0.09	--	<0.09	<0.1	--	<0.1	<0.1
Molybdenum	ug/L	--	4.2	4	4.6	5.2	6	5.8	3.6
Selenium	ug/L	--	0.14	<0.16	0.19	<1	<1	<1	<1
Thallium	ug/L	--	<0.036	--	<0.099	<0.27	--	<0.26	--
Total Radium	pCi/L	--	0.755	1.55	2.56	1.19	0.49	0.844/0.844	0.552
Radium-226	pCi/L	--	0	0.616	1.1	0.471	0.473	0.457/0.457	0.333
Radium-228	pCi/L	--	0.755	0.938	1.46	0.724	0.0174	0.387/0.387	0.219
Collected By		0	--	--	--	--	--	--	--
Field Oxidation Potential	mV	-63.6	-198.8	-194	-166	-175.8	-189.7	38.6	-223.6
Field Specific Conductance	umhos/cm	791	594.6	840	938	1034	961	881	711
Field Temperature	deg C	16.6	11.1	15	17	10.8	15.88	12.8	16.4
Groundwater Elevation	feet	525.49	525.79	523.69	529	528.62	--	525.36	523.81
Oxygen, Dissolved	mg/L	0.16	0.14	0.05	0.1	1.12	0.28	0.13	0.08
Turbidity	NTU	2.86	12.81	3.11	0	16.7	5.23	17.82	3.79
pH at 25 Degrees C	Std. Units	7.1	7.4	7.3	7.1	7	7.2	7.1	7.2
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	330
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	<3.8
Iron, dissolved	ug/L	--	--	--	--	--	--	--	16000
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	4000
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	330
Iron, total	ug/L	--	--	--	--	--	--	--	18000
Magnesium, total	ug/L	--	--	--	--	--	--	--	24000
Manganese, total	ug/L	--	--	--	--	--	--	--	4400
Potassium, total	ug/L	--	--	--	--	--	--	--	2700
Sodium, total	ug/L	--	--	--	--	--	--	--	13000
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-310
Number of Sampling Dates: 21

Parameter Name	Units	4/19/2021	10/12/2021	4/4/2022	4/27/2023	8/3/2023			
Boron	ug/L	220	310	230	150	260			
Calcium	mg/L	190	84	80	120	170			
Chloride	mg/L	16	14	10	9.7	17			
Fluoride	mg/L	0.37	<0.28	<0.22	0.39	<0.38			
Field pH	Std. Units	7.21	7.22	7.38	7.13	7.1			
Sulfate	mg/L	55	55	74	340	340			
Total Dissolved Solids	mg/L	370	280	320	580	730			
Antimony	ug/L	<1.1	<1.1	<0.69	<1	<1			
Arsenic	ug/L	16	63	52	32	47			
Barium	ug/L	280	290	270	330	410			
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.33	<0.33			
Cadmium	ug/L	<0.051	<0.051	<0.055	<0.1	<0.1			
Chromium	ug/L	<1.1	<1.1	<1.1	<1.1	<1.1			
Cobalt	ug/L	0.29	1.4	1.2	3.1	3.8			
Lead	ug/L	<0.21	<0.21	<0.24	<0.24	<0.24			
Lithium	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5			
Mercury	ug/L	<0.15	--	<0.11	<0.14	<0.14			
Molybdenum	ug/L	14	4.9	5.2	1.9	2.7			
Selenium	ug/L	<0.96	<0.96	<0.96	<1.4	<1.4			
Thallium	ug/L	<0.26	<0.26	<0.26	<0.26	<0.26			
Total Radium	pCi/L	0.869	1.25	0.838	0.696	--			
Radium-226	pCi/L	0.41	0.161	0.22	0.388	--			
Radium-228	pCi/L	0.46	1.09	0.618	0.308	--			
Collected By		--	--	--	--	--			
Field Oxidation Potential	mV	-193.2	-181.6	-177.3	-146.4	-174.9			
Field Specific Conductance	umhos/cm	735	668	548.8	999	1168			
Field Temperature	deg C	10.8	17.3	10.6	10.6	15.7			
Groundwater Elevation	feet	525.46	524.69	525.44	518.44	520.29			
Oxygen, Dissolved	mg/L	0.17	0.18	0.14	0.23	0.03			
Turbidity	NTU	2.57	11.4	19	11.8	7.38			
pH at 25 Degrees C	Std. Units	7.3	7.2	7.2	7	7			
Bicarbonate Alkalinity as CaCO3	mg/L	310	280	240	--	--			
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	<4.6	--	--			
Iron, dissolved	ug/L	20000	15000	15000	24000	--			
Manganese, dissolved	ug/L	4200	3900	3700	--	--			
Molybdenum, dissolved	ug/L	--	5.2	5.6	--	--			
Total Alkalinity as CaCO3	mg/L	310	280	240	--	--			
Iron, total	ug/L	20000	15000	16000	--	31000			
Magnesium, total	ug/L	25000	20000	18000	--	--			
Manganese, total	ug/L	4300	3900	3800	--	--			
Potassium, total	ug/L	2100	2100	1700	--	--			
Sodium, total	ug/L	11000	12000	8400	--	--			
Lithium, dissolved	ug/L	--	<2.5	<2.5	--	--			

Single Location
Name: IPL - Burlington

Location ID: MW-310A
Number of Sampling Dates: 9

Parameter Name	Units	9/9/2020	10/16/2020	3/3/2021	4/20/2021	10/14/2021	4/6/2022	10/20/2022	4/27/2023
Boron	ug/L	2200	1200	--	1100	940	910	670	870
Calcium	mg/L	150	62	--	52	51	52	39	48
Chloride	mg/L	18	16	--	14	14	11	9.6	9.4
Fluoride	mg/L	0.27	<0.23	--	0.44	0.75	<0.22	<0.22	0.57
Field pH	Std. Units	7.33	--	7.22	7.41	7.07	7.29	7.54	7.05
Sulfate	mg/L	100	130	--	120	99	89	82	100
Total Dissolved Solids	mg/L	570	620	--	660	520	540	530	530
Antimony	ug/L	1.1	1.5	--	<1.1	<1.1	<0.69	<0.69	<1
Arsenic	ug/L	15	5.1	--	3.5	3.6	1.2	1	1.2
Barium	ug/L	290	90	--	75	64	61	46	55
Beryllium	ug/L	2.3	<0.27	--	<0.27	<0.27	<0.27	<0.27	<0.33
Cadmium	ug/L	0.69	0.062	--	<0.051	<0.051	<0.055	<0.055	<0.1
Chromium	ug/L	5.4	<1.1	--	1.5	<1.1	<1.1	<1.1	<1.1
Cobalt	ug/L	28	3.4	--	3	3	2.6	0.63	0.34
Lead	ug/L	20	3.5	--	2.8	3.3	0.29	0.52	<0.24
Lithium	ug/L	32	36	--	40	34	38	29	33
Mercury	ug/L	<0.1	<0.1	--	<0.15	--	<0.11	<0.11	<0.14
Molybdenum	ug/L	19	33	--	24	20	14	11	11
Selenium	ug/L	1.5	<1	--	<0.96	<0.96	<0.96	<0.96	<1.4
Thallium	ug/L	<0.26	--	--	<0.26	<0.26	<0.26	<0.26	<0.26
Total Radium	pCi/L	4.91	0.878	--	2.51	4.2	0.842	2.04	0.818
Radium-226	pCi/L	2.48	0.662	--	1.04	1.44	0.706	0.592	0.607
Radium-228	pCi/L	2.44	0.215	--	1.47	2.76	0.136	1.45	0.212
Field Oxidation Potential	mV	145.3	--	145.9	55	153.3	-10.5	21	-21.9
Field Specific Conductance	umhos/cm	1026	--	1051	1042	842	907	874	1010
Field Temperature	deg C	14.2	--	13.2	11.7	15.5	11.7	18.9	12.6
Groundwater Elevation	feet	509.16	489.84	487.06	521.12	521.83	522.58	512.84	509.69
Oxygen, Dissolved	mg/L	4.68	--	3.1	3.69	2.04	0.41	0.01	7.56
Turbidity	NTU	714.3	--	--	0	80	39	2	<0
pH at 25 Degrees C	Std. Units	7.7	7.6	--	7.6	6.5	7.4	7.4	7.6
Bicarbonate Alkalinity as CaCO3	mg/L	--	410	400	410	440	450	420	--
Carbonate Alkalinity as CaCO3	mg/L	--	<3.8	<2.3	<4.6	<4.6	<4.6	<4.6	--
Iron, dissolved	ug/L	--	<50	2100	<36	<36	88	<36	180
Manganese, dissolved	ug/L	--	420	300	240	170	150	22	--
Molybdenum, dissolved	ug/L	--	--	--	--	21	17	14	--
Total Alkalinity as CaCO3	mg/L	--	410	400	410	440	450	420	--
Iron, total	ug/L	--	1600	1900	1000	950	85	290	--
Magnesium, total	ug/L	--	25000	25000	21000	20000	21000	16000	--
Manganese, total	ug/L	--	470	330	250	270	280	41	--
Potassium, total	ug/L	--	6900	6600	5900	5200	5000	4200	--
Sodium, total	ug/L	--	140000	170000	180000	140000	140000	120000	--
Lithium, dissolved	ug/L	--	--	--	--	32	38	34	--

Single Location
Name: IPL - Burlington

Location ID: MW-310A
 Number of Sampling Dates: 9

Parameter Name	Units	8/3/2023							
Boron	ug/L	830							
Calcium	mg/L	57							
Chloride	mg/L	12							
Fluoride	mg/L	<0.38							
Field pH	Std. Units	7.39							
Sulfate	mg/L	110							
Total Dissolved Solids	mg/L	610							
Antimony	ug/L	<1							
Arsenic	ug/L	0.91							
Barium	ug/L	58							
Beryllium	ug/L	<0.33							
Cadmium	ug/L	<0.1							
Chromium	ug/L	<1.1							
Cobalt	ug/L	0.58							
Lead	ug/L	0.35							
Lithium	ug/L	37							
Mercury	ug/L	<0.14							
Molybdenum	ug/L	10							
Selenium	ug/L	<1.4							
Thallium	ug/L	<0.26							
Total Radium	pCi/L	--							
Radium-226	pCi/L	--							
Radium-228	pCi/L	--							
Field Oxidation Potential	mV	--							
Field Specific Conductance	umhos/cm	1100							
Field Temperature	deg C	--							
Groundwater Elevation	feet	490.83							
Oxygen, Dissolved	mg/L	--							
Turbidity	NTU	--							
pH at 25 Degrees C	Std. Units	7.4							
Bicarbonate Alkalinity as CaCO3	mg/L	--							
Carbonate Alkalinity as CaCO3	mg/L	--							
Iron, dissolved	ug/L	--							
Manganese, dissolved	ug/L	--							
Molybdenum, dissolved	ug/L	--							
Total Alkalinity as CaCO3	mg/L	--							
Iron, total	ug/L	140							
Magnesium, total	ug/L	--							
Manganese, total	ug/L	--							
Potassium, total	ug/L	--							
Sodium, total	ug/L	--							
Lithium, dissolved	ug/L	--							

Single Location
Name: IPL - Burlington

Location ID: MW-311
Number of Sampling Dates: 22

Parameter Name	Units	4/21/2016	6/7/2016	8/16/2016	10/3/2016	1/9/2017	4/4/2017	6/12/2017	8/16/2017
Boron	ug/L	1810	2070	2320	2950	2160	2400	2130	360
Calcium	mg/L	200	164	158	150	164	176	158	139
Chloride	mg/L	125	75.4	77.4	62.7	78.7	83.3	81.1	45
Fluoride	mg/L	0.38	0.27	0.28	0.35	0.32	0.27	0.36	0.36
Field pH	Std. Units	7.33	7.28	7.63	7.59	7.24	7.51	7.3	7.05
Sulfate	mg/L	283	179	170	161	179	184	173	112
Total Dissolved Solids	mg/L	1060	843	799	694	776	808	803	623
Antimony	ug/L	<0.058	0.12	<0.058	0.084	<0.058	<0.026	0.03	0.057
Arsenic	ug/L	17.7	12.4	16.4	13	17.6	17.1	15.2	11.6
Barium	ug/L	292	248	232	229	244	240	248	198
Beryllium	ug/L	<0.08	<0.08	<0.08	<0.08	<0.08	0.036	0.013	<0.012
Cadmium	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.018	<0.018	<0.018
Chromium	ug/L	0.45	0.42	0.51	<0.34	0.35	0.18	0.14	0.32
Cobalt	ug/L	0.52	<0.5	<0.5	<0.5	<0.5	0.27	0.35	0.24
Lead	ug/L	0.2	<0.19	<0.19	<0.19	<0.19	<0.033	0.32	0.096
Lithium	ug/L	<4.9	<4.9	<9.8	<4.9	<4.9	<2.9	<2.9	3.3
Mercury	ug/L	<0.046	<0.039	<0.039	<0.039	<0.055	<0.046	<0.046	<0.046
Molybdenum	ug/L	10.4	11.7	12.5	14.7	10.9	12.4	11.2	16
Selenium	ug/L	0.19	<0.18	<0.18	<0.18	0.2	0.17	0.19	0.12
Thallium	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.036	<0.036	0.14
Total Radium	pCi/L	0.831	1.22	1.19	0.22	1.19	1.13	0.785	1
Radium-226	pCi/L	0.207	0.18	0.605	0.149	0.299	0.484	0.445	0.653
Radium-228	pCi/L	0.624	1.04	0.581	0.0707	0.886	0.641	0.34	0.349
Collected By		--	0	0	--	0	0	0	0
Field Oxidation Potential	mV	-129.9	-69.7	-139	-151.4	-171.4	-157.4	-102.5	-107.1
Field Specific Conductance	umhos/cm	1173	2425	2304	1833	2126	2059	865	1280
Field Temperature	deg C	11.6	11.6	13	14.3	14.3	12.4	12.5	13.7
Groundwater Elevation	feet	523.72	521.8	522.92	527.34	525.16	524.01	523.55	521.12
Oxygen, Dissolved	mg/L	0.08	1.01	0.83	0.51	0.18	0.22	0.21	0.03
Turbidity	NTU	4.41	1.05	1.74	2.08	1.16	3	4.12	1.15
pH at 25 Degrees C	Std. Units	7	7.2	7.1	7.2	7.5	7.1	7	7.2
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, dissolved	ug/L	--	--	--	--	--	--	--	--
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	--
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	--
Iron, total	ug/L	--	--	--	--	--	--	--	--
Magnesium, total	ug/L	--	--	--	--	--	--	--	--
Manganese, total	ug/L	--	--	--	--	--	--	--	--
Potassium, total	ug/L	--	--	--	--	--	--	--	--
Sodium, total	ug/L	--	--	--	--	--	--	--	--
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-311
Number of Sampling Dates: 22

Parameter Name	Units	10/16/2017	5/8/2018	8/14/2018	10/10/2018	4/4/2019	10/11/2019	6/2/2020	10/14/2020
Boron	ug/L	2810	2200	2580	2820	1800	2800	2500	3500
Calcium	mg/L	145	173	156	130	200	150	190	140
Chloride	mg/L	50.9	79.9	69.9	54	110	65	120	61
Fluoride	mg/L	0.36	0.31	0.36	0.35	0.41	0.37	0.64	<0.23
Field pH	Std. Units	8.27	7.26	7.33	7.49	7.64	7.07	7.1	7.41
Sulfate	mg/L	119	176	144	127	230	130	220	110
Total Dissolved Solids	mg/L	615	864	777	678	980	590	950	640
Antimony	ug/L	--	<0.026	<0.15	<0.078	<0.53	<0.53	<0.58	<0.51
Arsenic	ug/L	--	14	15.7	15.2	19	18	19	15
Barium	ug/L	--	256	239	214	280	210	300	220
Beryllium	ug/L	--	<0.023	<0.12	<0.089	<0.27	<0.27	<0.27	<0.27
Cadmium	ug/L	--	<0.018	<0.07	<0.033	<0.077	<0.039	<0.039	<0.049
Chromium	ug/L	--	0.2	0.22	0.78	<0.98	<0.98	<1.1	<1.1
Cobalt	ug/L	--	0.3	0.37	0.57	0.45	0.27	0.81	0.28
Lead	ug/L	--	0.043	0.13	0.48	0.37	<0.27	1.1	<0.11
Lithium	ug/L	--	<4.6	<4.6	<4.6	<2.7	<2.7	<2.3	<2.5
Mercury	ug/L	--	<0.09	--	<0.09	<0.1	--	0.13	<0.1
Molybdenum	ug/L	--	11.6	13.9	16.3	8.5	15	11	23
Selenium	ug/L	--	0.17	0.18	0.23	<1	<1	<1	<1
Thallium	ug/L	--	<0.036	--	<0.099	<0.27	--	<0.26	--
Total Radium	pCi/L	--	0.987	0.969	0.819	0.815	0.599	0.802/0.802	0.297
Radium-226	pCi/L	--	0.183	0.502	0.245	0.198	0.354	0.324/0.324	0.104
Radium-228	pCi/L	--	0.804	0.467	0.574	0.617	0.245	0.479/0.479	0.193
Collected By		0	--	--	--	--	--	--	--
Field Oxidation Potential	mV	308.3	-143.3	-158	-62.2	145.8	-163.4	-1.1	-194
Field Specific Conductance	umhos/cm	972	1282	1177	1003	1422	1088	1464	1041
Field Temperature	deg C	14.7	11.5	14.8	16.35	11.41	14.19	12.3	14.5
Groundwater Elevation	feet	523.44	525.08	521.06	528.49	528.2	--	524.05	520.59
Oxygen, Dissolved	mg/L	0.25	1.6	0.12	0.45	0.78	0.3	0.16	0.1
Turbidity	NTU	2.19	1.48	12.3	17.8	10.8	13.4	17.95	2.36
pH at 25 Degrees C	Std. Units	7.4	7.4	7.2	7.1	7	7.2	7	7.1
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	380
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	<3.8
Iron, dissolved	ug/L	--	--	--	--	--	--	--	16000
Manganese, dissolved	ug/L	--	--	--	--	--	--	--	4300
Molybdenum, dissolved	ug/L	--	--	--	--	--	--	--	--
Total Alkalinity as CaCO3	mg/L	--	--	--	--	--	--	--	380
Iron, total	ug/L	--	--	--	--	--	--	--	16000
Magnesium, total	ug/L	--	--	--	--	--	--	--	30000
Manganese, total	ug/L	--	--	--	--	--	--	--	4200
Potassium, total	ug/L	--	--	--	--	--	--	--	2300
Sodium, total	ug/L	--	--	--	--	--	--	--	36000
Lithium, dissolved	ug/L	--	--	--	--	--	--	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-311
Number of Sampling Dates: 22

Parameter Name	Units	3/1/2021	4/19/2021	10/12/2021	4/4/2022	4/27/2023	8/3/2023		
Boron	ug/L	--	2000	1800	1600	1200	1700		
Calcium	mg/L	--	98	160	160	160	160		
Chloride	mg/L	--	100	110	85	23	31		
Fluoride	mg/L	--	<0.28	<0.28	<0.22	0.45	<0.38		
Field pH	Std. Units	6.99	7.16	7.17	7.22	6.83	6.95		
Sulfate	mg/L	--	200	190	170	290	240		
Total Dissolved Solids	mg/L	--	870	750	750	750	720		
Antimony	ug/L	--	<1.1	<1.1	<0.69	<1	<1		
Arsenic	ug/L	--	55	22	19	4.7	5.3		
Barium	ug/L	--	370	230	220	220	230		
Beryllium	ug/L	--	<0.27	<0.27	<0.27	<0.33	<0.33		
Cadmium	ug/L	--	<0.051	<0.051	<0.055	<0.1	<0.1		
Chromium	ug/L	--	<1.1	<1.1	<1.1	<1.1	<1.1		
Cobalt	ug/L	--	1.4	0.31	0.3	3.8	1.5		
Lead	ug/L	--	<0.21	<0.21	<0.24	<0.24	0.4		
Lithium	ug/L	--	<2.5	<2.5	<2.5	<2.5	<2.5		
Mercury	ug/L	--	<0.15	--	<0.11	<0.14	<0.14		
Molybdenum	ug/L	--	4.1	6.9	8.9	3.4	5.6		
Selenium	ug/L	--	<0.96	<0.96	<0.96	<1.4	<1.4		
Thallium	ug/L	--	<0.26	<0.26	<0.26	<0.26	<0.26		
Total Radium	pCi/L	--	0.52	0.189	0.593	1.26	--		
Radium-226	pCi/L	--	0.224	0.256	0.328	0.214	--		
Radium-228	pCi/L	--	0.297	-0.0672	0.265	1.05	--		
Collected By		--	--	--	--	--	--		
Field Oxidation Potential	mV	-179.2	-158.6	-157.6	-177.6	-81.9	-130.4		
Field Specific Conductance	umhos/cm	1363	1473	1431	1190	1225	1163		
Field Temperature	deg C	11.5	10.9	14.9	11.8	10.9	12.3		
Groundwater Elevation	feet	522.89	523.89	522	523.78	522.07	518.28		
Oxygen, Dissolved	mg/L	0.13	0.48	0.17	0.07	0.1	0.07		
Turbidity	NTU	1.33	4.56	11.1	7	2.75	6.88		
pH at 25 Degrees C	Std. Units	--	7.2	7.2	7.3	7	7		
Bicarbonate Alkalinity as CaCO3	mg/L	400	390	430	410	--	--		
Carbonate Alkalinity as CaCO3	mg/L	<2.3	<4.6	<4.6	<4.6	--	--		
Iron, dissolved	ug/L	21000	20000	15000	17000	13000	--		
Manganese, dissolved	ug/L	5400	5600	4800	5700	--	--		
Molybdenum, dissolved	ug/L	--	--	8	8.6	--	--		
Total Alkalinity as CaCO3	mg/L	400	390	430	410	--	--		
Iron, total	ug/L	21000	20000	15000	17000	--	15000		
Magnesium, total	ug/L	39000	39000	31000	31000	--	--		
Manganese, total	ug/L	5700	5600	4800	6000	--	--		
Potassium, total	ug/L	2200	2300	2200	2000	--	--		
Sodium, total	ug/L	65000	62000	56000	57000	--	--		
Lithium, dissolved	ug/L	--	--	<2.5	<2.5	--	--		

Single Location
Name: IPL - Burlington

Location ID: MW-312
Number of Sampling Dates: 10

Parameter Name	Units	6/6/2019	10/10/2019	6/3/2020	10/15/2020	3/1/2021	4/19/2021	10/14/2021	4/6/2022
Boron	ug/L	6100	6600	6700	6500	--	5800	5300	6900
Calcium	mg/L	67	71	74	78	--	84	70	69
Chloride	mg/L	27	25	36	23	--	20	24	25
Fluoride	mg/L	1.1	0.25	0.57	<0.23	--	0.33	<0.28	<0.22
Field pH	Std. Units	6.99	7.19	7.13	7.37	7.07	7.22	7.2	7.35
Sulfate	mg/L	220	230	200	210	--	190	190	230
Total Dissolved Solids	mg/L	540	510	670	560	--	540	480	490
Antimony	ug/L	<0.53	<0.53	<0.58	<0.51	--	<1.1	<1.1	<0.69
Arsenic	ug/L	14	15	22	19	--	18	17	12
Barium	ug/L	160	150	190	200	--	200	170	130
Beryllium	ug/L	<0.27	<0.54	<0.27	<0.27	--	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.077	0.044	0.095	0.066	--	0.053	0.086	0.09
Chromium	ug/L	<0.98	<0.98	<1.1	<1.1	--	<1.1	<1.1	<1.1
Cobalt	ug/L	0.65	0.36	0.67	0.5	--	0.54	0.42	0.28
Lead	ug/L	0.54	<0.27	<0.27	<0.11	--	<0.21	<0.21	<0.24
Lithium	ug/L	24	27	22	27	--	30	24	28
Mercury	ug/L	<0.1	--	<0.1	<0.1	--	<0.15	--	<0.11
Molybdenum	ug/L	290	280	320	290	--	310	240	210
Selenium	ug/L	<1	<1	<1	<1	--	<0.96	<0.96	<0.96
Thallium	ug/L	<0.27	--	<0.26	--	--	<0.26	<0.26	<0.26
Total Radium	pCi/L	0.875	0.438	0.543/0.543	0.627	--	0.218	0.071	0.443
Radium-226	pCi/L	0.301	0.433	0.356/0.356	0.443	--	0.218	0.123	0.296
Radium-228	pCi/L	0.574	0.00445	<0.323/0.187	0.184	--	-0.00944	-0.0521	0.147
Field Oxidation Potential	mV	-146.4	-163.8	53.3	-203.1	-192.4	-162.9	-143.4	-155.7
Field Specific Conductance	umhos/cm	783	785	878	854	814	875	688	746
Field Temperature	deg C	14.4	15.6	14.7	15.1	14.1	13.7	15.7	14
Groundwater Elevation	feet	--	--	524.05	518.68	520.12	522.2	518.78	522.51
Oxygen, Dissolved	mg/L	0.12	8.75	0.17	0.13	0.14	0.12	0.2	0.06
Turbidity	NTU	2.86	2.56	21.16	0.02	0.89	8.82	13.1	23
pH at 25 Degrees C	Std. Units	7.5	7.3	7.1	7.2	--	7.4	7.2	7.4
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	240	190	190	210	150
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	<3.8	<4.6	<4.2	<4.6	<4.6
Iron, dissolved	ug/L	--	--	--	11000	9800	11000	8500	5200
Manganese, dissolved	ug/L	--	--	--	8200	7500	7800	5900	7800
Molybdenum, dissolved	ug/L	--	--	--	300	300	300	250	210
Total Alkalinity as CaCO3	mg/L	--	--	--	240	190	190	210	150
Iron, total	ug/L	--	--	--	11000	10000	11000	8500	5700
Magnesium, total	ug/L	--	--	--	12000	12000	13000	9700	7700
Manganese, total	ug/L	--	--	--	7900	7900	8900	5900	8000
Potassium, total	ug/L	--	--	--	11000	13000	11000	11000	13000
Sodium, total	ug/L	--	--	--	73000	74000	76000	68000	67000
Lithium, dissolved	ug/L	--	--	--	--	--	--	23	28

Single Location
Name: IPL - Burlington

Location ID: MW-312
 Number of Sampling Dates: 10

Parameter Name	Units	4/26/2023	8/1/2023						
Boron	ug/L	--	--						
Calcium	mg/L	--	--						
Chloride	mg/L	--	--						
Fluoride	mg/L	--	--						
Field pH	Std. Units	6.86	6.95						
Sulfate	mg/L	--	--						
Total Dissolved Solids	mg/L	--	--						
Antimony	ug/L	--	--						
Arsenic	ug/L	--	--						
Barium	ug/L	--	--						
Beryllium	ug/L	--	--						
Cadmium	ug/L	--	--						
Chromium	ug/L	--	--						
Cobalt	ug/L	--	--						
Lead	ug/L	--	--						
Lithium	ug/L	11	18						
Mercury	ug/L	--	--						
Molybdenum	ug/L	28	37						
Selenium	ug/L	--	--						
Thallium	ug/L	--	--						
Total Radium	pCi/L	--	--						
Radium-226	pCi/L	--	--						
Radium-228	pCi/L	--	--						
Field Oxidation Potential	mV	-30.3	-108.6						
Field Specific Conductance	umhos/cm	853	1030						
Field Temperature	deg C	6.9	10.8						
Groundwater Elevation	feet	524.68	517.93						
Oxygen, Dissolved	mg/L	1.27	1.81						
Turbidity	NTU	9.97	36.5						
pH at 25 Degrees C	Std. Units	--	--						
Bicarbonate Alkalinity as CaCO3	mg/L	--	--						
Carbonate Alkalinity as CaCO3	mg/L	--	--						
Iron, dissolved	ug/L	3900	--						
Manganese, dissolved	ug/L	--	--						
Molybdenum, dissolved	ug/L	--	--						
Total Alkalinity as CaCO3	mg/L	--	--						
Iron, total	ug/L	--	24000						
Magnesium, total	ug/L	--	--						
Manganese, total	ug/L	--	--						
Potassium, total	ug/L	--	--						
Sodium, total	ug/L	--	--						
Lithium, dissolved	ug/L	--	--						

Single Location
Name: IPL - Burlington

Location ID: MW-313
Number of Sampling Dates: 11

Parameter Name	Units	6/6/2019	10/10/2019	6/3/2020	10/15/2020	3/2/2021	4/19/2021	10/13/2021	4/6/2022
Boron	ug/L	7400	8500	8600	7600	--	6900	4800	5700
Calcium	mg/L	110	120	120	110	--	120	70	57
Chloride	mg/L	85	51	83	50	--	72	230	200
Fluoride	mg/L	0.33	0.28	0.52	<0.23	--	<0.28	0.47	<0.22
Field pH	Std. Units	6.94	7.06	7.03	7.16	6.98	7.09	7.25	7.14
Sulfate	mg/L	210	210	230	170	--	120	230	200
Total Dissolved Solids	mg/L	700	520	830	640	--	680	740	620
Antimony	ug/L	<0.53	<0.53	<0.58	<0.51	--	<1.1	<1.1	<0.69
Arsenic	ug/L	5.5	6.3	6.9	5.5	--	5.2	4.7	4.3
Barium	ug/L	510	490	680	610	--	630	390	290
Beryllium	ug/L	<0.27	<1.1	<0.27	<0.27	--	<0.27	<0.27	<0.27
Cadmium	ug/L	<0.077	<0.039	0.039	<0.049	--	<0.051	0.069	0.086
Chromium	ug/L	<0.98	<0.98	<1.1	<1.1	--	<1.1	<1.1	<1.1
Cobalt	ug/L	0.41	0.32	0.23	0.19	--	0.2	<0.19	0.33
Lead	ug/L	<0.27	0.31	<0.27	<0.11	--	<0.21	<0.21	<0.24
Lithium	ug/L	43	62	52	51	--	36	18	18
Mercury	ug/L	<0.1	--	0.13	<0.1	--	<0.15	--	<0.11
Molybdenum	ug/L	130	110	130	100	--	140	170	190
Selenium	ug/L	<1	<1	<1	<1	--	<0.96	<0.96	<0.96
Thallium	ug/L	<0.27	--	<0.26	--	--	<0.26	<0.26	<0.26
Total Radium	pCi/L	0.987	1.7	1.81/1.81	1.26	--	2.3	1.6	1.36
Radium-226	pCi/L	0.532	0.968	1.18/1.18	0.52	--	0.861	0.524	0.332
Radium-228	pCi/L	0.455	0.736	0.631/0.631	0.739	--	1.44	1.07	1.03
Field Oxidation Potential	mV	-141.6	-163.4	50.9	-183.3	-148	-152.8	-117.9	-153.5
Field Specific Conductance	umhos/cm	1059	1007	1099	999	1224	1165	1198	1076
Field Temperature	deg C	14.9	16.04	17.2	15.3	14.8	14.5	15.9	14.4
Groundwater Elevation	feet	--	--	524.02	518.7	520.18	522.23	518.72	522.48
Oxygen, Dissolved	mg/L	0.07	0.37	0.29	0.14	0.13	0.21	0.1	0.07
Turbidity	NTU	7.23	11.03	50.81	14.3	7.46	4.54	24.8	15
pH at 25 Degrees C	Std. Units	7.4	7.2	7.1	7.2	--	7.3	7	7.2
Bicarbonate Alkalinity as CaCO3	mg/L	--	--	--	380	310	190	110	110
Carbonate Alkalinity as CaCO3	mg/L	--	--	--	<3.8	<2.3	<4.6	<4.6	<4.6
Iron, dissolved	ug/L	--	--	--	14000	18000	18000	9800	7400
Manganese, dissolved	ug/L	--	--	--	--	7300	8400	4700	4200
Molybdenum, dissolved	ug/L	--	--	--	100	150	140	180	180
Total Alkalinity as CaCO3	mg/L	--	--	--	380	310	190	110	110
Iron, total	ug/L	--	--	--	15000	19000	18000	11000	7900
Magnesium, total	ug/L	--	--	--	21000	28000	29000	16000	12000
Manganese, total	ug/L	--	--	--	6300	8100	8700	4900	4300
Potassium, total	ug/L	--	--	--	14000	9500	9900	5500	6200
Sodium, total	ug/L	--	--	--	58000	82000	75000	160000	140000
Lithium, dissolved	ug/L	--	--	--	53	36	36	19	19

Single Location
Name: IPL - Burlington

Location ID: MW-313
Number of Sampling Dates: 11

Parameter Name	Units	10/20/2022	4/25/2023	8/1/2023					
Boron	ug/L	1400	--	--					
Calcium	mg/L	37	--	--					
Chloride	mg/L	26	--	--					
Fluoride	mg/L	<0.22	--	--					
Field pH	Std. Units	7.65	7.2	7.1					
Sulfate	mg/L	23	--	--					
Total Dissolved Solids	mg/L	320	--	--					
Antimony	ug/L	<0.69	--	--					
Arsenic	ug/L	10	--	--					
Barium	ug/L	810	--	--					
Beryllium	ug/L	<0.27	--	--					
Cadmium	ug/L	<0.055	--	--					
Chromium	ug/L	<1.1	--	--					
Cobalt	ug/L	<0.19	--	--					
Lead	ug/L	<0.24	--	--					
Lithium	ug/L	32	9.9	12					
Mercury	ug/L	<0.11	--	--					
Molybdenum	ug/L	39	18	44					
Selenium	ug/L	<0.96	--	--					
Thallium	ug/L	<0.26	--	--					
Total Radium	pCi/L	1.11	--	--					
Radium-226	pCi/L	0.434	--	--					
Radium-228	pCi/L	0.676	--	--					
Field Oxidation Potential	mV	-181	-95.7	-152					
Field Specific Conductance	umhos/cm	477	643.3	817					
Field Temperature	deg C	19.6	7.1	9.4					
Groundwater Elevation	feet	512.08	524.37	518.09					
Oxygen, Dissolved	mg/L	0	0.13	-0.02					
Turbidity	NTU	185	1.91	45.12					
pH at 25 Degrees C	Std. Units	7.4	--	--					
Bicarbonate Alkalinity as CaCO3	mg/L	170	160	230					
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<2.5	<2.5					
Iron, dissolved	ug/L	3600	6600	--					
Manganese, dissolved	ug/L	2000	--	--					
Molybdenum, dissolved	ug/L	47	--	--					
Total Alkalinity as CaCO3	mg/L	170	160	230					
Iron, total	ug/L	16000	--	19000					
Magnesium, total	ug/L	6000	10000	17000					
Manganese, total	ug/L	2700	3200	6200					
Potassium, total	ug/L	15000	--	--					
Sodium, total	ug/L	47000	--	--					
Lithium, dissolved	ug/L	32	--	--					

Single Location
Name: IPL - Burlington

Location ID: MW-313A
Number of Sampling Dates: 9

Parameter Name	Units	9/9/2020	10/15/2020	3/1/2021	4/19/2021	10/13/2021	4/6/2022	10/20/2022	4/25/2023
Boron	ug/L	4300	4200	--	4100	3500	4400	2700	--
Calcium	mg/L	48	44	--	42	30	28	18	--
Chloride	mg/L	210	200	--	140	100	69	57	--
Fluoride	mg/L	<0.23	<0.23	--	0.46	0.38	0.24	<0.22	--
Field pH	Std. Units	7.6	7.64	7.48	7.58	7.53	7.62	7.72	7.59
Sulfate	mg/L	200	190	--	150	140	110	52	--
Total Dissolved Solids	mg/L	730	660	--	580	440	430	310	--
Antimony	ug/L	<0.51	<0.51	--	<1.1	<1.1	<0.69	<0.69	--
Arsenic	ug/L	<0.88	<0.88	--	<0.75	<0.75	<0.75	<0.75	--
Barium	ug/L	270	270	--	240	150	170	110	--
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	<0.091	<0.091	--	<0.091	<0.19	<0.19	<0.19	--
Lead	ug/L	<0.11	<0.11	--	<0.21	<0.21	<0.24	<0.24	--
Lithium	ug/L	13	13	15	14	11	12	7	<2.5
Mercury	ug/L	<0.1	<0.1	--	<0.15	--	<0.11	<0.11	--
Molybdenum	ug/L	120	120	110	100	100	100	64	2.8
Selenium	ug/L	<1	<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	1.5	0.914	--	1.09	1.76	0.828	0.586	--
Radium-226	pCi/L	0.513	0.431	--	0.428	0.496	0.333	0.206	--
Radium-228	pCi/L	0.984	0.483	--	0.659	1.26	0.494	0.38	--
Field Oxidation Potential	mV	-164.4	-190.1	-195.9	-172.1	-117.7	-158	-105	-108.6
Field Specific Conductance	umhos/cm	1243	1133	927	1023	757	695	621	437.3
Field Temperature	deg C	15.3	14.8	14.1	14.2	15.4	14	17.06	5.5
Groundwater Elevation	feet	515.36	518.61	520.02	522.11	518.62	522.38	511.86	524.29
Oxygen, Dissolved	mg/L	0.21	0.1	0.12	0.09	0.11	0.07	0	0.16
Turbidity	NTU	0	0.02	0.78	1.71	7.7	23	10	0.02
pH at 25 Degrees C	Std. Units	7.7	7.5	--	7.7	7.7	7.7	7.9	--
Bicarbonate Alkalinity as CaCO3	mg/L	--	88	94	97	130	120	170	--
Carbonate Alkalinity as CaCO3	mg/L	--	<1.9	<2.3	<4.3	<4.6	<4.6	<4.6	--
Iron, dissolved	ug/L	--	1700	1400	1400	920	850	610	2000
Manganese, dissolved	ug/L	--	680	530	600	420	350	250	--
Molybdenum, dissolved	ug/L	--	120	100	100	110	97	63	--
Total Alkalinity as CaCO3	mg/L	--	88	94	97	130	120	170	--
Iron, total	ug/L	--	1600	1400	1500	960	2000	910	--
Magnesium, total	ug/L	--	4300	3400	3900	2400	2100	1400	--
Manganese, total	ug/L	--	670	530	600	420	370	290	--
Potassium, total	ug/L	--	12000	11000	11000	7600	7100	7200	--
Sodium, total	ug/L	--	160000	150000	150000	130000	120000	96000	--
Lithium, dissolved	ug/L	--	--	15	14	10	11	7.3	--

Single Location
 Name: IPL - Burlington

Location ID: MW-313A
 Number of Sampling Dates: 9

Parameter Name	Units	8/2/2023							
Boron	ug/L	--							
Calcium	mg/L	--							
Chloride	mg/L	--							
Fluoride	mg/L	--							
Field pH	Std. Units	7.69							
Sulfate	mg/L	--							
Total Dissolved Solids	mg/L	--							
Antimony	ug/L	--							
Arsenic	ug/L	--							
Barium	ug/L	--							
Beryllium	ug/L	--							
Cadmium	ug/L	--							
Chromium	ug/L	--							
Cobalt	ug/L	--							
Lead	ug/L	--							
Lithium	ug/L	4.1							
Mercury	ug/L	--							
Molybdenum	ug/L	4.6							
Selenium	ug/L	--							
Thallium	ug/L	--							
Total Radium	pCi/L	--							
Radium-226	pCi/L	--							
Radium-228	pCi/L	--							
Field Oxidation Potential	mV	-174							
Field Specific Conductance	umhos/cm	457							
Field Temperature	deg C	7.3							
Groundwater Elevation	feet	518							
Oxygen, Dissolved	mg/L	0.27							
Turbidity	NTU	0.81							
pH at 25 Degrees C	Std. Units	--							
Bicarbonate Alkalinity as CaCO3	mg/L	--							
Carbonate Alkalinity as CaCO3	mg/L	--							
Iron, dissolved	ug/L	--							
Manganese, dissolved	ug/L	--							
Molybdenum, dissolved	ug/L	--							
Total Alkalinity as CaCO3	mg/L	--							
Iron, total	ug/L	2300							
Magnesium, total	ug/L	--							
Manganese, total	ug/L	--							
Potassium, total	ug/L	--							
Sodium, total	ug/L	--							
Lithium, dissolved	ug/L	--							

Single Location
Name: IPL - Burlington

Location ID: MW-313B


Number of Sampling Dates: 7

Parameter Name	Units	7/1/2021	10/13/2021	2/22/2022	4/6/2022	10/20/2022	4/25/2023	8/2/2023
Boron	ug/L	4300	4200	5500	5800	4400	--	--
Calcium	mg/L	70	44	51	55	50	--	--
Chloride	mg/L	160	89	56	52	85	--	--
Fluoride	mg/L	0.44	<0.28	<0.22	<0.22	<0.22	--	--
Field pH	Std. Units	7.62	7.54	7.64	7.5	7.51	7.41	7.47
Sulfate	mg/L	170	140	120	120	150	--	--
Total Dissolved Solids	mg/L	620	420	360	390	490	--	--
Antimony	ug/L	<1.1	<1.1	<0.69	<0.69	<0.69	--	--
Arsenic	ug/L	<0.75	<0.75	<0.75	<0.75	<0.75	--	--
Barium	ug/L	210	170	190	210	260	--	--
Beryllium	ug/L	<0.27	<0.27	<0.27	<0.27	<0.27	--	--
Cadmium	ug/L	0.06	0.09	<0.055	<0.055	<0.055	--	--
Chromium	ug/L	<1.1	<1.1	<1.1	<1.1	<1.1	--	--
Cobalt	ug/L	0.25	<0.19	<0.19	<0.19	<0.19	--	--
Lead	ug/L	<0.21	<0.21	<0.24	<0.24	0.3	--	--
Lithium	ug/L	18	13	13	13	14	4.9	5.1
Mercury	ug/L	<0.15	--	<0.11	<0.11	<0.11	--	--
Molybdenum	ug/L	100	100	89	100	110	14	9.3
Selenium	ug/L	<0.96	<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	0.457	0.912	1.01	1.45	--	--
Radium-226	pCi/L	0.447	0.356	0.24	0.281	0.349	--	--
Radium-228	pCi/L	0.557	0.101	0.672	0.73	1.1	--	--
Field Oxidation Potential	mV	-5.1	-90.8	210	-144.4	-105	-66	-145.8
Field Specific Conductance	umhos/cm	1052	714	665	622.6	804	571.9	512
Field Temperature	deg C	15.2	15.4	13.7	14.1	17.99	9.7	8.4
Groundwater Elevation	feet	519.51	518.72	518.88	522.45	511.91	524.39	518.01
Oxygen, Dissolved	mg/L	0.37	0.09	0.17	0.01	0	1.33	1.06
Turbidity	NTU	0	8.6	2.4	9	4	13.7	1.76
pH at 25 Degrees C	Std. Units	6.4	7.7	7.6	7.6	7.7	--	--
Bicarbonate Alkalinity as CaCO3	mg/L	100	140	140	140	160	--	--
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	<4.6	<4.6	<4.6	--	--
Iron, dissolved	ug/L	880	700	1000	1000	750	3400	--
Manganese, dissolved	ug/L	570	390	460	480	350	--	--
Molybdenum, dissolved	ug/L	100	110	91	97	100	--	--
Total Alkalinity as CaCO3	mg/L	100	140	140	140	160	--	--
Iron, total	ug/L	990	730	1100	1100	1300	--	2800
Magnesium, total	ug/L	9500	5800	7200	7800	4800	--	--
Manganese, total	ug/L	590	410	430	510	410	--	--
Potassium, total	ug/L	9500	6800	5500	5800	9100	--	--
Sodium, total	ug/L	130000	110000	69000	67000	100000	--	--
Lithium, dissolved	ug/L	18	13	12	13	14	--	--

Single Location
Name: IPL - Burlington

Location ID: MW-314
 Number of Sampling Dates: 3

Parameter Name	Units	4/6/2022	10/20/2022	8/3/2023
Boron	ug/L	360	160	240
Calcium	mg/L	150	140	150
Chloride	mg/L	13	14	16
Fluoride	mg/L	<0.22	<0.22	<0.38
Field pH	Std. Units	6.79	7.11	6.68
Sulfate	mg/L	130	85	110
Total Dissolved Solids	mg/L	630	560	640
Antimony	ug/L	<0.69	<0.69	<1
Arsenic	ug/L	4.1	2.1	3.7
Barium	ug/L	330	290	320
Beryllium	ug/L	<0.27	<0.27	<0.33
Cadmium	ug/L	<0.055	<0.055	<0.1
Chromium	ug/L	<1.1	<1.1	<1.1
Cobalt	ug/L	0.48	0.27	0.86
Lead	ug/L	<0.24	<0.24	1.3
Lithium	ug/L	3.9	3.1	5.8
Mercury	ug/L	<0.11	<0.11	<0.14
Molybdenum	ug/L	1.2	<1.2	2.1
Selenium	ug/L	<0.96	<0.96	1.9
Thallium	ug/L	<0.26	<0.26	<0.26
Total Radium	pCi/L	1.3	1.14	--
Radium-226	pCi/L	0.506	0.458	--
Radium-228	pCi/L	0.795	0.685	--
Field Oxidation Potential	mV	-82	-120	-111
Field Specific Conductance	umhos/cm	1001	930	1149
Field Temperature	deg C	11.4	13.3	12.3
Groundwater Elevation	feet	522.27	517.78	518.28
Oxygen, Dissolved	mg/L	0.13	0	0.3
Turbidity	NTU	35	5	38.36
pH at 25 Degrees C	Std. Units	7.1	7.1	6.8
Bicarbonate Alkalinity as CaCO3	mg/L	460	450	--
Carbonate Alkalinity as CaCO3	mg/L	<4.6	<4.6	--
Iron, dissolved	ug/L	12000	12000	--
Manganese, dissolved	ug/L	7700	5000	--
Molybdenum, dissolved	ug/L	1.6	1.4	--
Total Alkalinity as CaCO3	mg/L	460	450	--
Iron, total	ug/L	13000	11000	34000
Magnesium, total	ug/L	47000	40000	--
Manganese, total	ug/L	7800	5500	--
Potassium, total	ug/L	550	440	--
Sodium, total	ug/L	11000	11000	--
Lithium, dissolved	ug/L	4.8	3.6	--



Appendix E

Statistical Evaluation

E1 October 2022 Statistical Evaluation

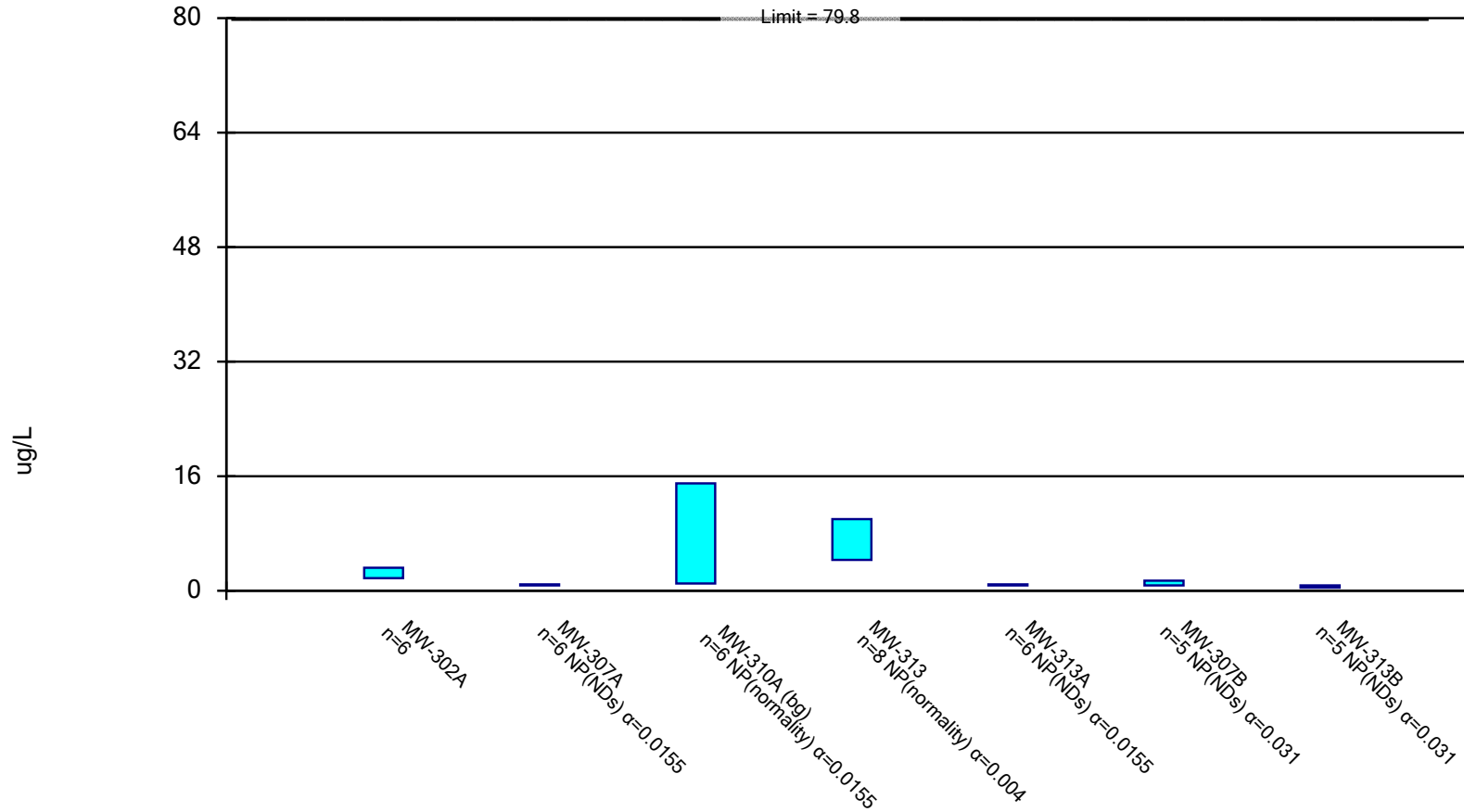
Confidence Interval

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 12/21/2022, 8:29 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (ug/L)	MW-302A	3.212	1.754	79.8	No	6	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-307A	0.88	0.75	79.8	No	6	100	None	No	0.0155	NP (NDs)
Arsenic (ug/L)	MW-310A (bg)	15	1	79.8	No	6	0	None	No	0.0155	NP (normality)
Arsenic (ug/L)	MW-313	10	4.3	79.8	No	8	0	None	No	0.004	NP (normality)
Arsenic (ug/L)	MW-313A	0.88	0.75	79.8	No	6	100	None	No	0.0155	NP (NDs)
Arsenic (ug/L)	MW-307B	1.4	0.75	79.8	No	5	80	None	No	0.031	NP (NDs)
Arsenic (ug/L)	MW-313B	0.75	0.75	79.8	No	5	100	None	No	0.031	NP (NDs)
Lithium (ug/L)	MW-302A	22	9.6	40	No	7	0	None	No	0.008	NP (normality)
Lithium (ug/L)	MW-307A	10.66	6.798	40	No	7	0	None	No	0.01	Param.
Lithium (ug/L)	MW-310A (bg)	40.36	29.31	40	No	6	0	None	No	0.01	Param.
Lithium (ug/L)	MW-313	55.99	22.01	40	No	8	0	None	No	0.01	Param.
Lithium (ug/L)	MW-313A	15.24	9.043	40	No	7	0	None	No	0.01	Param.
Lithium (ug/L)	MW-307B	11.99	5.247	40	No	5	0	None	No	0.01	Param.
Lithium (ug/L)	MW-313B	18	13	40	No	5	0	None	No	0.031	NP (normality)
Molybdenum (ug/L)	MW-302A	120	36	100	No	7	0	None	No	0.008	NP (normality)
Molybdenum (ug/L)	MW-307A	120	110	100	Yes	7	0	None	No	0.008	NP (normality)
Molybdenum (ug/L)	MW-310A (bg)	30.86	9.476	100	No	6	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-313	174.8	77.45	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-313A	120	64	100	No	7	0	None	No	0.008	NP (normality)
Molybdenum (ug/L)	MW-307B	59.95	17.25	100	No	5	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-313B	112.2	87.35	100	No	5	0	None	No	0.01	Param.

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: Arsenic Analysis Run 12/21/2022 8:28 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

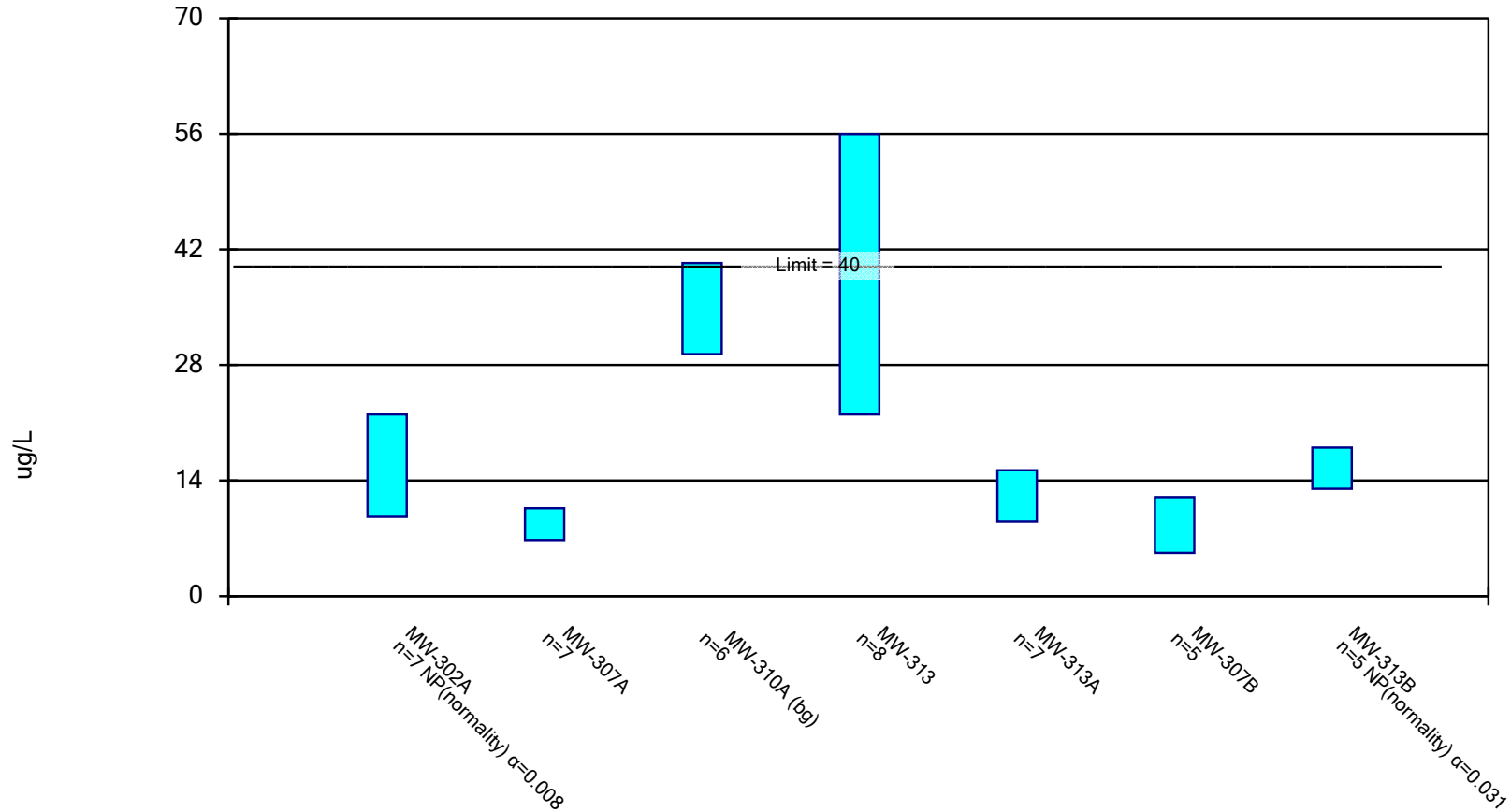
Constituent: Arsenic (ug/L) Analysis Run 12/21/2022 8:29 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-302A	MW-307A	MW-310A (bg)	MW-313	MW-313A	MW-307B	MW-313B
6/6/2019				5.5			
10/10/2019				6.3			
6/3/2020				6.9			
9/9/2020	2.9	<0.88 (U)	15		<0.88 (U)		
10/14/2020		<0.88 (U)					
10/15/2020				5.5	<0.88 (U)		
10/16/2020	2.9		5.1				
4/19/2021	2.1			5.2	<0.75 (U)		
4/20/2021		<0.75	3.5				
7/1/2021						<0.75 (U)	<0.75 (U)
10/11/2021		<0.75 (U)				<0.75 (U)	
10/12/2021	1.7 (J)						
10/13/2021				4.7	<0.75 (U)		<0.75 (U)
10/14/2021			3.6				
2/22/2022						<0.75 (U)	<0.75 (U)
4/5/2022	3	<0.75 (U)				<0.75 (U)	
4/6/2022			1.2 (J)	4.3	<0.75 (U)		<0.75 (U)
10/20/2022	2.3	<0.75 (U)	1 (J)	10	<0.75 (U)	1.4 (J)	<0.75 (U)
Mean	2.483	0.7933	4.9	6.05	0.7933	0.88	0.75
Std. Dev.	0.5307	0.06713	5.188	1.797	0.06713	0.2907	0
Upper Lim.	3.212	0.88	15	10	0.88	1.4	0.75
Lower Lim.	1.754	0.75	1	4.3	0.75	0.75	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 12/21/2022 8:28 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

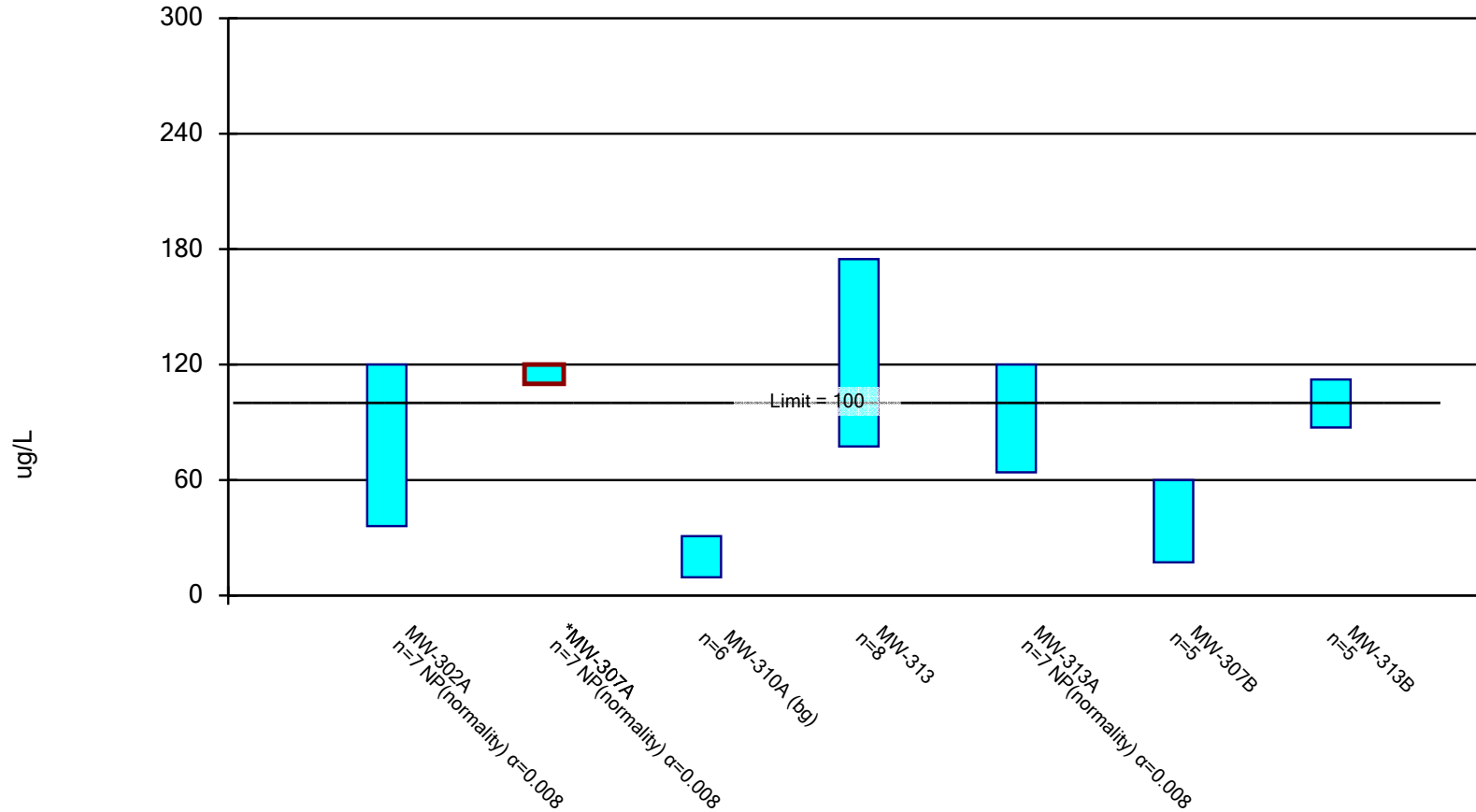
Constituent: Lithium (ug/L) Analysis Run 12/21/2022 8:29 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-302A	MW-307A	MW-310A (bg)	MW-313	MW-313A	MW-307B	MW-313B
6/6/2019				43			
10/10/2019				62			
6/3/2020				52			
9/9/2020	11	6.8 (J)	32		13		
10/14/2020		8.3 (J)					
10/15/2020				51	13		
10/16/2020	11		36				
3/1/2021	11				15		
3/2/2021		9.1 (J)					
4/19/2021	9.6 (J)			36	14		
4/20/2021		8.7 (J)	40				
7/1/2021						9.6 (J)	18
10/11/2021		7.7 (J)				7 (J)	
10/12/2021	12						
10/13/2021				18	11		13
10/14/2021			34				
2/22/2022						9.4 (J)	13
4/5/2022	22	8.5 (J)				11	
4/6/2022			38	18	12		13
10/20/2022	13	12	29	32	7 (J)	6.1 (J)	14
Mean	12.8	8.729	34.83	39	12.14	8.62	14.2
Std. Dev.	4.189	1.626	4.021	16.03	2.61	2.013	2.168
Upper Lim.	22	10.66	40.36	55.99	15.24	11.99	18
Lower Lim.	9.6	6.798	29.31	22.01	9.043	5.247	13

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 12/21/2022 8:28 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Molybdenum (ug/L) Analysis Run 12/21/2022 8:29 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-302A	MW-307A	MW-310A (bg)	MW-313	MW-313A	MW-307B	MW-313B
6/6/2019				130			
10/10/2019				110			
6/3/2020				130			
9/9/2020	120	110	19		120		
10/14/2020		120					
10/15/2020				100	120		
10/16/2020	110		33				
3/1/2021	87				110		
3/2/2021		120					
4/19/2021	95			140	100		
4/20/2021		120	24				
7/1/2021						40	100
10/11/2021		110				25	
10/12/2021	93						
10/13/2021				170	100		100
10/14/2021			20				
2/22/2022						37	89
4/5/2022	120	120				59	
4/6/2022			14	190	100		100
10/20/2022	36	120	11	39	64	32	110
Mean	94.43	117.1	20.17	126.1	102	38.6	99.8
Std. Dev.	28.93	4.88	7.782	45.92	19.01	12.74	7.43
Upper Lim.	120	120	30.86	174.8	120	59.95	112.2
Lower Lim.	36	110	9.476	77.45	64	17.25	87.35

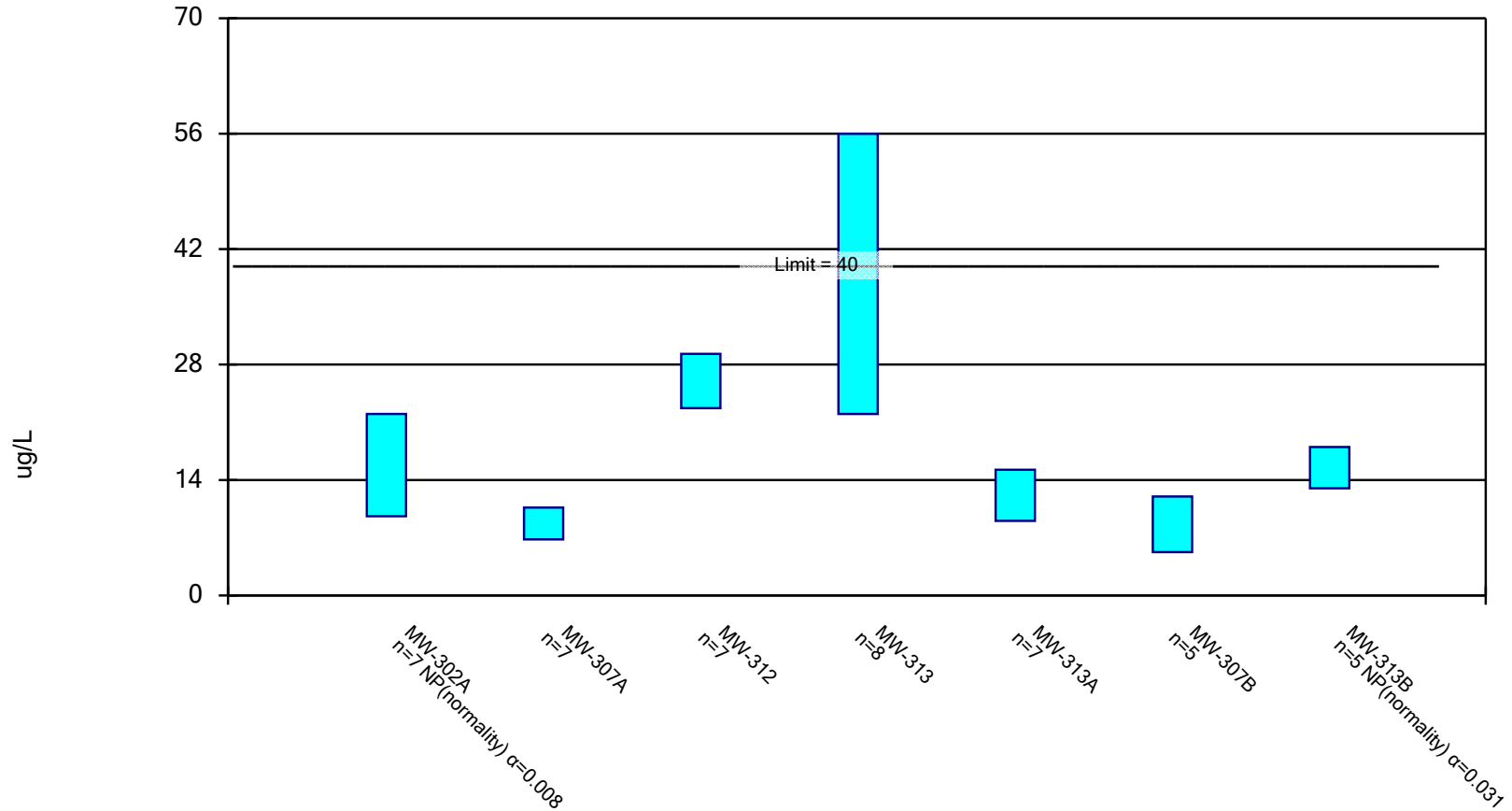
Confidence Interval

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 2/13/2023, 9:41 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Lithium (ug/L)	MW-302A	22	9.6	40	No	7	0	None	No	0.008	NP (normality)
Lithium (ug/L)	MW-307A	10.66	6.798	40	No	7	0	None	No	0.01	Param.
Lithium (ug/L)	MW-312	29.29	22.71	40	No	7	0	None	No	0.01	Param.
Lithium (ug/L)	MW-313	55.99	22.01	40	No	8	0	None	No	0.01	Param.
Lithium (ug/L)	MW-313A	15.24	9.043	40	No	7	0	None	No	0.01	Param.
Lithium (ug/L)	MW-307B	11.99	5.247	40	No	5	0	None	No	0.01	Param.
Lithium (ug/L)	MW-313B	18	13	40	No	5	0	None	No	0.031	NP (normality)
Molybdenum (ug/L)	MW-302A	120	36	100	No	7	0	None	No	0.008	NP (normality)
Molybdenum (ug/L)	MW-307A	120	110	100	Yes	7	0	None	No	0.008	NP (normality)
Molybdenum (ug/L)	MW-312	323.5	230.8	100	Yes	7	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-313	174.8	77.45	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-313A	120	64	100	No	7	0	None	No	0.008	NP (normality)
Molybdenum (ug/L)	MW-307B	59.95	17.25	100	No	5	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-313B	112.2	87.35	100	No	5	0	None	No	0.01	Param.

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



Constituent: Lithium Analysis Run 2/13/2023 9:38 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

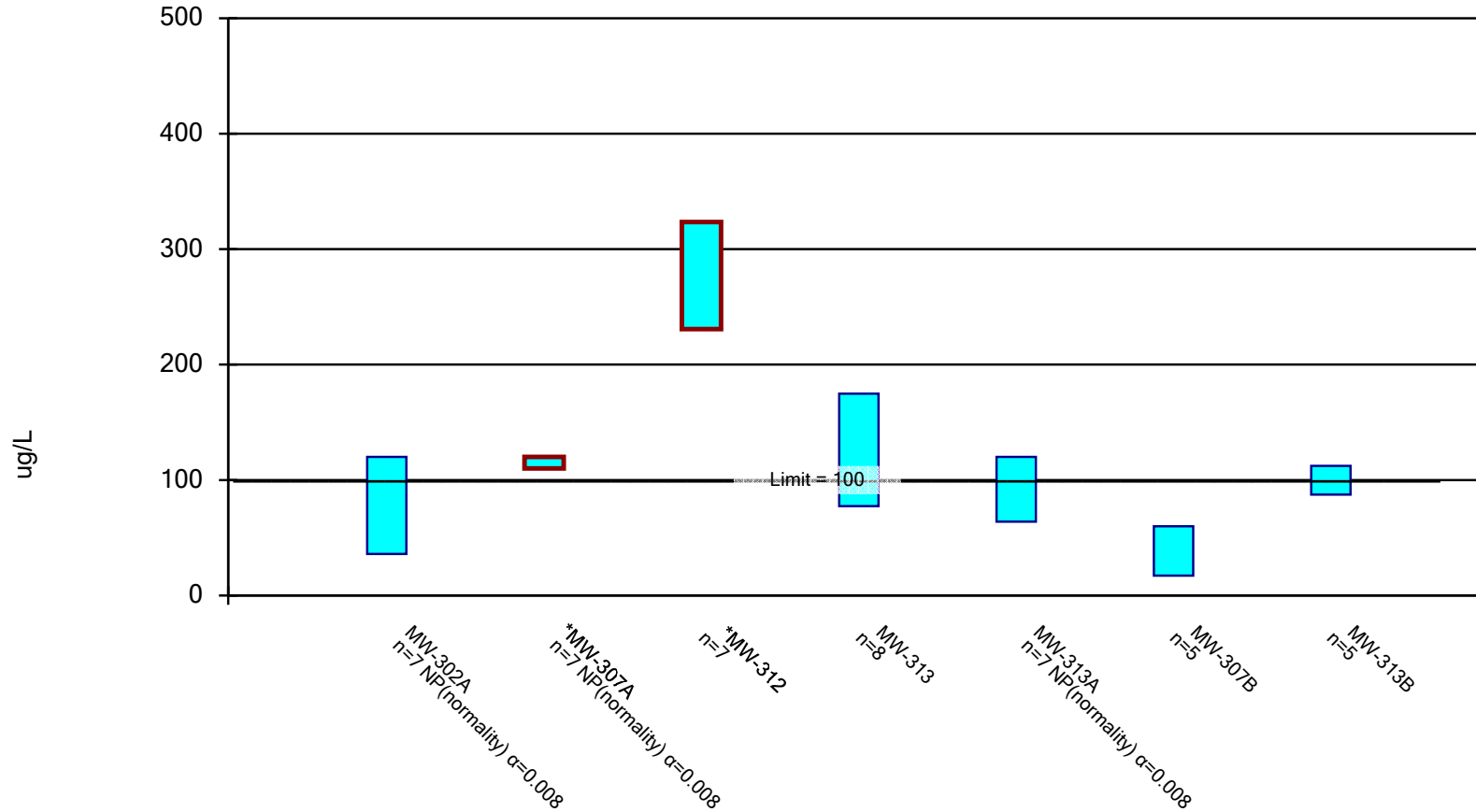
Constituent: Lithium (ug/L) Analysis Run 2/13/2023 9:41 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-302A	MW-307A	MW-312	MW-313	MW-313A	MW-307B	MW-313B
6/6/2019			24	43			
10/10/2019			27	62			
6/3/2020			22	52			
9/9/2020	11	6.8 (J)				13	
10/14/2020		8.3 (J)					
10/15/2020			27	51	13		
10/16/2020	11						
3/1/2021	11				15		
3/2/2021		9.1 (J)					
4/19/2021	9.6 (J)		30	36	14		
4/20/2021		8.7 (J)					
7/1/2021						9.6 (J)	18
10/11/2021		7.7 (J)				7 (J)	
10/12/2021	12						
10/13/2021				18	11		13
10/14/2021			24				
2/22/2022						9.4 (J)	13
4/5/2022	22	8.5 (J)				11	
4/6/2022			28	18	12		13
10/20/2022	13	12		32	7 (J)	6.1 (J)	14
Mean	12.8	8.729	26	39	12.14	8.62	14.2
Std. Dev.	4.189	1.626	2.769	16.03	2.61	2.013	2.168
Upper Lim.	22	10.66	29.29	55.99	15.24	11.99	18
Lower Lim.	9.6	6.798	22.71	22.01	9.043	5.247	13

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



Constituent: Molybdenum Analysis Run 2/13/2023 9:38 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Molybdenum (ug/L) Analysis Run 2/13/2023 9:41 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-302A	MW-307A	MW-312	MW-313	MW-313A	MW-307B	MW-313B
6/6/2019			290	130			
10/10/2019			280	110			
6/3/2020			320	130			
9/9/2020	120	110				120	
10/14/2020		120					
10/15/2020			290	100	120		
10/16/2020	110						
3/1/2021	87				110		
3/2/2021		120					
4/19/2021	95		310	140	100		
4/20/2021		120					
7/1/2021						40	100
10/11/2021		110				25	
10/12/2021	93						
10/13/2021				170	100		100
10/14/2021			240				
2/22/2022						37	89
4/5/2022	120	120				59	
4/6/2022			210	190	100		100
10/20/2022	36	120		39	64	32	110
Mean	94.43	117.1	277.1	126.1	102	38.6	99.8
Std. Dev.	28.93	4.88	39.04	45.92	19.01	12.74	7.43
Upper Lim.	120	120	323.5	174.8	120	59.95	112.2
Lower Lim.	36	110	230.8	77.45	64	17.25	87.35

E2 April 2023 Statistical Evaluation

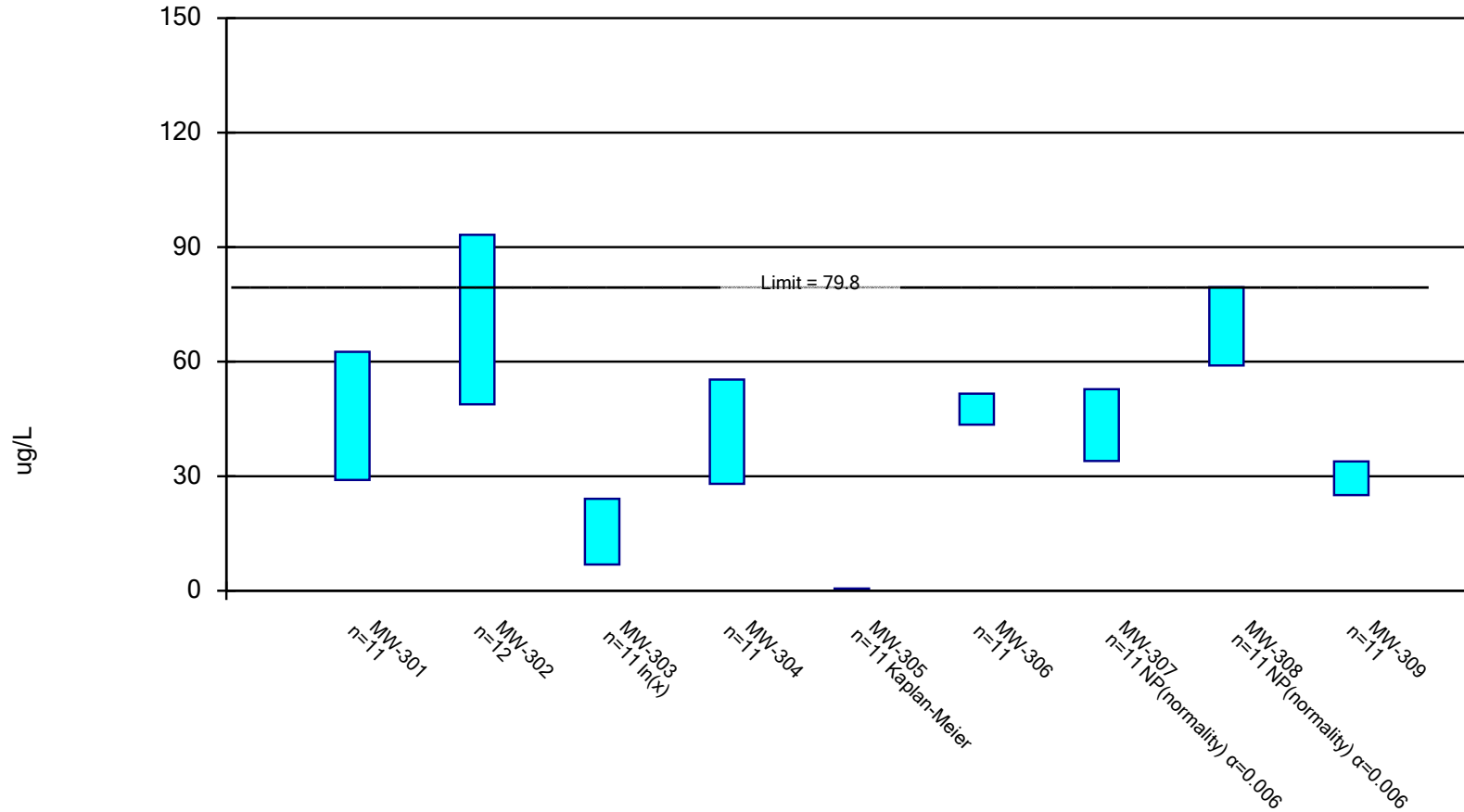
Confidence Interval

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 8/23/2023, 9:35 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (ug/L)	MW-301	62.57	29.03	79.8	No	11	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-302	93.22	48.83	79.8	No	12	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-303	24.06	6.885	79.8	No	11	0	None	ln(x)	0.01	Param.
Arsenic (ug/L)	MW-304	55.31	28.01	79.8	No	11	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-305	0.5621	0.2779	79.8	No	11	63.64	Kapla...	No	0.01	Param.
Arsenic (ug/L)	MW-306	51.61	43.52	79.8	No	11	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-307	52.8	34	79.8	No	11	0	None	No	0.006	NP (normality)
Arsenic (ug/L)	MW-308	79.5	59	79.8	No	11	0	None	No	0.006	NP (normality)
Arsenic (ug/L)	MW-309	33.88	25.04	79.8	No	11	0	None	No	0.01	Param.
Cobalt (ug/L)	MW-301	1.121	0.195	6	No	11	0	None	ln(x)	0.01	Param.
Cobalt (ug/L)	MW-302	0.27	0.18	6	No	10	0	None	No	0.011	NP (normality)
Cobalt (ug/L)	MW-303	0.62	0.35	6	No	10	0	None	No	0.011	NP (normality)
Cobalt (ug/L)	MW-304	0.36	0.098	6	No	11	45.45	None	No	0.006	NP (normality)
Cobalt (ug/L)	MW-305	0.22	0.13	6	No	10	10	None	No	0.011	NP (normality)
Cobalt (ug/L)	MW-306	0.1059	0.02636	6	No	11	72.73	Kapla...	ln(x)	0.01	Param.
Cobalt (ug/L)	MW-307	0.19	0.062	6	No	11	81.82	Kapla...	No	0.006	NP (NDs)
Cobalt (ug/L)	MW-308	0.09681	0.05464	6	No	11	72.73	Kapla...	ln(x)	0.01	Param.
Cobalt (ug/L)	MW-309	1.578	0.3668	6	No	10	0	None	ln(x)	0.01	Param.
Lithium (ug/L)	MW-301	20.29	9.564	40	No	11	9.091	None	No	0.01	Param.
Lithium (ug/L)	MW-302	67.26	57.49	40	Yes	12	0	None	No	0.01	Param.
Lithium (ug/L)	MW-303	62.76	39.78	40	No	12	0	None	No	0.01	Param.
Lithium (ug/L)	MW-304	74.61	44.96	40	Yes	12	0	None	No	0.01	Param.
Lithium (ug/L)	MW-305	34.87	28.22	40	No	11	0	None	No	0.01	Param.
Lithium (ug/L)	MW-306	44.57	38.76	40	No	12	0	None	No	0.01	Param.
Lithium (ug/L)	MW-307	56.1	47.8	40	Yes	12	0	None	No	0.01	NP (normality)
Lithium (ug/L)	MW-308	58.1	47.16	40	Yes	12	0	None	ln(x)	0.01	Param.
Lithium (ug/L)	MW-309	3.759	2.501	40	No	11	45.45	Kapla...	No	0.01	Param.
Molybdenum (ug/L)	MW-301	104.1	52.28	100	No	12	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-302	130	89	100	No	12	0	None	No	0.01	NP (normality)
Molybdenum (ug/L)	MW-303	122.1	69.21	100	No	11	0	None	ln(x)	0.01	Param.
Molybdenum (ug/L)	MW-304	125.8	55.07	100	No	12	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-305	1.123	0.731	100	No	10	60	Kapla...	No	0.01	Param.
Molybdenum (ug/L)	MW-306	86	69	100	No	11	0	None	No	0.006	NP (normality)
Molybdenum (ug/L)	MW-307	180.8	107.3	100	Yes	12	0	None	ln(x)	0.01	Param.
Molybdenum (ug/L)	MW-308	145	100	100	No	12	0	None	No	0.01	NP (normality)
Molybdenum (ug/L)	MW-309	81.9	47.56	100	No	11	0	None	No	0.01	Param.

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: Arsenic Analysis Run 8/23/2023 9:34 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

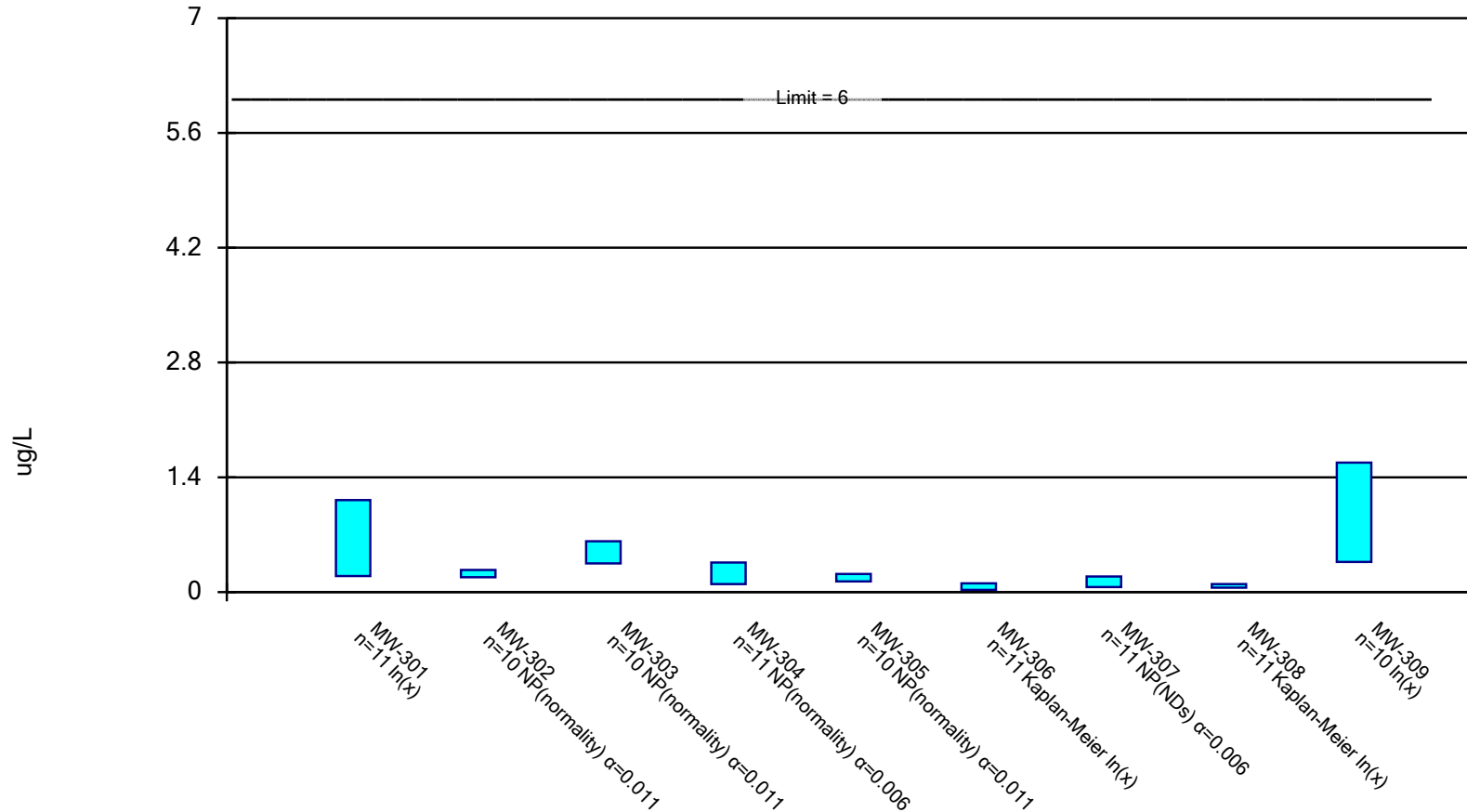
Constituent: Arsenic (ug/L) Analysis Run 8/23/2023 9:35 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308	MW-309
5/8/2018								79.1	28.2
5/9/2018	34.9	56.2	7.9	57.2	0.28 (J)	52.6	54.3		
8/13/2018	40.1	49.6	52	45.4	0.39 (J)			82.5	
8/14/2018						48	52.3		33.3
10/9/2018	37.7	76.4							
10/10/2018			29.8	58.3	0.44 (J)	50.6	52.8	79.5	35.6
4/3/2019	42	53	6.4	59	<0.75 (U)	50	43	78	
4/4/2019									30
10/10/2019	40	73	17	36				72	
10/11/2019					<0.75 (U)	46	47		34
6/3/2020	46	110	18	35	<0.88 (U)				34
6/4/2020						50	47	76	
10/14/2020								69	33
10/15/2020				49	<0.88 (U)	46	47		
10/16/2020	54	76	14						
4/19/2021	61	75	15	41		53			30
4/20/2021					<0.75 (U)		52	73	
10/11/2021						43	34		
10/12/2021		100						59	24
10/13/2021	66		14	32					
10/14/2021					<0.75 (U)				
2/22/2022		94							
4/4/2022								62	21
4/5/2022		86	5.7	44		48	41		
4/6/2022	80				0.92 (J)				
4/24/2023							8.8	1.9 (J)	
4/26/2023	2.1 (J)	3.1	4	1.4 (J)	<0.53 (U)				
4/27/2023						36			21
Mean	45.8	71.03	16.71	41.66	0.6655	47.56	43.56	66.55	29.46
Std. Dev.	20.13	28.29	13.79	16.38	0.2189	4.856	13	22.66	5.304
Upper Lim.	62.57	93.22	24.06	55.31	0.5621	51.61	52.8	79.5	33.88
Lower Lim.	29.03	48.83	6.885	28.01	0.2779	43.52	34	59	25.04

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: Cobalt Analysis Run 8/23/2023 9:34 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

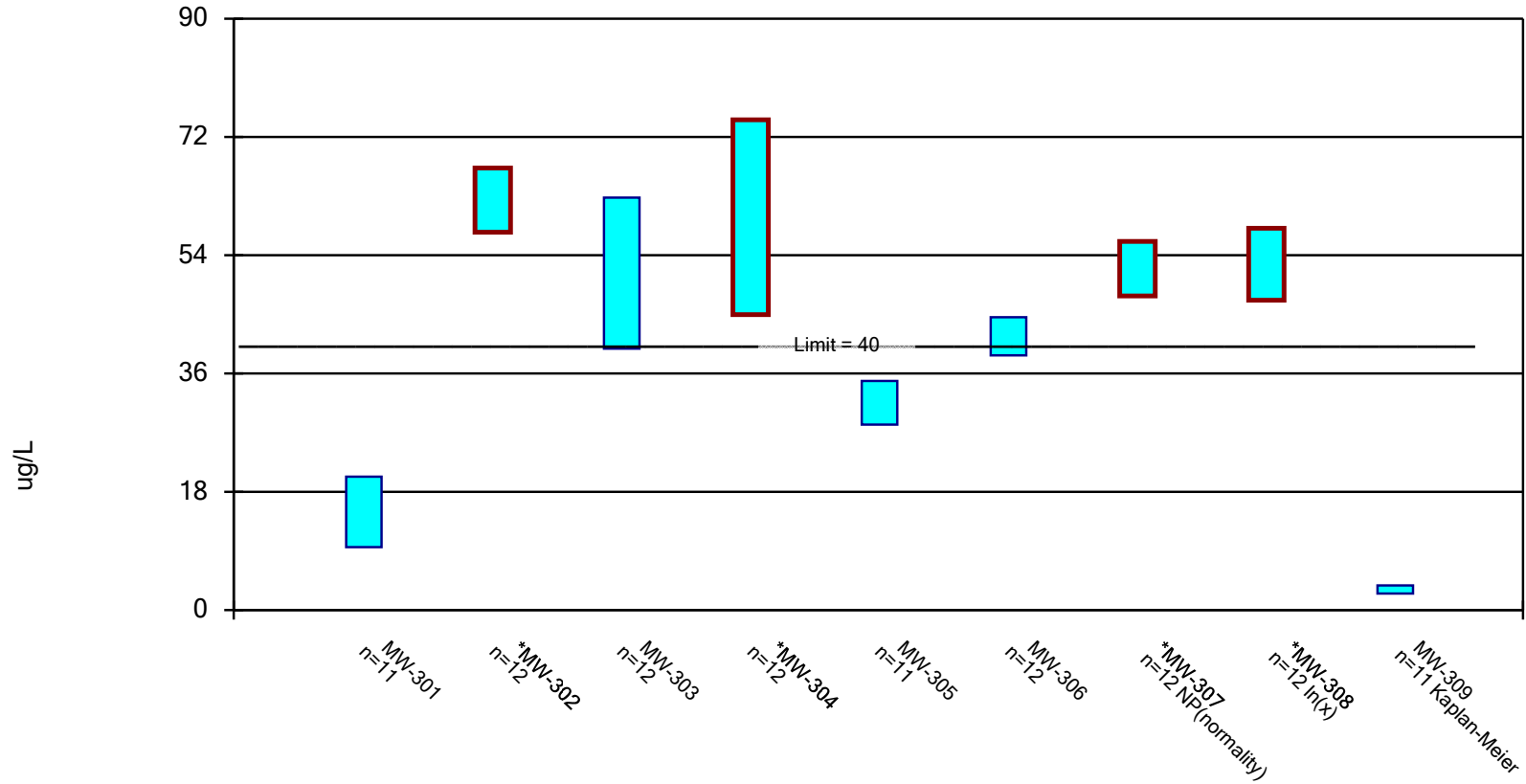
Constituent: Cobalt (ug/L) Analysis Run 8/23/2023 9:35 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308	MW-309
5/8/2018								0.057 (J)	4.9
5/9/2018	0.15 (J)	0.19 (J)	0.31 (J)	0.098 (J)	0.14 (J)	0.035 (J)	0.033 (J)		
8/13/2018	0.45 (J)	0.15 (J)	0.46 (J)	<0.15 (U)	<0.15 (U)			<0.15 (U)	
8/14/2018						0.18 (J)	<0.15 (U)		0.82 (J)
10/9/2018	0.1 (J)	0.18 (J)							
10/10/2018			0.62 (J)	0.19 (J)	0.17 (J)	<0.062 (U)	<0.062 (U)	0.074 (J)	0.68 (J)
4/3/2019	0.44 (J)	0.19 (J)	0.36 (J)	0.11 (J)	0.16 (J)	<0.091 (U)	<0.091 (U)	<0.091 (U)	
4/4/2019									1.3
10/10/2019	0.18 (J)	0.23 (J)	0.45 (J)	0.13 (J)				<0.091 (U)	
10/11/2019					0.13 (J)	<0.091 (U)	<0.091 (U)		0.52
6/3/2020	0.31 (J)	0.21 (J)	0.56	0.15 (J)	0.18 (J)				0.57
6/4/2020						<0.091 (U)	<0.091 (U)	<0.091 (U)	
10/14/2020								<0.091 (U)	
10/15/2020				<0.36		<0.091 (U)	<0.091 (U)		
10/16/2020	0.7								
4/19/2021	0.81	0.21 (J)	0.42 (J)	<0.091 (U)		<0.091 (U)			0.39 (J)
4/20/2021					0.14 (J)		<0.091 (U)	<0.091	
10/11/2021						<0.19 (U)	<0.19 (U)		
10/12/2021		0.27 (J)						<0.19 (U)	0.29 (J)
10/13/2021	0.74		0.42 (J)	<0.19 (U)					
10/14/2021					0.21 (J)				
4/4/2022								<0.19 (U)	0.42 (J)
4/5/2022		0.21 (J)	0.35 (J)	<0.19 (U)		<0.19 (U)	<0.19 (U)		
4/6/2022	0.7				0.22 (J)				
4/24/2023							0.31 (J)	0.18 (J)	
4/26/2023	4.8	78	1.3	1.3	290				
4/27/2023						0.42 (J)			1.3
Mean	0.8527	7.984	0.525	0.269	29.14	0.1393	0.1264	0.1178	1.119
Std. Dev.	1.333	24.6	0.2881	0.3498	91.66	0.1068	0.07842	0.04954	1.375
Upper Lim.	1.121	0.27	0.62	0.36	0.22	0.1059	0.19	0.09681	1.578
Lower Lim.	0.195	0.18	0.35	0.098	0.13	0.02636	0.062	0.05464	0.3668

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: Lithium Analysis Run 8/23/2023 9:34 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

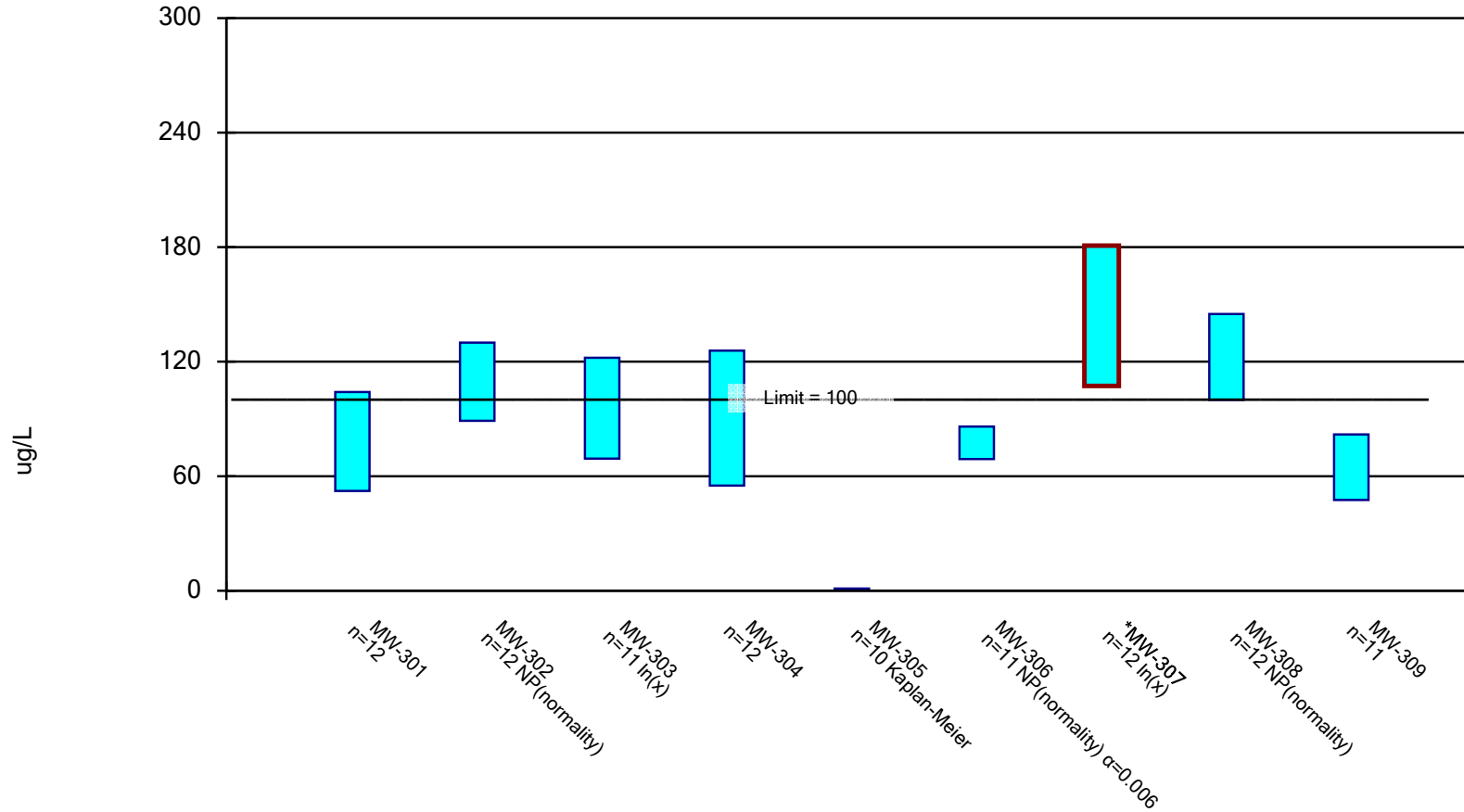
Constituent: Lithium (ug/L) Analysis Run 8/23/2023 9:35 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308	MW-309
5/8/2018								46	<4.6 (U)
5/9/2018	17.8	65.4	50.7	63.8	27.8	36.6	47.8		
8/13/2018	18.9	61.4	42.1	34.3	33.6			52	
8/14/2018						46.8	56.1		<4.6 (U)
10/9/2018	24.5	57.8							
10/10/2018			35.8	82.4	27.6	41.4	45.4	43.6	<4.6 (U)
3/11/2019						39.2	50.7		
3/12/2019		59.9	51.6	35.9				48.9	
4/3/2019	13	56	52	52	29	45	50	50	
4/4/2019									3.3 (J)
10/10/2019	26	57	46	38				52	
10/11/2019					26	46	48		<5.4 (U)
6/3/2020	16	55	48	47	28				2.4 (J)
6/4/2020						43	48	48	
10/14/2020								51	<2.5 (U)
10/15/2020				92	34	42	51		
10/16/2020	10	64	59						
4/19/2021	10	64	66	75		43			3.8 (J)
4/20/2021					36		53	54	
10/11/2021						41	52		
10/12/2021		64						58	2.8 (J)
10/13/2021	11		61	60					
10/14/2021					32				
4/4/2022								57	2.9 (J)
4/5/2022		78	80	74		42	50		
4/6/2022	12				36				
4/24/2023							72	73	
4/26/2023	<10 (U)	66	23	63	37				
4/27/2023						34			4.9 (J)
Mean	14.93	62.38	51.27	59.78	31.55	41.67	52	52.79	3.8
Std. Dev.	6.436	6.225	14.64	18.9	3.991	3.706	6.887	7.602	1.068
Upper Lim.	20.29	67.26	62.76	74.61	34.87	44.57	56.1	58.1	3.759
Lower Lim.	9.564	57.49	39.78	44.96	28.22	38.76	47.8	47.16	2.501

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 8/23/2023 9:34 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Molybdenum (ug/L) Analysis Run 8/23/2023 9:35 AM

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-303	MW-304	MW-305	MW-306	MW-307	MW-308	MW-309
5/8/2018								140	43.4
5/9/2018	113	118	75.4	126	0.87 (J)	84.7	154		
8/13/2018	81.7	121	77.9	74.9	1			140	
8/14/2018						82.9	155		52.8
10/9/2018	120	122							
10/10/2018			56.5	113	0.72 (J)	83.5	159	145	71.8
3/11/2019							156		
3/12/2019	62.7	123		47.4				135	
4/3/2019	77	100	110	58	<1.1 (U)	78	100	110	
4/4/2019									47
10/10/2019	130	100	76	47				120	
10/11/2019					<1.1 (U)	84	130		90
6/3/2020	110	140	66	45	<1.1 (U)				87
6/4/2020						86	130	120	
10/14/2020								110	100
10/15/2020				140		82	140		
10/16/2020	67	130	84						
4/19/2021	46	130	120	100		87			50
4/20/2021					<1.3 (U)		140	120	
10/11/2021						69	85		
10/12/2021		91						81	39
10/13/2021	47		120	59					
10/14/2021					<1.3 (U)				
4/4/2022								100	62
4/5/2022		89	190	85		74	100		
4/6/2022	55				<1.2 (U)				
4/24/2023							320	480	
4/26/2023	29	26	94	190	1.5 (J)				
4/27/2023						12			69
Mean	78.2	107.5	97.25	90.44	1.119	74.83	147.4	150.1	64.73
Std. Dev.	33.03	30.42	37.32	45.08	0.2245	21.54	59.7	105.5	20.6
Upper Lim.	104.1	130	122.1	125.8	1.123	86	180.8	145	81.9
Lower Lim.	52.28	89	69.21	55.07	0.731	69	107.3	100	47.56

E3 August 2023 Statistical Evaluation

Confidence Interval

Burlington Generating Station Data: BGS_Export_201121_Rev Printed 12/4/2023, 10:25 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (ug/L)	MW-301	73.5	16.23	79.8	No	8	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-302	110	3.1	79.8	No	8	0	None	No	0.004	NP (normality)
Arsenic (ug/L)	MW-302A	3.212	1.754	79.8	No	6	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-303	17.84	7.088	79.8	No	8	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-304	48.78	13.22	79.8	No	8	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-305	2	0.53	79.8	No	8	75	None	No	0.004	NP (NDs)
Arsenic (ug/L)	MW-306	51.74	36.76	79.8	No	8	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-307	52	8.2	79.8	No	8	0	None	No	0.004	NP (normality)
Arsenic (ug/L)	MW-307A	0.88	0.75	79.8	No	6	100	None	No	0.0155	NP (NDs)
Arsenic (ug/L)	MW-308	76	1.9	79.8	No	8	0	None	No	0.004	NP (normality)
Arsenic (ug/L)	MW-309	34	21	79.8	No	8	0	None	No	0.004	NP (normality)
Arsenic (ug/L)	MW-310 (bg)	66.54	42.96	79.8	No	8	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-310A (bg)	6.993	0.8525	79.8	No	8	0	None	ln(x)	0.01	Param.
Arsenic (ug/L)	MW-311 (bg)	22	4.7	79.8	No	8	0	None	No	0.004	NP (normality)
Arsenic (ug/L)	MW-312	20.7	12.73	79.8	No	7	0	None	No	0.01	Param.
Arsenic (ug/L)	MW-313	7.738	4.431	79.8	No	8	0	None	ln(x)	0.01	Param.
Arsenic (ug/L)	MW-313A	0.88	0.75	79.8	No	6	100	None	No	0.0155	NP (NDs)
Arsenic (ug/L)	MW-307B	1.4	0.75	79.8	No	5	80	None	No	0.031	NP (NDs)
Arsenic (ug/L)	MW-313B	0.75	0.75	79.8	No	5	100	None	No	0.031	NP (NDs)
Cobalt (ug/L)	MW-301	3.798	0.2401	6	No	8	0	None	ln(x)	0.01	Param.
Cobalt (ug/L)	MW-302	78	0.21	6	No	8	0	None	No	0.004	NP (normality)
Cobalt (ug/L)	MW-302A	0.2	0.11	6	No	6	33.33	None	No	0.0155	NP (normality)
Cobalt (ug/L)	MW-303	1.4	0.35	6	No	8	0	None	No	0.004	NP (normality)
Cobalt (ug/L)	MW-304	81	0.091	6	No	8	50	None	No	0.004	NP (normality)
Cobalt (ug/L)	MW-305	290	0.13	6	No	8	0	None	No	0.004	NP (normality)
Cobalt (ug/L)	MW-306	0.42	0.091	6	No	8	75	None	No	0.004	NP (NDs)
Cobalt (ug/L)	MW-307	0.92	0.091	6	No	8	75	None	No	0.004	NP (NDs)
Cobalt (ug/L)	MW-307A	0.19	0.091	6	No	6	66.67	None	No	0.0155	NP (NDs)
Cobalt (ug/L)	MW-308	4.1	0.091	6	No	8	75	None	No	0.004	NP (NDs)
Cobalt (ug/L)	MW-309	0.815	0.3023	6	No	8	0	None	ln(x)	0.01	Param.
Cobalt (ug/L)	MW-310 (bg)	3.117	0.7552	6	No	8	0	None	No	0.01	Param.
Cobalt (ug/L)	MW-310A (bg)	8.873	0.4597	6	No	8	0	None	ln(x)	0.01	Param.
Cobalt (ug/L)	MW-311 (bg)	1.971	0.2343	6	No	8	0	None	ln(x)	0.01	Param.
Cobalt (ug/L)	MW-312	0.661	0.3161	6	No	7	0	None	No	0.01	Param.
Cobalt (ug/L)	MW-313	0.41	0.19	6	No	8	25	None	No	0.004	NP (normality)
Cobalt (ug/L)	MW-313A	0.19	0.091	6	No	6	100	None	No	0.0155	NP (NDs)
Cobalt (ug/L)	MW-307B	0.26	0.19	6	No	5	80	None	No	0.031	NP (NDs)
Cobalt (ug/L)	MW-313B	0.25	0.19	6	No	5	80	None	No	0.031	NP (NDs)
Lithium (ug/L)	MW-301	18.79	7.014	40	No	8	12.5	None	ln(x)	0.01	Param.
Lithium (ug/L)	MW-302	71.13	53.62	40	Yes	8	0	None	No	0.01	Param.
Lithium (ug/L)	MW-302A	17.09	3.698	40	No	8	12.5	None	No	0.01	Param.
Lithium (ug/L)	MW-303	71.77	30.73	40	No	8	0	None	No	0.01	Param.
Lithium (ug/L)	MW-304	110.5	43.84	40	Yes	8	0	None	ln(x)	0.01	Param.
Lithium (ug/L)	MW-305	37.8	23.95	40	No	8	0	None	No	0.01	Param.
Lithium (ug/L)	MW-306	47.07	37.93	40	No	8	0	None	No	0.01	Param.
Lithium (ug/L)	MW-307	100	48	40	Yes	8	0	None	No	0.004	NP (normality)
Lithium (ug/L)	MW-307A	10.27	6.609	40	No	8	0	None	No	0.01	Param.
Lithium (ug/L)	MW-308	180	48	40	Yes	8	0	None	No	0.004	NP (normality)
Lithium (ug/L)	MW-309	4.126	2.36	40	No	8	25	Kapla...	No	0.01	Param.
Lithium (ug/L)	MW-310 (bg)	2.7	2.3	40	No	8	100	Kapla...	No	0.004	NP (NDs)

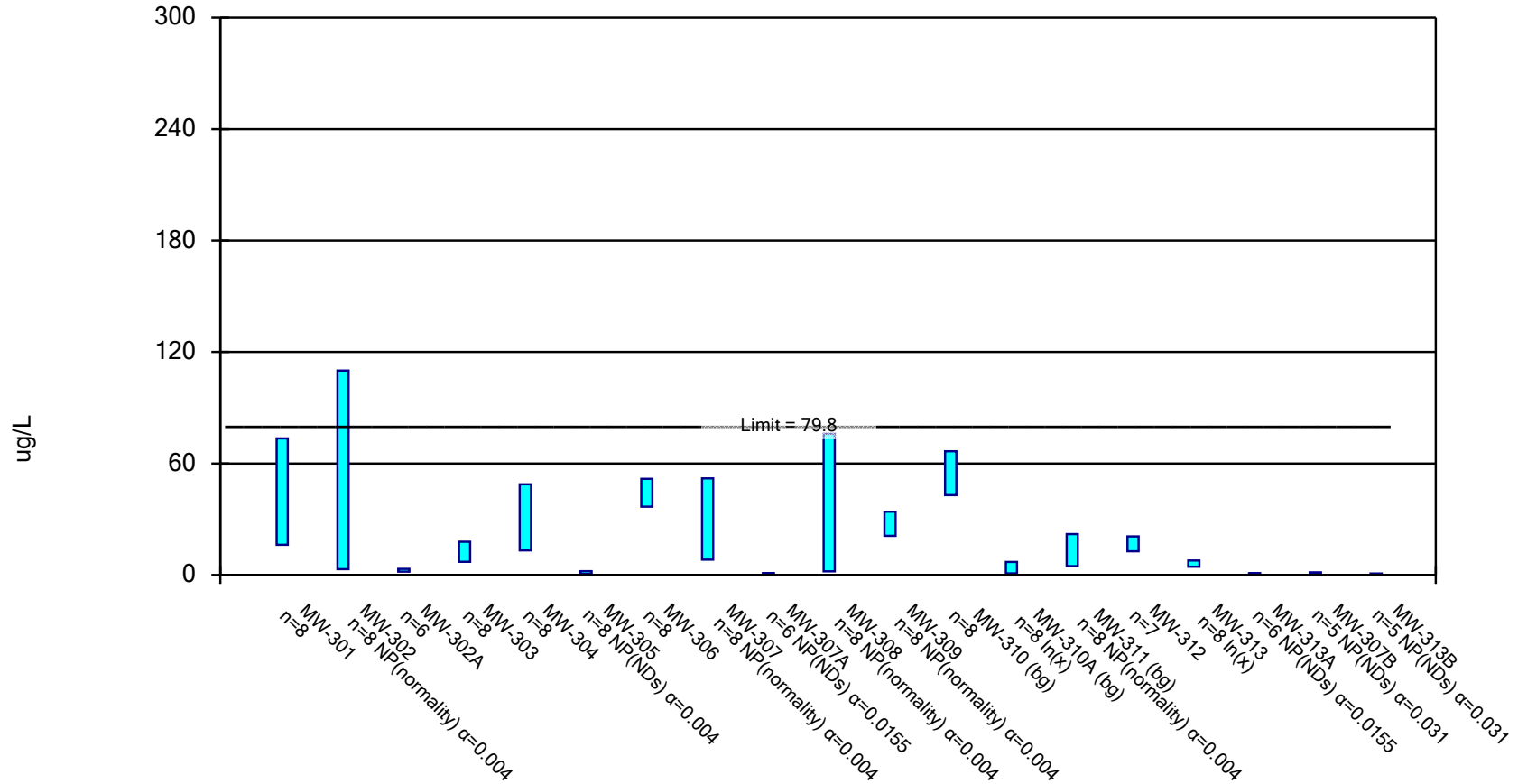
Confidence Interval

Burlington Generating Station Data: BGS_Export_201121_Rev Printed 12/4/2023, 10:25 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Lithium (ug/L)	MW-310A (bg)	38.65	31.1	40	No	8	0	None	No	0.01	Param.
Lithium (ug/L)	MW-311 (bg)	2.7	2.3	40	No	8	100	None	No	0.004	NP (NDs)
Lithium (ug/L)	MW-312	30.03	16.72	40	No	8	0	None	No	0.01	Param.
Lithium (ug/L)	MW-313	46.37	10.85	40	No	8	0	None	No	0.01	Param.
Lithium (ug/L)	MW-313A	14.96	4.377	40	No	8	12.5	None	No	0.01	Param.
Lithium (ug/L)	MW-307B	10.46	5.136	40	No	7	0	None	No	0.01	Param.
Lithium (ug/L)	MW-313B	17.3	5.839	40	No	7	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-301	106	33.29	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-302	136.9	54.1	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-302A	118.1	19.84	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-303	156.7	68.3	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-304	148.4	43.06	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-305	1.5	1.1	100	No	8	62.5	None	No	0.004	NP (NDs)
Molybdenum (ug/L)	MW-306	87	12	100	No	8	0	None	No	0.004	NP (normality)
Molybdenum (ug/L)	MW-307	244.6	91.64	100	No	8	0	None	ln(x)	0.01	Param.
Molybdenum (ug/L)	MW-307A	120	4.3	100	No	8	0	None	No	0.004	NP (normality)
Molybdenum (ug/L)	MW-308	480	81	100	No	8	0	None	No	0.004	NP (normality)
Molybdenum (ug/L)	MW-309	95.13	50.12	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-310 (bg)	6.006	2.819	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-310A (bg)	26.19	9.313	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-311 (bg)	16.71	2.764	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-312	320	28	100	No	8	0	None	No	0.004	NP (normality)
Molybdenum (ug/L)	MW-313	172.1	35.7	100	No	8	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-313A	120	2.8	100	No	8	0	None	No	0.004	NP (normality)
Molybdenum (ug/L)	MW-307B	51.87	6.726	100	No	7	0	None	No	0.01	Param.
Molybdenum (ug/L)	MW-313B	110	9.3	100	No	7	0	None	No	0.008	NP (normality)

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: Arsenic Analysis Run 12/4/2023 9:57 AM View: Default

Burlington Generating Station Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Arsenic (ug/L) Analysis Run 12/4/2023 10:24 AM View: Default

Burlington Generating Station Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-306	MW-307	MW-307A
4/4/2019									
6/6/2019									
10/10/2019	40			17	36				
10/11/2019						<0.75 (U)	46	47	
6/2/2020									
6/3/2020	46	110		18	35	<0.88 (U)			
6/4/2020							50	47	
9/9/2020			2.9						<0.88 (U)
10/14/2020									<0.88 (U)
10/15/2020					49	<0.88 (U)	46	47	
10/16/2020	54	76	2.9	14					
4/19/2021	61	75	2.1	15	41		53		
4/20/2021						<0.75 (U)		52	<0.75
7/1/2021									
10/11/2021							43	34	<0.75 (U)
10/12/2021		100	1.7 (J)						
10/13/2021	66			14	32				
10/14/2021						<0.75 (U)			
2/22/2022		94							
4/4/2022									
4/5/2022		86	3	5.7	44		48	41	<0.75 (U)
4/6/2022	80					0.92 (J)			
10/20/2022			2.3						<0.75 (U)
4/24/2023								8.8	
4/26/2023	2.1 (J)	3.1		4	1.4 (J)	<0.53 (U)			
4/27/2023							36		
8/1/2023		15		12	9.6	2		8.2	
8/2/2023							32		
8/3/2023	9.8								
Mean	44.86	69.89	2.483	12.46	31	0.9325	44.25	35.63	0.7933
Std. Dev.	27.01	39.45	0.5307	5.071	16.77	0.4484	7.066	17.56	0.06713
Upper Lim.	73.5	110	3.212	17.84	48.78	2	51.74	52	0.88
Lower Lim.	16.23	3.1	1.754	7.088	13.22	0.53	36.76	8.2	0.75

Confidence Interval

Constituent: Arsenic (ug/L) Analysis Run 12/4/2023 10:24 AM View: Default
 Burlington Generating Station Data: BGS_Export_201121_Rev

	MW-308	MW-309	MW-310 (bg)	MW-310A (bg)	MW-311 (bg)	MW-312	MW-313	MW-313A	MW-307B
4/4/2019			65		19				
6/6/2019						14	5.5		
10/10/2019	72					15	6.3		
10/11/2019		34	61		18				
6/2/2020			55		19				
6/3/2020		34				22	6.9		
6/4/2020	76								
9/9/2020				15				<0.88 (U)	
10/14/2020	69	33	63		15				
10/15/2020						19	5.5	<0.88 (U)	
10/16/2020				5.1					
4/19/2021		30	16 (X)		55 (X)	18	5.2	<0.75 (U)	
4/20/2021	73			3.5					
7/1/2021									<0.75 (U)
10/11/2021									<0.75 (U)
10/12/2021	59	24	63		22				
10/13/2021							4.7	<0.75 (U)	
10/14/2021				3.6		17			
2/22/2022									<0.75 (U)
4/4/2022	62	21	52		19				
4/5/2022									<0.75 (U)
4/6/2022				1.2 (J)		12	4.3	<0.75 (U)	
10/20/2022				1 (J)			10	<0.75 (U)	1.4 (J)
4/24/2023	1.9 (J)								
4/26/2023									
4/27/2023		21	32	1.2 (J)	4.7				
8/1/2023	5.7								
8/2/2023		22							
8/3/2023			47	0.91 (J)	5.3				
Mean	52.33	27.38	54.75	3.939	15.25	16.71	6.05	0.7933	0.88
Std. Dev.	30.49	5.951	11.12	4.733	6.608	3.352	1.797	0.06713	0.2907
Upper Lim.	76	34	66.54	6.993	22	20.7	7.738	0.88	1.4
Lower Lim.	1.9	21	42.96	0.8525	4.7	12.73	4.431	0.75	0.75

Confidence Interval

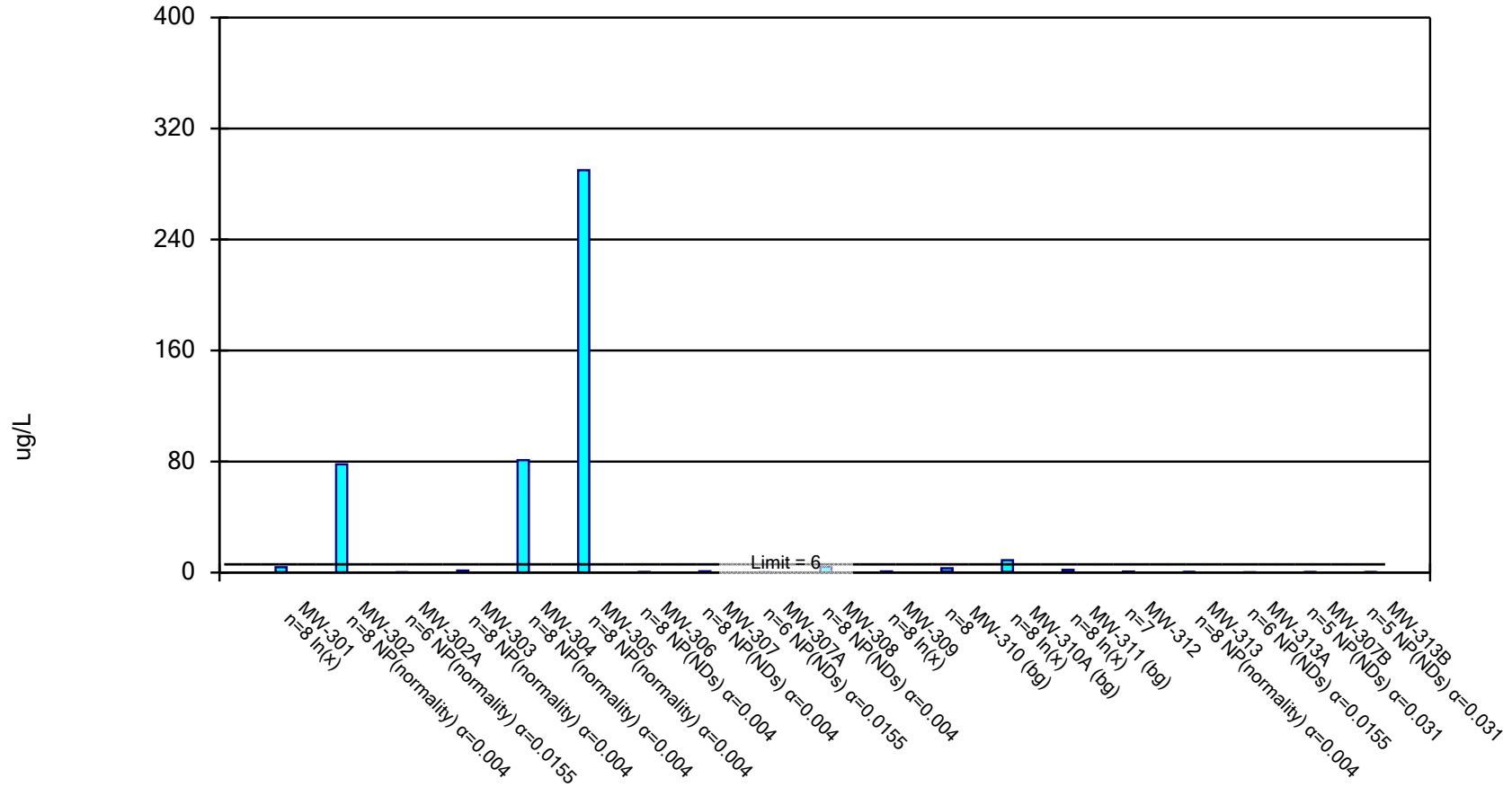
Constituent: Arsenic (ug/L) Analysis Run 12/4/2023 10:24 AM View: Default
Burlington Generating Station Data: BGS_Export_201121_Rev

MW-313B

4/4/2019	
6/6/2019	
10/10/2019	
10/11/2019	
6/2/2020	
6/3/2020	
6/4/2020	
9/9/2020	
10/14/2020	
10/15/2020	
10/16/2020	
4/19/2021	
4/20/2021	
7/1/2021	<0.75 (U)
10/11/2021	
10/12/2021	
10/13/2021	<0.75 (U)
10/14/2021	
2/22/2022	<0.75 (U)
4/4/2022	
4/5/2022	
4/6/2022	<0.75 (U)
10/20/2022	<0.75 (U)
4/24/2023	
4/26/2023	
4/27/2023	
8/1/2023	
8/2/2023	
8/3/2023	
Mean	0.75
Std. Dev.	0
Upper Lim.	0.75
Lower Lim.	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: Cobalt Analysis Run 12/4/2023 9:57 AM View: Default

Burlington Generating Station Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Cobalt (ug/L) Analysis Run 12/4/2023 10:24 AM View: Default

Burlington Generating Station Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-306	MW-307	MW-307A
6/6/2019									
10/10/2019	0.18 (J)	0.23 (J)		0.45 (J)	0.13 (J)				
10/11/2019						0.13 (J)	<0.091 (U)	<0.091 (U)	
6/2/2020									
6/3/2020	0.31 (J)	0.21 (J)		0.56	0.15 (J)	0.18 (J)			
6/4/2020							<0.091 (U)	<0.091 (U)	
9/9/2020			0.12 (J)						0.11 (J)
10/14/2020									0.15 (J)
10/15/2020					<0.36	0.15 (J)	<0.091 (U)	<0.091 (U)	
10/16/2020	0.7	0.26 (J)	0.11 (J)	0.49 (J)					
4/19/2021	0.81	0.21 (J)	0.11 (J)	0.42 (J)	<0.091 (U)		<0.091 (U)		
4/20/2021						0.14 (J)		<0.091 (U)	<0.091 (U)
7/1/2021									
10/11/2021							<0.19 (U)	<0.19 (U)	<0.19 (U)
10/12/2021		0.27 (J)	<0.19 (U)						
10/13/2021	0.74			0.42 (J)	<0.19 (U)				
10/14/2021						0.21 (J)			
2/22/2022									
4/4/2022									
4/5/2022		0.21 (J)	0.2 (J)	0.35 (J)	<0.19 (U)		<0.19 (U)	<0.19 (U)	<0.19 (U)
4/6/2022	0.7					0.22 (J)			
10/20/2022			<0.19 (U)						<0.19 (U)
4/24/2023								0.31 (J)	
4/26/2023	4.8	78		1.3	1.3	290			
4/27/2023							0.42 (J)		
8/1/2023		41		1.4	81	9.2		0.92	
8/2/2023							0.31 (J)		
8/3/2023	8.8								
Mean	2.13	15.05	0.1533	0.6738	10.43	37.53	0.1842	0.2467	0.1535
Std. Dev.	3.082	29.16	0.04412	0.4226	28.52	102.1	0.1232	0.283	0.04429
Upper Lim.	3.798	78	0.2	1.4	81	290	0.42	0.92	0.19
Lower Lim.	0.2401	0.21	0.11	0.35	0.091	0.13	0.091	0.091	0.091

Confidence Interval

Constituent: Cobalt (ug/L) Analysis Run 12/4/2023 10:24 AM View: Default
 Burlington Generating Station Data: BGS_Export_201121_Rev

	MW-308	MW-309	MW-310 (bg)	MW-310A (bg)	MW-311 (bg)	MW-312	MW-313	MW-313A	MW-307B
6/6/2019						0.65	0.41 (J)		
10/10/2019	<0.091 (U)					0.36 (J)	0.32 (J)		
10/11/2019		0.52	1.9		0.27 (J)				
6/2/2020			2.3		0.81				
6/3/2020		0.57				0.67	0.23 (J)		
6/4/2020	<0.091 (U)								
9/9/2020				28				<0.091 (U)	
10/14/2020	<0.091 (U)	0.33 (J)	1.5		0.28 (J)				
10/15/2020						0.5	0.19 (J)	<0.091 (U)	
10/16/2020				3.4					
4/19/2021		0.39 (J)	0.29 (J)		1.4	0.54	0.2 (J)	<0.091	
4/20/2021	<0.091			3					
7/1/2021									0.26 (J)
10/11/2021									<0.19 (U)
10/12/2021	<0.19 (U)	0.29 (J)	1.4		0.31 (J)				
10/13/2021							<0.19 (U)	<0.19 (U)	
10/14/2021				3		0.42 (J)			
2/22/2022									<0.19 (U)
4/4/2022	<0.19 (U)	0.42 (J)	1.2		0.3 (J)				
4/5/2022									<0.19 (U)
4/6/2022				2.6		0.28 (J)	0.33 (J)	<0.19 (U)	
10/20/2022				0.63			<0.19 (U)	<0.19 (U)	<0.19 (U)
4/24/2023	0.18 (J)								
4/26/2023									
4/27/2023		1.3	3.1	0.34 (J)	3.8				
8/1/2023	4.1								
8/2/2023		0.61							
8/3/2023			3.8	0.58	1.5				
Mean	0.628	0.5538	1.936	5.194	1.084	0.4886	0.2575	0.1405	0.204
Std. Dev.	1.404	0.322	1.114	9.3	1.21	0.1452	0.08464	0.05422	0.0313
Upper Lim.	4.1	0.815	3.117	8.873	1.971	0.661	0.41	0.19	0.26
Lower Lim.	0.091	0.3023	0.7552	0.4597	0.2343	0.3161	0.19	0.091	0.19

Confidence Interval

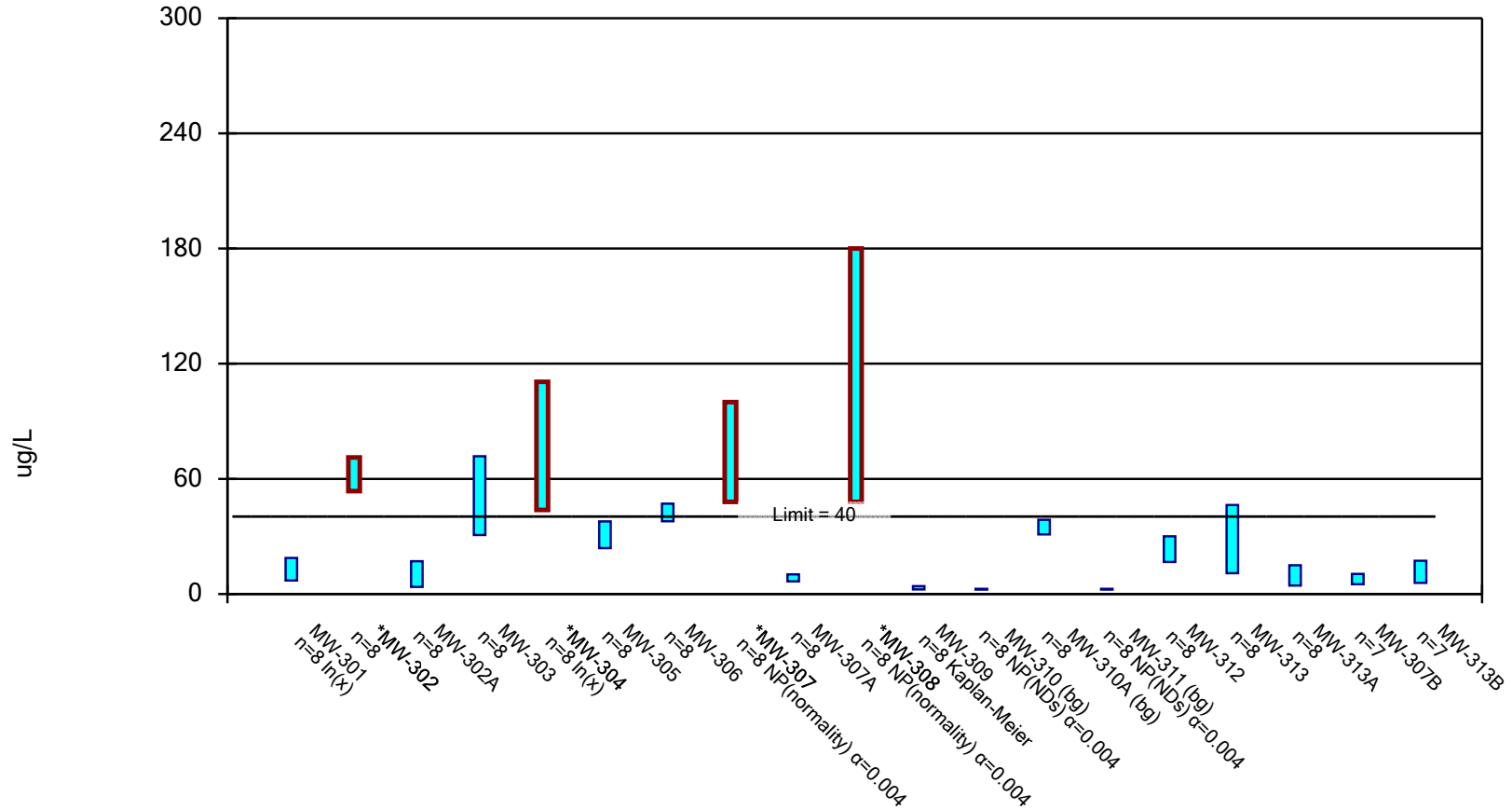
Constituent: Cobalt (ug/L) Analysis Run 12/4/2023 10:24 AM View: Default
Burlington Generating Station Data: BGS_Export_201121_Rev

MW-313B

6/6/2019	
10/10/2019	
10/11/2019	
6/2/2020	
6/3/2020	
6/4/2020	
9/9/2020	
10/14/2020	
10/15/2020	
10/16/2020	
4/19/2021	
4/20/2021	
7/1/2021	0.25 (J)
10/11/2021	
10/12/2021	
10/13/2021	<0.19 (U)
10/14/2021	
2/22/2022	<0.19 (U)
4/4/2022	
4/5/2022	
4/6/2022	<0.19 (U)
10/20/2022	<0.19 (U)
4/24/2023	
4/26/2023	
4/27/2023	
8/1/2023	
8/2/2023	
8/3/2023	
Mean	0.202
Std. Dev.	0.02683
Upper Lim.	0.25
Lower Lim.	0.19

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: Lithium Analysis Run 12/4/2023 9:58 AM View: Default

Burlington Generating Station Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Lithium (ug/L) Analysis Run 12/4/2023 10:24 AM View: Default

Burlington Generating Station Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-306	MW-307	MW-307A
10/10/2019	26	57		46	38				
10/11/2019						26	46	48	
6/2/2020									
6/3/2020	16	55		48	47	28			
6/4/2020							43	48	
9/9/2020									
10/14/2020									8.3 (J)
10/15/2020					92	34	42	51	
10/16/2020	10	64	11	59					
3/1/2021			11						
3/2/2021									9.1 (J)
4/19/2021	10	64	9.6 (J)	66	75		43		
4/20/2021						36		53	8.7 (J)
7/1/2021									
10/11/2021							41	52	7.7 (J)
10/12/2021		64	12						
10/13/2021	11			61	60				
10/14/2021						32			
2/22/2022									
4/4/2022									
4/5/2022		78	22	80	74		42	50	8.5 (J)
4/6/2022	12					36			
10/20/2022			13						12
4/24/2023								72	7 (J)
4/25/2023									
4/26/2023	<10 (U)	66	<2.5 (U)	23	63	37			
4/27/2023							34		
8/1/2023		51	3.3 (J)	27	160	18		100	6.2 (J)
8/2/2023							49		
8/3/2023	11								
Mean	12.63	62.38	10.39	51.25	76.13	30.88	42.5	59.25	8.438
Std. Dev.	6.186	8.262	6.317	19.36	37.85	6.534	4.309	18.21	1.725
Upper Lim.	18.79	71.13	17.09	71.77	110.5	37.8	47.07	100	10.27
Lower Lim.	7.014	53.62	3.698	30.73	43.84	23.95	37.93	48	6.609

Confidence Interval

Constituent: Lithium (ug/L) Analysis Run 12/4/2023 10:24 AM View: Default
 Burlington Generating Station Data: BGS_Export_201121_Rev

	MW-308	MW-309	MW-310 (bg)	MW-310A (bg)	MW-311 (bg)	MW-312	MW-313	MW-313A	MW-307B
10/10/2019	52					27			
10/11/2019		<5.4 (U)	<2.7 (U)		<2.7 (U)				
6/2/2020			<2.3 (U)		<2.3 (U)				
6/3/2020		2.4 (J)				22	52		
6/4/2020	48								
9/9/2020				32					
10/14/2020	51	<2.5 (U)	<2.5 (U)		<2.5 (U)				
10/15/2020						27	51	13	
10/16/2020				36					
3/1/2021								15	
3/2/2021									
4/19/2021		3.8 (J)	<2.5 (U)		<2.5 (U)	30	36	14	
4/20/2021	54			40					
7/1/2021									9.6 (J)
10/11/2021									7 (J)
10/12/2021	58	2.8 (J)	<2.5 (U)		<2.5 (U)				
10/13/2021							18	11	
10/14/2021				34		24			
2/22/2022									9.4 (J)
4/4/2022	57	2.9 (J)	<2.5 (U)		<2.5 (U)				
4/5/2022									11
4/6/2022				38		28	18	12	
10/20/2022				29			32	7 (J)	6.1 (J)
4/24/2023	73								6.8 (J)
4/25/2023							9.9 (J)	<2.5 (U)	
4/26/2023						11			
4/27/2023		4.9 (J)	<2.5 (U)	33	<2.5 (U)				
8/1/2023	180					18	12		
8/2/2023		3.5 (J)						4.1 (J)	4.7 (J)
8/3/2023			<2.5 (U)	37	<2.5 (U)				
Mean	71.63	3.525	2.5	34.88	2.5	23.38	28.61	9.669	7.8
Std. Dev.	44.44	1.116	0.1069	3.563	0.1069	6.278	16.76	4.993	2.243
Upper Lim.	180	4.126	2.7	38.65	2.7	30.03	46.37	14.96	10.46
Lower Lim.	48	2.36	2.3	31.1	2.3	16.72	10.85	4.377	5.136

Confidence Interval

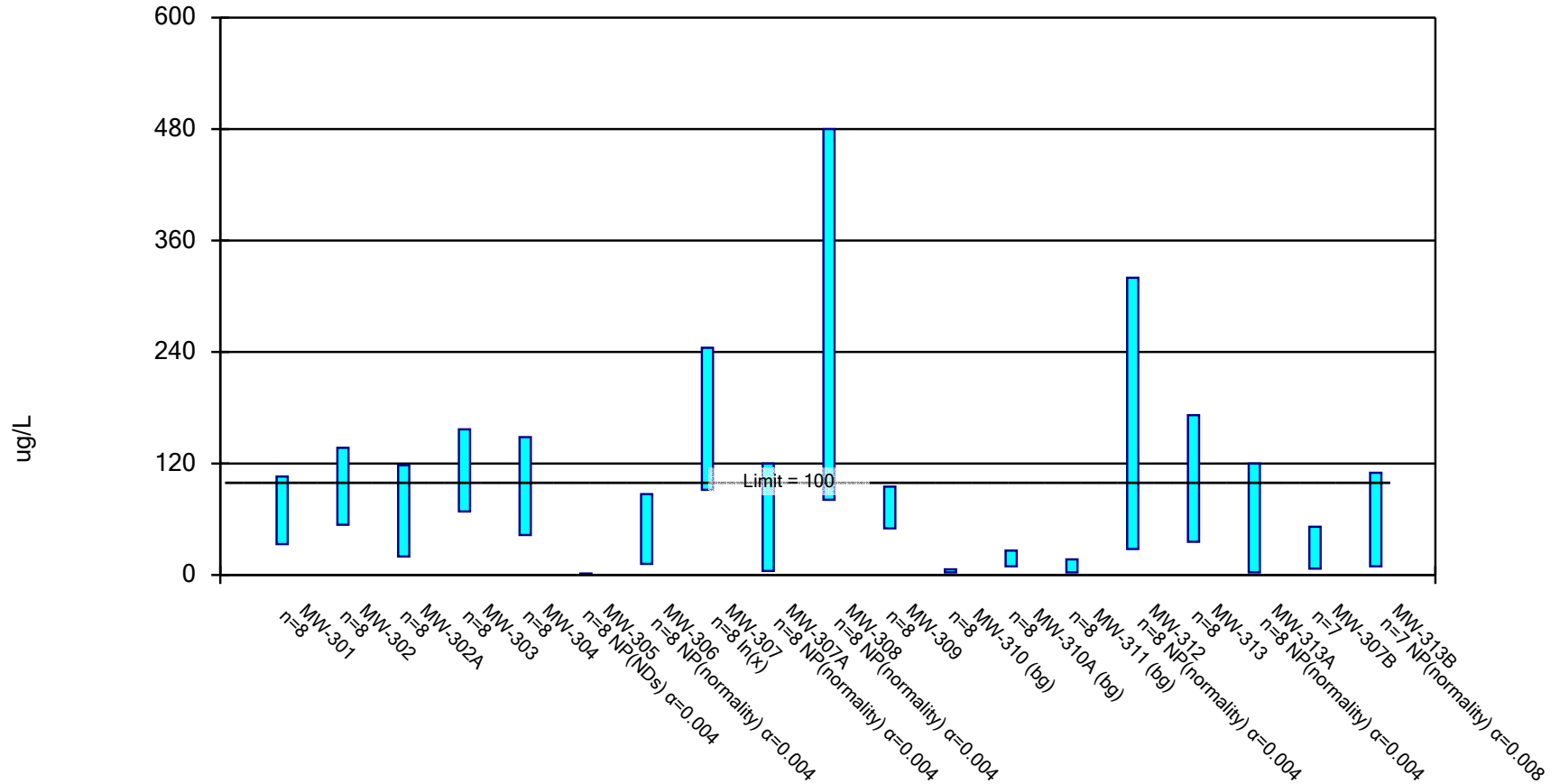
Constituent: Lithium (ug/L) Analysis Run 12/4/2023 10:24 AM View: Default
Burlington Generating Station Data: BGS_Export_201121_Rev

MW-313B

10/10/2019	
10/11/2019	
6/2/2020	
6/3/2020	
6/4/2020	
9/9/2020	
10/14/2020	
10/15/2020	
10/16/2020	
3/1/2021	
3/2/2021	
4/19/2021	
4/20/2021	
7/1/2021	18
10/11/2021	
10/12/2021	
10/13/2021	13
10/14/2021	
2/22/2022	13
4/4/2022	
4/5/2022	
4/6/2022	13
10/20/2022	14
4/24/2023	
4/25/2023	4.9 (J)
4/26/2023	
4/27/2023	
8/1/2023	
8/2/2023	5.1 (J)
8/3/2023	
Mean	11.57
Std. Dev.	4.826
Upper Lim.	17.3
Lower Lim.	5.839

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 12/4/2023 9:58 AM View: Default

Burlington Generating Station Data: BGS_Export_201121_Rev

Confidence Interval

Constituent: Molybdenum (ug/L) Analysis Run 12/4/2023 10:24 AM View: Default

Burlington Generating Station Data: BGS_Export_201121_Rev

	MW-301	MW-302	MW-302A	MW-303	MW-304	MW-305	MW-306	MW-307	MW-307A
6/12/2017									
4/4/2019									
10/10/2019	130	100		76	47				
10/11/2019						<1.1 (U)	84	130	
6/2/2020									
6/3/2020	110	140		66	45	<1.1 (U)			
6/4/2020							86	130	
9/9/2020									
10/14/2020									120
10/15/2020					140	1.1 (J)	82	140	
10/16/2020	67	130	110	84					
3/1/2021			87						
3/2/2021									120
4/19/2021	46	130	95	120	100		87		
4/20/2021						<1.3 (U)		140	120
7/1/2021									
10/11/2021							69	85	110
10/12/2021		91	93						
10/13/2021	47			120	59				
10/14/2021						<1.3 (U)			
2/22/2022									
4/4/2022									
4/5/2022		89	120	190	85		74	100	120
4/6/2022	55					<1.2 (U)			
10/20/2022			36						120
4/24/2023								320	4.3
4/25/2023									
4/26/2023	29	26	3.4	94	190	1.5 (J)			
4/27/2023							12		
8/1/2023		58	7.4	150	100	1.3 (J)		280	5.4
8/2/2023							71		
8/3/2023	73								
Mean	69.63	95.5	68.98	112.5	95.75	1.238	70.63	165.6	89.96
Std. Dev.	34.28	39.06	46.36	41.7	49.71	0.1408	24.68	85.83	52.65
Upper Lim.	106	136.9	118.1	156.7	148.4	1.5	87	244.6	120
Lower Lim.	33.29	54.1	19.84	68.3	43.06	1.1	12	91.64	4.3

Confidence Interval

Constituent: Molybdenum (ug/L) Analysis Run 12/4/2023 10:24 AM View: Default
 Burlington Generating Station Data: BGS_Export_201121_Rev

	MW-308	MW-309	MW-310 (bg)	MW-310A (bg)	MW-311 (bg)	MW-312	MW-313	MW-313A	MW-307B
6/12/2017			10 (X)						
4/4/2019			5.2						
10/10/2019	120					280			
10/11/2019		90	6		15				
6/2/2020			5.8		11				
6/3/2020		87				320	130		
6/4/2020	120								
9/9/2020				19					
10/14/2020	110	100	3.6		23				
10/15/2020						290	100	120	
10/16/2020				33					
3/1/2021								110	
3/2/2021									
4/19/2021		50	14 (X)		4.1	310	140	100	
4/20/2021	120			24					
7/1/2021									40
10/11/2021									25
10/12/2021	81	39	4.9		6.9				
10/13/2021							170	100	
10/14/2021				20		240			
2/22/2022									37
4/4/2022	100	62	5.2		8.9				
4/5/2022									59
4/6/2022				14		210	190	100	
10/20/2022				11			39	64	32
4/24/2023	480								7.5
4/25/2023							18	2.8	
4/26/2023						28			
4/27/2023		69	1.9 (J)	11	3.4				
8/1/2023	220					37	44		
8/2/2023		84						4.6	4.6
8/3/2023			2.7	10	5.6				
Mean	168.9	72.63	4.413	17.75	9.738	214.4	103.9	75.18	29.3
Std. Dev.	132.3	21.23	1.504	7.96	6.579	117.8	64.32	46.93	19
Upper Lim.	480	95.13	6.006	26.19	16.71	320	172.1	120	51.87
Lower Lim.	81	50.12	2.819	9.313	2.764	28	35.7	2.8	6.726

Confidence Interval

Constituent: Molybdenum (ug/L) Analysis Run 12/4/2023 10:25 AM View: Default
Burlington Generating Station Data: BGS_Export_201121_Rev

MW-313B

6/12/2017	
4/4/2019	
10/10/2019	
10/11/2019	
6/2/2020	
6/3/2020	
6/4/2020	
9/9/2020	
10/14/2020	
10/15/2020	
10/16/2020	
3/1/2021	
3/2/2021	
4/19/2021	
4/20/2021	
7/1/2021	100
10/11/2021	
10/12/2021	
10/13/2021	100
10/14/2021	
2/22/2022	89
4/4/2022	
4/5/2022	
4/6/2022	100
10/20/2022	110
4/24/2023	
4/25/2023	14
4/26/2023	
4/27/2023	
8/1/2023	
8/2/2023	9.3
8/3/2023	
Mean	74.61
Std. Dev.	43.46
Upper Lim.	110
Lower Lim.	9.3

Trend Test

Burlington Generating Station Data: BGS_Export_201121_Rev Printed 12/4/2023, 4:26 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (ug/L)	MW-301	0.8124	21	20	Yes	8	0	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-302	0.08429	11	20	No	8	0	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-303	0.1043	3	20	No	8	0	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-304	0.2782	17	20	No	8	50	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-305	0.08026	20	20	No	8	0	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-306	0.06828	19	20	No	8	75	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-307	0.07703	21	20	Yes	8	75	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-308	0.04678	17	20	No	8	75	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-309	0.04623	6	20	No	8	0	n/a	n/a	0.02	NP

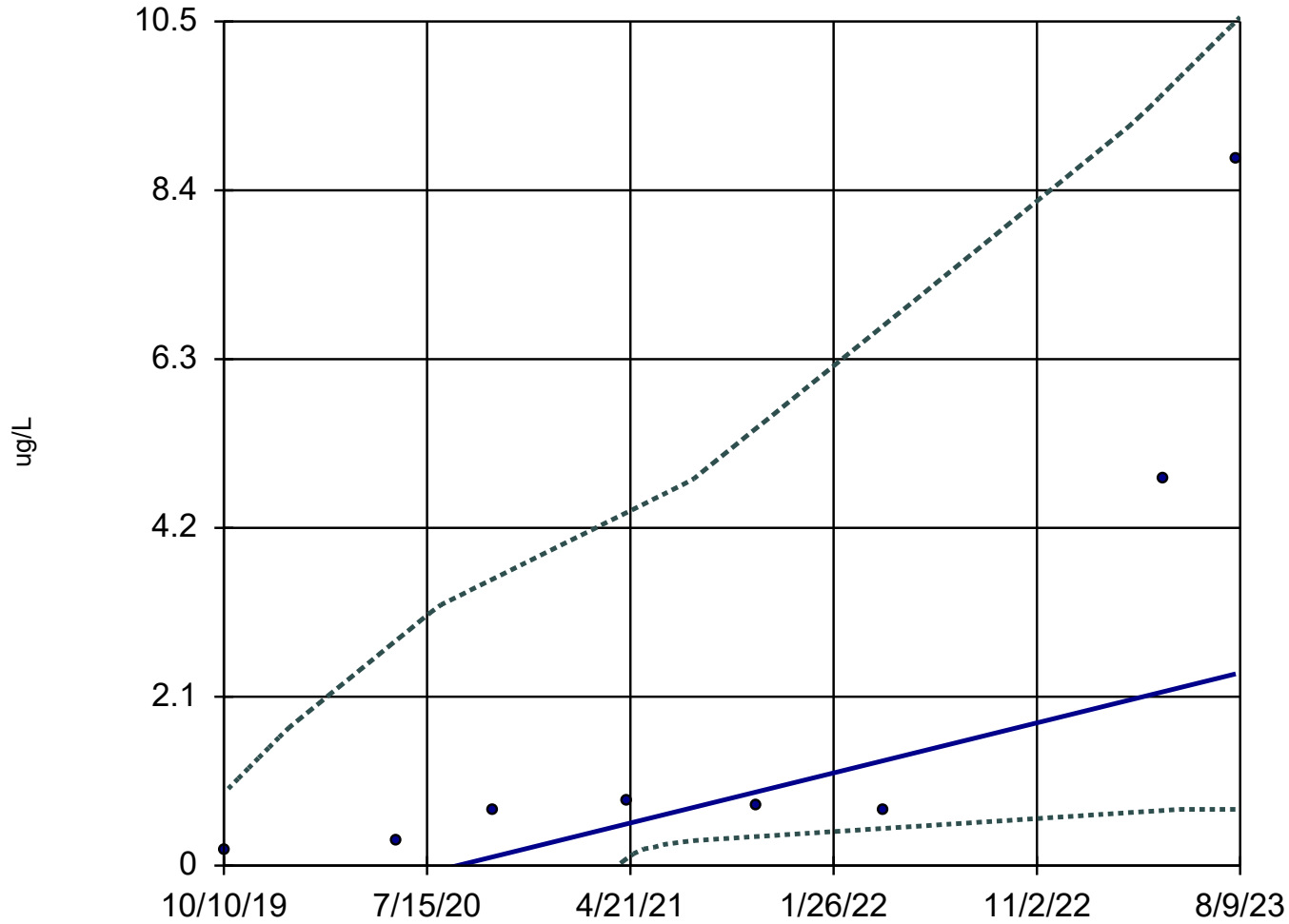
Trend Test

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev Printed 1/24/2024, 2:50 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (ug/L)	MW-301	0.8124	21	20	Yes	8	0	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-302	0.08429	11	20	No	8	0	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-304	0.2782	17	20	No	8	50	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-305	0.08026	20	20	No	8	0	n/a	n/a	0.02	NP

Sen's Slope and 98% Confidence Band

MW-301



n = 8
Slope = 0.8124 units per year.
Mann-Kendall statistic = 21
critical = 20
Increasing trend significant at 98% confidence level ($\alpha = 0.01$ per tail).

Constituent: Cobalt Analysis Run 1/24/2024 2:39 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Sen's Slope Estimator

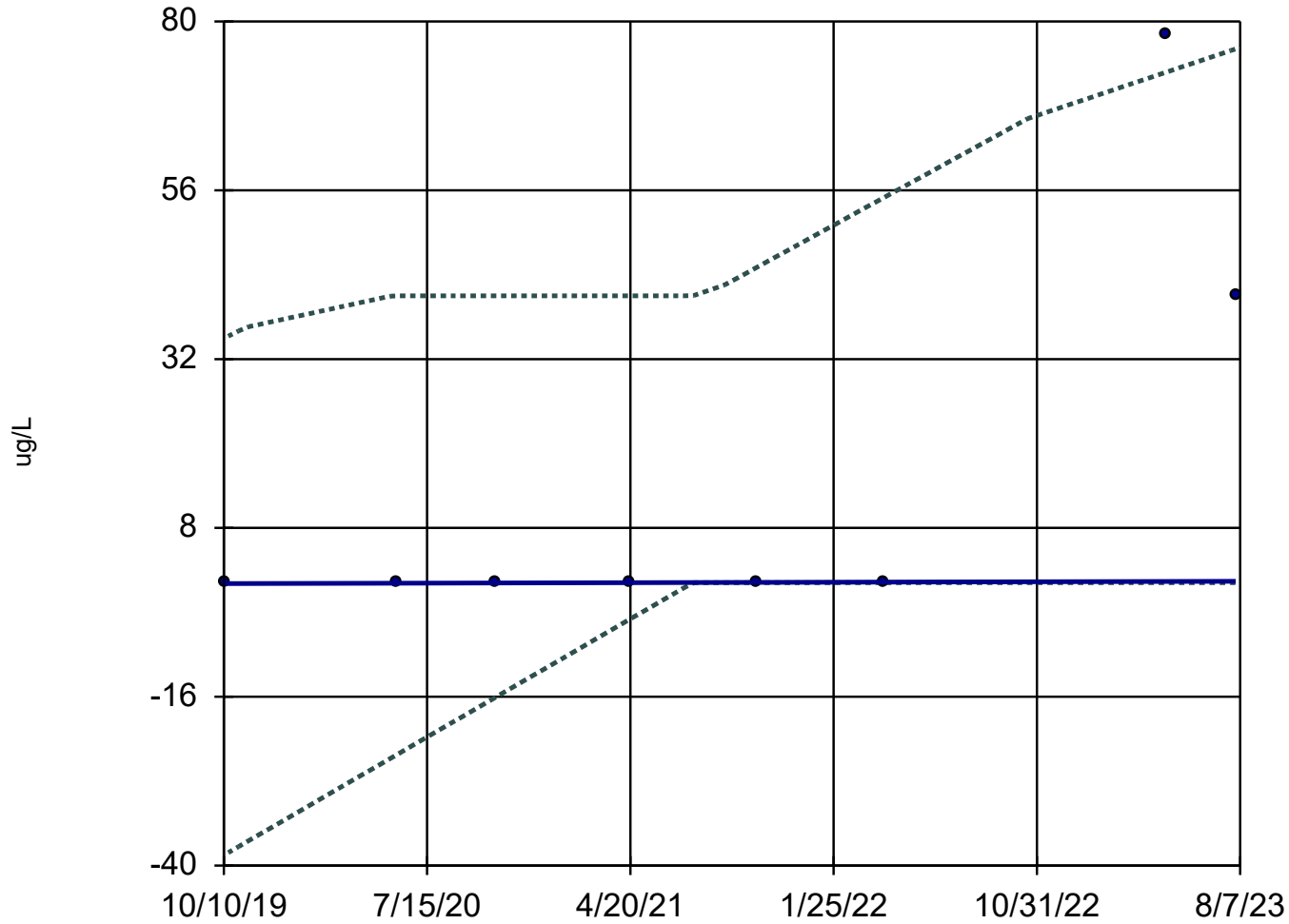
Constituent: Cobalt (ug/L) Analysis Run 1/24/2024 2:50 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-301	LCL	UCL
5/9/2018	0.15 (J)		
8/13/2018	0.45 (J)		
10/9/2018	0.1 (J)		
4/3/2019	0.44 (J)		
10/10/2019	0.18 (J)	-3.982	0.9035
6/3/2020	0.31 (J)	-2.24	2.8
10/16/2020	0.7	-1.25	3.574
4/19/2021	0.81	0.1087	4.405
10/13/2021	0.74	0.3617	5.449
4/6/2022	0.7	0.4632	6.726
4/26/2023	4.8	0.6867	9.614
8/3/2023	8.8	0.7	10.5

Sen's Slope and 98% Confidence Band

MW-302



n = 8
Slope = 0.08429
units per year.
Mann-Kendall
statistic = 11
critical = 20
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Cobalt Analysis Run 1/24/2024 2:39 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

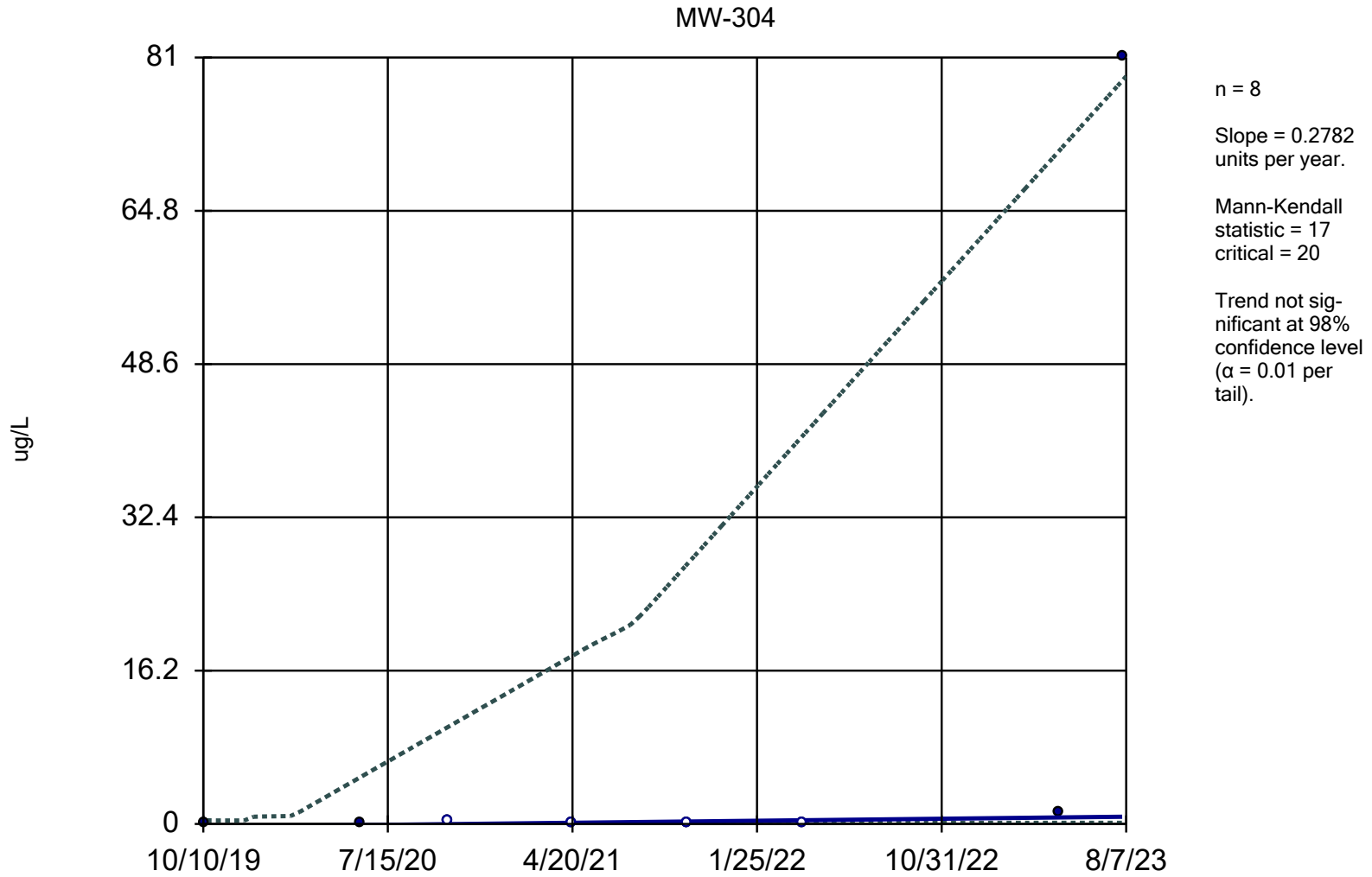
Sen's Slope Estimator

Constituent: Cobalt (ug/L) Analysis Run 1/24/2024 2:50 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-302	LCL	UCL
5/9/2018	0.19 (J)		
8/13/2018	0.15 (J)		
10/9/2018	0.18 (J)		
4/3/2019	0.19 (J)		
10/10/2019	0.23 (J)	-38.52	34.95
6/3/2020	0.21 (J)	-24.28	41
10/16/2020	0.26 (J)	-16.16	41
4/19/2021	0.21 (J)	-5.044	41
10/12/2021	0.27 (J)	0.21	45.06
4/5/2022	0.21 (J)	0.21	55
4/26/2023	78	0.21	72.73
8/1/2023	41	0.21	76.1

Sen's Slope and 98% Confidence Band



Constituent: Cobalt Analysis Run 1/24/2024 2:39 PM View: Default
Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Sen's Slope Estimator

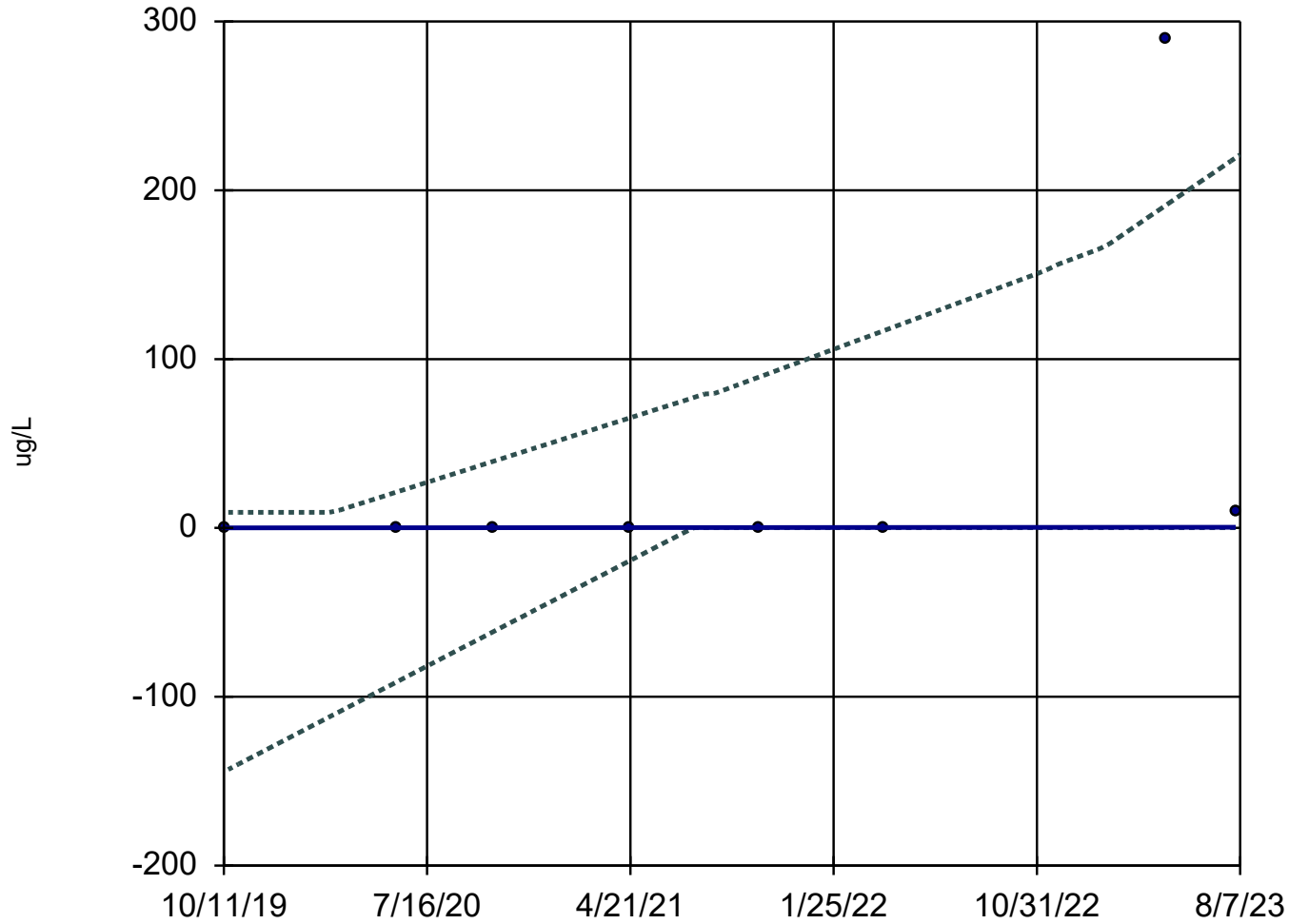
Constituent: Cobalt (ug/L) Analysis Run 1/24/2024 2:50 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-304	LCL	UCL
5/9/2018	0.098 (J)		
8/13/2018	<0.15 (U)		
10/10/2018	0.19 (J)		
4/3/2019	0.11 (J)		
10/10/2019	0.13 (J)	-44.36	0.3771
6/3/2020	0.15 (J)	-27.75	4.913
10/15/2020	<0.36	-18.37	10.27
4/19/2021	<0.091 (U)	-5.335	17.71
10/13/2021	<0.19 (U)	0.1284	27.57
4/5/2022	<0.19 (U)	0.1194	41.07
4/26/2023	1.3	0.1252	71.02
8/1/2023	81	0.1209	78.54

Sen's Slope and 98% Confidence Band

MW-305



n = 8
Slope = 0.08026 units per year.
Mann-Kendall statistic = 20
critical = 20
Trend not significant at 98% confidence level ($\alpha = 0.01$ per tail).

Constituent: Cobalt Analysis Run 1/24/2024 2:39 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

Sen's Slope Estimator

Constituent: Cobalt (ug/L) Analysis Run 1/24/2024 2:51 PM View: Default

Burlington Generating Station Client: SCS Engineers Data: BGS_Export_201121_Rev

	MW-305	LCL	UCL
5/9/2018	0.14 (J)		
8/13/2018	<0.15 (U)		
10/10/2018	0.17 (J)		
4/3/2019	0.16 (J)		
10/11/2019	0.13 (J)	-144.4	9.2
6/3/2020	0.18 (J)	-91.51	21.08
10/15/2020	0.15 (J)	-61.47	39.45
4/20/2021	0.14 (J)	-19.55	65.09
10/14/2021	0.21 (J)	0.1418	89.17
4/6/2022	0.22 (J)	0.1424	117.1
4/26/2023	290	0.145	190.8
8/1/2023	9.2	0.145	219.3