REPORT

Annual Coal Combustion Residuals Groundwater Monitoring and Corrective Action Report - 2025

Great River Energy, Stanton Station

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Program Summary

This report presents the results from groundwater monitoring and corrective action events that occurred at Great River Energy's Stanton Station in 2025 to meet the requirements of the United States Environmental Protection Agency's Coal Combustion Residuals rule (40 Code of Federal Regulations 257.90 through 257.98) and the North Dakota Department of Environmental Quality's Coal Combustion Residuals rule (North Dakota Administrative Code 33.1-20-08).

The Bottom Ash Landfill entered 2025 in assessment monitoring under a corrective measures program. Samples were collected in the first quarter (Q1), second quarter (Q2), and fourth quarter (Q4) of 2025. The Bottom Ash Landfill remains in assessment monitoring at the end of 2025. An evaluation of corrective measures is ongoing.

The Bottom Ash Impoundment entered 2025 in assessment monitoring. Samples were collected in Q1, Q2, and Q4 of 2025. An assessment of corrective measures report was completed in September 2025 for the Bottom Ash Impoundment. The Bottom Ash Impoundment remains in assessment monitoring at the end of 2025. An evaluation of corrective measures is ongoing.

Detection Monitoring Summary

Comparative statistics for detection monitoring samples collected in Q4 2024 and Q2 2025 were completed in 2025. Identified statistically significant increases (SSIs) are summarized in the table below. Comparative statistics for the Q4 2024 detection monitoring sampling event will be completed within 90 days of receipt of the final analytical results in Q1 2025.

Table PS-1: Summarized Statistically Significant Increases

Unit	Well	Location	Parameter	Q4 2024 Statistical Event	Q2 2025 Statistical Event
Background	MW-6B	Side-gradient	Chloride	Ongoing Verified SSI	No Sample – Assumed Ongoing Verified SSI
	MW-7A	Upgradient	Field-Measured pH	Within compliance	Potential Exceedance – False Positive
			Total Dissolved Solids	Potential Exceedance – New SSI	Ongoing Verified SSI
	MW-7B	Upgradient	Chloride	Ongoing Verified SSI	No Sample – Assumed Ongoing Verified SSI
Bottom Ash Landfill	MW-9N	Downgradient	Calcium	Ongoing Verified SSI	Ongoing Verified SSI
			Chloride	Ongoing Verified SSI	No Sample – Assumed Ongoing Verified SSI
			Fluoride	Ongoing Verified SSI	Ongoing Verified SSI
			Field-Measured pH	Ongoing Verified SSI	Ongoing Verified SSI

Unit	Well	Location	Parameter	Q4 2024 Statistical Event	Q2 2025 Statistical Event
			Total Dissolved Solids	Ongoing Verified SSI	Ongoing Verified SSI
	MW-102	Downgradient	Field-Measured pH	Ongoing Verified SSI	Ongoing Verified SSI
	MW-103	Downgradient	Boron	Ongoing Verified SSI	Ongoing Verified SSI
			Calcium	Ongoing Verified SSI	Ongoing Verified SSI
			Chloride	Ongoing Verified SSI	No Sample – Assumed Ongoing Verified SSI
			Fluoride	Ongoing Verified SSI	Ongoing Verified SSI
			Field-Measured pH	Ongoing Verified SSI	Ongoing Verified SSI
			Sulfate	Ongoing Verified SSI	Ongoing Verified SSI
			Total Dissolved Solids	Ongoing Verified SSI	Ongoing Verified SSI
Bottom Ash Impoundment	MW-202	Downgradient	Boron	Potential Exceedance – False Positive	Within compliance
			Sulfate	Potential Exceedance – False Positive	Within compliance
	MW-203	Downgradient	Boron	Ongoing Verified SSI	Ongoing Verified SSI
			Sulfate	Ongoing Verified SSI	Ongoing Verified SSI
			Total Dissolved Solids	Ongoing Verified SSI	Ongoing Verified SSI

Assessment Monitoring Summary

Comparative statistics following the Q4 2024, Q1 2025, and Q2 2025 assessment monitoring sampling events for the Bottom Ash Landfill were completed in 2025. No new statistically significant levels (SSLs) were detected in 2025. Arsenic was detected at an SSL above the groundwater protection standard (GWPS) at MW-103 for the Q4 2024, Q1 2025, and Q2 2025 assessment monitoring comparative statistical events. Comparative statistics following the Q4 2025 assessment monitoring sampling event will be completed within 90 days of receipt of the final analytical results (Q1 2026).

Comparative statistics following the Q4 2024, Q1 2025, and Q2 2025 assessment monitoring sampling events for the Bottom Ash Impoundment were completed in 2025. Molybdenum was detected at an SSL above the GWPS at MW-201 for the Q4 2024, Q1 2025, and Q2 2025 assessment monitoring comparative statistical events. An arsenic SSL above the GWPS was detected at MW-203 for the Q1 2025 and Q2 2025 assessment monitoring comparative statistical events. Comparative statistics following the Q4 2025 assessment monitoring sampling event will be completed within 90 days of receipt of the final analytical results (Q1 2026).

Assessment of Corrective Measures – Bottom Ash Landfill

An assessment of corrective measures in response to the arsenic SSL at the Bottom Ash Landfill was initiated in June 2022 and completed in November 2022. The evaluation of corrective measures continued throughout 2025 with a public meeting and remedy selection not yet completed, and remedial actions not yet initiated. The following key efforts were completed in 2025:

- A sampling and analysis plan was prepared for collecting groundwater and soil samples for a bench-scale study for chemical injection (WSP 2025b).
- Samples were collected for a second phase bench-scale study for chemical injection downgradient of the Bottom Ash Landfill in June 2025.
- A semi-annual report describing progress in remedy selection was completed in July 2024 (WSP 2025c).
- Preliminary results of the Phase 2 bench-scale study for chemical injection were received.
- Progress was discussed with the NDDEQ during a meeting in October 2025.

Evaluation of corrective measures will continue in 2026. The following activities are planned for the next 6 months:

- A public meeting is scheduled in February 2026 to discuss the results of the assessment of corrective measures.
- After considering feedback from the NDDEQ and received during the public meeting, a remedy selection report will be submitted to the NDDEQ for review and approval.
- Continue to evaluate the extent of the arsenic plume downgradient of the Bottom Ash Landfill and evaluation of options addressing turbidity issues in the nature and extent wells.

Assessment of Corrective Measures – Bottom Ash Impoundment

An assessment of corrective measures to address the molybdenum and arsenic SSLs at the Bottom Ash Impoundment was initiated in June 2025 and completed in September 2025. The evaluation of corrective measures continued throughout 2025 with a public meeting and remedy selection not yet completed, and remedial actions not yet initiated.

Evaluation of corrective measures will continue in 2026 with the following activities planned in the next 6 months prior to the next semi-annual report.

- Additional delineation of the molybdenum and arsenic plumes at the Bottom Ash Impoundment.
- Planning for additional nature and extent wells as needed.
- Review of ongoing soils analysis.
- A Tier I MNA evaluation will be completed.

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1.0 INTRODUCTION

WSP USA Inc. (WSP) has prepared this report of the 2025 groundwater sampling and comparative statistical analysis and corrective actions for Great River Energy's (GRE) Stanton Station to meet the requirements of:

- The United States Environmental Protection Agency's (USEPA) Coal Combustion Residuals (CCR) rule (40 Code of Federal Regulations [CFR] 257.90 through 257.98), hereafter referred to as the Federal CCR rule
- The North Dakota Department of Environmental Quality's (NDDEQ) CCR rule (North Dakota Administrative Code [NDAC] 33.1-20-08), hereafter referred to as the State CCR rule
- NDDEQ Permit Number 0043 in accordance with NDAC Article 33.1-20, Solid Waste Management and Land Protection
- The current site *Groundwater Monitoring Plan* (GMP; GAI 2019a)
- The current *Coal Combustion Residuals Groundwater Monitoring System Certification* (GAI 2020)
- The current *Coal Combustion Residuals Groundwater Statistical Method Certification* (GAUSA 2021a)

1.1 Purpose

The Federal CCR rule established specific requirements for reporting groundwater monitoring and corrective actions in 40 CFR 257.90 to 40 CFR 257.98. In accordance with Part (e) of 40 CFR 257.90, owners and operators of CCR landfills and surface impoundments that received CCR waste on or after October 17, 2015, must prepare a groundwater monitoring and corrective action report annually.

NDAC Chapter 33.1-20-08-06 established North Dakota-specific requirements for groundwater monitoring and corrective action reporting, which mirror the reporting requirements of the Federal CCR rule (Part (e) of NDAC 33.1-20-08-06.1).

1.2 Site Background

Stanton Station was a coal-fired electric generation facility located along the Missouri River in Mercer County, approximately 3 miles southeast of Stanton, North Dakota. Stanton Station began generating power in 1966 and CCRs were managed in composite-lined surface water impoundment cells and dry waste units regulated and permitted by the NDDEQ. Stanton Station ceased power production in February 2017, demolition of the industrial site was finished in 2019, and site restoration completed in 2020.

Stanton Station has two CCR units covered by the Federal and State CCR rules:

- Bottom Ash CCR Landfill (Bottom Ash Landfill)
- Bottom Ash CCR Surface Impoundment (Bottom Ash Impoundment)

Locations of the CCR units and groundwater monitoring wells are shown in Figure 1 through Figure 3.

1.3 Site Closure and Restoration

CCR unit closure and site restoration activities began in 2019 and were completed in the summer of 2020. Activities included closure of the Bottom Ash Landfill and Bottom Ash Impoundment and regrading the former industrial site to promote stormwater drainage and vegetative growth.

The north and center cells of the Bottom Ash Impoundment were closed by removal of CCR and liner systems in the fall of 2019. Bottom ash in the north and center cells along with the geomembrane liner and clayey soils underlying the geomembrane liner were excavated and placed either in the south cell of the Bottom Ash Impoundment or the Bottom Ash Landfill. The south cell of the Bottom Ash Impoundment was closed with permitted wastes remaining in place and in accordance with the final cover design outlined in the *Closure and Post-closure Plan* (GAI 2019b).

The Bottom Ash Landfill was closed by consolidating the landfill footprint, then closing with permitted wastes remaining in place and in accordance with the final cover design outlined in the *Closure and Post-closure Plan* (GAI 2019c). This included removing CCR and soil from the west end of the permitted footprint and placing the removed materials on the east end where disposal had historically occurred. A new soil berm was also constructed along the new west edge of CCR placement.

As part of the power plant demolition, bottom ash and economizer ash from the plant and construction and demolition material from plant demolition activities, as well as coal and coal yard soil, were placed in the Bottom Ash Landfill or the south cell of the Bottom Ash Impoundment, as approved through the NDDEQ state permit program.

2.0 GROUNDWATER MONITORING NETWORK PROGRAM STATUS

Prior to second quarter (Q2) 2019, the CCR groundwater monitoring system at Stanton Station consisted of a total of 12 monitoring locations (five background and seven downgradient wells). During site restoration, two monitoring wells were abandoned downgradient of the Bottom Ash Landfill as part of construction, leading to an interim period in 2019 and 2020 where the network consisted of five background and five downgradient wells. Following completion of site restoration in 2020, three additional downgradient monitoring wells were installed. The current monitoring locations are shown in Figure 1 through Figure 3 and listed in Table 1. Additional information on the groundwater monitoring system can be found in the *Coal Combustion Residuals Groundwater System Certification* (Rev. 1, GAI 2020). Each CCR unit is currently part of a monitoring network with at least one upgradient and three downgradient wells.

The groundwater monitoring system at Stanton Station is currently divided as follows:

- The background monitoring wells are located south and west of the CCR units. Based on groundwater elevations, groundwater flow directions, and the distance from the CCR units (see Figure 1 through Figure 3), the background wells are not expected to have been influenced by past or current CCR deposition. There are four upgradient monitoring wells (MW-7A, MW-7B, MW-8B, and MW-105) and one side-gradient monitoring well (MW-6B) shared between the CCR units.
- The Bottom Ash Landfill has three downgradient monitoring wells (MW-102, MW-9N, and MW-103).
- The Bottom Ash Impoundment has three downgradient monitoring wells (MW-201, MW-202, and MW-203).
    - MW-1R and MW-104 were removed from the monitoring network for the Bottom Ash Impoundment in June 2023 with the approval of NDDEQ (NDDEQ 2023a), due to the distance of the wells from the current unit boundary. While the wells have been removed from the monitoring network, they have been retained to provide additional downgradient information. MW-1R and MW-104 were sampled throughout 2025.

In addition to the monitoring networks, additional wells have previously been installed in support of the nature and extent investigation both upgradient and downgradient of the Bottom Ash Landfill, as well as at the downgradient property boundary (WSP 2023a, WSP 2024a). Additional locations have also been installed in 2025 in support of the nature and extent investigation downgradient of the Bottom Ash Impoundment (see Section 2.2). These wells were installed to meet the requirements of 40 CFR 257.95(g)(1)(i) and (g)(1)(iii) and NDAC 33.1-20-08-06(5)(g)(1)(a) and (5)(g)(1)(c). Names and locations of the additional wells are shown in Figure 1 through Figure 3 and listed in Table 1. These additional wells have not been included in the monitoring network for detection and assessment statistical monitoring. Samples from the additional wells are primarily intended for plume delineation associated with the assessment monitoring program at the Bottom Ash Landfill but may also be used in evaluating corrective measures. Statistical analysis is not performed for these wells.

2.1 Completed Key Actions in 2025

The following key actions were completed in 2025:

- The 2024 annual CCR groundwater monitoring and corrective action report was completed and placed in the operating record and on the publicly accessible CCR website (WSP 2025a).
- Comparative statistical analysis was completed for the November (fourth quarter [Q4]) 2024 detection monitoring samples for the network wells within 90 days of receipt of the final analytical results.
    - Resamples were collected in March 2025 for the parameters identified as potential exceedances for the Q4 detection monitoring statistics during a monitoring event separate from the regularly scheduled detection monitoring samples.
- Comparative statistical analysis was completed for the November (Q4) 2024 assessment monitoring samples for the Bottom Ash Landfill downgradient network wells within 90 days of receipt of final analytical results.
- Comparative statistical analysis was completed for the Q4 2024 assessment monitoring samples for the Bottom Ash Impoundment downgradient network wells within 90 days of receipt of final analytical results. Molybdenum at monitoring well MW-201 was identified at a statistically significant level (SSL) above the site GWPS following the Q4 2024 event.
- Following the molybdenum SSL identification at MW-201, GRE initiated an assessment of corrective measures at the Bottom Ash Impoundment. GRE posted a notification regarding the initiation of an assessment of corrective measures for the Bottom Ash Impoundment on the publicly accessible website and provided a copy to the NDDEQ.
- Assessment monitoring samples were collected in March (first quarter [Q1]) 2025, June (Q2) 2025, and November (Q4) 2025 for the background locations, the Bottom Ash Landfill downgradient wells, the Bottom Ash Landfill nature and extent wells, the property boundary locations, and the Bottom Ash Impoundment downgradient wells. Samples collected for assessment monitoring were analyzed for the assessment monitoring constituent list in the Federal and State CCR rules.
- Comparative statistical analysis was completed for the Q1 2025 and Q2 2025 assessment monitoring samples from the Bottom Ash Landfill and the Bottom Ash Impoundment downgradient network wells within 90 days of receipt of the final analytical results. Arsenic at monitoring well MW-203 was identified at an SSL above the site GWPS following the Q1 2025 event.

- Detection monitoring samples were collected in June (Q2) 2025 and November (Q4) 2025 for the background locations, the Bottom Ash Landfill downgradient wells, the Bottom Ash Landfill nature and extent wells, the property boundary locations, and the Bottom Ash Impoundment downgradient wells. Samples collected for detection monitoring were analyzed for the detection monitoring constituent list associated with the Federal and State CCR rules.
- Comparative statistical analysis was completed for the June (Q2) 2025 detection monitoring samples from the network wells within 90 days of receipt of the final analytical results.
    - Resamples were collected for the parameters identified as potential exceedances for the Q2 detection monitoring statistics during a monitoring event separate from the regularly scheduled detection monitoring samples in October 2025.
- An investigation to mitigate excess turbidity identified in samples collected from the Bottom Ash Landfill nature and extent wells and the property boundary locations was conducted throughout 2025.
- A sampling and analysis plan was prepared for collecting groundwater and soil samples for a bench-scale study for chemical injection as a possible corrective measure for the Bottom Ash Landfill (WSP 2025b).
- Samples were collected for additional bench-scale testing for chemical injection downgradient of the Bottom Ash Landfill as a potential corrective measure in June 2025.
- Following identification of the SSLs at MW-201 and MW-203, monitoring wells were drilled and installed downgradient of the Bottom Ash Impoundment to meet the requirements of 40 CFR 257.95(g)(1)(i) and NDAC 33.1-20-08-06(5)(g)(1)(a). Section 2.2 includes a discussion of the installed wells.
- Geochemical and mineralogical testing was performed on samples collected from the nature and extents wells installed downgradient of the Bottom Ash Impoundment.
- A semi-annual corrective measures report was completed in July 2025 for the Bottom Ash Landfill (WSP 2025c).
- Additional geochemical modeling was completed to support evaluation of chemical injection as a possible corrective measure for the Bottom Ash Landfill.
- The second phase of the bench-scale study for chemical injection as a potential corrective measure for the Bottom Ash Landfill was completed using samples collected in June 2025.
- A meeting was held with the NDDEQ to discuss the assessment of corrective measures for the Bottom Ash Landfill.
- An assessment of corrective measures was completed for the Bottom Ash Impoundment in September 2025 (WSP 2025d) and provided to the NDDEQ for review.
- Samples were collected in September (third quarter [Q3]) and November (Q4) 2025 from the wells installed in 2025 and analyzed for the detection monitoring and assessment monitoring parameter lists.

2.2 Installation and Decommissioning of Wells

Eight monitoring wells were installed at Stanton Station in June 2025 to characterize the nature and extent of arsenic and molybdenum downgradient of the Bottom Ash Impoundment, per the requirements of 40 CFR 257.93(g)(1)(i) and NDAC 33.1-20-08-06(5)(g)(1)a). The nature and extent wells are divided as follows:

- Four monitoring wells (MW-223, MW-224, MW-225, and MW-226) to the north and northeast of the Bottom Ash Impoundment near MW-201, to characterize molybdenum downgradient of the Bottom Ash Impoundment.
- One deeper well for characterization of the site bedrock (MW-230) adjacent to MW-201.
- Three monitoring wells (MW-227, MW-228, and MW-229) to the east of the Bottom Ash Impoundment near MW-203, to characterize arsenic downgradient of the Bottom Ash Impoundment.

Additionally, a monitoring well was installed at the downgradient property boundary adjacent to the Missouri River in the direction of groundwater flow to meet the requirements of 40 CFR 257.95(g)(1)(iii) and NDAC 33.1-20-08-06(5)(g)(1)(iii). MW-PB1R was installed adjacent to existing well MW-PB1 at a deeper depth, based on observed low water levels within MW-PB1.

Information regarding the wells installed in 2025 is included in Appendix A.

No wells were decommissioned from the Stanton Station CCR monitoring well networks in 2025.

2.3 Problems and Resolutions

There were no significant issues during the sampling and analysis conducted in 2025. The minor problems identified throughout 2025 and the associated resolutions are discussed in the following subsections.

2.3.1 Q4 2024 Resampling Event

During collection of the resamples required for completion of the Q4 2024 statistical analysis, samples were collected from MW-201 on two separate dates (March 19 and March 21, 2025), due to an oversight during sampling on March 19 that resulted in the required sample bottles for the resample parameters not being filled. Results are considered acceptable.

No further issues were encountered with the sampling or analysis of the Q4 2024 resampling event.

2.3.2 Q1 2025 Sampling Event

Samples for the Q1 2025 monitoring event were collected by field staff from Minnesota Valley Testing Laboratories (MVTL). No issues were encountered during the sampling of the background and downgradient network wells associated with the Bottom Ash Landfill and Bottom Ash Impoundment.

Chemical analysis was conducted at the MVTL location in Bismarck, North Dakota, with radiochemical analysis subcontracted to Energy Laboratories, Inc. (ELI) in Casper, Wyoming. Metals on the assessment monitoring parameter list were analyzed as total metals for CCR reporting purposes.

Q1 2025 results for MW-7A (upgradient) for the following parameters were noted in the laboratory analytical narrative as having recovery of the internal standard outside of acceptance limits, resulting in the associated sample results being reported as non-detects with elevated reporting limits:

- Antimony, elevated reporting limit equals 0.002 milligrams per liter (mg/L), typical reporting limit equals 0.001 mg/L
- Arsenic, elevated reporting limit equals 0.008 mg/L, typical reporting limit equals 0.002 mg/L
- Cadmium, elevated reporting limit equals 0.001 mg/L, typical reporting limit equals 0.0005 mg/L
- Chromium, elevated reporting limit equals 0.008 mg/L, typical reporting limit equals 0.002 mg/L
- Cobalt, elevated reporting limit equals 0.008 mg/L, typical reporting limit equals 0.002 mg/L
- Selenium, elevated reporting limit equals 0.02 mg/L, typical reporting limit equals 0.005 mg/L

Additionally, molybdenum was reported with the same note within the laboratory narrative, with an accompanying elevated reporting limit, but with a detected result. While not reflective of the typical reporting limits, the elevated reporting limits for the Q1 2025 event are similar to other previously reported results with elevated reporting limits for MW-7A. Further, the results are considered appropriate for reporting of the Q1 2025 results based on the associated quality control information provided by the laboratory.

No further issues were encountered with the analysis of the Q1 2025 sampling event.

2.3.3 Q2 2025 Sampling Event

Samples for the Q2 2025 monitoring event were collected by field staff from MVTL. No issues were encountered during the sampling of the background and downgradient network wells associated with the Bottom Ash Landfill and Bottom Ash Impoundment.

Chemical analysis was conducted at the MVTL location in Bismarck, North Dakota, with radiochemical analysis subcontracted to ELI in Casper, Wyoming. Metals on the assessment monitoring parameter list were analyzed as total metals for CCR reporting purposes.

During the Q2 2025 detection monitoring sampling event, chloride was mistakenly not included in the analysis of the collected samples for the CCR facilities (background and downgradient network wells associated with the Bottom Ash Landfill and Bottom Ash Impoundment, along with accompanying non-program locations). Although chloride was included in the required parameter list provided to the sampler and analytical laboratory (MVTL), an oversight during check-in of the samples at the analytical laboratory resulted in the parameter not being analyzed. This oversight was not initially identified during data review following receipt of the analytical results, preventing analysis of the missing parameter prior to disposal of the remaining sample volume.

Great River Energy did not pursue collection of new samples for chloride for the Q2 2025 event for two reasons. First, based on the timing of the identification of the issue, collection of make-up samples for chloride would not provide additional information regarding the Q2 2025 groundwater conditions. Second, based on the status of the monitoring program (in assessment of corrective measures for both the Bottom Ash Landfill and Bottom Ash Impoundment), the results of the chloride analysis will not change the current program status for the impacted units. To prevent similar issues in the future, MVTL has made an adjustment to the site-specific check-in list for future samples.

Q2 2025 results for MW-7A (upgradient) for the following parameters were noted in the laboratory analytical narrative as having recovery of the internal standard outside of acceptance limits, resulting in the associated sample results being reported as non-detects with elevated limits:

- Antimony, elevated reporting limit equals 0.004 mg/L, typical reporting limit equals 0.001 mg/L
- Arsenic, elevated reporting limit equals 0.004 mg/L, typical reporting limit equals 0.002 mg/L
- Cadmium, elevated reporting limit equals 0.002 mg/L, typical reporting limit equals 0.0005 mg/L
- Chromium, elevated reporting limit equals 0.004 mg/L, typical reporting limit equals 0.002 mg/L
- Cobalt, elevated reporting limit equals 0.004 mg/L, typical reporting limit equals 0.002 mg/L
- Lead, elevated reporting limit equals 0.001 mg/L, typical reporting limit equals 0.0005 mg/L
- Selenium, elevated reporting limit equals 0.01 mg/L, typical reporting limit equals 0.005 mg/L
- Thallium, elevated reporting limit equals 0.001 mg/L, typical reporting limit equals 0.0005 mg/L

While not reflective of the typical reporting limits, the elevated reporting limits for the Q2 2025 event are similar to other previously reported results with elevated reporting limits for MW-7A for most parameters. The Q2 2025 elevated reporting limits for antimony and cadmium at MW-7A are higher than previously reported reporting limits but remain well below the established groundwater protection standards for the site. Further the results are considered appropriate for reporting of the current results based on the associated quality control information provided by the laboratory.

No further issues were encountered with the analysis during the Q2 2025 sampling event.

2.3.4 Q3 2025 Sampling Event

During the initial sampling in Q3 2025 of the Bottom Ash Impoundment nature and extent wells that were installed in June 2025, wells MW-224, MW-227, and MW-229 had insufficient recharge during sampling to allow for collection of a complete set of sample bottles for the detection monitoring and assessment monitoring sampling lists. Samples were not collected for radiochemical analysis from each of the three monitoring locations. Water levels will continue to be monitored at the wells and complete samples collected when sufficient recharge is available.

Additionally, the laboratory noted that one of the collected bottles for the MW-227 sample varied in color from the remainder of the sample set. The laboratory narrative indicates that this change may have been a result of a change within the well during sampling. Changes within the water quality are likely to have been a result of the significant drawdown and minimal recharge at the well over the course of sampling. Results were discussed with the laboratory prior to receipt. As the first set of samples from the well with no other points of comparison, the results are considered acceptable but may be flagged as outliers following additional sample collection.

Due to a misunderstanding with the analytical laboratory, additional samples were collected in Q3 2025 for MW-8B (U) and MW-201 for field parameters and total dissolved solids. These samples have been reported but have not been analyzed statistically as they were not required by any program.

No further issues were encountered with either the sample collection or analysis during the Q3 2025 sampling event that required resolution.

2.3.5 Q2 2025 Resampling Event

No issues were encountered with the sampling or analysis of the Q2 2025 resampling event that required resolution.

2.3.6 Q4 2025 Sampling Event

During the Q4 2025 sampling event, the dedicated pump at well MW-1R was removed and re-installed due to the check valve ball becoming stuck.

During the Q4 2025 sampling of the Bottom Ash Impoundment nature and extent wells that were installed in June 2025, wells MW-224, MW-225, MW-227, MW-228, and MW-229 had insufficient recharge during sampling to allow for collection of a complete set of sample bottles for the detection monitoring and assessment monitoring sampling lists. Based on the available recharge, samples were not collected for radiochemical analysis from MW-224, MW-225, MW-228, and MW-229. At MW-227, a partial sample (less than the required 1-gallons sample volume) was collected for analysis. Water levels will continue to be monitored at the wells and complete samples collected when sufficient recharge is available.

No further issues were encountered with either the sample collection or analysis during the Q4 2025 sampling event that required resolution.

2.4 Key Activities for 2026

The following key groundwater monitoring activities are planned for 2026:

- The 2025 annual CCR groundwater monitoring and corrective action report (i.e., this report) will be completed and placed in the operating record and on the publicly accessible CCR website. This report will also be provided to the NDDEQ for review and approval.
- Comparative statistical analysis for the Q4 2025 detection monitoring samples from network wells will be completed within 90 days of receipt of the final analytical results.
- Comparative statistical analysis for the Q4 2025 assessment monitoring samples from network wells will be completed within 90 days of receipt of the final analytical results.
- Detection monitoring sampling events consisting of the detection monitoring parameters will occur semi-annually in 2026 in Q2 and Q4, Comparative statistical analysis for the collected detection monitoring samples from network wells will be completed within 90 days of receipt of the final analytical results.
- Assessment monitoring sampling events, consisting of a minimum of three events (one annual sampling event during Q1 2026 for the complete assessment monitoring sampling list and at least two additional sampling events [Q2 and Q4 2026] consisting of the detected assessment monitoring parameters), will occur for the background wells (upgradient and side-gradient), downgradient Bottom Ash Landfill wells, nature and extent wells associated with the Bottom Ash Landfill, the downgradient Bottom Ash Impoundment wells, and the nature and extent wells associated with the Bottom Ash Impoundment. Comparative statistical analysis for the downgradient network wells will be completed within 90 days of receipt of the final analytical results.
- Semi-annual reports detailing progress towards remedy selection under the assessment of corrective measures for the Bottom Ash Landfill and the Bottom Ash Impoundment will be completed by January 31, 2026 (this report) and July 31, 2026.

3.0 GROUNDWATER MONITORING ANALYTICAL PROGRAM STATUS

Analytical activities associated with the groundwater monitoring program are described in the following sections.

3.1 Collected Samples

Throughout 2025, samples were collected by field staff from MVTL. Precise dates for the collection of each sample can be found in the tables included in Appendix B.

- Confirmatory resamples associated with the Q4 2024 detection monitoring statistical analysis were collected in March 2025 during a monitoring event separate from the regularly scheduled detection monitoring samples.
- Detection monitoring samples were collected from the background locations, the Bottom Ash Landfill downgradient wells, and the Bottom Ash Impoundment downgradient wells in June (Q2) and November (Q4) 2025.
- Confirmatory resamples associated with the Q2 2025 detection monitoring statistical analysis were collected in October 2025 during a monitoring event separate from the regularly scheduled detection monitoring samples.
- Assessment monitoring samples were collected from the background locations, the Bottom Ash Landfill downgradient wells, the Bottom Ash Landfill nature and extent wells, the property boundary locations, and the Bottom Ash Impoundment downgradient wells in March (Q1), June (Q2), and November (Q4) 2025.
- Following installation of the Bottom Ash Impoundment nature and extent wells, samples were collected in September (Q3) and November (Q4) 2025.

Samples were collected using low-flow methodology. The sampling procedures and field-testing methods are in accordance with USEPA-accepted procedures and the site groundwater monitoring plan (GAI 2019a).

3.1.1 Groundwater Elevation and Flow Rate

Depths to groundwater were measured at sampled wells during each sampling event prior to purging. Groundwater elevations can be found in Appendix B. Groundwater elevations from the Q1 2025, Q2 2025, and Q4 2025 monitoring events are shown in Figure 1 through Figure 3. The groundwater elevations in the uppermost groundwater at the Stanton Station CCR facilities are consistent with historical values and demonstrate that groundwater generally flows to the north and northeast towards the Missouri River.

The groundwater flow rate across each facility was estimated with the equation:

$$V_s = k \times {}^{i}/_{n_e}$$

where:

V_s = the groundwater flow rate in feet per day (ft/day)
k = the hydraulic conductivity in ft/day, estimated from slug testing results from system wells
i = the hydraulic gradient in feet per feet (ft/ft), calculated based on groundwater elevations for the presented monitoring events
n_e = the effective porosity, a unitless parameter, estimated to be 0.25 for a silt/sand (Duffield 2007), reflective of site soils

Hydraulic conductivity (k) values measured on site ranged from 0.023 ft/day to 21.9 ft/day based on site-specific testing conducted in 2023 and analyzed in 2024 (WSP 2024b). As the Bottom Ash Landfill and Bottom Ash Impoundment are adjacent to one another and intersect similar geologic formations within the uppermost water-

bearing zone, the groundwater flow rates are assumed to be approximately the same for the facilities during each sampling event and are presented below.

- Q1 2025
  - Average gradient (i) = 0.007 ft/ft
  - Range of groundwater flow velocities (V_s): 0.0006 ft/day to 0.62 ft/day
- Q2 2025:
  - Average gradient (i) = 0.006 ft/ft
  - Range of groundwater flow velocities (V_s): 0.0006 ft/day to 0.56 ft/day
- Q4 2025:
  - Average gradient (i) = 0.007 ft/ft
  - Range of groundwater flow velocities (V_s): 0.0006 ft/day to 0.60 ft/day

3.2 Monitoring Data (Analytical Results)

Analytical results for samples collected in 2025 for monitoring wells within the networks are shown in Appendix B. Collected results for total metals are presented.

3.3 Comparative Statistical Analysis for Detection Monitoring Parameters

Comparative statistical analysis is conducted following each detection monitoring event. For both Shewhart-CUSUM (cumulative summation) limits and non-parametric prediction limit (NP-PL), the comparative statistical analysis consists of a comparison of detection monitoring results collected during the period of interest to the statistical limit calculated from the baseline data. At present, no parameters are currently analyzed using alternative comparative methods for trending datasets. However, if well-constituent pairs with increasing trends were identified during the baseline period, those well-constituent pairs would be evaluated with an alternative trend test, such as that described by the electric Power Research Institute (EPRI 2015) or a Sen's slope trend test, to determine compliance. For well-constituent pairs with decreasing trends during the baseline period, a Sen's slope test would be used to assess the compliance results. A full description of the steps taken for comparative statistical analysis is provided in the Coal Combustion Residuals Groundwater Statistical Method Certification (GAUSA 2021a), available on GRE's publicly accessible CCR website.

Comparative statistical analysis for detection monitoring events occurs within 90 days of receipt of the final analytical data. Based on the timing of the detection monitoring sampling event in Q4 2025 and the date of receipt of the final analytical data, comparative statistical analysis for the Q4 2025 event will be completed in Q1 2026.

For reporting purposes, non-detect results for compliance samples are shown at the primary quantitation limit (PQL) in the tables included as Appendix C.

3.3.1 Definitions

The following definitions will be used in discussion of the comparative statistical analysis for detection monitoring parameters:

- Elevated CUSUM: occurs when the calculated CUSUM value is greater than the Shewhart-CUSUM limit established by the baseline statistical analysis, but the analytical result does not exceed the Shewhart-CUSUM limit. An elevated CUSUM is an indication that concentrations are gradually increasing and that analytical results may exceed the Shewhart-CUSUM limit in the future. For elevated CUSUM values in the case of two-tailed analysis for field-measured pH, the calculated CUSUM value may also be below the lower Shewhart-CUSUM limit established by the baseline statistical analysis.
- Potential exceedance: an initial analytical result that exceeds the parametric prediction limit (PL), the Shewhart-CUSUM limit, or the NP-PL established by the baseline statistical analysis, or an initial elevated calculated CUSUM value that exceeds the Shewhart-CUSUM limit. Confirmatory resampling will determine if the potential exceedance is a false positive or a verified statistically significant increase (SSI). Non-detect results that exceed the statistical limit are not considered potential exceedances.
- False positive: an analytical result that exceeds the statistical limit that can clearly be attributed to laboratory error, changes in analytical precision, or is invalidated through confirmatory resampling. False positives are not used in calculation of any subsequent CUSUM values.
- Confirmatory re-sample: the next sample collected for statistical confirmation following identification of a potential exceedance.
- Verified SSI: two consecutive exceedances (the original sample and the confirmatory resample for analytical results, two consecutive elevated CUSUM values, or a combination of an analytical result above the statistical limit and an elevated CUSUM value in either event order) for the same constituent at the same well.

3.3.2 Q4 2024 Detection Monitoring Comparative Statistical Analysis

Results for the comparative statistical analysis for the Q4 2024 detection monitoring event are summarized as follows, with the results presented in Appendix C.

3.3.2.1 Background Water Quality Review

3.3.2.1.1 Potential Exceedances

The following potential exceedance was identified for the Q4 2024 detection monitoring samples:

- MW-7A (background, upgradient), total dissolved solids elevated CUSUM.

A confirmatory re-sample was collected in March 2025, with the result discussed below.

3.3.2.1.2 False Positives

No false positives were identified at the background wells during the Q4 2024 sampling event.

3.3.2.1.3 Verified SSIs

The following verified SSIs were reconfirmed during the comparative statistical analysis following the Q4 2024 sampling event:

- MW-6B (background, side-gradient), chloride (ongoing elevated CUSUM, initially verified Q3 2021)
- MW-7B (background, upgradient), chloride (ongoing elevated CUSUM, initially verified Q4 2020)

The following SSI at a background well was verified following confirmatory resampling for the Q4 2024 sampling event:

- MW-7A (background, upgradient), total dissolved solids elevated CUSUM

3.3.2.2 Downgradient Water Quality Review

The following items pertaining to the downgradient water quality were identified during the Q4 2024 sampling event.

3.3.2.2.1 Potential Exceedances

The following potential exceedances at the downgradient wells were identified for the Q4 2024 detection monitoring samples:

- MW-202 (downgradient, Bottom Ash Impoundment), boron elevated CUSUM
- MW-202 (downgradient, Bottom Ash Impoundment), sulfate elevated CUSUM

Confirmatory re-samples were collected in March 2025, with results discussed below.

3.3.2.2.2 False Positives

The following potential exceedances identified during the Q4 2024 sampling event at downgradient wells were determined to be false positives following collection of confirmatory re-samples:

- MW-202 (downgradient, Bottom Ash Impoundment), boron
- MW-202 (downgradient, Bottom Ash Impoundment), sulfate

3.3.2.2.3 Verified SSIs

The following verified SSIs at the downgradient wells were identified during the comparative statistical analysis following the Q4 2024 sampling event:

- MW-9N (downgradient, Bottom Ash Landfill), calcium (ongoing elevated CUSUM, initially verified Q4 2020)
- MW-9N (downgradient, Bottom Ash Landfill), chloride (ongoing, initially verified Q2 2019)
- MW-9N (downgradient, Bottom Ash Landfill), fluoride (ongoing, initially verified Q2 2021)
- MW-9N (downgradient, Bottom Ash Landfill), field-measured pH (ongoing elevated CUSUM, initially verified Q2 2023)
- MW-9N (downgradient, Bottom Ash Landfill), total dissolved solids (ongoing elevated CUSUM, initially verified Q2 2021)
- MW-102 (downgradient, Bottom Ash Landfill), field-measured pH (ongoing elevated CUSUM, initially verified Q2 2023)
- MW-103 (downgradient, Bottom Ash Landfill), boron (ongoing, initially verified Q2 2020)
- MW-103 (downgradient, Bottom Ash Landfill), calcium (ongoing elevated CUSUM, initially verified Q1 2023)
- MW-103 (downgradient, Bottom Ash Landfill), chloride (ongoing elevated CUSUM, initially verified Q2 2019)
- MW-103 (downgradient, Bottom Ash Landfill), fluoride (ongoing, initially verified Q2 2019)
- MW-103 (downgradient, Bottom Ash Landfill), field-measured pH (ongoing, initially verified Q4 2023)

- MW-103 (downgradient, Bottom Ash Landfill), sulfate (ongoing, initially verified Q1 2021)
- MW-103 (downgradient, Bottom Ash Landfill), total dissolved solids (ongoing, initially verified Q2 2020)
- MW-203 (downgradient, Bottom Ash Impoundment), boron (ongoing, initially verified following confirmatory resampling for the Q2 2023 event)
- MW-203 (downgradient, Bottom Ash Impoundment), sulfate (ongoing, initially verified following confirmatory resampling for the Q2 2023 event)
- MW-203 (downgradient, Bottom Ash Impoundment), total dissolved solids (ongoing, initially verified following confirmatory resampling for the Q2 2023 event)

3.3.3 Q2 2025 Detection Monitoring Comparative Statistical Analysis

Results for the comparative statistical analysis for the Q2 2025 detection monitoring event are summarized as follows, with the results presented in Appendix C.

3.3.3.1 Background Water Quality Review

The following items pertaining to the background (upgradient and side-gradient) water quality were identified during the Q2 2025 sampling event.

3.3.3.1.1 Potential Exceedances

The following potential exceedance was identified for the Q2 2025 detection monitoring samples:

- MW-7A (background, upgradient), field-measured pH elevated CUSUM

A confirmatory re-sample was collected in October 2025, with the result discussed below.

3.3.3.1.2 False Positives

The potential exceedance identified for field-measured pH during the Q2 2025 sampling event at MW-7A was determined to be a false positive following collection of a confirmatory re-sample.

3.3.3.1.3 Verified SSIs

The following verified SSIs were reconfirmed during the comparative statistical analysis following Q2 2025 sampling event:

- MW-7A (background, upgradient), total dissolved solids (ongoing elevated CUSUM, initially verified following confirmatory resampling for Q4 2024)

Chloride was not analyzed for the Q2 2025 samples (see discussion in Section 2.3.3). Therefore, the following previously identified SSIs for chloride are assumed to be reconfirmed:

- MW-6B (background, side-gradient), chloride (ongoing elevated CUSUM, initially verified Q3 2021)
- MW-7B (background, upgradient), chloride (ongoing elevated CUSUM, initially verified Q4 2020)

3.3.3.2 Downgradient Water Quality Review

The following items pertaining to the downgradient water quality were identified during the Q2 2025 sampling event.

3.3.3.2.1 Potential Exceedances

No potential exceedances were identified during the Q2 2025 sampling event for the downgradient wells.

3.3.3.2.2 False Positives

No false positives were identified following confirmatory resampling for the Q2 2025 sampling event for the downgradient wells.

3.3.3.2.3 Verified SSIs

The following verified SSIs at the downgradient wells were identified during the comparative statistical analysis following the Q2 2025 sampling event:

- MW-9N (downgradient, Bottom Ash Landfill), calcium (ongoing elevated CUSUM, initially verified Q4 2020)
- MW-9N (downgradient, Bottom Ash Landfill), fluoride (ongoing, initially verified Q2 2021)
- MW-9N (downgradient, Bottom Ash Landfill), field-measured pH (ongoing elevated CUSUM, initially verified Q2 2023)
- MW-9N (downgradient, Bottom Ash Landfill), total dissolved solids (ongoing elevated CUSUM, initially verified Q2 2021)
- MW-102 (downgradient, Bottom Ash Landfill), field-measured pH (ongoing elevated CUSUM, initially verified Q2 2023)
- MW-103 (downgradient, Bottom Ash Landfill), boron (ongoing, initially verified Q2 2020)
- MW-103 (downgradient, Bottom Ash Landfill), calcium (ongoing elevated CUSUM, initially verified Q1 2023)
- MW-103 (downgradient, Bottom Ash Landfill), fluoride (ongoing, initially verified Q2 2019)
- MW-103 (downgradient, Bottom Ash Landfill), field-measured pH (ongoing, initially verified Q4 2023)
- MW-103 (downgradient, Bottom Ash Landfill), sulfate (ongoing, initially verified Q1 2021)
- MW-103 (downgradient, Bottom Ash Landfill), total dissolved solids (ongoing, initially verified Q2 2020)
- MW-203 (downgradient, Bottom Ash Impoundment), boron (ongoing, initially verified following confirmatory resampling for the Q2 2023 event)
- MW-203 (downgradient, Bottom Ash Impoundment), sulfate (ongoing, initially verified following confirmatory resampling for the Q2 2023 event)
- MW-203 (downgradient, Bottom Ash Impoundment), total dissolved solids (ongoing, initially verified following confirmatory resampling for the Q2 2023 event)

Chloride was not analyzed for the Q2 2025 samples (see discussion in Section 2.3.3). Therefore, the following previously identified SSIs for chloride are assumed to be reconfirmed:

- MW-9N (downgradient, Bottom Ash Landfill), chloride (ongoing, initially verified Q2 2019)
- MW-103 (downgradient, Bottom Ash Landfill), chloride (ongoing elevated CUSUM, initially verified Q2 2019)

3.4 Groundwater Protection Standards

No changes are proposed for the site GWPS, based on the results collected from the background locations from 2022 through Q2 2025. Changes in the background water quality will continue to be monitored during each sampling event.

The current GWPS used at the site were originally presented in the 2022 annual CCR groundwater monitoring and corrective action report (WSP 2023a) and were developed using groundwater data collected between 2016 and 2021 from the background (both upgradient and side-gradient) monitoring wells. As additional data is collected from the background monitoring wells (MW-6B, MW-7A, MW-7B, MW-8B, and MW-105), the suitability of these GWPS is reviewed following each monitoring event.

During the Q1 2025 monitoring event, the result for cobalt at MW-7A (upgradient) was reported as a non-detect with dilution that exceeds the site GWPS value. The result is considered acceptable from a quality control perspective but will not be used for comparative purposes that would result in changes to the GWPS.

3.5 Comparative Statistical Analysis for Assessment Monitoring Parameters

3.5.1 Statistical Approach

To determine if detected assessment monitoring constituents have statistically exceeded the associated GWPS, a confidence interval approach was used for determining compliance. Per recommendations in the Unified Guidance (USEPA 2009) and detailed by EPRI (2015), a confidence interval statistically defines the upper and lower bound (the upper and lower confidence limit) of the true mean associated with a groundwater population. The Unified Guidance recommends confidence intervals for assessment monitoring. A confidence interval statistically defines the confidence range and the upper and lower bound of a true mean, median, or other statistical measure of a compliance monitoring dataset. Confidence intervals identify SSLs through comparison against a fixed standard, namely the GWPS for each parameter.

The specific type of confidence interval for each well-constituent pair is based on three factors:

1) The detection frequency of the compliance data

2) The distribution of the compliance data

3) The presence of statistically significant trends within the compliance data

Prior to constructing the confidence intervals for each monitoring event, an initial data review was conducted on the compliance data for determining the detection frequency and data distribution, as described in the Coal Combustion Residuals Groundwater Statistical Methods Certification (GAUSA 2021a). Additionally, compliance data was tested for trends using Sen's slope methodology prior to constructing confidence intervals.

A parametric confidence interval around the mean was used if the compliance dataset had less than 50% non-detects (ND) and was either normally distributed or transform-normally distributed. A confidence (α) of 95% was used for calculating the parametric upper confidence limit (UCL) and lower confidence limit (LCL) of the compliance data. Parametric confidence intervals (CI) were calculated using the following equation:

$$CI = \bar{x} \pm t_{(1-\alpha,n-1)} \frac{s}{\sqrt{n}}$$

Where:

$\bar{x}$ = the mean of the comparative sample population

s = the standard deviation of the comparative sample population

n = the number of samples in the comparative sample population

t = a value from a student's t-test derived from the desired level of confidence $(1-\alpha)$ and the degrees of freedom $(n-1)$

Summarized values for t are compiled in the Unified Guidance in Table 16-1, Appendix D (USEPA 2009).

A non-parametric confidence interval around the median was used for datasets that did not show normal or transform-normal distributions and for compliance populations with greater than 50% ND. For non-parametric confidence intervals, the UCL and LCL are generally chosen as order statistics of the sample data dependent on the sample size of the compliance dataset (n), the desired confidence level $(1-\alpha)$, and the median of the compliance dataset.

For the determination of SSLs, the LCL is of primary interest. A confidence interval is only considered statistically above the associated GWPS if both the UCL and LCL exceed the GWPS. If only the UCL exceeds the GWPS while the LCL remains below the GWPS, the results of the test are considered inconclusive. The Unified Guidance (USEPA 2009) recommends results of this category be interpreted as "in compliance" and not consider the result to represent an SSL. If both the UCL and CLC are below the GWPS, the data are considered not statistically significant.

Confidence intervals are only constructed on data that do not display statistically significant trends. If the compliance dataset was found to display a statistically significant trend, a confidence band would be constructed around the estimated trend line. Per the Unified Guidance, a confidence band is "essentially a continuous series of confidence intervals estimated along every point of the trend" (USEPA 2009). For determination of an SSL using a confidence band approach, both the upper and lower confidence band must exceed the GWPS to be considered an SSL. If only the upper confidence band exceeds the GWPS while the lower confidence band remains below the GWPS, the results of the test are considered inconclusive. If both the upper and lower confidence band are below the GWPS, the data are considered not statistically significant.

3.5.2 Bottom Ash Landfill Q4 2024, Q1 2025, and Q2 2025 Findings

Arsenic at MW-103 remains identified at an SSL above the GWPS based on the comparative statistical analysis following the Q4 2024, Q1 2025, and Q2 2025 assessment monitoring events for the Bottom Ash Landfill. The remainder of parameters at MW-103 have been determined to not be statistically significant during each monitoring event. No statistically significant items have been identified for MW-9N and MW-102.

Data collected at the Bottom Ash Landfill downgradient wells between the start of assessment monitoring and Q1 2024 did not display any statistically significant trends using the Sen's slope test.

A statistically significant decreasing trend was identified for lithium at MW-102 during the Q4 2024, Q1 2025, and Q2 2025 monitoring events. A confidence band around the trend line was developed for comparative purposes for this well-constituent pair during each listed monitoring event. Both the lower and upper confidence bands around the trend line are below the GWPS; therefore, the Q4 2024, Q1 2025, and Q2 2025 lithium data for MW-102 are not statistically significant.

For lithium at MW-9N, while a statistically significant decreasing trend was identified for the Q2 2024 monitoring event, the trend was not statistically significant with inclusion of the Q4 2024 point. Lithium at MW-9N was analyzed with a parametric confidence interval for the Q4 2024 event.

A statistically significant decreasing trend was identified for lithium at MW-9N during the Q1 2025 and Q2 2025 monitoring events. A confidence band around the trend line was developed for comparative purposes for this well-constituent pair during each listed monitoring event. Both the lower and upper confidence bands around the trend line are below the GWPS; therefore, the Q1 2025 and Q2 2025 lithium data for MW-9N are not statistically significant.

Results of the comparative statistical analysis for the downgradient wells at the Bottom Ash Landfill are shown in the tables of Appendix D.

Based on the timing of the assessment monitoring sampling event in Q4 2025 and the date of receipt of the final analytical data, comparative statistical analysis for the Q4 2025 event will be completed in Q1 2026 within 90 days of receipt of the final analytical data.

3.5.3 Bottom Ash Impoundment Q4 2024, Q1 2025, and Q2 2025 Findings

With inclusion of the Q4 2024 comparative results, the minimum number of assessment monitoring samples collected following the beginning of assessment monitoring were available for each of the downgradient network wells of the Bottom Ash Impoundment. Comparative statistical analysis was conducted using each of the quarterly samples collected in 2024.

Confidence intervals are only constructed on data that does not display statistically significant trends. With the four comparative points collected through Q4 2024 for the Bottom Ash Impoundment, no data set will result in a statistically significant trend based on the associated calculation for the Sen's Slope test.

No statistically significant items were identified for MW-202 or MW-203 based on the Q4 2024 comparative statistical analysis. Molybdenum was identified at an SSL above the site GWPS at MW-201. The remainder of parameters at MW-201 were determined not to be statistically significant.

Molybdenum remains identified at an SSL above the GWPS at MW-201 based on the Q1 2025 and Q2 2025 comparative statistical analysis., Arsenic was identified at an SSL above the GWPS at MW-203 beginning with the Q1 2025 comparative statistical analysis and continuing in Q2 2025. The remainder of parameters at MW-201 and MW-203 have been determined to not be statistically significant during either the Q1 2025 or Q2 2025 monitoring events. No statistically significant items have been identified for MW-202.

4.0 PROGRAM TRANSITIONS

4.1 Detection Monitoring

Detection monitoring samples are collected on at least a semi-annual basis for each program well. This monitoring began with the samples collected in Q4 2017. GRE plans to collect semi-annual samples for the detection monitoring program in Q2 2026 and Q4 2026. A transition to assessment monitoring does not preclude the continued collection of detection monitoring parameters on at least a semi-annual basis.

4.2 Assessment Monitoring

4.2.1 Assessment Monitoring Trigger

40 CFR 257.94(e) states the conditions under which a CCR unit must transition to assessment monitoring or complete an alternative source demonstration (ASD):

> "If the owner or operator of a CCR unit determines, pursuant to 40 CFR 257.93(h) that there is an SSI over background levels for one or more of the constituents listed in Appendix III to this part at any monitoring well at the waste boundary specified under 40 CFR 257.91(a)(2), the owner or operator must: (1) Except as provided for in paragraph (e)(2) of this section, within 90 days of detecting a SSI over background levels for any constituent, establish an assessment monitoring program meeting the requirements of 40 CFR 257.95. (2) The owner or operator may demonstrate that a source other than the CCR unit caused the statistically significant levels of a constituent or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality." (USEPA 2015a)

NDAC 33.1-20-08-6(4)(3) describes similar conditions for transitioning to assessment monitoring or completing an ASD with the additional requirement of NDDEQ review and approval for ASDs and the determination for remaining in detection monitoring.

4.2.1.1 Alternative Source Demonstrations

No new ASDs were developed in 2025. ASDs have not been pursued for either newly verified or ongoing detection monitoring parameter verified SSIs at the Bottom Ash Landfill downgradient wells since the beginning of assessment monitoring in Q1 2021 or from the Bottom Ash Impoundment downgradient wells since the beginning of assessment monitoring in Q1 2024.

ASDs are not planned for the verified SSIs for chloride at background wells MW-6B and MW-7B, as the CCR units have been determined to not be the cause of the verified SSIs based on groundwater flow and direction. Per the Coal Combustion Groundwater Statistical Method Certification (GAUSA 2021a), an ASD will only be completed for verified SSIs identified in downgradient wells.

4.2.2 Assessment Monitoring Program

Assessment monitoring was initiated for the Bottom Ash Landfill in Q1 2021 consistent with 40 CFR 257.95 and NDAC 33.1-20-08-06(5). Assessment monitoring samples have been collected at the background locations and the Bottom Ash Landfill downgradient wells since Q1 2021 to meet the assessment monitoring sampling frequency requirements detailed in 40 CFR 257.95(b) and (d) and NDAC 33.1-20-08-06(5)(b) and (d).

The Federal and State CCR rules require that the concentrations of assessment monitoring constituents detected in downgradient wells during assessment monitoring be statistically compared to site-specific GWPS. If an SSL above the GWPS is identified at one or more downgradient wells, both the Federal and State CCR rules require additional groundwater characterization and an Assessment of Corrective Measures, unless the SSL can be attributed to a source other than the CCR unit, an error in sampling, an error in statistical analysis, or natural variation in groundwater quality.

Arsenic was identified at an SSL above the GWPS for Bottom Ash Landfill monitoring well MW-103 following the Q4 2021 assessment monitoring sampling. GRE pursued an ASD following identification of the SSL for arsenic at MW-103, which was included in the 2022 annual report (WSP 2023a). The ASD evaluation determined that insufficient evidence was available to make conclusive statements about an alternative source for arsenic at MW-

103. Discussion of the corrective measures assessment for the Bottom Ash Landfill is included in subsequent sections.

Assessment monitoring was initiated for the Bottom Ash Impoundment in Q1 2024 consistent with 40 CFR 257.95 and NDAC 33.1-20-08-06(5) following identification of detection monitoring SSIs at Bottom Ash Impoundment well MW-203 in 2023 (WSP 2024a). Assessment monitoring samples were collected from the Bottom Ash Impoundment downgradient wells since Q1 2025 to meet the assessment monitoring sampling frequency requirements detailed in 40 CFR 257.95(b) and (d) and NDAC 33.1-20-08-06(5)(b) and (d).

Molybdenum was identified at an SSL above the GWPS for Bottom Ash Impoundment monitoring well MW-201 following the Q4 2024 assessment monitoring sampling. Further, arsenic was identified at an SSL above the GWPS for Bottom Ash Impoundment monitoring well MW-203 following the Q1 2025 assessment monitoring sampling. An Assessment of Corrective Measures was pursued for the Bottom Ash Impoundment, with discussion included in subsequent sections.

4.3 Evaluation of Corrective Measures – Bottom Ash Landfill

Pursuant to 40 CFR 257.97 and NDAC 33.1-20-08-06(6), WSP, on behalf of GRE, is further evaluating the potential corrective measures identified in the Bottom Ash Landfill ACM Report (GAUSA 2022), to identify a remedy or combination of remedies as soon as feasible. In 2025, significant progress was made on the evaluation of corrective measures in response to the SSL for arsenic downgradient of the Bottom Ash Landfill. This includes completion of monitored natural attenuation (MNA) evaluation, geochemical modeling, and progress evaluating geochemical injection.

Progress related to the selection and design of a remedy is reported semi-annually. Each of the prior reports is available via GRE's publicly accessible CCR website.

- The 2022 annual report (WSP 2023a) includes progress between the completion of the ACM in November 2022 and January 2023.
- A semi-annual progress report was prepared for selecting and designing a remedy in 2023 (WSP 2023b), covering activities conducted between January 2023 and July 2023.
- The 2023 annual report (WSP 2024a) covered activities related to remedy selection conducted between August 2023 and January 2024.
- In 2024, a semi-annual progress report was completed covering the activities conducted between February 2024 and July 2024 (WSP 2024d).
- The 2024 annual report (WSP 2025a) covered activities related to remedy selection conducted between August 2023 and January 2025.
- In 2025, a semi-annual progress report was completed covering the activities conducted between February 2025 and July 2025 (WSP 2025c).

As outlined in the following sections, a significant number of actions have occurred to reduce the potential source of the SSL, document the extent of the plume, and evaluate measures to reduce concentrations to below groundwater protection standards.

4.3.1 Assessment of Corrective Measures

Following identification of the SSL for arsenic at MW-103 and the inconclusive ASD evaluation, GRE initiated an assessment of corrective measures (ACM) for the Bottom Ash Landfill in June 2022 consistent with the requirements of 40 CFR 257.96 and NDAC 33.1-20-08-06(6). An extension was requested in September 2022 prior to completion of the ACM, consistent with 40 CFR 257.96(a) and NDAC 33.1-20-08-06(6)(a),. The extension request was approved by the NDDEQ (NDDEQ 2022), and a copy of the extension approval was included in the 2022 annual report (WSP 2023a). The ACM was completed and submitted to the NDDEQ for approval on November 21, 2022. The ACM was included as an attachment in the 2022 annual report (WSP 2023a). The NDDEQ approved the ACM on February 21, 2023 (NDDEQ 2023b).

The purpose of the ACM was to identify potential corrective measures to prevent further releases and to remediate any identified releases to groundwater at the Bottom Ash Landfill. In particular, the ACM evaluated source control corrective measures, and corrective measure alternatives for groundwater corrective action at the site given the specific site conditions and constituent(s) of concern.

4.3.1.1 Source Control Corrective Measures

The previously completed closure in place of the Bottom Ash Landfill and installation of the final cover system reduces the potential for migration of CCR constituents to groundwater. Prior to the initiation of assessment monitoring and the ACM, the Bottom Ash Landfill was closed with an engineered final cover placed over CCR left in place. Closure in place was completed in accordance with the closure plan (GAI 2019c) and was documented in the Construction Quality Assurance (CQA) Report provided to the NDDEQ (GAUSA 2021b). The cover system was designed to minimize infiltration and erosion and to meet or exceed the requirements of 40 CFR 257.102(d)(3) and NDAC 33.1-20-08-07(3)(d)(3). Due to the reduced infiltration through the final cover and the lack of contact between CCR and groundwater, the closure of the Bottom Ash Landfill is anticipated to perform effectively as a source control.

4.3.1.2 Groundwater Remediation Corrective Measures

In addition to the closure and final cover source control corrective measures, the following groundwater remediation corrective measures were identified in the ACM as potentially feasible and effective for use at the Bottom Ash Landfill:

- Monitored Natural Attenuation (MNA) and Enhanced Monitored Natural Attenuation (Enhanced MNA)
- Hydraulic Containment (Groundwater Pump and Treat)
- Geochemical Approaches (In Situ Injection)
- Permeable Reactive Barriers
- Phytoremediation

As outlined below, certain options are no longer being evaluated for a number of reasons. At present, the following groundwater remediation corrective measures are still being evaluated for implementation at the Bottom Ash Landfill:

- MNA and Enhanced MNA)
- Geochemical Approaches (In Situ Injection)

MNA and in situ injection are continuing to be evaluated based on the findings from the Tier I MNA report (WSP 2023c) and the Tier II and III MNA report (WSP 2024c). The findings from these efforts indicate that MNA is occurring and effective at the site, and preliminary findings that in situ injection may be able to further attenuate arsenic and reduce the time to attain the GWPS.

The other options originally identified in the ACM report are not currently being evaluated for several reasons. Phytoremediation is not currently being evaluated as a corrective measure for the site due to the groundwater depth in the area of concern being deeper than can typically be affected by phytoremediation. Depending on plant type, many root systems for plants used in traditional phytoremediation approaches focus on the upper 1 to 2 feet from the ground surface (ITRC 2009), while groundwater downgradient of the Bottom Ash Landfill is approximately 20 feet below the ground surface.

Permeable reactive barriers are not currently being evaluated due to the depth between bedrock versus the uppermost encountered groundwater. Critically, for a permeable reactive barrier to be effective, the barrier should ideally “extend to and be keyed into a competent bedrock layer or aquitard” to prevent circumvention of groundwater around/under the installed barrier (ITRC 2011). Downgradient of the Bottom Ash Landfill, materials have been mixed through both natural deposition and alteration to the conditions through closure and removal of the industrial site, making identification of a continuous material suitable for keying a barrier difficult.

Hydraulic containment (groundwater pump and treat) is not currently being evaluated as a stand-alone remedy. Pump and treat extraction technologies tend to be more efficient for constituents that are not readily attenuated by mechanisms such as adsorption. Additional chemical testing, similar to that for in situ injection, is necessary to determine the extraction potential for arsenic with different treatment technologies and can be executed concurrently with testing for other alternatives.

If the currently pursued corrective measures prove not to be adequate, these or other potential corrective measures may be considered in the future.

4.3.2 Summary of Work Completed – August 2025 to January 2026

The following subsections summarize field activities, desktop analyses, and supplemental data collected between August 2025 and January 2026, following completion of the most recent semi-annual report (WSP 2025c). This work further delineates the nature and extent of the SSL and continues the evaluation of the potential groundwater remediation corrective measures presented in the ACM Report (GAUSA 2022) and subsequent reporting.

The collected data continue to be used to evaluate the feasibility, mechanisms, rates, and stability of identified potential corrective measure alternatives to address the SSL for arsenic in groundwater downgradient of the Bottom Ash Landfill. Evaluations of the data as they relate to remedy selection alternatives are ongoing and will be presented in future report(s).

4.3.2.1 Groundwater Monitoring Activities

As discussed in Section 3.1, samples were collected for the assessment monitoring program from the Bottom Ash Landfill network wells during three monitoring events in 2025. Samples have also been collected and analyzed from additional wells installed for the nature and extent investigation during the three monitoring events in 2025.

4.3.2.2 Efforts to Address Well Turbidity and Plume Delineation

As discussed in prior reporting (WSP 2024d, WSP 2025a, WSP 2025c), high turbidity in several of the nature and extent wells downgradient of the Bottom Ash Landfill has made plume delineation challenging. To aid in plume delineation, both dissolved and total analysis was conducted for a subset of parameters throughout 2025. Total analysis captures both the dissolved aqueous concentrations present in samples, as well as the insoluble particulate concentrations. Dissolved concentrations are determined by filtering samples prior to analysis, to remove insoluble particulates greater than 0.45 microns in diameter. During the 2025 sampling events, the parameters that were tested with both dissolved and total analysis included the Appendix IV metals, and aluminum, iron, and manganese (primary components of most soils).

Comparison of dissolved results to total results for aluminum, iron, and manganese, when made in the context of samples with high turbidity, can help to determine if the associated total results are representative of site groundwater, or the results indicate the presence of excessive artificially mobilized particles (i.e., site soil particles that have entered the water column as a result of the sampling methods). Analysis of the aluminum, iron, and manganese total and dissolved data for samples with excess turbidity over the course of 2025 suggest that total results that have occurred concurrently with high turbidity measurements reflect artificially suspended soil particles and are not representative samples of the groundwater, based on the reported concentrations and the magnitude of the difference between total and dissolved concentrations.

Review of the total and dissolved arsenic concentrations continue to suggest that the total concentrations from the Q2 2025 and Q4 2025 monitoring events may not be representative of the site groundwater based on the presence of excess turbidity at specific wells. Appendix E includes figures presenting the total arsenic concentrations measured during the Q2 2025 and Q4 2025 events, along with corresponding figures presenting the dissolved arsenic concentrations measured during the same events. In each of the figures, locations that are color-coded orange or red had concentrations that are greater than the GWPS (0.01 mg/L). Color-coding of the figures has been used as part of the plume delineation effort to bound the highest site concentrations associated with the Bottom Ash Landfill.

As detailed in past reporting (WSP 2025a), locations with consistently low turbidity have continued to have total and dissolved arsenic concentrations that are similar in magnitude to one another. Locations with consistent low turbidity have included MW-103 as the well of interest for the Bottom Ash Landfill, MW-9N and MW-102 as the other Bottom Ash Landfill dedicated downgradient network monitoring wells, and the background locations. While naturally suspended particles are likely present in the total analysis, the comparison of the total and dissolved concentrations from event to event suggest that the results of the total analysis are consistently representative of the groundwater within each of these monitoring wells.

For other wells installed to determine the nature and extent of the arsenic plume, measured turbidity and the associated total and dissolved arsenic concentrations have varied significantly from event to event. Efforts were undertaken in 2025 to address identified turbidity issues at a subset of monitoring wells as discussed in the semi-annual report (WSP 2025c). However, in reviewing data collected in Q2 2025 and Q4 2025, similar issues are identified at wells MW-215 (during the Q4 2025 event) and MW-217 (during the Q2 2025 event). Based on the identified differences, at present, the extent of the delineated plume will continue to be reviewed in context of the comparison between the total and dissolved analysis until remaining turbidity issues are resolved.

4.3.2.3 Further Evaluation of Geochemical Injection

A second round of bench scale testing (following the first round discussed in the 2024 annual report, WSP 2025a) was conducted to evaluate the effectiveness of four reactants on reducing arsenic in soil and groundwater collected from wells MW-103 and MW-211. The tested reactants included:

- Sodium bicarbonate
- Iron sulfate (ferrous sulfate heptahydrate)
- Iron sulfate (ferrous sulfate heptahydrate) with sodium bicarbonate
- Iron sulfide (ferrous sulfide)

Results and analysis are included as Appendix F. Each of the tested reactants were found to reduce arsenic concentrations from the groundwater for both MW-103 and MW-211 to below the GWPS. However, testing indicated that other metals of interest (in particular, cobalt) may leach from the reactants at concentrations greater than the associated GWPS values. Identifying alternatives for chemical injection that reduce arsenic below the GWPS while minimizing the release of other constituents requires additional research.

4.3.2.4 Meeting with NDDEQ

On October 2, Great River Energy and WSP met with the NDDEQ to discuss progress to date on the remedy selection process for the Bottom Ash Landfill. The potential remedies and activities that have been conducted in support of remedy selection were discussed, as well as guidance for the required public meeting.

4.3.3 Summary of Remedy Selection Process Activities

4.3.3.1 Work Completed to Date

The following steps have been taken to delineate the plume and progress towards final remedy selection since the identification of an SSL for arsenic at MW-103:

- Completion of the Assessment of Corrective Measures report in 2022.
- Installation, development, and sampling of 15 nature and extent wells and 2 property boundary wells in 2022 and 2023.
- Geochemical and geotechnical testing of aquifer solids collected during drilling in 2022 and 2023.
- In situ hydraulic conductivity testing and analysis in 2023 and 2024.
- Installation of dedicated low-flow pumps in the new wells in 2024.
- Geochemical modeling and evaluation of MNA per the EPA's guidance including Tiers I, II, and III in 2023 and 2024.
- Additional geochemical modeling to supplement chemical injection testing based on site hydrogeological conditions.
- Groundwater sampling and analysis for bench-scale chemical injection testing.
- Initial characterization and bench-scale testing of the effects of chemical injection additives to site groundwaters.

- Groundwater sampling and analysis from the Bottom Ash Landfill network wells and nature and extent wells to further understand the extent and magnitude of arsenic above the GWPS downgradient of the Bottom Ash Landfill.
- Development of a Leapfrog geologic model to better visualize site hydrogeological information in support of the site conceptual model.
- Soil and groundwater sampling for the second phase of laboratory analysis to evaluate the suitability of chemical injection at the site.
- Initial characterization and bench-scale testing of the effects of chemical injection additives to site groundwaters and soils as part of the second phase of chemical injection analysis.
- Meeting with the NDDEQ to discuss remedy selection activities.

Figure 4 presents a simplified Gantt chart of the work conducted to date and planned activities over the next 6 months (until the next semi-annual report), with the intent of holding the public meeting and selecting a remedy as soon as feasible.

4.3.3.2 Remedy Selection

At present, selection of a final remedy is expected to be based on the following information:

- Plume Delineation
  - The arsenic plume downgradient of the Bottom Ash Landfill appears to be small (based on dissolved arsenic, the plume is less than 400 feet wide and not extending downgradient beyond the CCR unit boundary by more than 100 feet).
  - However, due to issues with turbidity at certain nature and extent wells, delineation of the plume has not been finalized.
- GWPS Attainment
  - Downgradient of the Bottom Ash Landfill, MNA is expected to reduce arsenic sufficiently to attain the GWPS. Expansion of the plume and re-mobilization of arsenic are not expected based on modeling, aquifer solids testing, and monitoring data collected to date. This is supported by the conclusions of the MNA Tier I, II, and III reports (WSP 2023c; WSP 2024c) developed in alignment with the USEPA guidance for MNA (USEPA 2015b).
  - The modeled amount of time needed to attain the GWPS at MW-103 at the unit boundary of the Bottom Ash Landfill is significant (WSP 2024c). Conditions not reflected in the modeling may decrease the time to attain the GWPS.
  - Initial modeling suggests chemical injection with iron will speed up attainment of the GWPS at MW-103.
  - Initial bench-scale testing for chemical injection with groundwater indicates that chemical injection with iron will reduce arsenic levels to below the GWPS.
  - Additional modeling was completed in 2025 using the results of bench scale testing and updated groundwater sampling data (WSP 2025c). These updates to the modeling confirmed previous model

results and further support the applicability of chemical injections as a viable remedy in the area of MW-103 for arsenic.

- A second round of bench-scale testing for chemical injection with groundwater and aquifer soils further indicated that chemical injection with iron will reduce arsenic levels to below the GWPS but could result in mobilization of other assessment monitoring constituents from the chemical additives. Additional research is needed to identify alternative materials for chemical injection to meet both objectives.

4.3.4 Planned Activities

On behalf of GRE, WSP is implementing activities to support the corrective action remedy selection process. Selection and implementation of corrective measures can be iterative, and GRE and WSP will continue data collection efforts, as necessary, to further refine the site conceptual model and evaluate the feasibility of remedies identified in the ACM Report (GAUSA 2022) in order to select a final remedy.

Supplementary data collection and evaluation activities proposed to be completed in the next 6 months include:

- Arsenic Delineation
  - Continue to evaluate wells with high turbidity and significant differences between total and dissolved arsenic concentrations following redevelopment efforts conducted in Q2 2025. Determine whether well redevelopment has improved sample quality or if abandonment and replacement of the associated wells is necessary.
- Groundwater Monitoring
  - Collect Q1 2026 annual assessment monitoring samples and Q2 2026 semi-annual detection monitoring and assessment monitoring samples.
- Public Meeting
  - In conformance with the requirements of 40 CFR 257.96(e) and NDAC 33.1-20-08-06(6)(e), Great River Energy will hold a public meeting to discuss the results of the corrective measures assessment with interested parties. The public meeting will be held on Thursday, February 5, 2026.
- Complete and Submit Remedy Selection Report to the NDDEQ
  - Pending public comments received during and after the public meeting and NDDEQ feedback, a remedy selection report will be completed and submitted to the NDDEQ for review and approval.

On behalf of GRE, WSP will continue to prepare semi-annual progress reports to document the progress in selecting and designing a groundwater remedy in accordance with 40 CFR 257.97 and -98 and NDAC 33.1-20-08-06(6) and (7) until a final remedy is selected. The next semi-annual report will be submitted July 31, 2026, if a final remedy has not been selected. On behalf of GRE, WSP will continue to include future semi-annual progress reports with the routine groundwater monitoring and corrective action reports to meet the requirements of 40 CFR 257.105(h)(12), 40 CFR 257.106(h)(9), and 40 CFR 257.107(h)(9) and NDAC 33.1-20-08-08(1)(h)(12), 33.1-20-08-08(2), and 33.1-20-08-08(3).

Upon selection of a remedy, a final report will be prepared describing the selected remedy and how the remedy meets the standards in 40 CFR 257.97 and -98 and NDAC 33.1-208-08-06(6) and (7). The final remedy selection report must be certified by a qualified professional engineer licensed in the state of North Dakota per 40 CFR

257.97(a) and approved by the NDDEQ per NDAC 331.20-08-06(7)(a). Once the remedy has been selected and approved by the NDDEQ, the implementation of the remedy will be initiated in accordance with 40 CFR 257.98 and NDAC 33.1-20-08-06(8).

4.4 Evaluation of Corrective Measures – Bottom Ash Impoundment

Pursuant to 40 CFR 257.97 and NDAC 33.1-20-08-06(6), WSP, on behalf of GRE, is further evaluating the potential corrective measures identified in the Bottom Ash Impoundment ACM Report (WSP 2025d), to identify a remedy or combination of remedies as soon as feasible.

Progress related to the selection and design of a remedy is reported semi-annually. This document (the current annual report for 2025) presents progress related to the selection and design of a remedy for the Bottom Ash Impoundment conducted between September 2025 and January 2026.

4.4.1 Assessment of Corrective Measures

GRE initiated an ACM for the Bottom Ash Impoundment on June 26, 2025, within 90 days of identifying the SSL for molybdenum at MW-201, consistent with the requirements of 40 CFR 257.96 and NDAC 33.1-20-08-06(6).

The SSL for arsenic at MW-203 was identified July 22, 2025, following completion of assessment monitoring statistics associated with the Q1 2025 annual sampling event and the initiation of the ACM at the Bottom Ash Impoundment. The ACM for the arsenic SSL at MW-203 was initiated July 22, 2025, by incorporation into the ongoing ACM for the Bottom Ash Impoundment, within 90 days of identification of the SSL.

The ACM was completed and submitted to the NDDEQ for approval on September 24, 2025. The ACM is included as an appendix to this annual report (Appendix G).

The purpose of the ACM is to identify potential corrective measures to prevent further releases and to remediate any identified releases to groundwater at the Bottom Ash Impoundment. The Bottom Ash Impoundment ACM evaluated source control corrective measures and corrective measure alternatives for groundwater corrective action at the site given the specific site conditions and constituent(s) of concern.

4.4.1.1 Source Control Corrective Measures

The previously completed closure in place of the Bottom Ash Impoundment and installation of the final cover system provides a source control measure that reduces the potential for migration of CCR constituents to groundwater. The Bottom Ash Impoundment was closed with an engineered final cover placed over CCR left in place prior to the initiation of assessment monitoring and the ACM. Closure in place was completed in accordance with the closure plan (GAI 2019b). The cover system was designed to minimize infiltration and erosion and to meet or exceed the requirements of 40 CFR 257.102(d)(3) and NDAC 33.1-20-08-07(3)(d)(3). Due to the reduced infiltration through the final cover and the lack of contact between CCR and groundwater, the closure of the Bottom Ash Impoundment is anticipated to perform effectively as a source control.

Following closure of the Bottom Ash Impoundment, an updated post-closure plan was prepared for the site in 2022 (GAUSA 2022). Maintenance will be provided on the final cover system for the required post-closure care period so that the integrity and effectiveness of the final cover system is maintained. Maintenance activities will include, as needed, repairs to the final cover to correct any effects related to settlement, subsidence, erosion, or other events, and will be performed to prevent run-on or run-off from eroding or otherwise damaging the final cover.

The bottom ash within the Bottom Ash Impoundment south cell was originally hydraulically sluiced into the cell, and precipitation falling on the footprint during operation and closure construction accumulated within the bottom ash. During closure construction, free water was pumped from the south cell and additional waste material from the closure of the north and center cells was added to achieve final waste grades. In addition to removal of free water within the south cell, the constructed sump was pumped during closure construction to remove any leachate that accumulated during closure. Construction of the engineered composite cover significantly reduced the infiltration of precipitation into the waste, but residual water remains within the bottom ash.

The removal of leachate will reduce leakage through potential defects in the composite liner by reducing the driving head. To remove this residual water, leachate accumulating in the sump has been regularly pumped out and disposed offsite. Up until early 2025, this was accomplished with a vacuum truck pumping the sump dry as often as every few days. In 2025, GRE installed a dedicated pump and holding tank along with power and other controls. This new system pumps leachate from the sump as the leachate accumulates, maintaining the depth of leachate in the sump between approximately 1 and 1.5 feet. This system is planned to operate through the post-closure period until leachate recharge drops below the level that the installed pumps can operate or until the recharge rate is low enough that an alternative leachate management method becomes preferable.

4.4.1.2 Groundwater Remediation Corrective Measures

In addition to the closure and final cover source control corrective measures, the following groundwater remediation corrective measures were identified in the ACM as potentially feasible for use at the Bottom Ash Impoundment:

- Monitored Natural Attenuation (MNA) and Enhanced Monitored Natural Attenuation (Enhanced MNA)
- Hydraulic Containment (Groundwater Pump and Treat)
- Geochemical Approaches (In Situ Injection)
- Permeable Reactive Barriers
- Phytoremediation

As described above in Section 4.3.1.2 for the Bottom Ash Landfill, certain options are no longer being evaluated at Stanton Station for a number of reasons. At present, the following groundwater remediation corrective measures are still being evaluated for implementation at the Bottom Ash Impoundment:

- MNA and Enhanced MNA
- Geochemical Approaches (In Situ Injection)

4.4.2 Summary of Work Completed – September 2025 to January 2026

The following subsections summarize field activities, desktop analyses, and supplemental data collected between September 2025 and January 2026, following completion of the ACM for the Bottom Ash Impoundment (WSP 2025d). This work further delineates the nature and extent of the SSL and continues the evaluation of the potential groundwater remediation corrective measures presented in the ACM Report (WSP 2025d).

The collected data continue to be used to evaluate the feasibility, mechanisms, rates, and stability of identified potential corrective measure alternatives to address the SSLs for arsenic and molybdenum in groundwater

downgradient of the Bottom Ash Impoundment. Evaluations of the data as they relate to remedy selection alternatives are ongoing and will be presented in future report(s).

4.4.2.1 Groundwater Monitoring Activities

As discussed in Section 3.1, samples were collected for the assessment monitoring program from the Bottom Ash Impoundment network wells during three monitoring events in 2025. Samples have also been collected and analyzed from additional wells installed for the nature and extent investigation during two monitoring events in 2025.

4.4.2.2 Installation of Dedicated Pumps

Dedicated low-flow pumps were installed at the Bottom Ash Impoundment nature and extent wells in September 2025 prior to the initial sampling event.

4.4.2.3 Solids Analysis

Solids samples were collected at the installed well locations during drilling in June 2025 and sent for analysis by SGS Canada Inc., as discussed in the Bottom Ash Impoundment ACM (WSP 2025d). Samples were analyzed using the sequential extraction procedure (SEP; Tessier et al. 1979) and X-ray diffraction (XRD) including clay speciation. Results of the SEP and XRD analysis are included in Appendix H and will be used in support of remedy selection.

4.4.2.4 Site Conceptual Model Update

The site hydrogeological model was updated to incorporate the newly collected information from the installation of the nature and extent wells. Seequent Limited's Leapfrog Geosoftware has been used to compile and analyze site monitoring well and borehole information collected across the site. The intention of the updated hydrogeological model is to provide a three-dimensional visualization of the available site information within a format that will allow further updates with time.

4.4.3 Summary of Remedy Selection Process Activities

4.4.3.1 Work Completed to Date

The following steps have been taken to delineate the plumes and progress towards final remedy selection since the identification of SSLs for molybdenum at MW-201 and arsenic at MW-203:

- Completion of the Assessment of Corrective Measures report in 2025.
- Installation, development, and sampling of 4 nature and extent wells surrounding MW-201, 3 nature and extent wells surrounding MW-203, and an additional property boundary well in 2025.
- Geochemical testing of aquifer solids collected during drilling in 2025.
- Installation of dedicated low-flow pumps in the new wells in 2025.
- Groundwater sampling and analysis from the Bottom Ash Landfill network wells and nature and extent wells to further understand the extent and magnitude of arsenic above the GWPS downgradient of the Bottom Ash Landfill.

Figure 5 presents a simplified Gantt chart of the work conducted to date and planned activities over the next 6 months (until the next semi-annual report). GRE intends to hold the public meeting and select a remedy as soon as feasible.

4.4.4 Planned Activities

GRE and WSP will continue data collection efforts, as necessary, to further refine the site conceptual model and evaluate the feasibility of remedies identified in the ACM Report (WSP 2025d) in order to select a final remedy.

Supplementary data collection and evaluation activities proposed to be completed in the next 6 months include:

- Plume Delineation
  - Ongoing analysis for determination of the extent of the plumes near MW-201 and MW-203 will continue. Analysis will include creation of preliminary plume maps based on results collected in Q4 2025 and results to be collected in Q1 2026.
  - Review of the results from ongoing monitoring will be used to determine the need for additional nature and extent wells. If necessary, plans will be made for installation of additional locations.
- Additional Soil Analysis
  - Samples collected during the drilling investigation in 2025 are undergoing additional mineralogical analysis of the clay portion by SGS Canada Inc. Results of the additional analysis will be included in future reporting.
- Tier I MNA
  - Following receipt of the aquifer solids analysis discussed above, a Tier I MNA evaluation will be completed.

On behalf of GRE, WSP will continue to prepare semi-annual progress reports to document the progress in selecting and designing a groundwater remedy in accordance with 40 CFR 257.97 and -98 and NDAC 33.1-20-08-06(6) and (7) until a final remedy is selected. Prior to the final selection of a corrective measure, a public meeting will be scheduled a minimum of 30 days before the selection of the remedy to present the results of the corrective measures assessment. The next semi-annual report will be submitted July 31, 2026. On behalf of GRE, WSP will continue to include future semi-annual progress reports with the routine groundwater monitoring and corrective action reports to meet the requirements of 40 CFR 257.105(h)(12), 40 CFR 257.106(h)(9), and 40 CFR 257.107(h)(9) and NDAC 33.1-20-08-08(1)(h)(12), 33.1-20-08-08(2), and 33.1-20-08-08(3).

Upon selection of a remedy, a final report will be prepared describing the selected remedy and how the remedy meets the standards in 40 CFR 257.97 and -98 and NDAC 33.1-208-08-06(6) and (7). The final remedy selection report must be certified by a qualified professional engineer licensed in the state of North Dakota per 40 CFR 257.97(a) and approved by the NDDEQ per NDAC 331.20-08-06(7)(a). Once the remedy has been selected and approved by the NDDEQ, the implementation of the remedy will be initiated in accordance with 40 CFR 257.98 and NDAC 33.1-20-08-06(8).

5.0 CLOSING

This report presents the analytical results for the 2025 monitoring events for the CCR groundwater monitoring programs at Great River Energy's Stanton Station, progress on the evaluation of corrective measures to address the arsenic SSL at MW-103 downgradient of the Bottom Ash Landfill, and progress on the evaluation of corrective measures to address the molybdenum SSL at MW-201 and the arsenic SSL at MW-203 downgradient of the Bottom Ash Impoundment. Comparative statistics for samples collected between Q4 2024 and Q2 2025 at both the Bottom Ash Impoundment and Bottom Ash Landfill are included in the report. Comparative statistics for the Q4 2025 monitoring events conducted in November 2025 will occur within 90 days of final receipt of the data, in Q1 2026.

The Bottom Ash Landfill remains in assessment monitoring under a corrective measures program at the close of 2025. Significant progress on the evaluation of corrective measures was made in 2025. This includes the completion of the evaluation of MNA, improved delineation of the plume, and bench testing of the effectiveness of geochemical injection. Remedy selection for the chosen corrective measures is ongoing, with a public meeting scheduled for February 2026.

The Bottom Ash Impoundment entered 2025 under an assessment monitoring program. An assessment of corrective measures for the Bottom Ash Impoundment was completed in 2025. At the end of 2025, the Bottom Ash Impoundment remains in assessment monitoring under a corrective measures program.

The next semi-annual report detailing the remedy selection process will be completed by July 31, 2026.

Signature Page

WSP USA Inc.





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https://wsponlinenam.sharepoint.com/sites/gld-170737/project files/6 deliverables/gl21509219.000/reports/043-rpt-2025_annual_ccr_gwm_and_corrective_action/rev0/gl21509219.000-043-rpt-a-stanton-ccr_2025_31jan26.docx

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WSP. 2025d. Assessment of Corrective Measures, Great River Energy, Stanton Station, Closed Bottom Ash Impoundment. September 24, 2025.

Tables

Table 1: Stanton Station Monitoring Well Summary

Location	Well ID	Date Constructed	TOC Elevation[(a)]	Ground Surface Elevation[(a)]	Screen Interval	Top of Screen Elevation	Bottom of Screen Elevation	Sand Pack Interval	Geologic Unit(s) Completed In
			ft AMSL	ft AMSL	ft bgs	ft AMSL	ft AMSL	ft bgs	
Upgradient/Side-gradient	MW-6B	9/8/1992	1,711.5	1,709.4	28.4-38.4	1,681.3	1,671.3	19.0-38.5	Outwash
	MW-7A	8/27/1992	1,713.7	1,711.3	7.0-17.0	1,704.1	1,694.1	5.0-18.0	Silty sand/clay
	MW-7B	9/9/1992	1,712.9	1,711.2	28.1-38.1	1,682.7	1,672.7	23.0-38.5	Silty sand/outwash
	MW-8A	9/1/1992	1,749.8	1,747.6	17.1-27.1	1,730.5	1,720.5	15.0-27.0	Silty Sand/ Clay
	MW-8B	9/3/1992	1,749.8	1,747.6	54.0-64.0	1,694.4	1,684.4	49.0-64.5	Outwash
	MW-105	11/18/2015	1,717.0	1,714.0	9.0-19.0	1,705.0	1,695.0	7.0-19.0	Clay/outwash
Bottom Ash Landfill Downgradient	MW-9N	7/19/2010	*1,703.5*	*1,701.0*	*11.5-21.5*	1,689.5	1,679.5	*9.5-21.5*	Sand, clayey sand, gravel
	MW-102	11/17/2015	1,712.1	1,708.8	14.0-24.0	1,694.8	1,684.8	12.0-24.0	Silty sand/clay
	MW-103	11/17/2015	1,709.5	1,706.2	14.0-24.0	1,692.2	1,682.2	12.0-24.0	Outwash
Bottom Ash Impoundment Downgradient	MW-201	8/10/2020	1,704.9	1,701.9	9.5-19.5	1,692.4	1,682.4	7.0-19.5	Fat clay, sand w/silt
	MW-202	8/10/2020	1,703.7	1,701.6	8.0 - 18.0	1,693.6	1,683.6	6.0-18.0	Fat clay, lean clay w/sand
	MW-203	8/10/2020	1,705.8	1,702.7	6.0 -16.0	1,696.7	1,686.7	5.0-16.0	Sand w/silt, fat clay
Bottom Ash Impoundment Non-network Wells	MW-1R	11/8/1995	*1,706.7*	*1,703.5*	*23.7-32.7*	1,679.8	1,670.8	*21.7-34.7*	Gravel, fat clay
	MW-104	11/17/2015	1,712.0	1,709.0	14.0-24.0	1,695.0	1,685.0	12.0-24.0	Outwash
Bottom Ash Landfill Nature and Extent Delineation Wells	MW-210	5/9/2022	1,703.1	1,699.9	12.0 - 22.0	1,687.9	1,677.9	12.0 - 22.0	Sand w/silt
	MW-211	5/10/2022	1,708.7	1,705.4	12.0 - 22.0	1,693.4	1,683.4	10.0 - 22.0	Lean clay, sand w/silt
	MW-212	5/10/2022	1,709.6	1,706.4	13.5 - 23.5	1,692.9	1,682.9	10.0 - 23.5	Fat clay, lean clay silty sand
	MW-213	5/12/2022	1,706.0	1,702.7	19.5 - 29.5	1,683.2	1,673.2	19.5 - 29.5	Fat clay, lean clay silty sand
	MW-214	5/12/2022	1,709.2	1,705.8	5.0 - 15.0	1,700.8	1,690.8	4.0 - 15.0	Fat clay, silty sand
	MW-215	2/7/2023	1,702.0	1,699.0	9.0 - 19.0	1,690.0	1,680.0	6.0 - 19.0	Silty sand with gravel, poorly graded sand with gravel
	MW-216	2/8/2023	1,702.9	1,699.7	10.0 - 20.0	1,689.7	1,679.7	7.0 - 20.0	Silty sand, poorly graded sand with gravel
	MW-217	2/9/2023	1,700.0	1,697.0	9.5 - 19.5	1,687.5	1,677.5	7.0-19.5	Poorly graded sand with silt and gravel
	MW-218	2/9/2023	1,701.1	1,698.1	9.5 - 19.5	1,688.6	1,678.6	7.0 - 19.5	Silty sand, poorly graded gravel with sand
	MW-219	2/6/2023	1,705.1	1,702.2	10.0 - 20.0	1,692.2	1,682.2	8.0 - 20.0	Silty sand, clayey sand
	MW-220	2/8/2023	1,702.4	1,699.7	25.0 - 35.0	1,674.7	1,664.7	22.0 - 35.0	Poorly graded sand, clayey sand
	MW-221	2/10/2023	1,705.0	1,701.8	22.0 - 32.0	1,679.8	1,669.8	18.0 - 32.0	Poorly graded sand with silt and gravel
	MW-222	2/6/2023	1,721.9	1,719.0	26.0 - 36.0	1,693.0	1,683.0	23.0 - 36.0	Lean clay with sand, poorly graded sand with silt and gravel
	MW-300	2/9/2023	1,700.1	1,696.9	9.0 - 19.0	1,687.9	1,677.9	7.0 - 19.0	Silty sand, poorly graded sand with silt and gravel
	MW-301	2/10/2023	1,698.6	1,695.5	20.0 - 35.0	1,675.5	1,660.5	18.0 - 35.0	Lean clay, lean clay with sand, clayey sand
Property Boundary	MW-PB1	8/11/2020	1,698.8	1,695.9	15.0 - 25.0	1,680.9	1,670.9	13.0 - 25.0	Silt w/sand, silty sand
	MW-PB3	2/9/2023	1,701.6	1,698.5	24.0 - 39.0	1,674.5	1,659.5	18.0 - 39.0	Sandy lean clay
	MW-PB1R	6/17/2025	1,699.8	1,695.7	26.0-36.0	1,669.7	1,659.7	24.0-36.0	Clayey Sand
Bottom Ash Impoundment Nature and Extent Delineation Investigation	MW-223	6/17/2025	1,705.9	1,702.5	11.0-16.0	1,691.5	1,686.5	9.0-16.0	Lean Clay
	MW-224	6/17/2025	1,705.1	1,701.4	11.0-16.0	1,690.4	1,685.4	9.0-16.0	Sandy Fat Clay
	MW-225	6/17/2025	1,705.2	1,701.4	11.0-16.0	1,690.4	1,685.4	9.0-16.0	Clayey Sand
	MW-226	6/17/2025	1,702.5	1,699.5	11.0-16.0	1,688.5	1,683.5	9.0-16.0	Poorly Graded Sand
	MW-227	6/17/2025	1,704.4	1,701.1	11.0-16.0	1,690.1	1,685.1	9.0-16.0	Clayey Sand
	MW-228	6/17/2025	1,706.8	1,703.3	6.0-11.0	1,697.3	1,692.3	4.0-11.0	Poorly Graded Sand With Clay
	MW-229	6/17/2025	1,706.4	1,702.5	11.0-16.0	1,691.5	1,686.5	9.0-16.0	Fat Clay with Sand and Fat Clay
	MW-230	7/1/2025	1,704.7	1,701.7	34.0-39.0	1,667.7	1,662.7	32.0-39.0	Sandy Silt

a. TOC (top of casing) and ground surface elevations surveyed by Interstate Engineering, Inc. in September 2020, October 2022, April 2023, and July 2025.

Notes:

Well construction measurements are from the original bore log, well data sheet, or well construction form.

Well construction information for MW-9N and MW-1R shown in italics are estimates based on the original well logs, accounting for the casing reductions completed in June 2020.

ft AMSL: feet above mean sea level; ft bgs = feet below ground surface; GW = groundwater

Figures



LEGEND - Q1 2025 GROUNDWATER CONTOURS

- UPGRADIENT OR SIDEGRADIENT MONITORING WELL
- LANDFILL DOWNGRADIENT MONITORING WELL
- IMPOUNDMENT DOWNGRADIENT MONITORING WELL
- NATURE AND EXTENT WELLS
- CLOSED BOTTOM ASH LANDFILL/IMPOUNDMENT FOOTPRINT
- GENERAL DIRECTION OF GROUNDWATER FLOW
- GROUNDWATER CONTOURS AND ELEVATIONS

NOTE(S)

1. AERIAL IMAGERY OBTAINED FROM UNITED STATES DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURE IMAGERY PROGRAM, 2023.
2. GROUNDWATER CONTOURS ARE BASED ON MARCH 2025 ELEVATION INFORMATION FROM THE SHOWN MONITORING WELLS, AS WELL AS MONITORING WELLS AND PIEZOMETERS NOT SHOWN.
3. THE NORTH AND CENTER CELLS OF THE BOTTOM ASH IMPOUNDMENT WERE CLOSED BY REMOVAL OF WASTE AND LINER.
4. THE SOUTH CELL OF THE BOTTOM ASH IMPOUNDMENT WAS CLOSED WITH A FINAL COVER OVER PLACED WASTE.
5. THE BOTTOM ASH LANDFILL WAS CLOSED BY CONSOLIDATION OF PLACED WASTE INTO A SMALLER FOOTPRINT AND CONSTRUCTION OF A FINAL COVER.

N

0 200 400
1" = 200' FEET

wsp

MONITORING WELL LOCATIONS AND Q1 2025 GROUNDWATER ELEVATIONS AND CONTOURS GREAT RIVER ENERGY - STANTON STATION

FIGURE 1

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LEGEND - Q2 2025 GROUNDWATER CONTOURS

- UPGRADIENT OR SIDEGRADIENT MONITORING WELL
- LANDFILL DOWNGRADIENT MONITORING WELL
- IMPOUNDMENT DOWNGRADIENT MONITORING WELL
- NATURE AND EXTENT WELLS
- CLOSED BOTTOM ASH LANDFILL/IMPOUNDMENT FOOTPRINT
- GENERAL DIRECTION OF GROUNDWATER FLOW
- GROUNDWATER CONTOURS AND ELEVATIONS

NOTE(S)

1. AERIAL IMAGERY OBTAINED FROM UNITED STATES DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURE IMAGERY PROGRAM, 2023.
2. GROUNDWATER CONTOURS ARE BASED ON JUNE 2025 ELEVATION INFORMATION FROM THE SHOWN MONITORING WELLS, AS WELL AS MONITORING WELLS AND PIEZOMETERS NOT SHOWN.
3. THE NORTH AND CENTER CELLS OF THE BOTTOM ASH IMPOUNDMENT WERE CLOSED BY REMOVAL OF WASTE AND LINER.
4. THE SOUTH CELL OF THE BOTTOM ASH IMPOUNDMENT WAS CLOSED WITH A FINAL COVER OVER PLACED WASTE.
5. THE BOTTOM ASH LANDFILL WAS CLOSED BY CONSOLIDATION OF PLACED WASTE INTO A SMALLER FOOTPRINT AND CONSTRUCTION OF A FINAL COVER.

N

0 200 400
1" = 200' FEET

wsp

MONITORING WELL LOCATIONS AND Q2 2025 GROUNDWATER ELEVATIONS AND CONTOURS GREAT RIVER ENERGY - STANTON STATION

FIGURE 2

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LEGEND - Q4 2025 GROUNDWATER CONTOURS

- UPGRADIENT OR SIDEGRADIENT MONITORING WELL
- LANDFILL DOWNGRADIENT MONITORING WELL
- IMPOUNDMENT DOWNGRADIENT MONITORING WELL
- NATURE AND EXTENT WELLS
- 2025 NATURE AND EXTENT WELLS
- CLOSED BOTTOM ASH LANDFILL/IMPOUNDMENT FOOTPRINT
- GENERAL DIRECTION OF GROUNDWATER FLOW
- GROUNDWATER CONTOURS AND ELEVATIONS

NOTE(S)

1. AERIAL IMAGERY OBTAINED FROM UNITED STATES DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURE IMAGERY PROGRAM, 2023.
2. GROUNDWATER CONTOURS ARE BASED ON Q4 2025 ELEVATION INFORMATION FROM THE SHOWN MONITORING WELLS, AS WELL AS MONITORING WELLS AND PIEZOMETERS NOT SHOWN.
3. THE NORTH AND CENTER CELLS OF THE BOTTOM ASH IMPOUNDMENT WERE CLOSED BY REMOVAL OF WASTE AND LINER.
4. THE SOUTH CELL OF THE BOTTOM ASH IMPOUNDMENT WAS CLOSED WITH A FINAL COVER OVER PLACED WASTE.
5. THE BOTTOM ASH LANDFILL WAS CLOSED BY CONSOLIDATION OF PLACED WASTE INTO A SMALLER FOOTPRINT AND CONSTRUCTION OF A FINAL COVER.

N

0 200 400
1" = 200' FEET

wsp

MONITORING WELL LOCATIONS AND Q4 2025 GROUNDWATER ELEVATIONS AND CONTOURS GREAT RIVER ENERGY - STANTON STATION

FIGURE 3

Path: \\corp.pbwan.net\US\Central\Data\US_IK100\acad\GREAT RIVER ENERGY\STANTON\99_PROJECTS\215092\19\Annual Monitoring Reports\ | File Name: 215092\19_2025_WQ-StantonNDDEQ_Q4_GWSURF.dwg

Figure 4 - Bottom Ash Landfill - Assessment of Corrective Measures and Remedy Selection Timeline

Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2025	Q3 2025	Q4 2025	Q1 2026	Q2 2026
Well Sampling and Analysis																Well Sampling & Analysis	
SSL																	
	ASD																
		ACM															
Drilling, Well Installation, Well Development - Initial Nature and Extent Wells			Drilling, Well Installation, Well Development - Additional Nature and Extent Wells					Dedicated Low-Flow Pumps for Nature and Extent Wells				Redevelop/Replace Nature & Extent Wells with Turbidity Issues					
	Geochemical and Geotechnical Lab Testing of Soil Samples			Geochemical and Geotechnical Lab Testing of Soil Samples													
								Measure Total and Dissolved Metals in Groundwater Samples								Measure Total and Dissolved Metals in Groundwater Samples	
								Evaluate Well Turbidity, Total vs. Dissolved Metals, and Plume Delineation								Evaluate Well Turbidity, Total vs. Dissolved Metals, and Plume Delineation	
					Slug Testing			Slug Testing Analysis									
			MNA Tier I														
						MNA Tier II/III and Modeling of Geochemical Processes											
										Modeling of Geochemical Injection							
										Collection of Groundwater (liquid) for Testing							
											Geochemical Injection Lab Testing - Liquids						
												Drilling and Collection of Samples for Testing - Liquids & Soil					
													Geochemical Injection Lab Testing - Liquids & Soil				
														Injection Modeling (flow and geochemical)			
														Meet with NDDEQ to dsicuss Remedy Selection		Public Meeting	Remedy Selection Report

Figure 5 - Bottom Ash Impoundment - Assessment of Corrective Measures and Remedy Selection Timeline

Q1 2025	Q2 2025	Q3 2025	Q4 2025	Q1 2026	Q2 2026
Well Sampling and Analysis				Well Sampling & Analysis	
SSL					
	ACM				
	Drilling, Well Installation, Well Development - Initial Nature and Extent Wells				Drilling, Well Installation, Well Development - Additional Nature and Extent Wells
	Geochemical and Geotechnical Lab Testing of Soil Samples				
				Measure Total and Dissolved Metals in Groundwater Samples	
				Evaluate Well Turbidity, Total vs. Dissolved Metals, and Plume Delineation	
				MNA Tier I	

APPENDIX A

New Monitoring Well Boring Log and Construction Information

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

Terracon
1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-223

Location: See Exploration Plan

Latitude: 47.2828° Longitude: -101.3321°

Depth (Ft.) Elevation.: 1702.53 (Ft.)

Graphic Log	Depth (Ft.)	Elevation (Ft.)	Material Description	Installation Details	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
	0.3	1702.2	**TOPSOIL**, dark brown	PVC Cap; Protective Casing; Cement								
			LEAN CLAY WITH SAND (CL), dark brown, stiff					18	3-5-5 N=10	15.0		
	4.5	1698		Cuttings								
			POORLY GRADED SAND WITH CLAY (SP-SC), fine grained, grayish tan, medium dense	PVC Riser; Bentonite	5			12	4-5-6 N=11	17.4		10
	9.5	1693		Silica Sand								
	10.5	1692	**FAT CLAY (CH)**, gray, medium stiff		10			1	1-1-4 N=5	46.2		
	11.0	1691.5	**POORLY GRADED SAND (SP)**, fine grained, tannish brown			▽						
			LEAN CLAY (CL), trace sand, gray, stiff waterbearing at 12'									
	16.0	1686.5		Prepack PVC Screen	15			18	2-3-8 N=11	29.7	43-11-32	95
			Boring Terminated at 16 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were provided by others.

Water Level Observations
▽ While drilling

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Notes

Advancement Method
3¼" HSA, 0-14½'

Logged by
J. Hoeven

Boring Started
06-17-2025

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Boring Completed
06-17-2025

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

Terracon
1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-224

Location: See Exploration Plan

Latitude: 47.2828° Longitude: -101.3309°

Depth (Ft.) Elevation.: 1701.37 (Ft.)

Depth (Ft.)	Elevation (Ft.)	Description	Installation Details	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
0.3	1701	**TOPSOIL**, dark brown	PVC Cap; Protective Casing; Cement							
		LEAN CLAY WITH SAND (CL), dark brown, stiff				18	4-4-7 N=11	11.4		
4.5	1696.9		Cuttings							
		SANDY LEAN CLAY (CL), grayish tan, stiff	PVC Riser; Bentonite; Silica Sand			16	3-5-5 N=10	23.6		
10.5	1690.9			▽		18	4-5-4 N=9	38.4	NP	48
11.0	1690.4	**SILTY SAND (SM)**, fine grained, brown, waterbearing								
		SANDY FAT CLAY (CH), light brown								
15.0	1686.4		Prepack PVC Screen			18	6-10-10 N=20	17.4		39
16.0	1685.4	**CLAYEY SAND (SC)**, trace clay, fine grained, light brown, medium dense, waterbearing								
		Boring Terminated at 16 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were provided by others.

Water Level Observations
▽ While drilling

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Notes

Advancement Method
3¼" HSA, 0-14½'

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
J. Hoeven

Boring Started
06-17-2025

Boring Completed
06-17-2025

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-225

Location: See Exploration Plan

Latitude: 47.2832° Longitude: -101.3312°

Depth (Ft.)	Elevation.: 1701.42 (Ft.)	Installation Details	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
0.3	**TOPSOIL**, dark brown — 1701.2	PVC Cap; Protective Casing; Cement							
	LEAN CLAY WITH SAND (CL), dark brown, stiff	Cuttings		X	18	2-5-7 N=12	17.0		
5		PVC Riser; Bentonite		X	18	4-5-7 N=12	19.6		
9.5	1691.9	Silica Sand							
10	**CLAYEY SAND (SC)**, fine grained, tan to gray, loose to medium dense waterbearing at 12'		▽	X	18	2-1-3 N=4	21.7		15
15		Prepack PVC Screen		X	18	8-10-14 N=24	15.8		
16.0	1685.4								
	Boring Terminated at 16 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were provided by others.

Water Level Observations
▽ While drilling

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Notes

Advancement Method
3¼" HSA, 0-14½'

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
J. Hoeven

Boring Started
06-17-2025

Boring Completed
06-17-2025

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

Terracon
1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-226

Location: See Exploration Plan

Latitude: 47.2837° Longitude: -101.3302°

Depth (Ft.) Elevation.: 1699.52 (Ft.)

Graphic Log	Depth (Ft.)	Installation Details	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
	0.3 **TOPSOIL**, dark brown 1699.3	PVC Cap								
	LEAN CLAY WITH SAND (CL), trace gravel, dark brown, very stiff to stiff	Protective Casing								
		Cement				18	4-8-9 N=17	14.0		
		Cuttings								
		PVC Riser	5			16	4-5-5 N=10	12.3		
		Bentonite								
		Silica Sand								
	10.0 1689.5		10	▽		7	3-4-7 N=11	18.6		
	POORLY GRADED SAND (SP), fine grained, brown, medium dense to very loose, waterbearing									
		Prepack PVC Screen	15			12	0-0-3 N=3	16.6		3
	16.0 1683.5 1" seam of coal at 15.75'									
	Boring Terminated at 16 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were provided by others.

Water Level Observations
▽ While drilling

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Notes

Advancement Method
3¼" HSA, 0-14½'

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
J. Hoeven

Boring Started
06-17-2025

Boring Completed
06-17-2025

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-227

Location: See Exploration Plan

Latitude: 47.2822° Longitude: -101.3299°

Depth (Ft.) Elevation.: 1701.1 (Ft.)

Graphic Log	Depth (Ft.)	Material Description	Elevation	Installation Details	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
	1.0	**TOPSOIL**, brown	1700.1	PVC Cap; Protective Casing; Cement								
		SANDY LEAN CLAY (CL), brown to dark gray, very stiff to stiff, coal inclusions		Cuttings; PVC Riser; Bentonite; Silica Sand	5			14	3-7-8 N=15	12.7		
								12	5-9-11 N=20	12.7		51
	10.8		1690.4		10	▽		7	2-4-8 N=12	25.4	42-24-18	67
		CLAYEY SAND (SC), fine grained, tan, medium dense, waterbearing		Prepack PVC Screen								
	16.0		1685.1		15			11	4-8-10 N=18	26.7		
		Boring Terminated at 16 Feet										

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were provided by others.

Water Level Observations
▽ While drilling

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Notes

Advancement Method
3¼" HSA, 0-14½'

Logged by
J. Hoeven

Boring Started

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Boring Completed

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

Terracon
1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-228

Location: See Exploration Plan

Latitude: 47.2814° Longitude: -101.3301°

Depth (Ft.) Elevation.: 1703.25 (Ft.)

Graphic Log	Depth (Ft.)		Installation Details	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
	1.0	**TOPSOIL**, dark brown 1702.3	PVC Cap, Protective Casing, Cement, PVC Riser, Bentonite, Silica Sand, Prepack PVC Screen								
		CLAYEY SAND (SC), fine grained, dark brown, medium dense to very loose			▽		15	3-8-9 N=17	9.0		
	5.5	1697.8		5			11	3-2-1 N=3	18.6		24
		POORLY GRADED SAND WITH CLAY (SP-SC), fine grained, tan, very loose, waterbearing									
	10.0	1693.3									
	11.0	**SANDY LEAN CLAY (CL)**, tan, medium stiff 1692.3		10			13	2-2-5 N=7	27.5	49-15-34	45
		Boring Terminated at 11 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were provided by others.

Water Level Observations
▽ While drilling

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Notes

Advancement Method
3¼" HSA, 0-9½'

Logged by
J. Hoeven

Boring Started

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Boring Completed

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

Terracon
1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-229

Location: See Exploration Plan

Latitude: 47.2816° Longitude: -101.3287°

Depth (Ft.) Elevation.: 1702.54 (Ft.)

Graphic Log	Depth (Ft.)	Elevation (Ft.)	Description	Installation Details	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
	1.0	1701.5	**TOPSOIL**, dark brown	PVC Cap; Protective Casing; Cement								
	4.5	1698	**CLAYEY SAND (SC)**, fine grained, dark brown, medium dense	Cuttings				12	3-7-5 N=12	10.0		
	9.5	1693	**POORLY GRADED SAND (SP)**, fine grained, tan, medium dense	PVC Riser; Bentonite; Silica Sand	5			11	7-7-8 N=15	11.0		
	12.8	1689.8	**FAT CLAY WITH SAND (CH)**, grayish tan, medium stiff		10	▽		15	1-2-3 N=5	29.8	97-17-80	84
	13.0	1689.5	**TOPSOIL**									
	16.0	1686.5	**FAT CLAY (CH)**, trace sand, dark gray, stiff	Prepack PVC Screen	15			15	2-5-7 N=12	24.9		
			Boring Terminated at 16 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were provided by others.

Water Level Observations
▽ While drilling

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Notes

Advancement Method
3¼" HSA, 0-14½'

Logged by
J. Hoeven

Boring Started

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Boring Completed

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

Terracon
1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-230

Location: See Exploration Plan
Latitude: 47.2828° Longitude: -101.3315°

Depth (Ft.)	Elevation.: 1701.63 (Ft.)	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
0.3	**TOPSOIL**, dark brown	1701.3				
	FAT CLAY WITH SAND (CH), brown, stiff to medium stiff	18	3-6-9 N=15	17.9		
5.5		1696.1				
	CLAYEY SAND (SC), fine to medium grained, brown and gray, medium dense	2	3-2-3 N=5	18.3		
		18	3-4-8 N=12	26.6		
	waterbearing at 15'	18	3-9-9 N=18	19.7		39
19.5		1682.1				
	POORLY GRADED SAND WITH CLAY AND GRAVEL (SP-SC), fine grained, dark gray, medium dense, waterbearing	18	5-12-14 N=26	19.9		11
24.5		1677.1				
	WELL GRADED GRAVEL WITH SAND (GW), fine to coarse grained, gray and brown, medium dense, waterbearing	18	5-10-12 N=22	6.7		3
30.9		1670.7				
	SANDY SILT (ML), gray, hard, waterbearing	10	5-8-12 N=20	18.5		
		18	14-19-19 N=38	21.6		70
39.5		1662.1				
	LEAN CLAY (CL), trace silt, gray, hard	9	20-50/3"	15.2	29-18-11	99
41.0		1660.6				
	Auger Refusal at 41 Feet					

Installation Details: PVC Cap; Protective Casing; Cement; Cuttings; PVC Riser; Bentonite; Silica Sand; Prepack PVC Screen; Collapse

Depth (Ft.): 5, 10, 15, 20, 25, 30, 35, 40

Water Level Observations: ▽ While drilling

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations were provided by others.

Notes

Advancement Method
3¼" HSA, 0-39½'

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Logged by
J. Hoeven

Boring Started

Boring Completed

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

Terracon
1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-PB1R

Location: See Exploration Plan
Latitude: 47.2868° Longitude: -101.3289°
Depth (Ft.) Elevation.: 1695.68 (Ft.)

Depth (Ft.)	Elevation (Ft.)	Description	Installation Details	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
0.3	1695.3	**TOPSOIL**, dark brown	PVC Cap; Protective Casing; Cement							
		POORLY GRADED SAND WITH CLAY (SP-SC), fine grained, tan, medium dense				8	3-5-5 N=10	12.8		
4.5	1691.2									
		CLAYEY SAND (SC), fine grained, tan to gray, medium dense to very loose	Cuttings			8	5-5-6 N=11	11.2		
						10	2-2-3 N=5	11.3		
			PVC Riser							
		waterbearing at 14½'		▽		18	1-2-1 N=3	24.2		
19.5	1676.2									
		LEAN CLAY (CL), brownish gray, medium stiff	Bentonite			18	2-2-3 N=5	31.3	44-15-29	98
24.5	1671.2		Silica Sand							
		CLAYEY SAND (SC), fine grained, grayish brown, very loose to loose, waterbearing				14	1-1-1 N=2	27.0		
			Prepack PVC Screen			12	2-2-2 N=4	25.3		48
34.5	1661.2									
36.0	1659.7	**CLAYEY SAND (SC)**, fine to medium grained, grayish blue, medium dense, waterbearing				18	8-11-13 N=24	25.1		23
		Boring Terminated at 36 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations were provided by others.

Water Level Observations
▽ While drilling

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Notes

Advancement Method
3¼" HSA, 0-34½'

Logged by
J. Hoeven

Boring Started

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Boring Completed

APPENDIX B

Monitoring Data

APPENDIX B-1

Monitoring Data

Table 1: Sample Results Summary Table - MW-6B (Sidegradient)

		MW-6B		
		Detection Monitoring / Assessment Monitoring		
	Units	17-Mar-25	23-Jun-25	19-Nov-25
Water Elevation	**ft AMSL**	**1693.6**	**1693.8**	**1693.1**
Field Parameters				
Temperature, Field	deg C	7.52	12.72	17.82
Turbidity, Field	ntu	4.01	1.17	7.05
Specific Conductance, Field	µmhos/cm	1384	1720	1491
Detection Monitoring Parameters				
Boron	mg/L	---	0.33	0.36
Calcium	mg/L	---	24.6	21.5
Chloride	mg/L	---	---	15.8
Fluoride	mg/L	0.58	0.54	0.58
pH, Field	s.u.	7.8	7.8	7.66
pH, Lab	s.u.	8.1	8.0	8.2
Sulfate	mg/L	---	357	354
Total Dissolved Solids	mg/L	---	1060	1060
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	0.0041	0.0041	0.0041
Barium	mg/L	0.0243	0.0263	0.0241
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002	< 0.002
Cobalt	mg/L	< 0.002	< 0.002	< 0.002
Fluoride	mg/L	0.58	0.54	0.58
Lead	mg/L	< 0.0005	< 0.0005	< 0.0005
Lithium	mg/L	0.0481	0.0440	0.0498
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0128	0.0133	0.0118
Radium-226	pCi/L	0.09 U ± 0.1	0.4 ± 0.1	0.04 U ± 0.1
Radium-228	pCi/L	1 U ± 0.7	1 U ± 0.7	0.9 ± 0.6
Radium 226 + Radium 228, Comb	pCi/L	0.6 U ± 0.7	0.9 U ± 0.7	1 ± 0.6
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
s.u.: standard units for pH
pCi/L: picocuries per liter
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem): Not detected above the minimum detectable concentration (varies by sample).

Table 2: Sample Results Summary Table - MW-7A (Upgradient)

		MW-7A				
		Detection Monitoring / Assessment Monitoring				
	Units	17-Mar-25	17-Mar-25	23-Jun-25	15-Oct-25	19-Nov-25
		Q4 2024 Resample			Q2 2025 Reample	
Water Elevation	**ft AMSL**	**1701.5**	**1701.5**	**1702.9**	**1702.2**	**1702.2**
Field Parameters						
Temperature, Field	deg C	5.83	5.83	8.72	11.53	19.55
Turbidity, Field	ntu	< 0.1	< 0.1	0.14	1.51	4.84
Specific Conductance, Field	µmhos/cm	15388	15388	18092	17002	15696
Detection Monitoring Parameters						
Boron	mg/L	---	---	0.66	---	0.83
Calcium	mg/L	---	---	463	---	447
Chloride	mg/L	---	---	---	---	40.6
Fluoride	mg/L	---	0.48	0.50	---	0.58
pH, Field	s.u.	7.31	7.31	7.43	7.31	7.27
pH, Lab	s.u.	---	7.5	7.6	---	7.8
Sulfate	mg/L	---	---	11200	---	11000
Total Dissolved Solids	mg/L	17200	---	17900	---	17300
Assessment Monitoring Parameters						
Antimony	mg/L	---	< 0.002 *	< 0.004 *	---	< 0.001
Arsenic	mg/L	---	< 0.008 *	< 0.004 *	---	< 0.002
Barium	mg/L	---	0.0085	0.0085	---	0.0089
Beryllium	mg/L	---	< 0.0005	< 0.0005	---	< 0.0005
Cadmium	mg/L	---	< 0.001 *	< 0.002 *	---	< 0.0005
Chromium	mg/L	---	< 0.008 *	< 0.004 *	---	< 0.002
Cobalt	mg/L	---	< 0.008 *	< 0.004 *	---	< 0.002
Fluoride	mg/L	---	0.48	0.50	---	0.58
Lead	mg/L	---	< 0.0005	< 0.001	---	< 0.0005
Lithium	mg/L	---	0.260	0.255	---	0.288
Mercury	mg/L	---	< 0.0002	< 0.0002	---	< 0.0002
Molybdenum	mg/L	---	0.0123 *	0.0113	---	0.0117
Radium-226	pCi/L	---	0.1 U ± 1	-0.03 U ± 0.1	---	-0.05 U ± 0.1
Radium-228	pCi/L	---	0.2 U ± 0.6	0.8 U ± 0.6	---	-0.04 U ± 0.5
Radium 226 + Radium 228, Combine	pCi/L	---	0.6 U ± 0.6	0.6 U ± 0.9	---	0.6 U ± 0.5
Selenium	mg/L	---	< 0.02 *	< 0.01 *	---	< 0.005
Thallium	mg/L	---	< 0.0005	< 0.001 *	---	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).
* = Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution,

Table 3: Sample Results Summary Table - MW-7B (Upgradient)

		MW-7B		
		Detection Monitoring / Assessment Monitoring		
	Units	17-Mar-25	23-Jun-25	19-Nov-25
Water Elevation	**ft AMSL**	**1701.6**	**1702.3**	**1701.6**
Field Parameters				
Temperature, Field	deg C	7.95	10.16	16.99
Turbidity, Field	ntu	< 0.1	< 0.1	3.36
Specific Conductance, Field	µmhos/cm	1442	1790	1531
Detection Monitoring Parameters				
Boron	mg/L	---	0.44	0.48
Calcium	mg/L	---	18.0	18.5
Chloride	mg/L	---	---	10.8
Fluoride	mg/L	0.61	0.59	0.58
pH, Field	s.u.	7.66	7.76	7.78
pH, Lab	s.u.	8.0	8.0	8.2
Sulfate	mg/L	---	301	258
Total Dissolved Solids	mg/L	---	1120	1080
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	< 0.002	< 0.002	< 0.002
Barium	mg/L	0.0190	0.0191	0.0182
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002	< 0.002
Cobalt	mg/L	< 0.002	< 0.002	< 0.002
Fluoride	mg/L	0.61	0.59	0.58
Lead	mg/L	< 0.0005	< 0.0005	< 0.0005
Lithium	mg/L	0.0538	0.0476	0.0580
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0044	0.0038	0.0036
Radium-226	pCi/L	-0.1 ± 0.1	0.2 ± 0.1	0.2 U ± 0.2
Radium-228	pCi/L	0.4 U ± 0.6	-0.2 U ± 0.6	0.4 U ± 0.6
Radium 226 + Radium 228, Con	pCi/L	0.6 U ± 0.6	0.6 U ± 0.6	0.6 U ± 0.6
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 4: Sample Results Summary Table - MW-8B (Upgradient)

		MW-8B			
		Detection Monitoring / Assessment Monitoring			
	Units	17-Mar-25	23-Jun-25	29-Sep-25	19-Nov-25
				Additional Sample	
Water Elevation	Units ft AMSL	1706.1	1704.9	1705.9	1705.5
Field Parameters					
Temperature, Field	deg C	8.23	12.06	18.7	18.22
Turbidity, Field	ntu	56.76	5.59	0.00	21.21
Specific Conductance, Field	µmhos/cm	1019	1409	1629	1404
Detection Monitoring Parameters					
Boron	mg/L	---	0.28	---	0.38
Calcium	mg/L	---	93.9	---	90.8
Chloride	mg/L	---	---	---	11.2
Fluoride	mg/L	0.19	0.20	---	0.27
pH, Field	s.u.	7.37	7.39	7.20	7.37
pH, Lab	s.u.	7.7	7.8	---	8.0
Sulfate	mg/L	---	265	---	306
Total Dissolved Solids	mg/L	---	849	1040	979
Assessment Monitoring Parameters					
Antimony	mg/L	< 0.001	< 0.001	---	< 0.001
Arsenic	mg/L	< 0.002	< 0.002	---	< 0.002
Barium	mg/L	0.0305	0.0341	---	0.0286
Beryllium	mg/L	< 0.0005	< 0.0005	---	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	---	< 0.0005
Chromium	mg/L	< 0.002	< 0.002	---	< 0.002
Cobalt	mg/L	< 0.002	< 0.002	---	< 0.002
Fluoride	mg/L	0.19	0.20	---	0.27
Lead	mg/L	< 0.0005	< 0.0005	---	< 0.0005
Lithium	mg/L	0.0720	0.0689	---	0.0812
Mercury	mg/L	< 0.0002	< 0.0002	---	< 0.0002
Molybdenum	mg/L	< 0.002	< 0.002	---	< 0.002
Radium-226	pCi/L	0.04 U ± 0.1	0.1 U ± 0.2	---	-0.07 U ± 0.09
Radium-228	pCi/L	0.1 ± 0.6	0.7 ± 0.7	---	0.3 U ± 0.5
Radium 226 + Radium 228, Com	pCi/L	0.6 ± 0.6	0.7 ± 0.7	---	0.5 U ± 0.6
Selenium	mg/L	< 0.005	0.0081	---	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	---	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 5: Sample Results Summary Table - MW-105 (Upgradient)

		MW-105		
		Detection Monitoring / Assessment Monitoring		
	Units	17-Mar-25	23-Jun-25	19-Nov-25
Water Elevation	**ft AMSL**	**1702.2**	**1702.6**	**1702.1**
Field Parameters				
Temperature, Field	deg C	7.92	9.75	19.06
Turbidity, Field	ntu	6.01	0.79	1.85
Specific Conductance, Field	µmhos/cm	1613	1998	1715
Detection Monitoring Parameters				
Boron	mg/L	---	0.33	0.38
Calcium	mg/L	---	41.9	40.8
Chloride	mg/L	---	---	9.6
Fluoride	mg/L	0.96	0.88	1.02
pH, Field	s.u.	7.82	7.82	7.81
pH, Lab	s.u.	8.0	8.0	8.2
Sulfate	mg/L	---	386	384
Total Dissolved Solids	mg/L	---	1320	1210
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	0.0020	0.0020	< 0.002
Barium	mg/L	0.0429	0.0435	0.0391
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	0.0021	0.0022	< 0.002
Cobalt	mg/L	< 0.002	< 0.002	< 0.002
Fluoride	mg/L	0.96	0.88	1.02
Lead	mg/L	< 0.0005	< 0.0005	< 0.0005
Lithium	mg/L	0.0464	0.0413	0.0478
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0316	0.0279	0.0299
Radium-226	pCi/L	0.9 U ± 0.9	0.04 U ± 0.1	0.02 U ± 0.09
Radium-228	pCi/L	2.5 ± 1.1	0.3 U ± 0.6	0.6 U ± 0.5
Radium 226 + Radium 228, C	pCi/L	2.6 ± 1.1	0.6 U ± 0.6	0.5 U ± 0.5
Selenium	mg/L	0.0258	0.0259	0.0206
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 6: Sample Results Summary Table - MW-9N (Downgradient, Bottom Ash Landfill)

		MW-9N		
		Assessment Monitoring		
	Units	20-Mar-25	23-Jun-25	20-Nov-25
Water Elevation	**ft AMSL**	**1689.5**	**1690.8**	**1689.5**
Field Parameters				
Temperature, Field	deg C	7.39	9.03	19.42
Turbidity, Field	ntu	< 0.1	5.39	3.5
Specific Conductance, Field	µmhos/cm	3829	3918	3996
Detection Monitoring Parameters				
Boron	mg/L	---	2.50	2.96
Calcium	mg/L	---	84.0	78.4
Chloride	mg/L	---	---	25.4
Fluoride	mg/L	0.66	0.71	0.77
pH, Field	s.u.	7.23	7.03	7.13
pH, Lab	s.u.	7.4	7.8	7.8
Sulfate	mg/L	---	1110	1370
Total Dissolved Solids	mg/L	---	2850	3230
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	< 0.002	< 0.002	< 0.002
Barium	mg/L	0.0533	0.0543	0.0618
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002	< 0.002
Cobalt	mg/L	0.0029	0.0041	0.0023
Fluoride	mg/L	0.66	0.71	0.77
Lead	mg/L	< 0.0005	< 0.0005	< 0.0005
Lithium	mg/L	0.0444	0.0436	0.0535
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0427	0.0464	0.0429
Radium-226	pCi/L	0.2 U ± 0.1	0.2 U ± 0.1	0.08 U ± 0.2
Radium-228	pCi/L	-0.1 ± 0.6	0.9 ± 0.7	-0.2 U ±0.8
Radium 226 + Radium 228, Com	pCi/L	0.7 ± 0.7	0.7 ± 0.7	0.8 U ± 0.8
Selenium	mg/L	0.0092	0.0103	0.0135
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 7: Sample Results Summary Table - MW-102 (Downgradient, Bottom Ash Landfill)

		MW-102		
		Assessment Monitoring		
	Units	20-Mar-25	23-Jun-25	20-Nov-25
Water Elevation	**ft AMSL**	**1693.9**	**1695.1**	**1694.0**
Field Parameters				
Temperature, Field	deg C	9.13	9.89	18.88
Turbidity, Field	ntu	0.98	3.63	37.27
Specific Conductance, Field	µmhos/cm	1968	2017	1898
Detection Monitoring Parameters				
Boron	mg/L	---	0.43	0.45
Calcium	mg/L	---	61.6	60.6
Chloride	mg/L	---	---	14.9
Fluoride	mg/L	0.47	0.48	0.49
pH, Field	s.u.	7.65	7.51	7.59
pH, Lab	s.u.	7.8	8.0	8.0
Sulfate	mg/L	---	578	532
Total Dissolved Solids	mg/L	---	1440	1410
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	< 0.002	< 0.002	< 0.002
Barium	mg/L	0.0273	0.0293	0.0298
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002	< 0.002
Cobalt	mg/L	< 0.002	< 0.002	< 0.002
Fluoride	mg/L	0.47	0.48	0.49
Lead	mg/L	< 0.0005	< 0.0005	< 0.0005
Lithium	mg/L	0.0527	0.0513	0.0558
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0169	0.0206	0.0175
Radium-226	pCi/L	0.2 U ± 0.1	0.06 U ± 0.1	0.08 U ± 0.1
Radium-228	pCi/L	0.5 U ± 0.7	1.2 ± 0.8	0.4 U ± 0.5
Radium 226 + Radium 228, Comb	pCi/L	0.7 U ± 0.7	1.3 ± 0.8	0.5 U ± 0.5
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 8: Sample Results Summary Table - MW-103 (Downgradient, Bottom Ash Landfill)

		MW-103		
		Assessment Monitoring		
	Units	20-Mar-25	23-Jun-25	20-Nov-25
Water Elevation	**ft AMSL**	**1689.6**	**1691.0**	**1689.8**
Field Parameters				
Temperature, Field	deg C	7.67	9.27	19.32
Turbidity, Field	ntu	4.96	0.94	1.34
Specific Conductance, Field	µmhos/cm	2489	2504	2543
Detection Monitoring Parameters				
Boron	mg/L	---	0.98	1.38
Calcium	mg/L	---	32.3	35.3
Chloride	mg/L	---	---	16.4
Fluoride	mg/L	0.22	0.27	0.46
pH, Field	s.u.	8.98	8.84	8.55
pH, Lab	s.u.	8.8	8.8	8.6
Sulfate	mg/L	---	693	622
Total Dissolved Solids	mg/L	---	1810	1860
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	0.0087	0.0091	0.0178
Barium	mg/L	0.0840	0.0986	0.0689
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002	< 0.002
Cobalt	mg/L	< 0.002	< 0.002	< 0.002
Fluoride	mg/L	0.22	0.27	0.46
Lead	mg/L	0.0012	0.0006	0.0019
Lithium	mg/L	0.0423	0.0398	0.0320
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0239	0.0242	0.0365
Radium-226	pCi/L	0.2 U ± 0.1	0.1 U ± 0.2	0.2 U ± 0.2
Radium-228	pCi/L	0.4 U ± 0.7	3.0 ± 1.2	-0.1 U ± 0.6
Radium 226 + Radium 228, Combined	pCi/L	0.7 U ± 0.7	3.2 ± 1.2	0.7 U ± 0.7
Selenium	mg/L	< 0.005	< 0.005	0.0121
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 9: Sample Results Summary Table - MW-1R (Downgradient, Bottom Ash Impoundment)

		MW-1R		
	Units	17-Mar-25	24-Jun-25	1-Dec-25
Water Elevation	**ft AMSL**	**1689.3**	**1690.6**	**1689.3**
Field Parameters				
Temperature, Field	deg C	9.17	9.83	15.79
Turbidity, Field	ntu	8.72	49.89	96.54
Specific Conductance, Field	µmhos/cm	1337	1647	1426
Detection Monitoring Parameters				
Boron	mg/L	---	1.16	1.18
Calcium	mg/L	---	89.9	91.5
Chloride	mg/L	---	---	11.3
Fluoride	mg/L	0.63 ^	0.77	0.81
pH, Field	s.u.	7.77	7.76	7.75
pH, Lab	s.u.	8.5	8.1	8.1
Sulfate	mg/L	---	324	350
Total Dissolved Solids	mg/L	---	1010	1010
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	< 0.002	< 0.002	< 0.002
Barium	mg/L	0.0442	0.0337	0.0357
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002	< 0.002
Cobalt	mg/L	< 0.002	< 0.002	< 0.002
Fluoride	mg/L	0.63 ^	0.77	0.81
Lead	mg/L	< 0.0005	< 0.0005	< 0.0005
Lithium	mg/L	0.0419	0.0352	0.0431
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0158	0.0135	0.0144
Radium-226	pCi/L	0.1 U ± 0.1	0.07 U ± 0.1	0.2 U ± 0.1
Radium-228	pCi/L	0.7 U ± 0.6	0.5 U ± 0.6	0.7 U ±0.6
Radium 226 + Radium 228, Comb	pCi/L	0.6 U ± 0.6	0.5 U ± 0.6	0.6 U ± 0.6
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 10: Sample Results Summary Table - MW-104 (Downgradient, Bottom Ash Impoundment)

		MW-104		
	Units	17-Mar-25	24-Jun-25	1-Dec-25
Water Elevation	**ft AMSL**	**1689.5**	**1690.8**	**1689.7**
Field Parameters				
Temperature, Field	deg C	9.19	10.22	16.19
Turbidity, Field	ntu	< 0.1	< 0.1	2.56
Specific Conductance, Field	µmhos/cm	1520	1897	1741
Detection Monitoring Parameters				
Boron	mg/L	---	0.69	0.7
Calcium	mg/L	---	68.8	78.3
Chloride	mg/L	---	---	12.2
Fluoride	mg/L	0.76	0.83	0.79
pH, Field	s.u.	7.32	7.38	7.35
pH, Lab	s.u.	7.7	7.9	7.8
Sulfate	mg/L	---	402	409
Total Dissolved Solids	mg/L	---	1170	1220
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	< 0.002	< 0.002	< 0.002
Barium	mg/L	0.0510	0.0420	0.0512
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002	< 0.002
Cobalt	mg/L	0.0025	0.0023	< 0.002
Fluoride	mg/L	0.76	0.83	0.79
Lead	mg/L	< 0.0005	< 0.0005	< 0.0005
Lithium	mg/L	0.0263	0.0224	0.0282
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0480	0.0485	0.044
Radium-226	pCi/L	0.09 U ± 0.1	0.06 U ± 0.09	0.1 U ± 0.2
Radium-228	pCi/L	0.9 U ± 0.7	0.6 U ± 0.6	1.2 ±0.7
Radium 226 + Radium 228, Comb	pCi/L	0.6 U ± 0.7	0.5 U ± 0.6	1.3 ±0.7
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 11: Sample Results Summary Table - MW-201 (Downgradient, Bottom Ash Impoundment)

		MW-201			
		Assessment Monitoring			
	Units	19-Mar-25	24-Jun-25	30-Sep-25	1-Dec-25
				Additional Sample	
Water Elevation	**ft AMSL**	**1693.5**	**1694.8**	**1694.3**	**1694.2**
Field Parameters					
Temperature, Field	deg C	6.66	11.76	15.51	7.17
Turbidity, Field	ntu	5.42	0.73	0.27	93
Specific Conductance, Field	µmhos/cm	3097	3403	3077	2987
Detection Monitoring Parameters					
Boron	mg/L	---	1.43	---	1.58
Calcium	mg/L	---	103	---	97.7
Chloride	mg/L	---	---	---	18.9
Fluoride	mg/L	0.73	0.77	---	0.87
pH, Field	s.u.	7.49	7.43	7.46	7.55
pH, Lab	s.u.	7.7	7.9	---	7.8
Sulfate	mg/L	---	1120	---	1120
Total Dissolved Solids	mg/L	---	2230	2250	2220
Assessment Monitoring Parameters					
Antimony	mg/L	< 0.001	< 0.001	---	< 0.001
Arsenic	mg/L	< 0.002	< 0.002	---	< 0.002
Barium	mg/L	0.0171	0.0128	---	0.0183
Beryllium	mg/L	< 0.0005	< 0.0005	---	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	---	< 0.0005
Chromium	mg/L	< 0.002	< 0.002	---	< 0.002
Cobalt	mg/L	< 0.002	< 0.002	---	< 0.002
Fluoride	mg/L	0.73	0.77	---	0.87
Lead	mg/L	< 0.0005	< 0.0005	---	< 0.0005
Lithium	mg/L	< 0.02	< 0.02	---	< 0.02
Mercury	mg/L	< 0.0002	< 0.0002	---	< 0.0002
Molybdenum	mg/L	0.1591	0.1683	---	0.1799
Radium-226	pCi/L	0.2 U ± 0.1	0.06 U ± 0.1	---	0.1 U ± 0.1
Radium-228	pCi/L	0.7 U ± 0.7	0.5 U ± 0.6	---	0.4 U ±0.6
Radium 226 + Radium 228, Combir	pCi/L	0.6 U ± 0.7	0.5 U ± 0.6	---	0.6 U ± 0.6
Selenium	mg/L	< 0.005	< 0.005	---	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	---	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).
* * * - The radiochemistry samples collected for MW-201 during the June 2024 sampling event were broken in transit from the primary

Table 12: Sample Results Summary Table - MW-202 (Downgradient, Bottom Ash Impoundment)

		MW-202				
		Assessment Monitoring				
	Units	19-Mar-25	19-Mar-25 Q1 2025 Resample	21-Mar-25 Q1 2025 Resample	24-Jun-25	1-Dec-25
Water Elevation	**ft AMSL**	**1691.9**	**1691.9**	**1691.9**	**1692.5**	**1692.5**
Field Parameters						
Temperature, Field	deg C	6.49	6.49	6	11.83	6.89
Turbidity, Field	ntu	183.73	183.73	382.5	49.46	662.6
Specific Conductance, Field	µmhos/cm	2105	2105	1832	2296	2139
Detection Monitoring Parameters						
Boron	mg/L	---	---	1.74	1.72	2.03
Calcium	mg/L	---	---	---	191	209
Chloride	mg/L	---	---	---	--	13.6
Fluoride	mg/L	0.13	---	---	0.12	0.13
pH, Field	s.u.	7.25	7.25	7.21	7.17	7.12
pH, Lab	s.u.	7.6	---	---	7.7	7.7
Sulfate	mg/L	---	580	---	579	642
Total Dissolved Solids	mg/L	---		---	1530	1530
Assessment Monitoring Parameters						
Antimony	mg/L	< 0.001	---	---	< 0.001	< 0.001
Arsenic	mg/L	0.0040	---	---	< 0.002	< 0.002
Barium	mg/L	0.1502	---	---	0.0252	0.0808
Beryllium	mg/L	< 0.0005	---	---	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	---	---	< 0.0005	< 0.0005
Chromium	mg/L	0.0133	---	---	0.0046	0.0052
Cobalt	mg/L	0.0068	---	---	0.0036	0.0031
Fluoride	mg/L	0.13	---	---	0.12	0.13
Lead	mg/L	0.0044	---	---	0.0010	0.0014
Lithium	mg/L	0.0282	---	---	< 0.02	0.0321
Mercury	mg/L	< 0.0002	---	---	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0029	---	---	0.0029	0.0031
Radium-226	pCi/L	2.1 ± 0.5	---	---	0.08 U ± 0.1	0.08 U ± 0.2
Radium-228	pCi/L	1 U ± 1.7	---	---	0.4 U ± 0.7	0.5 U ± 0.7
Radium 226 + Radium 228, Com	pCi/L	3.4 ± 1.8	---	---	0.7 U ± 0.7	0.7 U ± 0.8
Selenium	mg/L	0.0074	---	---	0.0057	0.0063
Thallium	mg/L	< 0.0005	---	---	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 13: Sample Results Summary Table - MW-203 (Downgradient, Bottom Ash Impoundment)

		MW-203		
		Assessment Monitoring		
	Units	19-Mar-25	24-Jun-25	1-Dec-25
Water Elevation	**ft AMSL**	**1696.5**	**1697.9**	**1697.0**
Field Parameters				
Temperature, Field	deg C	4.36	11.9	7.85
Turbidity, Field	ntu	33.38	0.29	0.75
Specific Conductance, Field	µmhos/cm	2219	3906	2195
Detection Monitoring Parameters				
Boron	mg/L	---	2.41	1.71
Calcium	mg/L	---	36.6	12.6
Chloride	mg/L	---	---	12.9
Fluoride	mg/L	0.83	0.75	0.94
pH, Field	s.u.	9.63	8.51	9.37
pH, Lab	s.u.	9.5	8.6	9.4
Sulfate	mg/L	---	1010	578
Total Dissolved Solids	mg/L	---	2470	1530
Assessment Monitoring Parameters				
Antimony	mg/L	0.0011	0.0012	0.0013
Arsenic	mg/L	0.0275	0.0118	0.0283
Barium	mg/L	0.0403	0.0488	0.0302
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	0.0006	< 0.0005	0.0006
Chromium	mg/L	0.0036	< 0.002	< 0.002
Cobalt	mg/L	0.0037	< 0.002	0.0026
Fluoride	mg/L	0.83	0.75	0.94
Lead	mg/L	0.0072	0.0015	0.0049
Lithium	mg/L	< 0.02	< 0.02	< 0.02
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0633	0.0517	0.0631
Radium-226	pCi/L	0.4 ± 0.2	0.2 ± 0.1	0.4 ± 0.2
Radium-228	pCi/L	1.4 U ± 1.1	0.03 U ± 0.6	0.9 U ± 0.7
Radium 226 + Radium 228, Comb	pCi/L	1.2 U ± 1.1	0.7 U ± 0.6	0.9 U ± 0.7
Selenium	mg/L	0.0072	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
ft AMSL: feet above mean sea level
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 14: Sample Results Summary Table - MW-210

		MW-210		
	Units	19-Mar-25	23-Jun-25	20-Nov-25
Water Elevation	**ft AMSL**	**1689.1**	**1690.5**	**1689.3**
Field Parameters				
Temperature, Field	deg C	8.59	10.63	21.19
Turbidity, Field	ntu	81.54	23.87	102.8
Specific Conductance, Field	µmhos/cm	1612	1593	1524
Detection Monitoring Parameters				
Boron	mg/L	---	0.63	0.75
Calcium	mg/L	---	68.8	72.3
Chloride	mg/L	---	---	11.9
Fluoride	mg/L	0.59	0.55	0.64
pH, Field	s.u.	7.83	7.67	7.71
pH, Lab	s.u.	7.9	8.1	8.1
Sulfate	mg/L	---	424	381
Total Dissolved Solids	mg/L	---	1110	1110
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	0.0029	< 0.002	0.0028
Barium	mg/L	0.0540	0.0346	0.0564
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002	0.0021
Cobalt	mg/L	< 0.002	< 0.002	< 0.002
Fluoride	mg/L	0.59	0.55	0.64
Lead	mg/L	0.0008	< 0.0005	0.0010
Lithium	mg/L	0.0409	0.0348	0.0416
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0117	0.0115	0.0132
Radium-226	pCi/L	0.1 U ± 0.1	0.1 U ± 0.1	0.2 U ± 0.2
Radium-228	pCi/L	0.5 U ± 0.5	0.5 U ± 0.6	1.5 ± 0.9
Radium 226 + Radium 228, Comb	pCi/L	0.5 U ± 0.5	0.5 U ± 0.6	1.7 ± 1
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 15: Sample Results Summary Table - MW-211

		MW-211		
	Units	19-Mar-25	23-Jun-25	20-Nov-25
Water Elevation	**ft AMSL**	**1689.3**	**1690.7**	**1689.5**
Field Parameters				
Temperature, Field	deg C	8.3	9.29	20.18
Turbidity, Field	ntu	43.91	1.12	0.86
Specific Conductance, Field	µmhos/cm	2542	2476	2400
Detection Monitoring Parameters				
Boron	mg/L	---	1.31	1.62
Calcium	mg/L	---	55.4	61.4
Chloride	mg/L	---	---	17.4
Fluoride	mg/L	0.55	0.56	0.57
pH, Field	s.u.	8.07	7.97	7.89
pH, Lab	s.u.	8.1	8.2	8.2
Sulfate	mg/L	---	750	768
Total Dissolved Solids	mg/L	---	1730	1800
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	0.0127	0.0098	0.0109
Barium	mg/L	0.1509	0.1181	0.1151
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002	< 0.002
Cobalt	mg/L	< 0.002	< 0.002	< 0.002
Fluoride	mg/L	0.55	0.56	0.57
Lead	mg/L	0.0007	< 0.0005	< 0.0005
Lithium	mg/L	0.0258	0.0207	0.0259
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0231	0.0208	0.0234
Radium-226	pCi/L	0.1 U ± 0.1	0.05 U ± 0.2	0.04 U ± 0.1
Radium-228	pCi/L	1.1 ± 0.6	0.2 U ± 0.6	0.5 U ± 0.7
Radium 226 + Radium 228, Comb	pCi/L	1.2 ± 0.7	0.7 U ± 0.7	0.6 U ± 0.7
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 16: Sample Results Summary Table - MW-212

		MW-212		
	Units	19-Mar-25	23-Jun-25	20-Nov-25
Water Elevation	**ft AMSL**	**1689.4**	**1690.7**	**1689.5**
Field Parameters				
Temperature, Field	deg C	8.37	10.05	20.5
Turbidity, Field	ntu	22.28	0.41	0.33
Specific Conductance, Field	µmhos/cm	1903	1852	1817
Detection Monitoring Parameters				
Boron	mg/L	---	0.71	0.84
Calcium	mg/L	---	47.6	42.7
Chloride	mg/L	---	---	14.4
Fluoride	mg/L	0.44	0.44	0.47
pH, Field	s.u.	8.31	7.93	8.15
pH, Lab	s.u.	8.2	8.2	8.3
Sulfate	mg/L	---	520	443
Total Dissolved Solids	mg/L	---	1300	1310
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	0.0031	0.0031	0.0029
Barium	mg/L	0.0749	0.0585	0.0739
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002	< 0.002
Cobalt	mg/L	0.0024	< 0.002	0.0026
Fluoride	mg/L	0.44	0.44	0.47
Lead	mg/L	0.0017	0.0007	0.0018
Lithium	mg/L	0.0275	0.0291	0.0260
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0350	0.0325	0.0422
Radium-226	pCi/L	0.1 U ± 0.1	0.02 U ± 0.1	0.2 U ± 0.2
Radium-228	pCi/L	1.5 ± 0.7	-0.09 U ± 0.6	0.05 U ± 0.7
Radium 226 + Radium 228, Comb	pCi/L	1.6 ± 0.7	0.7 U ± 0.6	0.7 U ± 0.7
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 17: Sample Results Summary Table - MW-213

		MW-213		
	Units	19-Mar-25	23-Jun-25	20-Nov-25
Water Elevation	**ft AMSL**	**1688.8**	**1690.3**	**1688.9**
Field Parameters				
Temperature, Field	deg C	9.08	10.45	20.85
Turbidity, Field	ntu	151.36	155	4.93
Specific Conductance, Field	µmhos/cm	1518	1522	1435
Detection Monitoring Parameters				
Boron	mg/L	---	1.16	1.19
Calcium	mg/L	---	101	79.5
Chloride	mg/L	---	---	11.4
Fluoride	mg/L	0.84	0.73	0.85
pH, Field	s.u.	7.85	7.64	7.72
pH, Lab	s.u.	7.9	8.0	8.1
Sulfate	mg/L	---	406	350
Total Dissolved Solids	mg/L	---	1070	1050
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	0.0037	0.0033	< 0.002
Barium	mg/L	0.0643	0.0784	0.0388
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	0.0031	0.0046	< 0.002
Cobalt	mg/L	< 0.002	< 0.002	< 0.002
Fluoride	mg/L	0.84	0.73	0.85
Lead	mg/L	0.0011	0.0018	< 0.0005
Lithium	mg/L	0.0361	0.0336	0.0368
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0378	0.0138	0.0178
Radium-226	pCi/L	0.1 U ± 0.1	-0.005 U ± 0.2	0.2 U ± 0.2
Radium-228	pCi/L	1.4 ± 0.7	0.8 U ± 0.6	0.8 U ± 0.8
Radium 226 + Radium 228, Comb	pCi/L	1.4 ± 0.7	0.6 U ± 0.6	0.8 U ± 0.8
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 18: Sample Results Summary Table - MW-214

		MW-214		
	Units	19-Mar-25	23-Jun-25	20-Nov-25
Water Elevation	**ft AMSL**	**1701.3**	**1702.0**	**1701.2**
Field Parameters				
Temperature, Field	deg C	3.57	10.6	18.38
Turbidity, Field	ntu	41.87	5.12	4.47
Specific Conductance, Field	µmhos/cm	2028	2104	1906
Detection Monitoring Parameters				
Boron	mg/L	---	0.35	0.45
Calcium	mg/L	---	73.1	50.0
Chloride	mg/L	---	---	20.4
Fluoride	mg/L	0.48	0.49	0.54
pH, Field	s.u.	7.75	7.52	7.62
pH, Lab	s.u.	7.9	8.0	8.1
Sulfate	mg/L	---	616	501
Total Dissolved Solids	mg/L	---	1460	1360
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	< 0.002	< 0.002	< 0.002
Barium	mg/L	0.0435	0.0433	0.0306
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	0.0024	< 0.002	< 0.002
Cobalt	mg/L	< 0.002	< 0.002	< 0.002
Fluoride	mg/L	0.48	0.49	0.54
Lead	mg/L	< 0.0005	< 0.0005	< 0.0005
Lithium	mg/L	0.0631	0.0499	0.0609
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0123	0.0133	0.0139
Radium-226	pCi/L	0.07 U ± 0.1	0.07 U ± 0.1	-0.06 U ± 0.1
Radium-228	pCi/L	1 ± 0.6	0.2 U ± 0.6	1.1 ± 0.8
Radium 226 + Radium 228, Comb	pCi/L	1.1 ± 0.6	0.6 U ± 0.6	1.2 ± 0.8
Selenium	mg/L	< 0.005	0.0069	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 19: Sample Results Summary Table - MW-PB1 (Property Boundary Well)

		MW-PB1		
	Units	18-Mar-25	24-Jun-25	25-Nov-25
Water Elevation	**ft AMSL**	**1674.2**	**1674.2**	**1674.4**
Field Parameters				
Temperature, Field	deg C	* *	* *	* *
Turbidity, Field	ntu	* *	* *	* *
Specific Conductance, Field	µmhos/cm	* *	* *	* *
Detection Monitoring Parameters				
Boron	mg/L	* *	* *	* *
Calcium	mg/L	* *	* *	* *
Chloride	mg/L	* *	* *	* *
Fluoride	mg/L	* *	* *	* *
pH, Field	s.u.	* *	* *	* *
pH, Lab	s.u.	* *	* *	* *
Sulfate	mg/L	* *	* *	* *
Total Dissolved Solids	mg/L	* *	* *	* *
Assessment Monitoring Parameters				
Antimony	mg/L	* *	* *	* *
Arsenic	mg/L	* *	* *	* *
Barium	mg/L	* *	* *	* *
Beryllium	mg/L	* *	* *	* *
Cadmium	mg/L	* *	* *	* *
Chromium	mg/L	* *	* *	* *
Cobalt	mg/L	* *	* *	* *
Fluoride	mg/L	* *	* *	* *
Lead	mg/L	* *	* *	* *
Lithium	mg/L	* *	* *	* *
Mercury	mg/L	* *	* *	* *
Molybdenum	mg/L	* *	* *	* *
Radium-226	pCi/L	* *	* *	* *
Radium-228	pCi/L	* *	* *	* *
Radium 226 + Radium 228, Com	pCi/L	* *	* *	* *
Selenium	mg/L	* *	* *	* *
Thallium	mg/L	* *	* *	* *

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

* * - Insufficient volume for sample collection.

Table 20: Sample Results Summary Table - MW-215

		MW-215		
	Units	18-Mar-25	25-Jun-25	24-Nov-25
Water Elevation	**ft AMSL**	**1688.8**	**1690.2**	**1688.9**
Field Parameters				
Temperature, Field	deg C	7.76	11.3	10.92
Turbidity, Field	ntu	160.32	38.71	231.9
Specific Conductance, Field	µmhos/cm	2447	2464	2338
Detection Monitoring Parameters				
Boron	mg/L	---	0.83	0.89
Calcium	mg/L	---	90.7	84.6
Chloride	mg/L	---	---	16.7
Fluoride	mg/L	---	0.44	0.5
pH, Field	s.u.	7.59	7.69	7.68
pH, Lab	s.u.	7.8	7.9	7.9
Sulfate	mg/L	---	680	662
Total Dissolved Solids	mg/L	---	1710	1620
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	<0.001	<0.001
Arsenic	mg/L	0.0061	0.0032	0.0138
Barium	mg/L	0.0598	0.0424	0.0826
Beryllium	mg/L	<0.0005	0.0424	<0.0005
Cadmium	mg/L	<0.0005	<0.0005	<0.0005
Chromium	mg/L	0.0032	<0.002	0.0043
Cobalt	mg/L	<0.002	<0.002	<0.002
Fluoride	mg/L	0.43	0.44	0.50
Lead	mg/L	0.0011	<0.0005	0.0015
Lithium	mg/L	0.0434	0.0416	0.0449
Mercury	mg/L	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	0.015	0.0148	0.0149
Radium-226	pCi/L	0.2 ± 0.1	0.05 U ± 0.1	0.2 ± 0.1
Radium-228	pCi/L	2.2 ± 0.8	0.6 U ± 0.6	0.6 U ± 0.6
Radium 226 + Radium 228, Comb	pCi/L	0.8 ± 0.8	0.6 U ± 0.6	0.7 U ± 0.6
Selenium	mg/L	<0.005	<0.005	<0.005
Thallium	mg/L	<0.0005	<0.0005	<0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 21: Sample Results Summary Table - MW-216

		MW-216		
	Units	18-Mar-25	25-Jun-25	24-Nov-25
Water Elevation	**ft AMSL**	**1689.1**	**1690.5**	**1689.2**
Field Parameters				
Temperature, Field	deg C	6.79	11.61	11.28
Turbidity, Field	ntu	54.94	34.84	5.6
Specific Conductance, Field	µmhos/cm	2145	2120	2068
Detection Monitoring Parameters				
Boron	mg/L	---	0.71	0.77
Calcium	mg/L	---	84.0	77.7
Chloride	mg/L	---	---	14.4
Fluoride	mg/L	0.49	0.48	0.53
pH, Field	s.u.	7.7	7.72	7.72
pH, Lab	s.u.	7.8	7.9	7.9
Sulfate	mg/L	---	549	567
Total Dissolved Solids	mg/L	---	1420	1400
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	0.0043	< 0.002	< 0.002
Barium	mg/L	0.0492	0.0325	0.0325
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002	< 0.002
Cobalt	mg/L	< 0.002	< 0.002	< 0.002
Fluoride	mg/L	0.49	0.48	0.53
Lead	mg/L	0.0005	< 0.0005	< 0.0005
Lithium	mg/L	0.0487	0.0404	0.0484
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0111	0.0099	0.0114
Radium-226	pCi/L	0.1 U ± 0.09	0.1 U ± 0.1	0.04 U ± 0.09
Radium-228	pCi/L	2.3 ± 0.9	-0.03 U ± 0.7	0.2 U ± 0.6
Radium 226 + Radium 228, Comb	pCi/L	2.4 ± 0.9	0.7 ± 0.7	0.5 U ± 0.6
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 22: Sample Results Summary Table - MW-217

		MW-217		
	Units	18-Mar-25	25-Jun-25	24-Nov-25
Water Elevation	**ft AMSL**	**1688.5**	**1690.0**	**1688.6**
Field Parameters				
Temperature, Field	deg C	7.92	15.58	9.27
Turbidity, Field	ntu	62.01	10.82	36.33
Specific Conductance, Field	µmhos/cm	2458	2446	2365
Detection Monitoring Parameters				
Boron	mg/L	---	0.82	0.89
Calcium	mg/L	---	120	93.7
Chloride	mg/L	---	---	16.8
Fluoride	mg/L	0.55	0.60	0.65
pH, Field	s.u.	7.67	7.91	7.65
pH, Lab	s.u.	7.8	7.9	7.9
Sulfate	mg/L	---	726	701
Total Dissolved Solids	mg/L	---	1730	1640
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	0.0063	0.0021	0.0061
Barium	mg/L	0.0485	0.0354	0.0515
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002	< 0.002
Cobalt	mg/L	< 0.002	< 0.002	< 0.002
Fluoride	mg/L	0.55	0.60	0.65
Lead	mg/L	< 0.0005	< 0.0005	< 0.0005
Lithium	mg/L	0.0464	0.0408	0.0492
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0140	0.0126	0.0164
Radium-226	pCi/L	-0.09 U ± 0.1	0.4 ± 0.1	0.02 U ± 0.08
Radium-228	pCi/L	1.6 ± 0.7	0.5 U ± 0.7	0.6 U ± 0.6
Radium 226 + Radium 228, Comb	pCi/L	1.7 ± 0.7	1 U ± 0.7	0.5 U ± 0.6
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 23: Sample Results Summary Table - MW-218

		MW-218		
	Units	18-Mar-25	25-Jun-25	24-Nov-25
Water Elevation	**ft AMSL**	**1688.7**	**1690.2**	**1689.9**
Field Parameters				
Temperature, Field	deg C	7.88	10.42	10
Turbidity, Field	ntu	46.95	50.43	17.91
Specific Conductance, Field	µmhos/cm	2163	2100	2095
Detection Monitoring Parameters				
Boron	mg/L	---	0.78	0.84
Calcium	mg/L	---	87.6	84.5
Chloride	mg/L	---	---	14.3
Fluoride	mg/L	0.55	0.55	0.62
pH, Field	s.u.	7.69	7.74	7.55
pH, Lab	s.u.	7.9	7.9	7.9
Sulfate	mg/L	---	620	584
Total Dissolved Solids	mg/L	---	1440	1480
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	0.0026	< 0.002	< 0.002
Barium	mg/L	0.0647	0.0337	0.0346
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002	< 0.002
Cobalt	mg/L	< 0.002	< 0.002	< 0.002
Fluoride	mg/L	0.55	0.55	0.62
Lead	mg/L	0.0005	< 0.0005	< 0.0005
Lithium	mg/L	0.0479	0.0416	0.0491
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0115	0.0103	0.0118
Radium-226	pCi/L	0.05 U ± 0.1	0.1 U ± 0.1	0.1 U ± 0.1
Radium-228	pCi/L	1.6 ± 0.7	1.1 ± 0.7	0.2 U ± 0.6
Radium 226 + Radium 228, Comb	pCi/L	1.7 ± 0.7	1.2 ± 0.7	0.5 U ± 0.6
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 24: Sample Results Summary Table - MW-219

		MW-219		
	Units	18-Mar-25	25-Jun-25	25-Nov-25
Water Elevation	**ft AMSL**	**1689.9**	**1691.1**	**1689.9**
Field Parameters				
Temperature, Field	deg C	8.5	10.15	9.98
Turbidity, Field	ntu	449.72	53	4.11
Specific Conductance, Field	µmhos/cm	3643	3328	3988
Detection Monitoring Parameters				
Boron	mg/L	---	0.98	1.17
Calcium	mg/L	---	273	314
Chloride	mg/L	---	---	16.5
Fluoride	mg/L	0.16	0.19	0.15
pH, Field	s.u.	7.2	7.16	7.11
pH, Lab	s.u.	7.4	7.5	7.5
Sulfate	mg/L	---	1350	1690
Total Dissolved Solids	mg/L	---	2540	3330
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	0.0225	0.0048	0.0024
Barium	mg/L	0.1931	0.0277	0.03
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	0.0143	< 0.002	< 0.002
Cobalt	mg/L	0.0096	< 0.002	0.002
Fluoride	mg/L	0.16	0.19	0.15
Lead	mg/L	0.0077	< 0.0005	< 0.0005
Lithium	mg/L	0.0394	0.0330	0.0351
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0133	0.0068	0.0085
Radium-226	pCi/L	0.4 ± 0.2	-0.01 U ± 0.1	0.02 U ± 0.1
Radium-228	pCi/L	1.7 ± 0.8	-0.2 U ± 0.7	0.4 U ± 0.7
Radium 226 + Radium 228, Comb	pCi/L	2.1 ± 0.8	0.7 U ± 0.7	0.7 U ± 0.7
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 25: Sample Results Summary Table - MW-220

		MW-220		
	Units	18-Mar-25	25-Jun-25	24-Nov-25
Water Elevation	**ft AMSL**	**1689.0**	**1690.4**	**1689.1**
Field Parameters				
Temperature, Field	deg C	6.36	11.93	9.4
Turbidity, Field	ntu	347.35	36.64	49.7
Specific Conductance, Field	µmhos/cm	2102	2088	2023
Detection Monitoring Parameters				
Boron	mg/L	---	0.76	0.81
Calcium	mg/L	---	83.6	79.7
Chloride	mg/L	---	---	14.3
Fluoride	mg/L	0.55	0.52	0.59
pH, Field	s.u.	7.64	7.69	7.7
pH, Lab	s.u.	7.8	7.9	8
Sulfate	mg/L	---	628	559
Total Dissolved Solids	mg/L	---	1400	1400
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	0.0041	< 0.002	< 0.002
Barium	mg/L	0.0749	0.0340	0.0323
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	0.0057	< 0.002	< 0.002
Cobalt	mg/L	0.0023	< 0.002	< 0.002
Fluoride	mg/L	0.55	0.52	0.59
Lead	mg/L	0.0016	< 0.0005	< 0.0005
Lithium	mg/L	0.0497	0.0434	0.0485
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0114	0.0107	0.0115
Radium-226	pCi/L	0.1 U ± 0.1	0.2 ± 0.1	0.02 U ± 0.1
Radium-228	pCi/L	3.1 ± 1	1.1 U ± 0.8	0.6 U ± 0.7
Radium 226 + Radium 228, Comb	pCi/L	3.2 ± 1	0.8 U ± 0.8	0.7 U ± 0.7
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e., samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 26: Sample Results Summary Table - MW-221

		MW-221		
	Units	18-Mar-25	25-Jun-25	24-Nov-25
Water Elevation	**ft AMSL**	**1689.2**	**1690.5**	**1690.6**
Field Parameters				
Temperature, Field	deg C	7.86	10.97	8.33
Turbidity, Field	ntu	49.01	8.59	10.83
Specific Conductance, Field	µmhos/cm	2220	2227	2084
Detection Monitoring Parameters				
Boron	mg/L	---	0.76	0.74
Calcium	mg/L	---	69.2	79.1
Chloride	mg/L	---	---	17
Fluoride	mg/L	0.48	0.46	0.49
pH, Field	s.u.	7.62	7.64	7.75
pH, Lab	s.u.	7.8	7.9	7.9
Sulfate	mg/L	---	642	560
Total Dissolved Solids	mg/L	---	1530	1450
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	0.0149	0.0071	0.0129
Barium	mg/L	0.0421	0.0315	0.0795
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002	0.0038
Cobalt	mg/L	< 0.002	< 0.002	0.0021
Fluoride	mg/L	0.48	0.46	0.49
Lead	mg/L	< 0.0005	< 0.0005	0.002
Lithium	mg/L	0.0410	0.0376	0.0446
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0259	0.0238	0.0814
Radium-226	pCi/L	0.08 U ± 0.1	0.04 U ± 0.1	0.2 ± 0.1
Radium-228	pCi/L	1.1 ± 0.6	0.1 U ± 0.7	0.2 U ± 0.7
Radium 226 + Radium 228, Comb	pCi/L	1.2 ± 0.6	0.7 U ± 0.7	0.8 U ±0.7
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e. samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 27: Sample Results Summary Table - MW-222

		MW-222		
	Units	18-Mar-25	25-Jun-25	25-Nov-25
Water Elevation	**ft AMSL**	**1688.9**	**1690.4**	**1689.1**
Field Parameters				
Temperature, Field	deg C	7.74	16.8	5.62
Turbidity, Field	ntu	19.79	14.54	10.19
Specific Conductance, Field	µmhos/cm	2252	2647	2650
Detection Monitoring Parameters				
Boron	mg/L	---	2.08	2.25
Calcium	mg/L	---	44.6	37.3
Chloride	mg/L	---	---	26.8
Fluoride	mg/L	1.33	1.41	1.41
pH, Field	s.u.	7.68	7.7	7.86
pH, Lab	s.u.	7.9	8.0	8
Sulfate	mg/L	---	746	656
Total Dissolved Solids	mg/L	---	2020	2110
Assessment Monitoring Parameters				
Antimony	mg/L	0.0011	0.0014	0.001
Arsenic	mg/L	0.0135	0.0147	0.0142
Barium	mg/L	0.0963	0.0813	0.0925
Beryllium	mg/L	0.0009	0.0006	0.0011
Cadmium	mg/L	0.0007	0.0006	0.0011
Chromium	mg/L	0.0093	0.0071	0.009
Cobalt	mg/L	0.0134	0.0094	0.0153
Fluoride	mg/L	1.33	1.41	1.41
Lead	mg/L	0.0053	0.0074	0.0133
Lithium	mg/L	< 0.02	< 0.02	< 0.02
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.4663	0.4661	0.4747
Radium-226	pCi/L	1.3 U ± 1.7	-0.8 U ± 1.7	0.8 ± 0.4
Radium-228	pCi/L	9.6 U ± 8.3	15.5 U ± 14.6	2.0 U ± 2.0
Radium 226 + Radium 228, Comb	pCi/L	7.4 U ± 8.5	12.2 U ± 14.8	2.3 U ± 2.1
Selenium	mg/L	0.0076	0.0079	0.0095
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e. samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 28: Sample Results Summary Table - MW-300

		MW-300		
	Units	18-Mar-25	24-Jun-25	25-Nov-25
Water Elevation	**ft AMSL**	**1687.7**	**1689.1**	**1687.9**
Field Parameters				
Temperature, Field	deg C	6.94	10.35	9.88
Turbidity, Field	ntu	42.36	17.22	19.32
Specific Conductance, Field	µmhos/cm	2326	2861	2587
Detection Monitoring Parameters				
Boron	mg/L	---	0.87	0.89
Calcium	mg/L	---	118	112
Chloride	mg/L	---	---	32.9
Fluoride	mg/L	0.68	0.63	0.75
pH, Field	s.u.	7.47	7.51	7.43
pH, Lab	s.u.	7.8	7.7	7.8
Sulfate	mg/L	---	743	648
Total Dissolved Solids	mg/L	---	1820	1790
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	0.0042	0.0057	0.0065
Barium	mg/L	0.0781	0.0666	0.0606
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	0.0035	< 0.002	< 0.002
Cobalt	mg/L	0.0049	0.0041	0.0029
Fluoride	mg/L	0.68	0.63	0.75
Lead	mg/L	0.0009	< 0.0005	< 0.0005
Lithium	mg/L	0.0378	0.0336	0.0415
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0147	0.0159	0.0171
Radium-226	pCi/L	0.07 U ± 0.1	0.04 U ± 0.09	0.09 U ± 0.1
Radium-228	pCi/L	1.5 ± 0.8	4.0 ± 1.3	0.4 U ± 0.6
Radium 226 + Radium 228, Comb	pCi/L	1.6 ± 0.8	4.0 ± 1.3	0.5 U ± 0.6
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e. samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 29: Sample Results Summary Table - MW-301

		MW-301		
	Units	18-Mar-25	24-Jun-25	25-Nov-25
Water Elevation	**ft AMSL**	**1680.7**	**1682.6**	**1681.9**
Field Parameters				
Temperature, Field	deg C	8.45	15.41	8.25
Turbidity, Field	ntu	261.27	246.21	641.2
Specific Conductance, Field	µmhos/cm	1108	1386	1209
Detection Monitoring Parameters				
Boron	mg/L	---	0.36	0.37
Calcium	mg/L	---	23.5	20.5
Chloride	mg/L	---	---	8.9
Fluoride	mg/L	0.34	0.30	0.35
pH, Field	s.u.	7.8	7.73	7.86
pH, Lab	s.u.	8.0	8.0	8.1
Sulfate	mg/L	---	174	166
Total Dissolved Solids	mg/L	---	908	813
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	0.0048	0.0038	0.0034
Barium	mg/L	0.1337	0.1128	0.1348
Beryllium	mg/L	0.0015	0.0011	0.001
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	0.0127	0.0098	0.0127
Cobalt	mg/L	0.0066	0.0057	0.0067
Fluoride	mg/L	0.34	0.30	0.35
Lead	mg/L	0.0166	0.0129	0.0157
Lithium	mg/L	0.0711	0.0663	0.0713
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0044	0.0027	0.0021
Radium-226	pCi/L	2.0 ± 0.5	2.2 ± 0.6	1.5 ± 0.4
Radium-228	pCi/L	2.4 ± 1.4	1.5 U ± 1.5	2.9 ± 1.3
Radium 226 + Radium 228, Comb	pCi/L	4.4 ± 1.5	3.3 ± 1.6	4.4 ± 1.4
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e. samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 30: Sample Results Summary Table - MW-PB3 (Property Boundary Well)

		MW-PB3		
	Units	18-Mar-25	24-Jun-25	25-Nov-25
Water Elevation	**ft AMSL**	**1674.3**	**1675.2**	**1677.9**
Field Parameters				
Temperature, Field	deg C	7.79	15.71	5.15
Turbidity, Field	ntu	0.24	0.27	< 0.1
Specific Conductance, Field	µmhos/cm	1919	2439	2161
Detection Monitoring Parameters				
Boron	mg/L	---	0.89	0.95
Calcium	mg/L	---	121	108
Chloride	mg/L	---	---	18.2
Fluoride	mg/L	0.67	0.62	0.67
pH, Field	s.u.	7.4	7.32	7.44
pH, Lab	s.u.	7.8	7.8	7.8
Sulfate	mg/L	---	588	540
Total Dissolved Solids	mg/L	---	1550	1470
Assessment Monitoring Parameters				
Antimony	mg/L	< 0.001	< 0.001	< 0.001
Arsenic	mg/L	< 0.002	< 0.002	< 0.002
Barium	mg/L	0.0421	0.0454	0.0433
Beryllium	mg/L	< 0.0005	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002	< 0.002
Cobalt	mg/L	0.0022	< 0.002	0.0021
Fluoride	mg/L	0.67	0.62	0.67
Lead	mg/L	< 0.0005	< 0.0005	< 0.0005
Lithium	mg/L	0.0354	0.0315	0.0353
Mercury	mg/L	< 0.0002	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0284	0.0298	0.0293
Radium-226	pCi/L	0.02 U ± 0.1	-0.03 U ± 0.09	0.09 U ± 0.1
Radium-228	pCi/L	1 U ± 0.6	0.6 U ± 0.6	0.4 U ± 0.6
Radium 226 + Radium 228, Comb	pCi/L	0.6 U ± 0.6	0.5 U ± 0.6	0.6 U ± 0.6
Selenium	mg/L	< 0.005	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e. samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 31: Sample Results Summary Table - MW-223

		MW-223	
	Units	30-Sep-25	25-Nov-25
Water Elevation	**ft AMSL**	**1696.4**	**1696.1**
Field Parameters			
Temperature, Field	deg C	17.71	15.69
Turbidity, Field	ntu	3.23	28.54
Specific Conductance, Field	µmhos/cm	4224	4024
Detection Monitoring Parameters			
Boron	mg/L	1.06	1.00
Calcium	mg/L	< 5	< 5
Chloride	mg/L	18.4	16.9
Fluoride	mg/L	< 0.1	< 0.1
pH, Field	s.u.	9.95	10.05
pH, Lab	s.u.	9.9	10
Sulfate	mg/L	788	639
Total Dissolved Solids	mg/L	2840	2880
Assessment Monitoring Parameters			
Antimony	mg/L	0.0017	0.0017
Arsenic	mg/L	0.0121	0.012
Barium	mg/L	0.0219	0.024
Beryllium	mg/L	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	0.0009
Chromium	mg/L	< 0.002	0.0026
Cobalt	mg/L	< 0.002	< 0.002
Fluoride	mg/L	< 0.1	< 0.1
Lead	mg/L	0.0009	0.0044
Lithium	mg/L	< 0.02	< 0.02
Mercury	mg/L	< 0.0002	< 0.0002
Molybdenum	mg/L	0.1400	0.1249
Radium-226	pCi/L	0.3 ± 0.1	0.05 U ± 0.1
Radium-228	pCi/L	0.007 U ± 0.4	0.5 U ± 0.5
Radium 226 + Radium 228, Comb	pCi/L	0.7 U ± 0.5	0.5 U ± 0.5
Selenium	mg/L	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e. samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 32: Sample Results Summary Table - MW-224

		MW-224	
	Units	30-Sep-25	26-Nov-25
Water Elevation	**ft AMSL**	**1693.0**	**1692.4**
Field Parameters			
Temperature, Field	deg C	22.9	16.3
Turbidity, Field	ntu	7.7	0.46
Specific Conductance, Field	µmhos/cm	2689	2507
Detection Monitoring Parameters			
Boron	mg/L	2.04	2.10
Calcium	mg/L	24.0	23.4
Chloride	mg/L	20.5	19.4
Fluoride	mg/L	0.56	0.55
pH, Field	s.u.	8.58	8.73
pH, Lab	s.u.	8.6	8.7
Sulfate	mg/L	851	695
Total Dissolved Solids	mg/L	1810	1890
Assessment Monitoring Parameters			
Antimony	mg/L	< 0.001	< 0.001
Arsenic	mg/L	0.0099	0.0083
Barium	mg/L	0.0446	0.0392
Beryllium	mg/L	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002
Cobalt	mg/L	< 0.002	< 0.002
Fluoride	mg/L	0.56	0.55
Lead	mg/L	< 0.0005	< 0.0005
Lithium	mg/L	< 0.02	< 0.02
Mercury	mg/L	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0867	0.0605
Radium-226	pCi/L	***	***
Radium-228	pCi/L	***	***
Radium 226 + Radium 228, Com	pCi/L	***	***
Selenium	mg/L	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e. samples have not been filtered).
*** - Insufficient recharge resulted in an incomplete bottle set. See text for details.

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 33: Sample Results Summary Table - MW-225

		MW-225	
	Units	30-Sep-25	26-Nov-25
Water Elevation	**ft AMSL**	**1692.0**	**1691.3**
Field Parameters			
Temperature, Field	deg C	21.47	16.13
Turbidity, Field	ntu	8.94	12.49
Specific Conductance, Field	µmhos/cm	4337	4089
Detection Monitoring Parameters			
Boron	mg/L	2.42	2.35
Calcium	mg/L	81.7	74.6
Chloride	mg/L	25.0	24.0
Fluoride	mg/L	1.09	1.26
pH, Field	s.u.	8.75	8.96
pH, Lab	s.u.	8.4	8.8
Sulfate	mg/L	1990	1500
Total Dissolved Solids	mg/L	3170	3300
Assessment Monitoring Parameters			
Antimony	mg/L	< 0.001	< 0.001
Arsenic	mg/L	0.0067	0.0100
Barium	mg/L	0.1223	0.1182
Beryllium	mg/L	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	0.0064
Cobalt	mg/L	0.0033	0.0020
Fluoride	mg/L	1.09	1.26
Lead	mg/L	< 0.0005	0.0010
Lithium	mg/L	< 0.02	< 0.02
Mercury	mg/L	< 0.0002	< 0.0002
Molybdenum	mg/L	0.1832	0.2086
Radium-226	pCi/L	0.3 ± 0.2	***
Radium-228	pCi/L	0.5 U ± 0.5	***
Radium 226 + Radium 228, Com	pCi/L	0.6 U ± 0.5	***
Selenium	mg/L	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e. samples have not been filtered).
*** - Insufficient recharge resulted in an incomplete bottle set. See text for details.

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 34: Sample Results Summary Table - MW-226

		MW-226	
	Units	29-Sep-25	25-Nov-25
Water Elevation	**ft AMSL**	**1689.6**	**1689.3**
Field Parameters			
Temperature, Field	deg C	19.19	17.28
Turbidity, Field	ntu	< 0.1	< 0.1
Specific Conductance, Field	µmhos/cm	3188	2916
Detection Monitoring Parameters			
Boron	mg/L	3.55	3.6
Calcium	mg/L	210	212
Chloride	mg/L	14.1	13.1
Fluoride	mg/L	0.56	0.62
pH, Field	s.u.	6.8	6.86
pH, Lab	s.u.	7.5	7.5
Sulfate	mg/L	1080	820
Total Dissolved Solids	mg/L	2390	2430
Assessment Monitoring Parameters			
Antimony	mg/L	< 0.001	< 0.001
Arsenic	mg/L	< 0.002	< 0.002
Barium	mg/L	0.0658	0.0578
Beryllium	mg/L	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002
Cobalt	mg/L	0.0057	0.0053
Fluoride	mg/L	0.56	0.62
Lead	mg/L	< 0.0005	< 0.0005
Lithium	mg/L	0.0543	0.0577
Mercury	mg/L	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0174	0.0102
Radium-226	pCi/L	0.03 U ± 0.1	0.08 U ± 0.1
Radium-228	pCi/L	0.1 U ± 0.4	0.8 U ± 0.6
Radium 226 + Radium 228, Comb	pCi/L	0.5 U ± 0.5	0.5 U ± 0.6
Selenium	mg/L	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e. samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 35: Sample Results Summary Table - MW-227

		MW-227	
	Units	30-Sep-25	26-Nov-25
Water Elevation	**ft AMSL**	**1693.3**	**1692.9**
Field Parameters			
Temperature, Field	deg C	15.89	16.48
Turbidity, Field	ntu	100	8.7
Specific Conductance, Field	µmhos/cm	2897	2074
Detection Monitoring Parameters			
Boron	mg/L	1.48	1.44
Calcium	mg/L	126	126
Chloride	mg/L	17.2	17
Fluoride	mg/L	0.28	0.34
pH, Field	s.u.	7.46	7.53
pH, Lab	s.u.	7.8	7.8
Sulfate	mg/L	485	486
Total Dissolved Solids	mg/L	1420	1560
Assessment Monitoring Parameters			
Antimony	mg/L	< 0.001	< 0.001
Arsenic	mg/L	0.0062	0.0030
Barium	mg/L	0.0480	0.0451
Beryllium	mg/L	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	0.0026
Cobalt	mg/L	0.0024	0.0020
Fluoride	mg/L	0.28	0.34
Lead	mg/L	0.0005	0.0005
Lithium	mg/L	0.0545	0.0671
Mercury	mg/L	< 0.0002	< 0.0002
Molybdenum	mg/L	0.1025	0.0368
Radium-226	pCi/L	***	0.1 U ± 0.1
Radium-228	pCi/L	***	0.8 U ± 0.7
Radium 226 + Radium 228, Com	pCi/L	***	0.7 U ± 0.7
Selenium	mg/L	0.0073	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e. samples have not been filtered).
*** - Insufficient recharge resulted in an incomplete bottle set. See text for details.

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 36: Sample Results Summary Table - MW-228

		MW-228	
	Units	30-Sep-25	26-Nov-25
Water Elevation	**ft AMSL**	**1698.2**	**1698.5**
Field Parameters			
Temperature, Field	deg C	19.17	15.23
Turbidity, Field	ntu	66.71	39.76
Specific Conductance, Field	µmhos/cm	3181	2785
Detection Monitoring Parameters			
Boron	mg/L	0.48	0.46
Calcium	mg/L	5.01	4.81
Chloride	mg/L	16.5	15.3
Fluoride	mg/L	0.31	0.43
pH, Field	s.u.	9.42	9.66
pH, Lab	s.u.	9.6	9.6
Sulfate	mg/L	476	620
Total Dissolved Solids	mg/L	1990	2010
Assessment Monitoring Parameters			
Antimony	mg/L	0.0028	0.0027
Arsenic	mg/L	0.0435	0.0350
Barium	mg/L	0.0682	0.0613
Beryllium	mg/L	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005
Chromium	mg/L	0.0070	0.0097
Cobalt	mg/L	0.0040	0.0033
Fluoride	mg/L	0.31	0.43
Lead	mg/L	0.0030	0.0021
Lithium	mg/L	< 0.02	< 0.02
Mercury	mg/L	< 0.0002	< 0.0002
Molybdenum	mg/L	0.1090	0.0486
Radium-226	pCi/L	0.1 U ± 0.1	***
Radium-228	pCi/L	0.9 ± 0.5	***
Radium 226 + Radium 228, Com	pCi/L	1 ± 0.6	***
Selenium	mg/L	0.0089	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e. samples have not been filtered).
*** - Insufficient recharge resulted in an incomplete bottle set. See text for details.

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 37: Sample Results Summary Table - MW-229

		MW-229	
	Units	30-Sep-25	26-Nov-25
Water Elevation	**ft AMSL**	**1693.7**	**1693.3**
Field Parameters			
Temperature, Field	deg C	24.37	15.11
Turbidity, Field	ntu	5.2	11.78
Specific Conductance, Field	µmhos/cm	5897	4889
Detection Monitoring Parameters			
Boron	mg/L	1.53	1.31
Calcium	mg/L	74.8	104
Chloride	mg/L	20.9	18.6
Fluoride	mg/L	1.02	0.83
pH, Field	s.u.	8.88	9.07
pH, Lab	s.u.	8.5	8.9
Sulfate	mg/L	2780	2540
Total Dissolved Solids	mg/L	4010	3970
Assessment Monitoring Parameters			
Antimony	mg/L	0.0019	0.0011
Arsenic	mg/L	0.0373	0.0159
Barium	mg/L	0.0353	0.0347
Beryllium	mg/L	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002
Cobalt	mg/L	< 0.002	< 0.002
Fluoride	mg/L	1.02	0.83
Lead	mg/L	< 0.0005	< 0.0005
Lithium	mg/L	< 0.1	< 0.02
Mercury	mg/L	< 0.0002	< 0.0002
Molybdenum	mg/L	0.3057	0.1680
Radium-226	pCi/L	***	***
Radium-228	pCi/L	***	***
Radium 226 + Radium 228, Com	pCi/L	***	***
Selenium	mg/L	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e. samples have not been filtered).
*** - Insufficient recharge resulted in an incomplete bottle set. See text for details.

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 38: Sample Results Summary Table - MW-230

		MW-230	
	Units	30-Sep-25	25-Nov-25
Water Elevation	**ft AMSL**	**1691.9**	**1691.7**
Field Parameters			
Temperature, Field	deg C	13.05	15.77
Turbidity, Field	ntu	128.6	64.31
Specific Conductance, Field	µmhos/cm	1492	1391
Detection Monitoring Parameters			
Boron	mg/L	0.34	0.36
Calcium	mg/L	60.7	24.7
Chloride	mg/L	19.8	9.1
Fluoride	mg/L	0.42	0.63
pH, Field	s.u.	7.56	7.81
pH, Lab	s.u.	7.9	8.1
Sulfate	mg/L	251	195
Total Dissolved Solids	mg/L	976	964
Assessment Monitoring Parameters			
Antimony	mg/L	< 0.001	< 0.001
Arsenic	mg/L	< 0.002	< 0.002
Barium	mg/L	0.0565	0.0408
Beryllium	mg/L	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002
Cobalt	mg/L	< 0.002	< 0.002
Fluoride	mg/L	0.42	0.63
Lead	mg/L	< 0.0005	< 0.0005
Lithium	mg/L	0.0461	0.0464
Mercury	mg/L	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0080	0.0028
Radium-226	pCi/L	0.2 ± 0.1	0.2 ± 0.1
Radium-228	pCi/L	0.6 U ± 0.4	0.8 U ± 0.6
Radium 226 + Radium 228, Comb	pCi/L	0.6 U ± 0.5	0.6 U ± 0.6
Selenium	mg/L	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e. samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

Table 39: Sample Results Summary Table - MW-PB1R (Property Boundary Well)

		MW-PB1R	
	Units	29-Sep-25	25-Nov-25
Water Elevation	**ft AMSL**	**1674.0**	**1673.9**
Field Parameters			
Temperature, Field	deg C	14.91	15.55
Turbidity, Field	ntu	10.73	0.48
Specific Conductance, Field	µmhos/cm	1670	1563
Detection Monitoring Parameters			
Boron	mg/L	1.25	1.35
Calcium	mg/L	91.9	88.4
Chloride	mg/L	17.7	15.8
Fluoride	mg/L	0.51	0.55
pH, Field	s.u.	7.3	7.41
pH, Lab	s.u.	7.8	7.9
Sulfate	mg/L	454	461
Total Dissolved Solids	mg/L	1160	1150
Assessment Monitoring Parameters			
Antimony	mg/L	< 0.001	< 0.001
Arsenic	mg/L	< 0.002	< 0.002
Barium	mg/L	0.0525	0.0450
Beryllium	mg/L	< 0.0005	< 0.0005
Cadmium	mg/L	< 0.0005	< 0.0005
Chromium	mg/L	< 0.002	< 0.002
Cobalt	mg/L	< 0.002	< 0.002
Fluoride	mg/L	0.51	0.55
Lead	mg/L	< 0.0005	< 0.0005
Lithium	mg/L	0.0324	0.0330
Mercury	mg/L	< 0.0002	< 0.0002
Molybdenum	mg/L	0.0176	0.0098
Radium-226	pCi/L	0.0006 U ± 0.08	-0.007 U ± 0.09
Radium-228	pCi/L	0.8 U ± 0.5	0.3 U ± 0.6
Radium 226 + Radium 228, Combined	pCi/L	0.5 U ± 0.5	0.6 U ± 0.6
Selenium	mg/L	< 0.005	< 0.005
Thallium	mg/L	< 0.0005	< 0.0005

Notes:
--: not analyzed
ft AMSL: feet above mean sea level
deg C: degrees Celsius
ntu: Nephelometric Turbidity Units
µmhos/cm: micromhos per centimeter
mg/L: milligrams per liter
pCi/L: picocuries per liter
s.u.: standard units for pH
Non-detects have been listed at the reported primary quantitation limit.
Metal concentrations represent the total fraction (i.e. samples have not been filtered).

Laboratory Provided Qualifiers:
U (Radiochem) = Not detected above the minimum detectable concentration (varies by sample).

APPENDIX B-2

Q4 2024 Resample

MINNESOTA VALLEY TESTING LABORATORIES, INC.
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2616 East Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724
1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS Up March 2025 (80792) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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Account #: 5109 **Client:** Great River Energy

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80792001 **Date Collected:** 03/17/2025 08:55 **Matrix:** Groundwater
Sample ID: MW-7A **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 8.2 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**15388**	umhos/cm	1	1		03/17/2025 08:55	
Method: 150.2							
pH - Field	**7.31**	units	0.01	1		03/17/2025 08:55	
Method: 170.1							
Temperature - Field C	**5.83**	degrees C		1		03/17/2025 08:55	
Method: USGS I-1750-85							
Total Dissolved Solids	**17200**	mg/L	10	1		03/19/2025 14:13	

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

QC Results Summary WO #: 80792

Total Dissolved Solids Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	99.0		90.35	110.33		
CRM			736	97.0		90.35	110.33		
CRM			736	97.0		90.35	110.33		
CRM			736	98.0		90.35	110.33		
MB		<10							
DUP	80792001							4.0	20

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 80792

Chain of Custody Record

Report To:	Great River Energy	CC:	Golder Associates
Attn:	Cassie Johnston		44 Union Blvd, Suite 300
Address:			Lakewood, CO 80228
Phone:			
Email:	CJohnston@GREnergy.com		

Project Name: SS UP
Event: March ~~Feb~~ 2025 (B)CC 1 Apr 25
Sampled By:

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 7A	17Mar25	0855	GW	X			5.83	15,388	7.31	0.00	
								NA	NA	NA	NA	
												TDS

Comments:

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		17Mar25 1941	Log In Walk In #2	8.2 °C/TM 805 ROI (Y)/N		18Mar25 0720
2						

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	MW7A
Sampling Personal:	

Weather Conditions: Temp: 20 °F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.20	ft
Depth to Top of Pump:	14.65	ft
Water Level After Sample:	Below Pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28 / 56	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
17 Mar 25	0820	Start of Well Purge									
	0835	7.80	14,705	7.38	4.55	235.9	1.09	Below Pump	200.0	3.0	Clear
	0840	6.62	15,128	7.37	1.95	224.1	0.24	BP	100.0	0.5	Clear
	0845	5.90	15,261	7.33	1.16	165.3	0.09	BP	100.0	0.5	Clear
	0850	5.78	15,222	7.31	0.81	148.5	0.00	BP	100.0	0.5	Clear
	0855	5.83	15,388	7.31	0.75	133.9	0.00	BP	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
17 Mar 25	0855	5.83	15,388	7.31	0.75	133.9	0.00				Clear

Comments:

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 18 Mar 25 Time: 0848 Analyst: PW

Work Order #: 80792

Containers Supplied by MVTL: ☒ Yes ☐ No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
1	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS BAI March 2025 (81289) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81289001 **Date Collected:** 03/21/2025 10:40 **Matrix:** Groundwater
Sample ID: MW-202 **Date Received:** 03/21/2025 12:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.3 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1832**	umhos/cm	1	1		03/21/2025 10:40	
Method: 150.2							
pH - Field	**7.21**	units	0.01	1		03/21/2025 10:40	
Method: 170.1							
Temperature - Field C	**6**	degrees C		1		03/21/2025 10:40	
Method: EPA 6010D							
Boron	**1.74**	mg/L	0.1	1	03/21/2025 15:59	04/02/2025 10:08	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81289002 **Date Collected:** 03/19/2025 12:55 **Matrix:** Groundwater
Sample ID: MW-202 **Date Received:** 03/21/2025 12:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.3 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2105**	umhos/cm	1	1		03/19/2025 12:55	
Method: 150.2							
pH - Field	**7.25**	units	0.01	1		03/19/2025 12:55	
Method: 170.1							
Temperature - Field C	**6.49**	degrees C		1		03/19/2025 12:55	
Method: ASTM D516-16							
Sulfate	**580**	mg/L	25	5		04/09/2025 10:09	

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 81289

Sulfate — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			100	99.4		85	115		
LFB			100	96.7		85	115		
LFB			100	95.2		85	115		
LFB			100	91.8		85	115		
LFB			100	86.6		85	115		
LFB			100	92.5		85	115		
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MSD	81839009		500	87.0	86.9	85	115	0.1	20
MSD	82254005		500	90.1	90.2	85	115	0.0	20
MSD	82254013		5000	99.6	100.1	85	115	0.2	20
MSD	82497002		500	71.1	70.0	85	115	0.7	20
MSD	82824001		1000	87.2	87.6	85	115	0.6	20

Boron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	99.8		85	115		
MB		<0.1							
MSD	81289001		0.4	108.0	101.0	70	130	1.2	20

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Report Date: Thursday, April 10, 2025 8:52:53 AM

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 81289

Chain of Custody Record

Report To: Great River Energy
Attn: Cassie Johnston
Address:
Phone:
Email: CJohnston@GREnergy.com

CC: WSP
44 Union Blvd, Suite 300
Lakewood, CO 80228

Project Name: SS BAI
Event: a 9 Apr 25 Mar ~~Feb 2025~~
Sampled By: Ethan Gress / Jeremy May

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric						Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 202	21 Mar 25	1040	GW	~~X~~	X								6.00	1832	7.21	382.50	Boron and Sulfate
002	MW-202	19 Mar 25	1255	GW	X									6.49	2105	7.25	18.73	

Comments: * 7 Apr 25

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		21 Mar 25 1200	Log In Walk In #2	6.3 °C/TM ROI (Y)/N		21 Mar 25 1200
2						

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company: GRE Stanton Station
Event: March 2025
Sample ID: 202
Sampling Personal:

Weather Conditions: Temp: 20 °F Wind: N @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.82	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.80	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	3	Sec.
Recover:	27	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	1230	Start of Well Purge									
19 Mar 25	1235	~~6.30~~ 6.36	2162	7.23	3.05	172.9	167.79	12.82	200.0	1.0	Slightly Turbid (ST)
	1240	6.30	2116	7.24	2.94	188.2	197.29	12.95	200.0	1.0	ST
	1245	6.38	2113	7.24	2.54	186.2	186.65	13.23	200.0	1.0	ST
	1250	6.42	2102	7.25	2.43	188.5	150.66	13.41	200.0	1.0	ST
	1255	6.49	2105	7.25	2.21	186.4	183.73	13.62	200.0	1.0	ST

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
19 Mar 25	1255	6.49	2105	7.25	2.21	1864	183.73				ST

Comments: Had to thaw water line before purge & sampling

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	~~Mar~~ Feb-2025
Sample ID:	202
Sampling Personal:	Ethan Geers

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.85	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.18	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 25	Sec.
PSI:	

Bottle List:	
~~1 Liter Raw~~	~~1 Gal Nitric~~
500mL Nitric	1 Liter NaOH
~~500mL Nitric (filtered)~~	+Zinc

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
21Mar25	1015	Start of Well Purge									
	1020	6.01	1820	7.23	1.73	196.5	346.50	12.30	200.0	1.0	~~Clear~~ Turbid
	1025	6.03	1822	7.23	1.74	199.3	278.15	12.68	200.0	1.0	Turbid
	1030	5.95	1822	7.22	2.08	206.4	278.85	12.85	200.0	1.0	Turbid
	1035	5.93	1829	7.21	2.43	212.7	330.95	13.10	200.0	1.0	Turbid
	1040	6.00	1832	7.21	2.44	219.8	382.50	13.30	200.0	1.0	Turbid

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
21Mar25	1040	6.00	1832	7.21	2.44	219.8	382.50				Turbid

Comments:

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 21 Mar 25 Time: 1315 Analyst: DN

Work Order #: 81289

Containers Supplied by MVTL: ☒ Yes ☐ No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
1	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
1	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
1	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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APPENDIX B-3

Q1 2025

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS UP March 2025 (80791) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80791001 **Date Collected:** 03/17/2025 14:05 **Matrix:** Groundwater
Sample ID: MW-6B **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 8.2 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1384**	umhos/cm	1	1		03/17/2025 14:05	
Method: 150.2							
pH - Field	**7.8**	units	0.01	1		03/17/2025 14:05	
Method: 170.1							
Temperature - Field C	**7.52**	degrees C		1		03/17/2025 14:05	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/18/2025 11:05	03/18/2025 13:22	
Method: EPA 6010D							
Lithium	**0.0481**	mg/L	0.02	1	03/18/2025 16:16	03/21/2025 10:05	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/18/2025 16:16	03/31/2025 13:59	
Arsenic	**0.0041**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 13:59	
Barium	**0.0243**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 13:59	
Beryllium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 13:59	
Cadmium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 13:59	
Chromium	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 13:59	
Cobalt	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 13:59	
Lead	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 13:59	
Molybdenum	**0.0128**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 13:59	
Selenium	<0.005	mg/L	0.005	5	03/18/2025 16:16	03/31/2025 13:59	
Thallium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 13:59	
Method: SM4500 H+ B-2021							
pH	**8.1**	units	0.1	1		03/20/2025 14:01	*
Method: SM4500-F-C-2021							
Fluoride	**0.58**	mg/L	0.1	1		03/20/2025 14:01	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80791002 **Date Collected:** 03/17/2025 13:42 **Matrix:** Groundwater
Sample ID: FB Up **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 8.2 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/18/2025 11:05	03/18/2025 13:22	
Method: EPA 6010D							
Lithium	<0.02	mg/L	0.02	1	03/18/2025 16:16	03/21/2025 10:08	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/18/2025 16:16	03/31/2025 14:04	
Arsenic	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:04	
Barium	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:04	
Beryllium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:04	
Cadmium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:04	
Chromium	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:04	
Cobalt	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:04	
Lead	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:04	
Molybdenum	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:04	
Selenium	<0.005	mg/L	0.005	5	03/18/2025 16:16	03/31/2025 14:04	
Thallium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:04	
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		03/20/2025 14:06	*
Method: SM4500-F-C-2021							
Fluoride	<0.1	mg/L	0.1	1		03/20/2025 14:06	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80791003 **Date Collected:** 03/17/2025 08:55 **Matrix:** Groundwater
Sample ID: MW-7A **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 8.2 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**15388**	umhos/cm	1	1		03/17/2025 08:55	
Method: 150.2							
pH - Field	**7.31**	units	0.01	1		03/17/2025 08:55	
Method: 170.1							
Temperature - Field C	**5.83**	degrees C		1		03/17/2025 08:55	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/18/2025 11:05	03/18/2025 13:22	
Method: EPA 6010D							
Lithium	**0.260**	mg/L	0.1	5	03/18/2025 16:16	03/21/2025 10:08	
Method: EPA 6020B							
Antimony	<0.002	mg/L	0.002	10	03/18/2025 16:16	03/31/2025 14:36	*
Arsenic	<0.008	mg/L	0.008	20	03/18/2025 16:16	03/31/2025 14:46	*
Barium	**0.0085**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:09	
Beryllium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:09	
Cadmium	<0.001	mg/L	0.001	10	03/18/2025 16:16	03/31/2025 14:36	*
Chromium	<0.008	mg/L	0.008	20	03/18/2025 16:16	03/31/2025 14:46	*
Cobalt	<0.008	mg/L	0.008	20	03/18/2025 16:16	03/31/2025 14:46	*
Lead	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:09	
Molybdenum	**0.0123**	mg/L	0.004	10	03/18/2025 16:16	03/31/2025 14:36	*
Selenium	<0.02	mg/L	0.02	20	03/18/2025 16:16	03/31/2025 14:46	*
Thallium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:09	
Method: SM4500 H+ B-2021							
pH	**7.5**	units	0.1	1		03/20/2025 14:13	*
Method: SM4500-F-C-2021							
Fluoride	**0.48**	mg/L	0.1	1		03/20/2025 14:13	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

Antimony

Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Arsenic

Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Cadmium

Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Chromium

Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Cobalt

Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Molybdenum

Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Selenium

Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80791004 **Date Collected:** 03/17/2025 10:30 **Matrix:** Groundwater
Sample ID: MW-7B **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 8.2 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1442**	umhos/cm	1	1		03/17/2025 10:30	
Method: 150.2							
pH - Field	**7.66**	units	0.01	1		03/17/2025 10:30	
Method: 170.1							
Temperature - Field C	**7.95**	degrees C		1		03/17/2025 10:30	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/18/2025 11:05	03/18/2025 13:22	
Method: EPA 6010D							
Lithium	**0.0538**	mg/L	0.02	1	03/18/2025 16:16	03/21/2025 10:09	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/18/2025 16:16	03/31/2025 14:14	
Arsenic	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:14	
Barium	**0.0190**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:14	
Beryllium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:14	
Cadmium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:14	
Chromium	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:14	
Cobalt	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:14	
Lead	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:14	
Molybdenum	**0.0044**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:14	
Selenium	<0.005	mg/L	0.005	5	03/18/2025 16:16	03/31/2025 14:14	
Thallium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:14	
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		03/20/2025 14:18	*
Method: SM4500-F-C-2021							
Fluoride	**0.61**	mg/L	0.1	1		03/20/2025 14:18	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80791005 **Date Collected:** 03/17/2025 10:30 **Matrix:** Groundwater
Sample ID: Dup Up **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 8.2 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/18/2025 11:05	03/18/2025 13:22	
Method: EPA 6010D							
Lithium	**0.0525**	mg/L	0.02	1	03/18/2025 16:16	03/21/2025 10:09	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/18/2025 16:16	03/31/2025 14:19	
Arsenic	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:19	
Barium	**0.0190**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:19	
Beryllium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:19	
Cadmium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:19	
Chromium	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:19	
Cobalt	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:19	
Lead	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:19	
Molybdenum	**0.0044**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:19	
Selenium	<0.005	mg/L	0.005	5	03/18/2025 16:16	03/31/2025 14:19	
Thallium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:19	
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		03/20/2025 14:24	*
Method: SM4500-F-C-2021							
Fluoride	**0.62**	mg/L	0.1	1		03/20/2025 14:24	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80791006 **Date Collected:** 03/17/2025 12:39 **Matrix:** Groundwater
Sample ID: MW-8B **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 8.2 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1019**	umhos/cm	1	1		03/17/2025 12:39	
Method: 150.2							
pH - Field	**7.37**	units	0.01	1		03/17/2025 12:39	
Method: 170.1							
Temperature - Field C	**8.23**	degrees C		1		03/17/2025 12:39	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/18/2025 11:05	03/18/2025 13:22	
Method: EPA 6010D							
Lithium	**0.0720**	mg/L	0.02	1	03/18/2025 16:16	03/21/2025 10:10	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/18/2025 16:16	03/31/2025 14:24	
Arsenic	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:24	
Barium	**0.0305**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:24	
Beryllium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:24	
Cadmium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:24	
Chromium	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:24	
Cobalt	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:24	
Lead	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:24	
Molybdenum	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:24	
Selenium	<0.005	mg/L	0.005	5	03/18/2025 16:16	03/31/2025 14:24	
Thallium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:24	
Method: SM4500 H+ B-2021							
pH	**7.7**	units	0.1	1		03/20/2025 14:30	*
Method: SM4500-F-C-2021							
Fluoride	**0.19**	mg/L	0.1	1		03/20/2025 14:30	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80791007 **Date Collected:** 03/17/2025 11:35 **Matrix:** Groundwater
Sample ID: MW-105 **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 8.2 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1613**	umhos/cm	1	1		03/17/2025 11:35	
Method: 150.2							
pH - Field	**7.82**	units	0.01	1		03/17/2025 11:35	
Method: 170.1							
Temperature - Field C	**7.92**	degrees C		1		03/17/2025 11:35	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/18/2025 11:05	03/18/2025 13:22	
Method: EPA 6010D							
Lithium	**0.0464**	mg/L	0.02	1	03/18/2025 16:16	03/21/2025 10:11	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/18/2025 16:16	03/31/2025 14:31	
Arsenic	**0.0020**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:31	
Barium	**0.0429**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:31	
Beryllium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:31	
Cadmium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:31	
Chromium	**0.0021**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:31	
Cobalt	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:31	
Lead	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:31	
Molybdenum	**0.0316**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 14:31	
Selenium	**0.0258**	mg/L	0.005	5	03/18/2025 16:16	03/31/2025 14:31	
Thallium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 14:31	
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		03/20/2025 14:36	*
Method: SM4500-F-C-2021							
Fluoride	**0.96**	mg/L	0.1	1		03/20/2025 14:36	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 80791

Aluminum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	100.0		85	115		
MB		<0.1							
PDS/PDSD	80618001		20	97.6	96.5	75	125	1.0	20
MS/MSD	80791001		0.4	110.0	115.0	70	130	3.2	20
PDS/PDSD	80791006		0.4	94.2	91.4	75	125	2.3	20

Aluminum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.4	100.0		85	115		
MB		<0.1							
SPK/SPKD	80790001		0.4	104.0	104.0	75	125	0.3	20
SPK/SPKD	80946001		0.4	97.3	99.5	75	125	1.8	20
SPK/SPKD	80946001		2	96.6	96.8	75	125	0.2	20

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	108.0		85	115		
MB		<0.1							
PDS/PDSD	80618001		20	84.7	87.5	75	125	3.3	20
MS/MSD	80791001		0.4	93.9	97.0	70	130	2.5	20
PDS/PDSD	80791006		0.4	89.0	90.4	75	125	1.1	20

Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.4	108.0		85	115		
MB		<0.1							
SPK/SPKD	80790001		0.4	79.2	75.6	75	125	1.1	20
SPK/SPKD	80946001		2	90.6	86.4	75	125	2.2	20

Lithium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	113.0		85	115		
MB		<0.04							

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Lithium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	80791001		0.4	96.6	100.0	70	130	3.3	20

Lithium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	113.0		85	115		
MB		<0.04							
SPK/SPKD	80790001		0.4	89.8	89.3	75	125	0.5	20
SPK/SPKD	81122001		0.4	91.1	87.7	75	125	3.9	20
SPK/SPKD	81122005		0.4	89.0	92.0	75	125	3.0	20

Manganese Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	110.0		85	115		
MB		<0.05							
PDS/PDSD	80618001		50	85.7	84.1	75	125	1.7	20
PDS/PDSD	80618001		20	81.7	83.9	75	125	2.2	20
MS/MSD	80791001		0.4	98.5	103.0	70	130	4.2	20
PDS/PDSD	80791006		0.4	84.9	86.8	75	125	1.4	20

Manganese, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.05							
LFB-OE			0.4	110.0		85	115		
MB		<0.05							
SPK/SPKD	80790001		0.4	89.7	87.9	75	125	1.5	20
SPK/SPKD	80946001		7	84.5	85.4	75	125	0.6	20

Antimony Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.001							
MS/MSD	80791001		0.4	108.0	114.0	75	125	5.4	20
SPK/SPKD	80791007		0.1	105.0	104.0	75	125	0.5	20

Antimony, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.001							

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Antimony, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	80791001		0.4	108.0	114.0	75	125	5.4	20
SPK/SPKD	80791002		0.1	101.0	105.0	75	125	3.9	20
SPK/SPKD	80791007		0.1	105.0	104.0	75	125	0.5	20

Arsenic Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
MB		<0.002							
MS/MSD	80791001		0.4	109.0	111.0	75	125	1.1	20
SPK/SPKD	80791007		0.1	110.0	108.0	75	125	1.2	20

Arsenic, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
MB		<0.002							
MS/MSD	80791001		0.4	109.0	111.0	75	125	1.1	20
SPK/SPKD	80791007		0.1	104.0	107.0	75	125	3.2	20
SPK/SPKD	80791007		0.1	110.0	108.0	75	125	1.2	20

Barium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
MB		<0.002							
MS/MSD	80791001		0.4	110.0	112.0	75	125	2.6	20
SPK/SPKD	80791007		0.1	107.0	110.0	75	125	2.1	20

Barium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
MB		<0.002							
MS/MSD	80791001		0.4	110.0	112.0	75	125	2.6	20
SPK/SPKD	80791002		0.1	109.0	111.0	75	125	1.8	20
SPK/SPKD	80791007		0.1	107.0	110.0	75	125	2.1	20

Beryllium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							

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Beryllium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	80791001		0.4	106.0	109.0	75	125	2.6	20
SPK/SPKD	80791007		0.1	97.4	96.8	75	125	0.6	20

Beryllium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							
MS/MSD	80791001		0.4	106.0	109.0	75	125	2.6	20
SPK/SPKD	80791002		0.1	105.0	107.0	75	125	2.0	20
SPK/SPKD	80791007		0.1	97.4	96.8	75	125	0.6	20

Cadmium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							
MS/MSD	80791001		0.4	104.0	111.0	75	125	6.7	20
SPK/SPKD	80791007		0.1	98.9	98.5	75	125	0.4	20

Cadmium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							
MS/MSD	80791001		0.4	104.0	111.0	75	125	6.7	20
SPK/SPKD	80791002		0.1	102.0	104.0	75	125	2.1	20
SPK/SPKD	80791007		0.1	98.9	98.5	75	125	0.4	20

Chromium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	115.0		80	120		
MB		<0.002							
MS/MSD	80791001		0.4	114.0	115.0	75	125	0.9	20
SPK/SPKD	80791007		0.1	111.0	113.0	75	125	1.5	20

Chromium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	115.0		80	120		
MB		<0.002							
MS/MSD	80791001		0.4	114.0	115.0	75	125	0.9	20

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Chromium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	80791002		0.1	103.0	104.0	75	125	0.8	20
SPK/SPKD	80791007		0.1	111.0	113.0	75	125	1.5	20

Cobalt Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	114.0		80	120		
MB		<0.002							
MS/MSD	80791001		0.4	112.0	113.0	75	125	0.4	20
SPK/SPKD	80791007		0.1	110.0	111.0	75	125	0.8	20

Cobalt, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	114.0		80	120		
MB		<0.002							
MS/MSD	80791001		0.4	112.0	113.0	75	125	0.4	20
SPK/SPKD	80791002		0.1	104.0	106.0	75	125	1.9	20
SPK/SPKD	80791007		0.1	110.0	111.0	75	125	0.8	20

Lead Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	116.0		80	120		
MB		<0.0005							
MS/MSD	80791001		0.4	114.0	118.0	75	125	3.7	20
SPK/SPKD	80791007		0.1	96.9	98.7	75	125	1.8	20

Lead, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	116.0		80	120		
MB		<0.0005							
MS/MSD	80791001		0.4	114.0	118.0	75	125	3.7	20
SPK/SPKD	80791002		0.1	104.0	108.0	75	125	3.8	20
SPK/SPKD	80791007		0.1	96.9	98.7	75	125	1.8	20

Molybdenum Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	110.0		80	120		
MB		<0.002							
MS/MSD	80791001		0.4	108.0	112.0	75	125	4.0	20

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Molybdenum Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	80791007		0.1	113.0	114.0	75	125	0.5	20

Molybdenum, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	110.0		80	120		
MB		<0.002							
MS/MSD	80791001		0.4	108.0	112.0	75	125	4.0	20
SPK/SPKD	80791002		0.1	100.0	103.0	75	125	2.9	20
SPK/SPKD	80791007		0.1	113.0	114.0	75	125	0.5	20

Selenium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
MB		<0.005							
MS/MSD	80791001		0.4	111.0	111.0	75	125	0.5	20
SPK/SPKD	80791007		0.1	103.0	98.7	75	125	3.9	20

Selenium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
MB		<0.005							
MS/MSD	80791001		0.4	111.0	111.0	75	125	0.5	20
SPK/SPKD	80791002		0.1	107.0	108.0	75	125	1.0	20
SPK/SPKD	80791007		0.1	103.0	98.2	75	125	3.9	20

Thallium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	114.0		80	120		
MB		<0.0005							
MS/MSD	80791001		0.4	104.0	113.0	75	125	8.3	20
SPK/SPKD	80791007		0.1	95.0	96.2	75	125	1.3	20

Thallium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	114.0		80	120		
MB		<0.0005							
MS/MSD	80791001		0.4	104.0	113.0	75	125	8.3	20
SPK/SPKD	80791002		0.1	102.0	106.0	75	125	4.0	20

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Account #: 5109 **Client:** Great River Energy

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	80791007		0.1	95.0	96.2	75	125	1.3	20

Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	102.0		85	115		
LRB		<0.0002							
MS/MSD	80791001		0.002	96.5	95.1	70	130	0.0	20
MS/MSD	80791007		0.002	104.0	103.0	70	130	0.0	20

pH — Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	100.0					
CRM-PH			6	100.2					
CRM-PH			6	99.8					
CRM-PH			6	99.7					
CRM-PH			6	99.8					
DUP	80791007							0.9	20
DUP	80946001							1.5	20
DUP	81122006							1.1	20
DUP	81215003							0.0	20

Fluoride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			0.64	100.0		83.99	111.11		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	108.0		90	110		
LFB-F			0.5	100.0		90	110		
LFB-F			0.5	102.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							

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Fluoride Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD-F	80790001		0.5	148.0	130.0	80	120	6.8	20
MS/MSD-F	80946001		0.5	98.0	98.0	80	120	0.0	20
MS/MSD-F	81122006		0.5	98.0	112.0	80	120	7.0	20
MS/MSD-F	81131004		0.5	100.0	104.0	80	120	2.5	20

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Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 80791

Chain of Custody Record

Report To:	Great River Energy	CC:	Golder Associates
Attn:	Cassie Johnston		44 Union Blvd, Suite 300
Address:			Lakewood, CO 80228
Phone:			
Email:	CJohnston@GREnergy.com		

Project Name: SS UP
Event: March 2025
Sampled By: Jeremy Meyer

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 6B	17 Mar 25	1405	GW	X	X	X	7.52	1384	7.80	4.01	App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radio Chem, Dissolved and Total for Remainder of Metals.) (See Attachments)
002	FB Up	17 Mar 25	1342	GW	X	X	X	NA	NA	NA	NA	
003	MW- 7A	17 Mar 25	0855	GW	X	X	X	5.83	15,388	7.31	000	
004	MW- 7B	17 Mar 25	1030	GW	X	X	X	7.95	1442	7.66	0.02	
005	Dup Up	17 Mar 25	1030	GW	X	X	X	7.95	1442	7.66	0.02	
006	MW- 8B	17 Mar 25	1239	GW	X	X	X	8.23	1019	7.37	56.76	
007	MW- 105	17 Mar 25	1135	GW	X	X	X	7.92	1613	7.82	6.01	

Comments: Upgradient/Side-gradient Wells

	Relinquished By		Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		17 Mar 25 1741	Log In ~~WalkTo #2~~	82°C/TMB05 ROI Y/N		18 Mar 25 0730
2						

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Table 1: Proposed 2025 Stanton Station Plant Facilities Schedule for Budgetary Estimation

Location	Well ID		2025				
			Q1 - Feb	Q1 - Mar	Q2 - Jun	Q3 - Sep	Q4 - Nov
Upgradient/Side-gradient	MW-6B	1		App IV, Iron, Aluminum, Manganese (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)		App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)
	MW-7A	1	TDS and Field Parameters				
	MW-7B	1					
	MW-8B	1				TDS and Field Parameters	
	MW-105	1					
Bottom Ash Landfill	MW-9N	1					
	MW-102	1					
	MW-103	1					
Property Boundary	MW-PB1	1					
Wells Installed in May 2022	MW-210	1					
	MW-211	1					
	MW-212	1					
	MW-213	1					
	MW-214	1					
Piezometers [1]	PZ-BA-A	1					
	PZ-BA-B	1					
Sumps [2]	BAI-Sump-S	1					
Surface Water [3]	Missouri-River	1					
	Rail-Drainage	1					
Internal - Prior Bottom Ash Impoundment Downgradient	MW-1R	1					
	MW-104	1					
Bottom Ash Impoundment	MW-201	1				TDS and Field Parameters	
	MW-202	1	Boron, Sulfate, and Field Parameters				
	MW-203	1					
Closed Landfill	MW-10	1					
	MW-204	1					
	MW-205	1					
Additional Internal Locations	MW-4	1					
	MW-PB2	1					
Wells Installed in February 2023	MW-215	1					
	MW-216	1					
	MW-217	1					
	MW-218	1					
	MW-219	1					
	MW-220	1					
	MW-221	1					
	MW-222	1					
	MW-300	1					
	MW-301	1					
	MW-PB3	1					
Proposed Additional Wells for Installation in Q2 2025	TBD	1			App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
Proposed Additional Wells for Installation in Q1 2026	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
Total # of Sample Locations			2	40	53	15	53

Notes:
Suggested locations for collection of QA/QC samples in 2025 are listed in Table 2.
App III - Appendix III Detection Monitoring List, Table 5
App IV - Appendix IV Assessment Monitoring List, Table 6
Additional List - Table 7
Required field parameters are listed in Table 5 and Table 6
1. The piezometers do not have dedicated pumps and will need to be sampled by other methods.
2. The sump should be sampled using surface water collection methods via the sump riser.
3. Surface water samples to be collected only if safely accessible and free water is present.

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Account #: 5109 **Client:** Great River Energy

February 2025 GREAT RIVER ENERGY - STANTON STATION GL21509219.000
DRAFT - SUBJECT TO CHANGE

Table 2: 2025 Proposed Quality Assurance/Quality Control Sample Collection Locations for Budget Estimation

Location	Well ID	Q1 - Feb	Q1 - Mar	Q2 - Jun	Q3 - Sep	Q4 - Nov
Upgradient/Side-gradient	MW-6B		Field Blank			
	MW-7A					
	MW-7B		Duplicate			MS/MSD
	MW-8B			Duplicate		
	MW-105					
Bottom Ash Landfill	MW-9N					Duplicate
	MW-102			Field Blank		
	MW-103		Duplicate			
Property Boundary	MW-PB1					
Wells Installed in May 2022	MW-210		Field Blank			Duplicate
	MW-211			MS/MSD		
	MW-212					Field Blank
	MW-213			Duplicate		
	MW-214		MS/MSD			
Piezometers [1]	PZ-BA-A					
	PZ-BA-S					Field Blank
Sumps [2]	BAI-Sump-S					
Surface Water [3]	Missouri-River					
	Rail-Drainage					
Internal - Prior Bottom Ash Impoundment Downgradient	MW-1R			Duplicate		
	MW-104					MS/MSD
Bottom Ash Impoundment	MW-201			Field Blank		
	MW-202					
	MW-203					
Closed Landfill	MW-10		Duplicate			
	MW-204					
	MW-205					Duplicate
Additional Internal Locations	MW-4					
	MW-PB2					
Wells Installed in February 2023	MW-215			Field Blank		
	MW-216					
	MW-217		Field Blank			Duplicate
	MW-218			MS/MSD		
	MW-219					
	MW-220		Duplicate			Field Blank
	MW-221					
	MW-222					
	MW-300		MS/MSD			
	MW-301			Duplicate		
	MW-PB3					
Proposed Additional Wells for Installation in Q2 2025	TBD				Duplicate	
	TBD				MS/MSD	
	TBD					Field Blank
	TBD					
	TBD					
	TBD					
	TBD			Duplicate		
	TBD				Field Blank	
	TBD					
	TBD					Duplicate
	TBD				Duplicate	
	TBD			Field Blank		
Proposed Additional Wells for Installation in Q1 2026	TBD					
	TBD					
	TBD					
	TBD					
	TBD					
	TBD					
Total # of Sample Locations		2	40	53	15	53
Total # of QC Samples		0	9	11	4	11

Notes:
Locations to collect samples are **suggestions only** to help with the distribution of QA/QC samples across the site and between facilities while meeting QA/QC objectives for the sampling programs.
Notes for QA/QC
Duplicates = 10-15% of primary collected sample
Field Blanks = approximately 1 per sampling day.
Equipment Blanks - only needed for non-dedicated equipement.
MS/MSD = 1 per approximately 20 primary collected samples.

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Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	–	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	–	–	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

+ Iron, Aluminum, Manganese,
- Total only for Mercury & Radiochem
- Dissolved & Total for remainder of Metals

MSP

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	GB
Sampling Personal:	Jerry M

Weather Conditions: Temp: 35 °F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	17.87	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	20.90	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 57	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
17Mar25	1340	Start of Well Purge									clear, slightly turbid, turbid
	1350	7.68	1401	7.83	5.10	139.2	0.86	20.50	100.0	1.0	Clear
	1355	7.48	1386	7.83	4.91	141.9	2.13	20.65	100.0	0.5	Clear
	1400	7.52	1381	7.81	4.01	140.9	0.37	20.78	100.0	0.5	Clear
	1405	7.52	1384	7.80	4.34	137.4	4.01	20.84	100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
17Mar25	1405	7.52	1384	7.80	4.34	137.4	4.01				Clear

Comments: Collected FB UP @ 1342

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	MW 7A
Sampling Personal:	

Weather Conditions: Temp: 20 °F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.20	ft
Depth to Top of Pump:	14.65	ft
Water Level After Sample:	Below Pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	2	Sec.
Recover:	26 / 56	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
17 Mar 25	0820	Start of Well Purge									
	0835	7.80	14,705	7.38	4.55	235.9	1.09	Below Pump	200	3.0	Clear
	0840	6.62	15,178	7.37	1.95	224.1	0.24	BP	100.0	0.5	Clear
	0845	5.90	15,261	7.33	1.16	165.3	0.09	BP	100.0	0.5	Clear
	0850	5.78	15,222	7.31	0.81	148.5	0.00	BP	100.0	0.5	Clear
	0855	5.63	15,388	7.31	0.75	133.9	0.00	BP	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
17 Mar 25	0855	5.63	15,388	7.31	0.75	133.9	0.00				Clear

Comments:

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Member ACIL

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	MW 78
Sampling Personal:	JMK

Weather Conditions: Temp: 25 °F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.25	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	11.60	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28	Sec.
PSI:	—	

Bottle List:
1 Liter Raw
1 Gal Nitric
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample? (YES) / NO
Duplicate Sample ID: DUP UP

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	1005	Start of Well Purge									
17Mar25	1015	7.87	1376	7.68	1.52	-88.7	1.70	11.58	200.0	2.0	Clear
	1020	7.90	1460	7.62	1.07	-96.6	0.04	11.60	200.0	1.0	Clear
	1025	7.92	1427	7.64	0.67	-95.7	0.21	11.61	200.0	1.0	Clear
	1030	7.95	1442	7.66	1.13	-96.3	0.02	11.60	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: ~~5.0~~ 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
17Mar25	1030	7.95	1442	7.66	1.13	-96.3	0.02				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	GB
Sampling Personal:	JJ PL

Weather Conditions: Temp: 35 °F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	43.67	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	43.76	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	5	Sec.
Recover:	10	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
17Mar25	1209	Start of Well Purge									
	1219	8.19	1037	7.36	0.62	38.1	7.54	43.75	100.0	1.0	Clear
	1224	8.30	1028	7.36	0.54	28.8	17.17	43.75	100.0	0.5	Clear
	1229	8.42	1004	7.36	0.49	26.4	34.80	43.76	100.0	0.5	Clear
	1234	8.24	1000	7.36	0.41	24.2	34.69	43.76	100.0	0.5	Clear
	1239	8.23	1019	7.37	0.38	20.8	56.76	43.76	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: _____ Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
17 Mar 25	1239	8.23	1019	7.37	0.38	20.8	56.76				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	105
Sampling Personal:	JJ MV

Weather Conditions: Temp: 30°F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	14.76	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	14.93	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
17 Mar 25	1110	Start of Well Purge									
	1120	7.93	1613	7.81	0.36	64.1	8.31	14.95	200.0	2.0	Clear
	1125	7.98	1605	7.81	0.38	67.9	9.23	14.94	200.0	1.0	Clear
	1130	7.95	1602	7.82	0.34	70.3	10.22	14.93	200.0	1.0	Clear
	1135	7.92	1613	7.82	0.34	64.0	6.01	14.93	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
17 Mar 25	1135	7.92	1613	7.82	0.34	64.0	6.01				Clear

Comments:

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 18 Mar 25 Time: 0839 Analyst: PN

Work Order #: 80791

Containers Supplied by MVTL: ☒ Yes ☐ No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
7	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
7	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
7	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS UP March 2025 (80794) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80794001 **Date Collected:** 03/17/2025 14:05 **Matrix:** Groundwater
Sample ID: MW-6B **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 10.0 **Received on Ice:** No

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/18/2025 07:58	
Radium 228	See Attached			1		04/18/2025 07:58	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80794002 **Date Collected:** 03/17/2025 13:42 **Matrix:** Groundwater
Sample ID: FB Up **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 10.0 **Received on Ice:** No

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/18/2025 07:58	
Radium 228	See Attached			1		04/18/2025 07:58	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80794003 **Date Collected:** 03/17/2025 08:55 **Matrix:** Groundwater
Sample ID: MW-7A **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 10.0 **Received on Ice:** No

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/18/2025 07:58	
Radium 228	See Attached			1		04/18/2025 07:58	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID:	80794004	**Date Collected:**	03/17/2025 10:30	**Matrix:**	Groundwater
Sample ID:	MW-7B	**Date Received:**	03/17/2025 17:41	**Collector:**	MVTL Field Service

Temp @ Receipt (C): 10.0 **Received on Ice:** No

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/18/2025 07:58	
Radium 228	See Attached			1		04/18/2025 07:58	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80794005 **Date Collected:** 03/17/2025 10:30 **Matrix:** Groundwater
Sample ID: Dup Up **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 10.0 **Received on Ice:** No

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/18/2025 07:58	
Radium 228	See Attached			1		04/18/2025 07:58	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80794006 **Date Collected:** 03/17/2025 12:39 **Matrix:** Groundwater
Sample ID: MW-8B **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 10.0 **Received on Ice:** No

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/18/2025 07:58	
Radium 228	See Attached			1		04/18/2025 07:58	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80794007 **Date Collected:** 03/17/2025 11:35 **Matrix:** Groundwater
Sample ID: MW-105 **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 10.0 **Received on Ice:** No

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/18/2025 07:58	
Radium 228	See Attached			1		04/18/2025 07:58	

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Account #: 5109 **Client:** Great River Energy

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ANALYTICAL SUMMARY REPORT

April 17, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25030481 Quote ID: C15480
Project Name: 80794

Energy Laboratories, Inc. Casper WY received the following 7 samples for Minnesota Valley Testing Laboratories on 3/20/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25030481-001	80794001, MW-6B	03/17/25 14:05	03/20/25	Aqueous	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25030481-002	80794002, FB Up	03/17/25 13:42	03/20/25	Aqueous	Same As Above
C25030481-003	80794003, MW-7A	03/17/25 8:55	03/20/25	Aqueous	Same As Above
C25030481-004	80794004, MW-7B	03/17/25 10:30	03/20/25	Aqueous	Same As Above
C25030481-005	80794005, Dup Up	03/17/25 10:30	03/20/25	Aqueous	Same As Above
C25030481-006	80794006, MW-8B	03/17/25 12:39	03/20/25	Aqueous	Same As Above
C25030481-007	80794007, MW-105	03/17/25 11:35	03/20/25	Aqueous	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80794
Lab ID: C25030481-001
Client Sample ID: 80794001, MW-6B

Report Date: 04/17/25
Collection Date: 03/17/25 14:05
DateReceived: 03/20/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.09	pCi/L	U			E903.0	04/07/25 15:44 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/07/25 15:44 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/07/25 15:44 / apt
Radium 228	1.0	pCi/L	U			RA-05	04/02/25 12:22 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	04/02/25 12:22 / trs
Radium 228 MDC	1.1	pCi/L				RA-05	04/02/25 12:22 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	04/08/25 13:28 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80794
Lab ID: C25030481-002
Client Sample ID: 80794002, FB Up

Report Date: 04/17/25
Collection Date: 03/17/25 13:42
DateReceived: 03/20/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.05	pCi/L	U			E903.0	04/07/25 15:44 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/07/25 15:44 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/07/25 15:44 / apt
Radium 228	0.3	pCi/L	U			RA-05	04/02/25 12:22 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	04/02/25 12:22 / trs
Radium 228 MDC	1.1	pCi/L				RA-05	04/02/25 12:22 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	04/08/25 13:28 / dmf

Report Definitions:
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QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80794
Lab ID: C25030481-003
Client Sample ID: 80794003, MW-7A

Report Date: 04/17/25
Collection Date: 03/17/25 08:55
DateReceived: 03/20/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	04/07/25 15:44 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/07/25 15:44 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/07/25 15:44 / apt
Radium 228	0.2	pCi/L	U			RA-05	04/02/25 12:22 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	04/02/25 12:22 / trs
Radium 228 MDC	1.1	pCi/L				RA-05	04/02/25 12:22 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	04/08/25 13:28 / dmf

Report Definitions:
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QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80794
Lab ID: C25030481-004
Client Sample ID: 80794004, MW-7B

Report Date: 04/17/25
Collection Date: 03/17/25 10:30
DateReceived: 03/20/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.1	pCi/L	U			E903.0	04/07/25 15:44 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/07/25 15:44 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/07/25 15:44 / apt
Radium 228	0.4	pCi/L	U			RA-05	04/02/25 12:22 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	04/02/25 12:22 / trs
Radium 228 MDC	1.0	pCi/L				RA-05	04/02/25 12:22 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 MDC	1.0	pCi/L				A7500-RA	04/08/25 13:28 / dmf

Report Definitions:
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QCL - Quality Control Limit
U - Not detected
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ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80794
Lab ID: C25030481-005
Client Sample ID: 80794005, Dup Up

Report Date: 04/17/25
Collection Date: 03/17/25 10:30
DateReceived: 03/20/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.03	pCi/L	U			E903.0	04/07/25 15:44 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/07/25 15:44 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/07/25 15:44 / apt
Radium 228	0.1	pCi/L	U			RA-05	04/02/25 12:22 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	04/02/25 12:22 / trs
Radium 228 MDC	1.0	pCi/L				RA-05	04/02/25 12:22 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 MDC	1.0	pCi/L				A7500-RA	04/08/25 13:28 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80794
Lab ID: C25030481-006
Client Sample ID: 80794006, MW-8B

Report Date: 04/17/25
Collection Date: 03/17/25 12:39
DateReceived: 03/20/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.04	pCi/L	U			E903.0	04/07/25 15:44 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/07/25 15:44 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/07/25 15:44 / apt
Radium 228	0.1	pCi/L	U			RA-05	04/02/25 12:22 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	04/02/25 12:22 / trs
Radium 228 MDC	1.0	pCi/L				RA-05	04/02/25 12:22 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	04/08/25 13:28 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80794
Lab ID: C25030481-007
Client Sample ID: 80794007, MW-105

Report Date: 04/17/25
Collection Date: 03/17/25 11:35
DateReceived: 03/20/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.09	pCi/L	U			E903.0	04/07/25 11:16 / apt
Radium 226 precision (±)	0.09	pCi/L				E903.0	04/07/25 11:16 / apt
Radium 226 MDC	0.1	pCi/L				E903.0	04/07/25 11:16 / apt
Radium 228	2.5	pCi/L				RA-05	04/07/25 16:47 / trs
Radium 228 precision (±)	1.1	pCi/L				RA-05	04/07/25 16:47 / trs
Radium 228 MDC	1.2	pCi/L				RA-05	04/07/25 16:47 / trs
Radium 226 + Radium 228	2.6	pCi/L				A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 precision (±)	1.1	pCi/L				A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	04/08/25 13:28 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25030481 **Report Date:** 04/09/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11621
Lab ID: LCS-RA226-11621	3	Laboratory Control Sample				Run: TENNELEC-4_250325G				04/07/25 13:39
Radium 226		11	pCi/L		110	70	130			
Radium 226 precision (±)		1.8	pCi/L							
Radium 226 MDC		0.16	pCi/L							
Lab ID: MB-RA226-11621	3	Method Blank				Run: TENNELEC-4_250325G				04/07/25 13:39
Radium 226		-0.02	pCi/L							U
Radium 226 precision (±)		0.09	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C25030481-002ADUP	3	Sample Duplicate				Run: TENNELEC-4_250325G				04/07/25 15:44
Radium 226		-0.014	pCi/L					380	30	UR
Radium 226 precision (±)		0.095	pCi/L							
Radium 226 MDC		0.17	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.42.										
Method: E903.0										Batch: RA226-11622
Lab ID: LCS-RA226-11622	3	Laboratory Control Sample				Run: TENNELEC-4_250326D				04/07/25 11:16
Radium 226		10	pCi/L		100	70	130			
Radium 226 precision (±)		1.6	pCi/L							
Radium 226 MDC		0.15	pCi/L							
Lab ID: MB-RA226-11622	3	Method Blank				Run: TENNELEC-4_250326D				04/07/25 11:16
Radium 226		0.09	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Lab ID: C25030481-007ADUP	3	Sample Duplicate				Run: TENNELEC-4_250326D				04/07/25 11:16
Radium 226		-0.089	pCi/L					64000	30	UR
Radium 226 precision (±)		0.12	pCi/L							
Radium 226 MDC		0.22	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 1.19.										

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25030481 **Report Date:** 04/09/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7607
Lab ID: LCS-228-RA226-11621	3	Laboratory Control Sample				Run: TENNELEC-4_250325F				04/02/25 12:22
Radium 228		9.6	pCi/L		101	70	130			
Radium 228 precision (±)		2.5	pCi/L							
Radium 228 MDC		1.0	pCi/L							
Lab ID: MB-RA226-11621	3	Method Blank				Run: TENNELEC-4_250325F				04/02/25 12:22
Radium 228		0.02	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C25030481-002ADUP	3	Sample Duplicate				Run: TENNELEC-4_250325F				04/02/25 12:22
Radium 228		-0.026	pCi/L					230	30	UR
Radium 228 precision (±)		0.65	pCi/L							
Radium 228 MDC		1.1	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.40.										
Method: RA-05										Batch: RA228-7616
Lab ID: LCS-228-RA228-7616	3	Laboratory Control Sample				Run: TENNELEC-4_250403A				04/07/25 16:47
Radium 228		11	pCi/L		113	70	130			
Radium 228 precision (±)		2.8	pCi/L							
Radium 228 MDC		1.0	pCi/L							
Lab ID: MB-228-RA228-7616	3	Method Blank				Run: TENNELEC-4_250403A				04/07/25 16:47
Radium 228		0.6	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C25030481-007ADUP	3	Sample Duplicate				Run: TENNELEC-4_250403A				04/07/25 16:47
Radium 228		2.4	pCi/L					7.1	30	
Radium 228 precision (±)		1.1	pCi/L							
Radium 228 MDC		1.2	pCi/L							
- The RER result is 0.12.										

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25030481

Login completed by: Dakota R. Sawyer
Reviewed by: srichins
Reviewed Date: 3/24/2025

Date Received: 3/20/2025
Received by: SLR
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	9.7°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature blank temperature in shipping container 1 was 9.7°C and shipping container 2 was 9.0°C. DRS 03/20/25

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

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Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

Laboratory Certifications and Accreditations

Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Account #: 5109 **Client:** Great River Energy

C25030481

MVTL LABORATORIES, Inc.
2616 E Broadway Ave
Bismarck, ND 58501
Phone: (701) 258-9720 Fax: (701) 258-9724
Toll Free: (800) 279-6885

Chain of Custody Record

Page 1 of 1

Work Order # 80794

Company Name and Address: MVTL, 2616 E Broadway, Bismarck, ND 58501
Billing Address (indicate if different from above): PO Box 249, New Ulm, MN 56073
Account #:
Contact: Claudette
Name of Sampler:
Quote Number C15480
Project Name/Number:
Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box
Date Submitted: 18-Mar-25
Purchase Order #: BL7018

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Unpreserved	Gallon HNO3	VOC Vials	Unpreserved	Glass Jar	Other	Analysis Required
	80794001	MW-6B	GW	17-Mar-25	1405		1					Ra226 & Ra228
	80794002	FB Up	GW	17-Mar-25	1342		1					Ra226 & Ra228
	80794003	MW-7A	GW	17-Mar-25	855	1						Ra226 & Ra228
	80794004	MW-7B	GW	17-Mar-25	1030		1					Ra226 & Ra228
	80794005	Dup Up	GW	17-Mar-25	1030		1					Ra226 & Ra228
	80794006	MW-8B	GW	17-Mar-25	1239		1					Ra226 & Ra228
	80794007	MW-105	GW	17-Mar-25	1135		1					Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
G. Ziegler	18-Mar-25	1700		Shelby Kitchings	3/20/25	1005

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Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 80794

Chain of Custody Record

Report To:	Great River Energy	CC: Golder Associates	Project Name: SS UP
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: March 2025
Address:		Lakewood, CO 80228	Sampled By: Jeremy Meyer
Phone:			
Email:	CJohnston@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric										Analysis Required
001	MW- 6B	17 Mar 25	1405	GW				X										Radium 226 and 228 Combined
002	FB Up	17 Mar 25	1342	GW				X										
003	MW- 7A	17 Mar 25	0855	GW				X										
004	MW- 7B	17 Mar 25	1030	GW				X										
005	Dup Up	17 Mar 25	1030	GW				X										
006	MW- 8B	17 Mar 25	1239	GW				X										
007	MW- 105	17 Mar 25	1135	GW				X										

Comments: Upgradient/Side-gradient Wells

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	17 Mar 25 1741	Log In Walk In #2	10.0°C/TM BOS ROI Y/N		18 Mar 25 0730
2					

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Account #: 5109 **Client:** Great River Energy

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	6B
Sampling Personal:	Jerry Ply

Weather Conditions: Temp: 35 °F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	17.67	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	20.90	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 57	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
17Mar25	1340	Start of Well Purge									clear, slightly turbid, turbid
	1350	7.68	1401	7.83	5.10	139.2	0.86	20.50	100.0	1.0	Clear
	1355	7.48	1386	7.83	4.91	141.9	2.13	20.65	100.0	0.5	Clear
	1400	7.52	1381	7.81	4.01	140.9	0.37	20.78	100.0	0.5	Clear
	1405	7.52	1384	7.80	4.34	137.4	4.01	20.84	100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
17Mar25	1405	7.52	1384	7.80	4.34	137.4	4.01				Clear

Comments: Collected FB UP @ 1342

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Account #: 5109 **Client:** Great River Energy

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	MW 7A
Sampling Personal:	

Weather Conditions: Temp: 20 °F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.20 ft	
Depth to Top of Pump:	14.65 ft	
Water Level After Sample:	Below Pump ft	
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28 / 56	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
17Mar25	0820	Start of Well Purge									
	0835	7.80	14,705	7.38	4.55	235.9	1.09	Below Pump	200.0	3.0	Clear
	0840	6.62	15,128	7.37	1.95	224.1	0.24	BP	100.0	0.5	Clear
	0845	5.90	15,261	7.33	1.16	165.3	0.09	BP	100.0	0.5	Clear
	0850	5.78	15,222	7.31	0.81	148.5	0.00	BP	100.0	0.5	Clear
	0855	5.83	15,388	7.31	0.75	133.9	0.00	BP	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
17Mar25	0855	5.83	15,388	7.31	0.75	133.9	0.00				Clear

Comments:

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	MW 78
Sampling Personal:	JM

Weather Conditions: Temp: 25 °F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.25	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	11.60	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
DUP UP

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
	1005	Start of Well Purge									
17Mar25	1015	7.87	1376	7.68	1.52	-88.7	1.70	11.58	200.0	2.0	Clear
	1020	7.90	1460	7.62	1.07	-96.6	0.04	11.60	200.0	1.0	Clear
	1025	7.92	1437	7.64	0.67	-95.7	0.21	11.61	200.0	1.0	Clear
	1030	7.95	1442	7.66	1.13	-96.3	0.02	11.60	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: ~~5.0~~ Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
17Mar25	1030	7.95	1442	7.66	1.13	-96.3	0.02				Clear

Comments:

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	BB
Sampling Personal:	JM

Weather Conditions: Temp: 35 °F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	43.67	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	43.76	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 5	Sec.
Recover: 10	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
17 Mar 25	1209	Start of Well Purge									
	1219	8.19	1037	7.36	0.62	38.1	7.54	43.75	100.0	1.0	Clear
	1224	8.30	1028	7.36	0.54	26.8	17.17	43.75	100.0	0.5	Clear
	1229	8.42	1004	7.36	0.49	26.4	34.80	43.76	100.0	0.5	Clear
	1234	8.24	1000	7.36	0.41	24.2	34.69	43.76	100.0	0.5	Clear
	1239	8.23	1019	7.37	0.38	20.8	56.76	43.76	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: _____ Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
17 Mar 25	1239	8.23	1019	7.37	0.38	20.8	56.76				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	105
Sampling Personal:	JJ PH

Weather Conditions: Temp: 30°F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	14.76	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	14.93	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
17 Mar 25	1110	Start of Well Purge									
	1120	7.93	1613	7.81	0.36	64.1	8.31	14.95	200.0	2.0	Clear
	1125	7.98	1605	7.81	0.38	67.9	9.23	14.94	200.0	1.0	Clear
	1130	7.95	1602	7.82	0.34	70.3	10.22	14.93	200.0	1.0	Clear
	1135	7.92	1613	7.82	0.34	64.0	6.01	14.93	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
17 Mar 25	1135	7.92	1613	7.82	0.34	64.0	6.01				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS BAL March 2025 (81243) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81243001 **Date Collected:** 03/20/2025 10:40 **Matrix:** Groundwater
Sample ID: MW-9N **Date Received:** 03/20/2025 16:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**3829**	umhos/cm	1	1		03/20/2025 10:40	
Method: 150.2							
pH - Field	**7.23**	units	0.01	1		03/20/2025 10:40	
Method: 170.1							
Temperature - Field C	**7.39**	degrees C		1		03/20/2025 10:40	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0424**	mg/L	0.02	1	03/21/2025 15:59	03/26/2025 14:51	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/21/2025 15:59	04/02/2025 10:05	
Arsenic	<0.002	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:05	
Barium	**0.0533**	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:05	
Beryllium	<0.0005	mg/L	0.0005	5	03/21/2025 15:59	04/02/2025 10:05	
Cadmium	<0.0005	mg/L	0.0005	5	03/21/2025 15:59	04/02/2025 10:05	
Chromium	<0.002	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:05	
Cobalt	**0.0029**	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:05	
Lead	<0.0005	mg/L	0.0005	5	03/21/2025 15:59	04/02/2025 10:05	
Molybdenum	**0.0427**	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:05	
Selenium	**0.0092**	mg/L	0.005	5	03/21/2025 15:59	04/02/2025 10:05	
Thallium	<0.0005	mg/L	0.0005	5	03/21/2025 15:59	04/02/2025 10:05	
Method: SM4500 H+ B-2021							
pH	**7.4**	units	0.1	1		03/21/2025 14:54	*
Method: SM4500-F-C-2021							
Fluoride	**0.66**	mg/L	0.1	1		03/21/2025 14:54	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81243002 **Date Collected:** 03/20/2025 11:40 **Matrix:** Groundwater
Sample ID: MW-102 **Date Received:** 03/20/2025 16:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1968**	umhos/cm	1	1		03/20/2025 11:40	
Method: 150.2							
pH - Field	**7.65**	units	0.01	1		03/20/2025 11:40	
Method: 170.1							
Temperature - Field C	**9.13**	degrees C		1		03/20/2025 11:40	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0556**	mg/L	0.02	1	03/21/2025 15:59	03/26/2025 14:51	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/21/2025 15:59	04/02/2025 10:10	
Arsenic	<0.002	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:10	
Barium	**0.0273**	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:10	
Beryllium	<0.0005	mg/L	0.0005	5	03/21/2025 15:59	04/02/2025 10:10	
Cadmium	<0.0005	mg/L	0.0005	5	03/21/2025 15:59	04/02/2025 10:10	
Chromium	<0.002	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:10	
Cobalt	<0.002	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:10	
Lead	<0.0005	mg/L	0.0005	5	03/21/2025 15:59	04/02/2025 10:10	
Molybdenum	**0.0169**	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:10	
Selenium	<0.005	mg/L	0.005	5	03/21/2025 15:59	04/02/2025 10:10	
Thallium	<0.0005	mg/L	0.0005	5	03/21/2025 15:59	04/02/2025 10:10	
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		03/21/2025 15:00	*
Method: SM4500-F-C-2021							
Fluoride	**0.47**	mg/L	0.1	1		03/21/2025 15:00	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81243003 **Date Collected:** 03/20/2025 09:05 **Matrix:** Groundwater
Sample ID: MW-103 **Date Received:** 03/20/2025 16:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2489**	umhos/cm	1	1		03/20/2025 09:05	
Method: 150.2							
pH - Field	**8.98**	units	0.01	1		03/20/2025 09:05	
Method: 170.1							
Temperature - Field C	**7.67**	degrees C		1		03/20/2025 09:05	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0426**	mg/L	0.02	1	03/21/2025 15:59	03/26/2025 14:52	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/21/2025 15:59	04/02/2025 10:15	
Arsenic	**0.0087**	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:15	
Barium	**0.0840**	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:15	
Beryllium	<0.0005	mg/L	0.0005	5	03/21/2025 15:59	04/02/2025 10:15	
Cadmium	<0.0005	mg/L	0.0005	5	03/21/2025 15:59	04/02/2025 10:15	
Chromium	<0.002	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:15	
Cobalt	<0.002	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:15	
Lead	**0.0012**	mg/L	0.0005	5	03/21/2025 15:59	04/02/2025 10:15	
Molybdenum	**0.0239**	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:15	
Selenium	<0.005	mg/L	0.005	5	03/21/2025 15:59	04/02/2025 10:15	
Thallium	<0.0005	mg/L	0.0005	5	03/21/2025 15:59	04/02/2025 10:15	
Method: SM4500 H+ B-2021							
pH	**8.8**	units	0.1	1		03/21/2025 15:06	*
Method: SM4500-F-C-2021							
Fluoride	**0.22**	mg/L	0.1	1		03/21/2025 15:06	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81243004 **Date Collected:** 03/20/2025 09:05 **Matrix:** Groundwater
Sample ID: DUP BAL **Date Received:** 03/20/2025 16:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0444**	mg/L	0.02	1	03/21/2025 15:59	03/26/2025 14:53	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/21/2025 15:59	04/02/2025 10:20	
Arsenic	**0.0083**	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:20	
Barium	**0.0835**	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:20	
Beryllium	<0.0005	mg/L	0.0005	5	03/21/2025 15:59	04/02/2025 10:20	
Cadmium	<0.0005	mg/L	0.0005	5	03/21/2025 15:59	04/02/2025 10:20	
Chromium	<0.002	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:20	
Cobalt	<0.002	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:20	
Lead	**0.0012**	mg/L	0.0005	5	03/21/2025 15:59	04/02/2025 10:20	
Molybdenum	**0.0241**	mg/L	0.002	5	03/21/2025 15:59	04/02/2025 10:20	
Selenium	<0.005	mg/L	0.005	5	03/21/2025 15:59	04/02/2025 10:20	
Thallium	<0.0005	mg/L	0.0005	5	03/21/2025 15:59	04/02/2025 10:20	
Method: SM4500 H+ B-2021							
pH	**8.8**	units	0.1	1		03/21/2025 15:11	*
Method: SM4500-F-C-2021							
Fluoride	**0.22**	mg/L	0.1	1		03/21/2025 15:11	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 81243

Aluminum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	99.1		85	115		
MB		<0.1							
PDS/PDSD	80944002		2	90.9	94.1	75	125	2.6	20
PDS/PDSD	80946001		2	106.0	105.0	75	125	0.3	20
PDS/PDSD	81122006		1	94.8	90.3	75	125	2.3	20
PDS/PDSD	81242001		1	93.5	93.5	75	125	0.0	20

Aluminum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	99.1		85	115		
MB		<0.1							
SPK/SPKD	81122005		0.4	104.0	107.0	75	125	2.1	20
SPK/SPKD	81243002		0.4	101.0	101.0	75	125	0.8	20

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	106.0		85	115		
MB		<0.1							
PDS/PDSD	80944002		2	79.3	76.3	75	125	1.1	20
PDS/PDSD	80946001		2	89.3	89.1	75	125	0.1	20
PDS/PDSD	81122006		1	86.0	87.6	75	125	0.9	20
MS/MSD	81242001		0.4	93.9	86.0	70	130	0.3	20

Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	106.0		85	115		
MB		<0.1							
SPK/SPKD	81122005		0.4	79.6	79.3	75	125	0.1	20
SPK/SPKD	81243002		0.4	87.3	87.3	75	125	0.0	20

Lithium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	108.0		85	115		
MB		<0.04							
MS/MSD	81242001		0.4	90.4	98.6	70	130	8.0	20

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Account #: 5109 **Client:** Great River Energy

Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	108.0		85	115		
MB		<0.04							
SPK/SPKD	81243002		0.4	88.2	88.0	75	125	0.2	20

Manganese — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	104.0		85	115		
MB		<0.05							
PDS/PDSD	80944002		2	87.0	85.8	75	125	1.2	20
PDS/PDSD	80946001		2	90.0	90.2	75	125	0.2	20
PDS/PDSD	81122006		1	89.9	91.1	75	125	1.2	20
MS/MSD	81242001		0.4	76.5	77.2	70	130	0.1	20

Manganese, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	104.0		85	115		
MB		<0.05							
SPK/SPKD	81122005		0.4	87.7	87.6	75	125	0.1	20
SPK/SPKD	81243002		0.4	84.9	85.3	75	125	0.3	20

Antimony — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	91.4		80	120		
MB		<0.001							
MS/MSD	81242001		0.4	103.0	106.0	75	125	3.4	20

Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	91.4		80	120		
MB		<0.001							
MS/MSD	81242001		0.4	103.0	106.0	75	125	3.4	20
SPK/SPKD	81243004		0.1	104.0	105.0	75	125	0.7	20

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	98.6		80	120		
MB		<0.002							
MS/MSD	81242001		0.4	101.0	104.0	75	125	3.1	20

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Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	98.6		80	120		
MB		<0.002							
MS/MSD	81242001		0.4	101.0	104.0	75	125	3.1	20
SPK/SPKD	81243004		0.1	105.0	105.0	75	125	0.3	20

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	98.9		80	120		
MB		<0.002							
MS/MSD	81242001		0.4	107.0	108.0	75	125	0.8	20

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	98.9		80	120		
MB		<0.002							
MS/MSD	81242001		0.4	107.0	108.0	75	125	0.8	20
SPK/SPKD	81243004		0.1	106.0	108.0	75	125	0.9	20

Beryllium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	96.9		80	120		
MB		<0.0005							
MS/MSD	81242001		0.4	101.0	101.0	75	125	0.0	20

Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	96.9		80	120		
MB		<0.0005							
MS/MSD	81242001		0.4	101.0	101.0	75	125	0.0	20
SPK/SPKD	81243004		0.1	99.4	99.7	75	125	0.3	20

Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	92.5		80	120		
MB		<0.0005							
MS/MSD	81242001		0.4	100.0	104.0	75	125	3.7	20

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Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	92.5		80	120		
MB		<0.0005							
MS/MSD	81242001		0.4	100.0	104.0	75	125	3.7	20
SPK/SPKD	81243004		0.1	98.5	97.6	75	125	0.9	20

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MS/MSD	81242001		0.4	102.0	105.0	75	125	3.6	20

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MS/MSD	81242001		0.4	102.0	105.0	75	125	3.6	20
SPK/SPKD	81243004		0.1	106.0	109.0	75	125	2.5	20

Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MS/MSD	81242001		0.4	98.7	103.0	75	125	4.2	20

Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MS/MSD	81242001		0.4	98.7	103.0	75	125	4.2	20
SPK/SPKD	81243004		0.1	105.0	106.0	75	125	1.1	20

Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MS/MSD	81242001		0.4	103.0	108.0	75	125	4.5	20

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Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MS/MSD	81242001		0.4	103.0	108.0	75	125	4.5	20
SPK/SPKD	81243004		0.1	103.0	104.0	75	125	0.6	20

Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.4		80	120		
MB		<0.002							
MS/MSD	81242001		0.4	101.0	105.0	75	125	3.6	20

Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.4		80	120		
MB		<0.002							
MS/MSD	81242001		0.4	101.0	105.0	75	125	3.6	20
SPK/SPKD	81243004		0.1	107.0	107.0	75	125	0.4	20

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	97.4		80	120		
MB		<0.005							
MS/MSD	81242001		0.4	102.0	106.0	75	125	4.3	20

Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	97.4		80	120		
MB		<0.005							
MS/MSD	81242001		0.4	102.0	106.0	75	125	4.3	20
SPK/SPKD	81243004		0.1	103.0	103.0	75	125	0.1	20

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
MB		<0.0005							
MS/MSD	81242001		0.4	103.0	106.0	75	125	3.4	20

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Thallium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
MB		<0.0005							
MS/MSD	81242001		0.4	103.0	106.0	75	125	3.4	20
SPK/SPKD	81243004		0.1	102.0	103.0	75	125	1.3	20

Mercury Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	106.0		85	115		
LFB			0.002	106.0		85	115		
LRB		<0.0002							
MB		<0.0002							
MS/MSD	80944009		0.002	96.6	101.0	70	130	5.1	20
MS/MSD	80946001		0.002	105.0	104.0	70	130	0.0	20
MS/MSD	81122006		0.002	110.0	107.0	70	130	4.7	20
MS/MSD	81243004		0.002	92.5	91.8	70	130	0.0	20

pH Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	100.2					
CRM-PH			6	100.2					
CRM-PH			6	99.8					
DUP	81242001							1.7	20
DUP	81243004							0.2	20

Fluoride Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			0.64	102.0		83.99	111.11		
LFB-F			0.5	96.0		90	110		
LFB-F			0.5	90.0		90	110		
LFB-F			0.5	90.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	81242001		0.5	98.0	108.0	80	120	6.6	20

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Fluoride Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD-F	81243001		0.5	104.0	92.0	80	120	5.2	20

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Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 81243

Chain of Custody Record

Report To:	Great River Energy	CC: Golder Associates	Project Name: SS BAL
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: March 2025
Address:		Lakewood, CO 80228	Sampled By: Ethan Gress
Phone:			
Email:	CJohnston@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)							Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 9N	20Mar25	1040	GW	X	X	X							7.39	3829	7.23	0.00	App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radio Chem, Dissolved and Total for Remainder of Metals.) (See Attachments)
002	MW- 102	20Mar25	1140	GW	X	X	X							9.13	1968	7.65	0.98	
003	MW- 103	20Mar25	0905	GW	X	X	X							7.67	2489	8.98	4.96	
004	DUP BAL	20Mar25	0905	GW	X	X	X							7.67	2489	8.98	4.96	

Comments:

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		20 Mar25 1600	Log In Walk In #2	6.7 °C/TM 805 ROI S/N		20 Mar 25 1605
2						

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Table 1: Proposed 2025 Stanton Station Plant Facilities Schedule for Budgetary Estimation

Location	Well ID		2025 Q1 - Feb	2025 Q1 - Mar	2025 Q2 - Jun	2025 Q3 - Sep	2025 Q4 - Nov
Upgradient/Side-gradient	MW-6B	1		App IV, Iron, Aluminum, Manganese (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)		App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)
	MW-7A	1	TDS and Field Parameters				
	MW-7B	1					
	MW-8B	1				TDS and Field Parameters	
	MW-105	1					
Bottom Ash Landfill	MW-9N	1					
	MW-102	1					
	MW-103	1					
Property Boundary	MW-PB1	1					
Wells Installed in May 2022	MW-210	1					
	MW-211	1					
	MW-212	1					
	MW-213	1					
	MW-214	1					
Piezometers [1]	PZ-BA-A	1					
	PZ-BA-B	1					
Sumps [2]	BAI-Sump-S	1					
Surface Water [3]	Missouri-River	1					
	Rail-Drainage	1					
Internal - Prior Bottom Ash Impoundment Downgradient	MW-1R	1					
	MW-104	1					
Bottom Ash Impoundment	MW-201	1				TDS and Field Parameters	
	MW-202	1	Boron, Sulfate, and Field Parameters				
	MW-203	1					
Closed Landfill	MW-10	1					
	MW-204	1					
	MW-205	1					
Additional Internal Locations	MW-4	1					
	MW-PB2	1					
Wells Installed in February 2023	MW-215	1					
	MW-216	1					
	MW-217	1					
	MW-218	1					
	MW-219	1					
	MW-220	1					
	MW-221	1					
	MW-222	1					
	MW-300	1					
	MW-301	1					
	MW-PB3	1					
Proposed Additional Wells for Installation in Q2 2025	TBD	1			App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
Proposed Additional Wells for Installation in Q1 2026	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
Total # of Sample Locations			2	40	53	15	53

Notes:
Suggested locations for collection of QA/QC samples in 2025 are listed in Table 2.
App III - Appendix III Detection Monitoring List, Table 5
App IV - Appendix IV Assessment Monitoring List, Table 6
Additional List - Table 7
Required field parameters are listed in Table 5 and Table 6
1. The piezometers do not have dedicated pumps and will need to be sampled by other methods.
2. The sump should be sampled using surface water collection methods via the sump riser.
3. Surface water samples to be collected only if safely accessible and free water is present.

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February 2025 GREAT RIVER ENERGY - STANTON STATION GL21509219.000
DRAFT - SUBJECT TO CHANGE

Table 2: 2025 Proposed Quality Assurance/Quality Control Sample Collection Locations for Budget Estimation

Location	Well ID	Q1 - Feb	Q1 - Mar	Q2 - Jun	Q3 - Sep	Q4 - Nov
Upgradient/Side-gradient	MW-6B		Field Blank			
	MW-7A					
	MW-7B		Duplicate			MS/MSD
	MW-8B			Duplicate		
	MW-10S					
Bottom Ash Landfill	MW-9N					Duplicate
	MW-102			Field Blank		
	MW-103		Duplicate			
Property Boundary	MW-PB1					
Wells Installed in May 2022	MW-210		Field Blank			Duplicate
	MW-211			MS/MSD		
	MW-212					Field Blank
	MW-213			Duplicate		
	MW-214		MS/MSD			
Piezometers [1]	PZ-BA-A					
	PZ-BA-B					Field Blank
Sumps [2]	BAI-Sump-S					
Surface Water [3]	Missouri-River					
	Rail-Drainage					
Internal - Prior Bottom Ash Impoundment Downgradient	MW-1R			Duplicate		
	MW-104					MS/MSD
Bottom Ash Impoundment	MW-201			Field Blank		
	MW-202					
	MW-203					
Closed Landfill	MW-10		Duplicate			
	MW-204					
	MW-205					Duplicate
Additional Internal Locations	MW-4					
	MW-PB2					
Wells Installed in February 2023	MW-215			Field Blank		
	MW-216					
	MW-217		Field Blank			Duplicate
	MW-218			MS/MSD		
	MW-219					
	MW-220		Duplicate			Field Blank
	MW-221					
	MW-222					
	MW-300		MS/MSD			
	MW-301			Duplicate		
	MW-PB3					
Proposed Additional Wells for Installation in Q2 2025	TBD				Duplicate	
	TBD				MS/MSD	
	TBD					Field Blank
	TBD					
	TBD					
	TBD					
	TBD			Duplicate		
	TBD				Field Blank	
	TBD					
	TBD					Duplicate
	TBD				Duplicate	
	TBD			Field Blank		
Proposed Additional Wells for Installation in Q1 2026	TBD					
	TBD					
	TBD					
	TBD					
	TBD					
	TBD					
Total # of Sample Locations		2	40	53	15	53
Total # of QC Samples		0	9	11	4	11

Notes:
Locations to collect samples are **suggestions only** to help with the distribution of QA/QC samples across the site and between facilities while meeting QA/QC objectives for the sampling programs.
Notes for QA/QC
Duplicates = 10-15% of primary collected sample
Field Blanks = approximately 1 per sampling day.
Equipment Blanks - only needed for non-dedicated equipement.
MS/MSD = 1 per approximately 20 primary collected samples.

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Account #: 5109 **Client:** Great River Energy

February 2025 GL21509219.000

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

+ Iron, Aluminum, Manganese,
- Total only for Mercury & Radiochem
- Dissolved & Total for remainder of Metals

MSP

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	9N
Sampling Personal:	Ethan Cates

Weather Conditions: Temp: 30 °F Wind: NW @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	14.00	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	14.50	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:
1 Liter Raw — 1 Gal Nitric
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
20Mar25	1015	Start of Well Purge									
	1020	7.43	3852	7.23	1.21	211.5	8.90	14.75	200.0	1.0	Clear
	1025	7.33	3843	7.23	0.97	209.8	0.73	14.48	200.0	1.0	Clear
	1030	7.34	3820	7.22	0.77	210.5	0.19	14.50	200.0	1.0	Clear
	1035	7.35	3821	7.22	0.70	205.7	0.00	14.52	200.0	1.0	Clear
	1040	7.39	3829	7.23	0.63	205.0	0.00	14.52	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
20Mar25	1040	7.39	3829	7.23	0.63	205.0	0.00				

Comments:	

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Member ACIL

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	102
Sampling Personal:	Ethan Cares

Weather Conditions: Temp: 35 °F Wind: 20 @ W Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	18.18	ft
Depth to Top of Pump:	~~18~~ —	ft
Water Level After Sample:	18.65	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 25	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
20Mar25	1115	Start of Well Purge									
	1120	9.10	1980	7.62	5.70	186.5	0.37	18.39	200.0	1.0	Clear
	1125	9.07	1977	7.63	0.38	170.3	1.75	18.55	200.0	1.0	Clear
	1130	9.05	1978	7.64	0.23	155.2	1.51	18.55	200.0	1.0	Clear
	1135	9.18	1953	7.65	0.40	163.1	0.87	18.62	200.0	1.0	Clear
	1140	9.13	1968	7.65	0.35	159.5	0.98	18.65	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
20Mar25	1140	9.13	1968	7.65	0.35	159.5	0.98				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	103
Sampling Personal:	Ethan Gross

Weather Conditions: Temp: 35 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	19.96	ft
Depth to Top of Pump:		ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
Dup BAL

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
19 20Mar25	0840	Start of Well Purge									
	0845	7.69	2529	9.09	1.42	97.9	21.68	19.90	200.0	1.0	Clear
	0850	7.60	2492	9.03	0.20	47.0	17.09	19.90	200.0	1.0	Clear
	0855	7.56	2482	9.01	0.17	38.9	9.26	19.90	200.0	1.0	Clear
	0900	7.66	2482	9.00	0.10	34.3	6.67	19.91	200.0	1.0	Clear
	0905	7.67	2489	8.98	0.09	33.3	4.96	19.90	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 7.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
20Mar25	0905	7.67	2489	8.98	0.09	33.3	4.96				

Comments:

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Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 21 Mar 25 Time: 0855 Analyst: PW

Work Order #: 81243

Containers Supplied by MVTL: [X] Yes [ ] No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: SS BAL March 2025 (81252) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81252001 **Date Collected:** 03/20/2025 10:40 **Matrix:** Groundwater
Sample ID: MW-9N **Date Received:** 03/20/2025 16:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 8.7

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:59	
Radium 228	See Attached			1		04/24/2025 16:59	

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81252002 **Date Collected:** 03/20/2025 11:40 **Matrix:** Groundwater
Sample ID: MW-102 **Date Received:** 03/20/2025 16:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 8.7

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:59	
Radium 228	See Attached			1		04/24/2025 16:59	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81252003 **Date Collected:** 03/20/2025 09:05 **Matrix:** Groundwater
Sample ID: MW-103 **Date Received:** 03/20/2025 16:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 8.7

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:59	
Radium 228	See Attached			1		04/24/2025 16:59	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81252004 **Date Collected:** 03/20/2025 09:05 **Matrix:** Groundwater
Sample ID: DUP BAL **Date Received:** 03/20/2025 16:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 8.7

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:59	
Radium 228	See Attached			1		04/24/2025 16:59	

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Account #: 5109 **Client:** Great River Energy

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Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

ANALYTICAL SUMMARY REPORT

April 24, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25030619 Quote ID: C15480
Project Name: 81252

Energy Laboratories, Inc. Casper WY received the following 4 samples for Minnesota Valley Testing Laboratories on 3/26/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25030619-001	81252001, MW-9N	03/20/25 10:40	03/26/25	Groundwater	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25030619-002	81252002, MW-102	03/20/25 11:40	03/26/25	Groundwater	Same As Above
C25030619-003	81252003, MW-103	03/20/25 9:05	03/26/25	Groundwater	Same As Above
C25030619-004	81252004, DUP BAL	03/20/25 9:05	03/26/25	Groundwater	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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Account #: 5109 **Client:** Great River Energy

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 81252
Lab ID: C25030619-001
Client Sample ID: 81252001, MW-9N

Report Date: 04/24/25
Collection Date: 03/20/25 10:40
DateReceived: 03/26/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L	U			E903.0	04/15/25 12:27 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/15/25 12:27 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/15/25 12:27 / apt
Radium 228	-0.1	pCi/L	U			RA-05	04/10/25 15:06 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	04/10/25 15:06 / trs
Radium 228 MDC	1.1	pCi/L				RA-05	04/10/25 15:06 / trs
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	04/16/25 13:27 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 81252
Lab ID: C25030619-002
Client Sample ID: 81252002, MW-102

Report Date: 04/24/25
Collection Date: 03/20/25 11:40
DateReceived: 03/26/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L	U			E903.0	04/15/25 12:27 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/15/25 12:27 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/15/25 12:27 / apt
Radium 228	0.5	pCi/L	U			RA-05	04/10/25 15:06 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	04/10/25 15:06 / trs
Radium 228 MDC	1.1	pCi/L				RA-05	04/10/25 15:06 / trs
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	04/16/25 13:27 / dmf

Report Definitions:
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QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 81252
Lab ID: C25030619-003
Client Sample ID: 81252003, MW-103

Report Date: 04/24/25
Collection Date: 03/20/25 09:05
DateReceived: 03/26/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L	U			E903.0	04/15/25 12:27 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/15/25 12:27 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/15/25 12:27 / apt
Radium 228	0.4	pCi/L	U			RA-05	04/10/25 15:06 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	04/10/25 15:06 / trs
Radium 228 MDC	1.1	pCi/L				RA-05	04/10/25 15:06 / trs
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	04/16/25 13:27 / dmf

Report Definitions:
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QCL - Quality Control Limit
U - Not detected
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Account #: 5109 **Client:** Great River Energy

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 81252
Lab ID: C25030619-004
Client Sample ID: 81252004, DUP BAL

Report Date: 04/24/25
Collection Date: 03/20/25 09:05
DateReceived: 03/26/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	04/15/25 12:27 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/15/25 12:27 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/15/25 12:27 / apt
Radium 228	0.06	pCi/L	U			RA-05	04/10/25 15:06 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	04/10/25 15:06 / trs
Radium 228 MDC	1.2	pCi/L				RA-05	04/10/25 15:06 / trs
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	04/16/25 13:27 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
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ND - Not detected at the Reporting Limit (RL)

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25030619 **Report Date:** 04/23/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0									Batch: RA226-11632	
Lab ID: LCS-RA226-11632	3	Laboratory Control Sample				Run: TENNELEC-3_250404A			04/15/25 12:27	
Radium 226		10	pCi/L		101	70	130			
Radium 226 precision (±)		1.6	pCi/L							
Radium 226 MDC		0.18	pCi/L							
Lab ID: MB-RA226-11632	3	Method Blank				Run: TENNELEC-3_250404A			04/15/25 12:27	
Radium 226		-0.002	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C25030623-001FDUP	3	Sample Duplicate				Run: TENNELEC-3_250404A			04/15/25 14:30	
Radium 226		0.24	pCi/L					7.8	30	
Radium 226 precision (±)		0.16	pCi/L							
Radium 226 MDC		0.23	pCi/L							

- The RER result is 0.09.

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25030619 **Report Date:** 04/23/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **RA-05**										Batch: RA228-7618
Lab ID: **LCS-228-RA226-11632**	3	Laboratory Control Sample				Run: TENNELEC-4_250404C				04/10/25 15:06
Radium 228		9.2	pCi/L		98	70	130			
Radium 228 precision (±)		2.5	pCi/L							
Radium 228 MDC		1.2	pCi/L							
Lab ID: **MB-RA226-11632**	3	Method Blank				Run: TENNELEC-4_250404C				04/10/25 15:06
Radium 228		-0.2	pCi/L							U
Radium 228 precision (±)		0.7	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: **C25030623-001FDUP**	3	Sample Duplicate				Run: TENNELEC-4_250404C				04/10/25 15:06
Radium 228		-0.095	pCi/L					960	30	UR
Radium 228 precision (±)		0.69	pCi/L							
Radium 228 MDC		1.2	pCi/L							

- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.24.

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25030619

Login completed by: Shelby L. Richins
Reviewed by: dsawyer
Reviewed Date: 3/28/2025
Date Received: 3/26/2025
Received by: SLR
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	16.6°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature blank temperature in shipping container 1 was 16.6°C and shipping container 2 was 14.2°C. SLR 03/26/25

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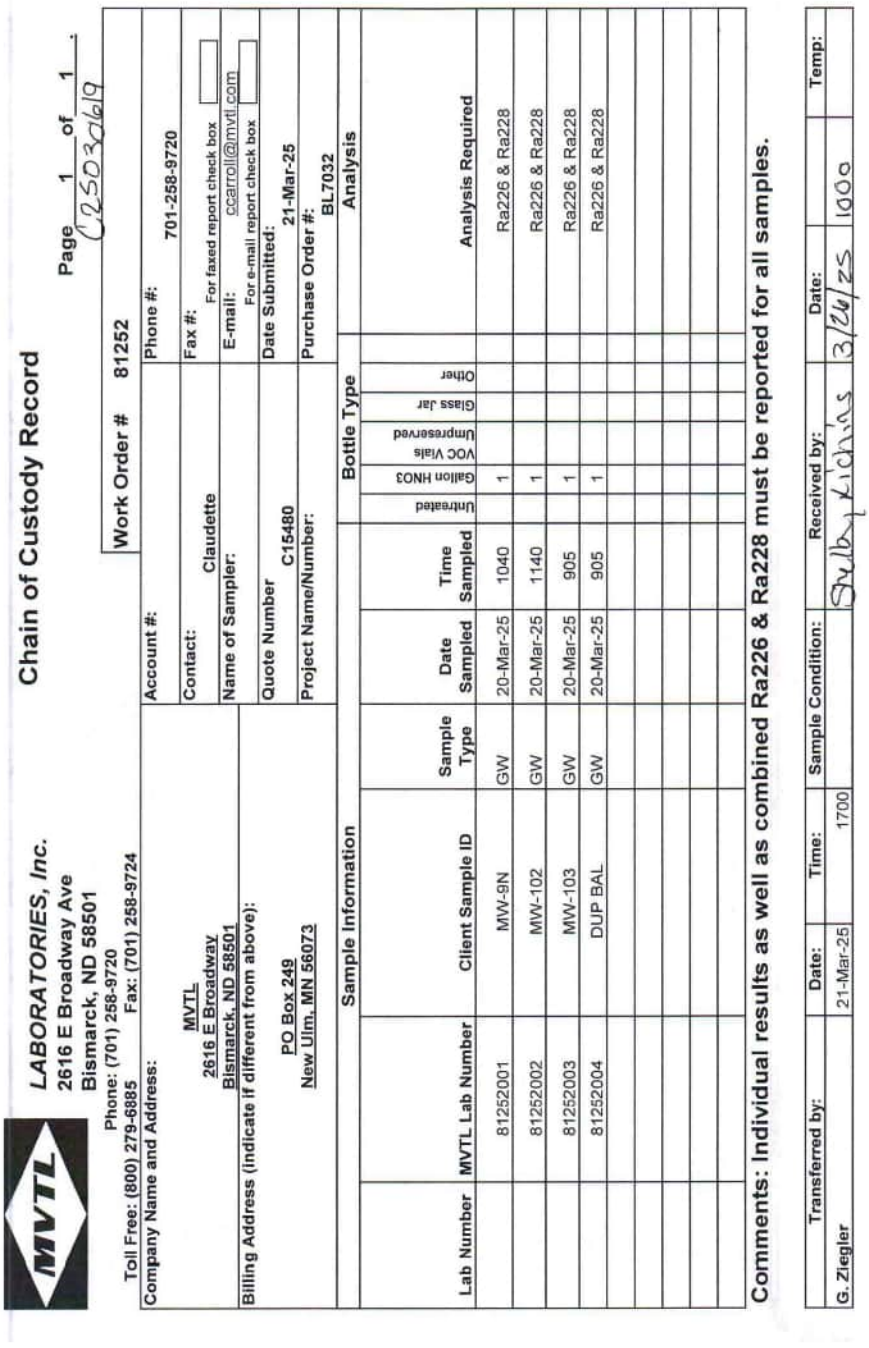
	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Bismarck, ND 58501
Phone: (701) 258-9720
Toll Free: (800) 279-6885 Fax: (701) 258-9724

Chain of Custody Record

Page 1 of 1

Work Order # 81252

Company Name and Address: MVTL 2616 E Broadway Bismarck, ND 58501

Billing Address (indicate if different from above): PO Box 249 New Ulm, MN 56073

Account #:
Contact: Claudette
Name of Sampler:
Quote Number C15480
Project Name/Number:

Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box
Date Submitted: 21-Mar-25
Purchase Order #: BL7032

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Unpreserved	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	81252001	MW-9N	GW	20-Mar-25	1040		1				Ra226 & Ra228
	81252002	MW-102	GW	20-Mar-25	1140		1				Ra226 & Ra228
	81252003	MW-103	GW	20-Mar-25	905		1				Ra226 & Ra228
	81252004	DUP BAL	GW	20-Mar-25	905		1				Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
G. Ziegler	21-Mar-25	1700		Sylby Kickas	3/24/25 1000	

Page 10 of 10

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Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 81252

Chain of Custody Record

Report To:	Great River Energy	CC: Golder Associates	Project Name: SS BAL
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: March 2025
Address:		Lakewood, CO 80228	Sampled By: Ethan Greese
Phone:			
Email:	CJohnston@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric										Analysis Required
001	MW- 9N	20Mar25	1040	GW				X										Radium 226 and 228 Combined
002	MW- 102	20Mar25	1140	GW				X										
003	MW- 103	20Mar25	0905	GW				X										
004	DUP BAL	20Mar25	0905	GW				X										

Comments:

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		20Mar25 1600	Log In Walk In #2	8.7 °C/TM 805 ROI Y/N		20Mar25 1603
2						

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	9N
Sampling Personal:	Ethan Coffee

Weather Conditions: Temp: 30 °F Wind: NW @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	14.00	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	14.50	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	1015	Start of Well Purge									
	1020	7.43	3852	7.23	1.21	211.5	8.90	14.35	200.0	1.0	Clear
	1025	7.33	3843	7.23	0.97	209.8	0.73	14.48	200.0	1.0	Clear
20 Mar 25	1030	7.34	3820	7.22	0.77	210.5	0.19	14.50	200.0	1.0	Clear
	1035	7.35	3821	7.22	0.70	205.7	0.00	14.52	200.0	1.0	Clear
	1040	7.39	3829	7.23	0.63	205.0	0.00	14.52	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
20 Mar 25	1040	7.39	3829	7.23	0.63	205.0	0.00				

Comments:

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	102
Sampling Personal:	Ethan Cates

Weather Conditions: Temp: 35 °F Wind: 20 @ W Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	18.18	ft
Depth to Top of Pump:	~~18~~ —	ft
Water Level After Sample:	18.65	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 25	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
20Mar25	1115	Start of Well Purge									
	1120	9.10	1980	7.62	0.40	180.5	0.37	18.39	200.0	1.0	Clear
	1125	9.07	1977	7.63	0.38	170.3	1.75	18.55	200.0	1.0	Clear
	1130	9.05	1978	7.64	0.23	155.2	1.51	18.55	200.0	1.0	Clear
	1135	9.18	1953	7.65	0.40	163.1	0.87	18.62	200.0	1.0	Clear
	1140	9.13	1968	7.65	0.35	159.5	0.98	18.65	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
20Mar25	1140	9.13	1968	7.65	0.35	159.5	0.98				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	103
Sampling Personal:	Ethan Gross

Weather Conditions: Temp: 36 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	19.96	ft
Depth to Top of Pump:		ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
Dup BAL

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
19 20 Mar 25	0840	Start of Well Purge									
	0845	7.69	2529	9.09	1.42	93.9	21.68	19.90	200.0	1.0	Clear
	0850	7.60	2492	9.03	0.20	47.0	17.09	19.90	200.0	1.0	Clear
	0855	7.56	2482	9.01	0.17	38.9	9.26	19.90	200.0	1.0	Clear
	0900	7.66	2482	9.00	0.10	34.3	6.67	19.91	200.0	1.0	Clear
	0905	7.67	2489	8.98	0.09	33.3	4.96	19.90	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 7.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
20 Mar 25	0905	7.67	2489	8.98	0.09	33.3	4.96				

Comments:	

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Account #: 5109 **Client:** Great River Energy
Workorder: SS BAI March 2025 (81129) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81129001 **Date Collected:** 03/19/2025 12:02 **Matrix:** Groundwater
Sample ID: MW-201 **Date Received:** 03/19/2025 17:10 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.3 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**3097**	umhos/cm	1	1		03/19/2025 12:02	
Method: 150.2							
pH - Field	**7.49**	units	0.01	1		03/19/2025 12:02	
Method: 170.1							
Temperature - Field C	**6.66**	degrees C		1		03/19/2025 12:02	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	<0.02	mg/L	0.02	1	03/20/2025 16:40	03/21/2025 10:41	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/20/2025 16:40	04/01/2025 13:19	
Arsenic	<0.002	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 13:19	
Barium	**0.0171**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 13:19	
Beryllium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 13:19	
Cadmium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 13:19	
Chromium	<0.002	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 13:19	
Cobalt	<0.002	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 13:19	
Lead	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 13:19	
Molybdenum	**0.1591**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 13:19	
Selenium	<0.005	mg/L	0.005	5	03/20/2025 16:40	04/01/2025 13:19	
Thallium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 13:19	
Method: SM4500 H+ B-2021							
pH	**7.7**	units	0.1	1		03/20/2025 17:51	*
Method: SM4500-F-C-2021							
Fluoride	**0.73**	mg/L	0.1	1		03/20/2025 17:51	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81129002 **Date Collected:** 03/19/2025 12:55 **Matrix:** Groundwater
Sample ID: MW-202 **Date Received:** 03/19/2025 17:10 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.3 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2105**	umhos/cm	1	1		03/19/2025 12:55	
Method: 150.2							
pH - Field	**7.25**	units	0.01	1		03/19/2025 12:55	
Method: 170.1							
Temperature - Field C	**6.49**	degrees C		1		03/19/2025 12:55	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0282**	mg/L	0.02	1	03/20/2025 16:40	03/21/2025 10:41	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/20/2025 16:40	04/01/2025 13:24	
Arsenic	**0.0040**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 13:24	
Barium	**0.1502**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 13:24	
Beryllium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 13:24	
Cadmium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 13:24	
Chromium	**0.0133**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 13:24	
Cobalt	**0.0068**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 13:24	
Lead	**0.0044**	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 13:24	
Molybdenum	**0.0029**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 13:24	
Selenium	**0.0074**	mg/L	0.005	5	03/20/2025 16:40	04/01/2025 13:24	
Thallium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 13:24	
Method: SM4500 H+ B-2021							
pH	**7.6**	units	0.1	1		03/20/2025 17:56	*
Method: SM4500-F-C-2021							
Fluoride	**0.13**	mg/L	0.1	1		03/20/2025 17:56	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81129003 **Date Collected:** 03/19/2025 13:52 **Matrix:** Groundwater
Sample ID: MW-203 **Date Received:** 03/19/2025 17:10 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.3 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2219**	umhos/cm	1	1		03/19/2025 13:52	
Method: 150.2							
pH - Field	**9.63**	units	0.01	1		03/19/2025 13:52	
Method: 170.1							
Temperature - Field C	**4.36**	degrees C		1		03/19/2025 13:52	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	<0.02	mg/L	0.02	1	03/20/2025 16:40	03/21/2025 10:42	
Method: EPA 6020B							
Antimony	**0.0011**	mg/L	0.001	5	03/20/2025 16:40	04/01/2025 13:29	
Arsenic	**0.0275**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 13:29	
Barium	**0.0403**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 13:29	
Beryllium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 13:29	
Cadmium	**0.0006**	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 13:29	
Chromium	**0.0036**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 13:29	
Cobalt	**0.0037**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 13:29	
Lead	**0.0072**	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 13:29	
Molybdenum	**0.0633**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 13:29	
Selenium	**0.0072**	mg/L	0.005	5	03/20/2025 16:40	04/01/2025 13:29	
Thallium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 13:29	
Method: SM4500 H+ B-2021							
pH	**9.5**	units	0.1	1		03/20/2025 18:02	*
Method: SM4500-F-C-2021							
Fluoride	**0.83**	mg/L	0.1	1		03/20/2025 18:02	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary WO #: 81129

Aluminum Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	103.0		85	115		
LFB-OE			0.4	99.2		85	115		
MB		<0.1							
MB		<0.1							
PDS/PDSD	80944002		2	90.9	94.1	75	125	2.6	20
PDS/PDSD	80946001		2	106.0	105.0	75	125	0.3	20
PDS/PDSD	81122006		1	94.8	90.3	75	125	2.3	20
MS/MSD	81215003		0.4	102.0	100.0	70	130	1.3	20
PDS/PDSD	81242001		1	93.5	93.5	75	125	0.0	20

Aluminum, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	103.0		85	115		
LFB-OE			0.4	99.2		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	81122005		0.4	104.0	107.0	75	125	2.1	20
MS/MSD	81215003							1.3	20
SPK/SPKD	81243002		0.4	101.0	101.0	75	125	0.8	20

Iron Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	110.0		85	115		
LFB-OE			0.4	106.0		85	115		
MB		<0.1							
MB		<0.1							
PDS/PDSD	80944002		2	79.3	76.3	75	125	1.1	20
PDS/PDSD	80946001		2	89.3	89.1	75	125	0.1	20
MS/MSD	81122006		0.4	113.0	104.0	70	130	2.5	20
PDS/PDSD	81122006		1	86.0	87.6	75	125	0.9	20
MS/MSD	81215003		0.4	100.0	89.7	70	130	2.1	20

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Account #: 5109 **Client:** Great River Energy

Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	110.0		85	115		
LFB-OE			0.4	106.0		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	81122005		0.4	87.3	79.3	75	125	0.1	20
MS/MSD	81122006							2.5	20
MS/MSD	81215003							2.1	20
SPK/SPKD	81243002		0.1	101.0	87.3	75	125	0.0	20

Lithium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	115.0		85	115		
LFB-OE			0.4	109.0		85	115		
MB		<0.04							
MB		<0.04							
MS/MSD	81122006		0.4	97.4	97.3	70	130	0.1	20

Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	115.0		85	115		
LFB-OE			0.4	109.0		85	115		
MB		<0.04							
MB		<0.04							
SPK/SPKD	80790001		0.4	89.8	89.3	75	125	0.5	20
SPK/SPKD	81122001		0.4	91.1	87.2	75	125	3.9	20
SPK/SPKD	81122005		0.4	89.0	92.0	75	125	3.0	20
MS/MSD	81122006							0.1	20

Manganese — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	108.0		85	115		
LFB-OE			0.4	105.0		85	115		
MB		<0.05							
MB		<0.05							

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Account #: 5109 **Client:** Great River Energy

Manganese — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	80944002		2	87.0	85.8	75	125	1.2	20
PDS/PDSD	80946001		2	90.0	90.2	75	125	0.2	20
MS/MSD	81122006		0.4	90.9	89.1	70	130	1.7	20
PDS/PDSD	81122006		1	89.9	91.1	75	125	1.2	20
MS/MSD	81215003		0.4	96.2	93.8	70	130	2.0	20

Manganese, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	108.0		85	115		
LFB-OE			0.4	105.0		85	115		
MB		<0.05							
MB		<0.05							
SPK/SPKD	81123005		0.4	87.7	87.6	75	125	0.1	20
MS/MSD	81122006							1.7	20
MS/MSD	81215003							2.0	20
SPK/SPKD	81243002		0.4	84.9	85.3	75	125	0.3	20

Antimony — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	92.8		80	120		
LFB-MS			0.1	92.1		80	120		
MB		<0.001							
MB		<0.001							
MS/MSD	81122006		0.4	104.0	107.0	75	125	3.1	20
SPK	81131001		0.1	102.0		75	125		
MS/MSD	81215003		0.4	107.0	106.0	70	130	0.5	20
SPK	81215003		0.1	102.0		75	125		

Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	92.8		80	120		
LFB-MS			0.1	92.1		80	120		
MB		<0.001							
MB		<0.001							

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Account #: 5109 **Client:** Great River Energy

Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	81122006		0.4	104.0	107.0	75	125	3.1	20
SPK/SPKD	81122006		0.1	101.0	105.0	75	125	3.4	20
SPK	81131001		0.1	102.0		75	125		
MS/MSD	81215003		0.4	107.0	106.0	70	130	0.5	20
SPK	81215003		0.1	102.0		75	125		

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	101.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	81122006		0.4	103.0	103.0	75	125	0.0	20
SPK	81131001		0.1	102.0		75	125		
MS/MSD	81215003		0.4	106.0	107.0	70	130	0.5	20
SPK	81215003		0.1	105.0		75	125		

Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	101.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	81122006		0.4	103.0	103.0	75	125	0.0	20
SPK/SPKD	81122006		0.1	107.0	106.0	75	125	0.3	20
SPK	81131001		0.1	102.0		75	125		
MS/MSD	81215003		0.4	106.0	107.0	70	130	0.5	20
SPK	81215003		0.1	105.0		75	125		

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.0		80	120		
LFB-MS			0.1	103.0		80	120		
MB		<0.002							

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Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.002							
MS/MSD	81122006		0.4	107.0	108.0	75	125	1.3	20
SPK	81131001		0.1	107.0		75	125		
MS/MSD	81215003		0.4	110.0	110.0	70	130	0.0	20
SPK	81215003		0.1	105.0		75	125		

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.9		80	120		
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	81122006		0.4	107.0	108.0	75	125	1.3	20
SPK/SPKD	81122006		0.1	106.0	110.0	75	125	2.6	20
SPK	81131001		0.1	107.0		75	125		
MS/MSD	81215003		0.4	110.0	110.0	70	130	0.0	20
SPK	81215003		0.1	105.0		75	125		

Beryllium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	81122006		0.4	105.0	104.0	75	125	1.0	20
SPK	81131001		0.1	96.3		75	125		
MS/MSD	81215003		0.4	108.0	106.0	70	130	0.9	20
SPK	81215003		0.1	99.0		75	125		

Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							

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Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0005							
MS/MSD	81122006		0.4	105.0	104.0	75	125	1.0	20
SPK/SPKD	81122006		0.1	97.5	98.1	75	125	0.6	20
SPK	81131001		0.1	96.3		75	125		
MS/MSD	81215003		0.4	108.0	106.0	70	130	0.9	20
SPK	81215003		0.1	99.0		75	125		

Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	93.6		80	120		
LFB-MS			0.1	95.3		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	81122006		0.4	102.0	105.0	75	125	3.1	20
SPK	81131001		0.1	98.2		75	125		
MS/MSD	81215003		0.4	106.0	105.0	70	130	1.0	20
SPK	81215003		0.1	97.5		75	125		

Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	93.6		80	120		
LFB-MS			0.1	95.3		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	81122006		0.4	102.0	105.0	75	125	3.1	20
SPK/SPKD	81122006		0.1	97.0	99.1	75	125	2.1	20
SPK	81131001		0.1	98.2		75	125		
MS/MSD	81215003		0.4	106.0	105.0	70	130	1.0	20
SPK	81215003		0.1	97.5		75	125		

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	108.0		80	120		

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Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.002							
MB		<0.002							
MS/MSD	81122006		0.4	101.0	102.0	75	125	0.7	20
SPK	81131001		0.1	104.0		75	125		
MS/MSD	81215003		0.4	102.0	99.9	70	130	1.5	20
SPK	81215003		0.1	104.0		75	125		

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	108.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	81122006		0.4	101.0	102.0	75	125	0.7	20
SPK/SPKD	81122006		0.1	103.0	102.0	75	125	0.4	20
SPK	81131001		0.1	104.0		75	125		
MS/MSD	81215003		0.4	102.0	99.9	70	130	1.5	20
SPK	81215003		0.1	104.0		75	125		

Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	107.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	81122006		0.4	103.0	101.0	75	125	2.0	20
SPK	81131001		0.1	104.0		75	125		
MS/MSD	81215003		0.4	102.0	100.0	70	130	1.7	20
SPK	81215003		0.1	105.0		75	125		

Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	107.0		80	120		

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Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.002							
MB		<0.002							
MS/MSD	81122006		0.4	103.0	101.0	75	125	2.0	20
SPK/SPKD	81122006		0.1	102.0	101.0	75	125	1.1	20
SPK	81131001		0.1	104.0		75	125		
MS/MSD	81215003		0.4	102.0	100.0	70	130	1.7	20
SPK	81215003		0.1	105.0		75	125		

Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	81122006		0.4	103.0	104.0	75	125	1.0	20
MS/MSD	81215003		0.4	107.0	106.0	70	130	0.7	20
SPK	81215003		0.1	99.6		75	125		

Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	81122006		0.4	103.0	104.0	75	125	1.0	20
SPK/SPKD	81122006		0.1	99.4	102.0	75	125	3.0	20
SPK	81131001		0.1	101.0		75	125		
MS/MSD	81215003		0.4	107.0	106.0	70	130	0.7	20
SPK	81215003		0.1	99.6		75	125		

Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.7		80	120		
LFB-MS			0.1	99.8		80	120		

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Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.002							
MB		<0.002							
MS/MSD	81122006		0.4	104.0	105.0	75	125	0.5	20
SPK	81131001		0.1	107.0		75	125		
MS/MSD	81215003		0.4	104.0	104.0	70	130	0.2	20
SPK	81215003		0.1	107.0		75	125		

Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.7		80	120		
LFB-MS			0.1	99.8		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	81122006		0.4	104.0	105.0	75	125	0.5	20
SPK/SPKD	81122006		0.1	106.0	107.0	75	125	1.2	20
SPK	81131001		0.1	107.0		75	125		
MS/MSD	81215003		0.4	104.0	104.0	70	130	0.2	20
SPK	81215003		0.1	107.0		75	125		

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	99.5		80	120		
MB		<0.005							
MB		<0.005							
MS/MSD	81122006		0.4	103.0	108.0	75	125	4.5	20
SPK	81131001		0.1	97.6		75	125		
MS/MSD	81215003		0.4	104.0	106.0	70	130	1.7	20
SPK	81215003		0.1	102.0		75	125		

Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	99.5		80	120		

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Account #: 5109 **Client:** Great River Energy

Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.005							
MB		<0.005							
MS/MSD	81122006		0.4	103.0	108.0	75	125	4.5	20
SPK/SPKD	81122006		0.1	106.0	106.0	75	125	0.1	20
SPK	81131001		0.1	97.6		75	125		
MS/MSD	81215003		0.4	104.0	106.0	70	130	1.7	20
SPK	81215003		0.1	102.0		75	125		

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	95.9		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	81122006		0.4	98.2	96.7	75	125	1.5	20
SPK	81131001		0.1	99.6		75	125		
MS/MSD	81215003		0.4	106.0	105.0	70	130	1.0	20
SPK	81215003		0.1	98.4		75	125		

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	95.9		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	81122006		0.4	98.2	96.7	75	125	1.5	20
SPK/SPKD	81122006		0.1	98.3	100.0	75	125	2.0	20
SPK	81131001		0.1	99.6		75	125		
MS/MSD	81215003		0.4	106.0	105.0	70	130	1.0	20
SPK	81215003		0.1	98.4		75	125		

Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	106.0		85	115		

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Account #: 5109 **Client:** Great River Energy

Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	106.0		85	115		
LRB		<0.0002							
MB		<0.0002							
MS/MSD	80944009		0.002	96.6	101.0	70	130	5.1	20
MS/MSD	80946001		0.002	105.0	104.0	70	130	0.0	20
MS/MSD	81122006		0.002	110.0	107.0	70	130	4.7	20
MS/MSD	81243004		0.002	92.5	91.8	70	130	0.0	20

pH — Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	100.0					
CRM-PH			6	100.2					
CRM-PH			6	99.8					
CRM-PH			6	99.7					
CRM-PH			6	99.8					
DUP	80791007							0.9	20
DUP	80946001							1.5	20
DUP	81122006							1.1	20
DUP	81215003							0.0	20

Fluoride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			0.64	100.0		83.99	111.11		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	108.0		90	110		
LFB-F			0.5	100.0		90	110		
LFB-F			0.5	102.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							

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Account #: 5109 **Client:** Great River Energy

Fluoride Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD-F	80790001		0.5	148.0	130.0	80	120	6.8	20
MS/MSD-F	80946001		0.5	98.0	98.0	80	120	0.0	20
MS/MSD-F	81122006		0.5	98.0	112.0	80	120	7.0	20
MS/MSD-F	81131004		0.5	100.0	104.0	80	120	2.5	20

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Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 81129

Chain of Custody Record

Report To:	Great River Energy	CC:	Golder Associates
Attn:	Cassie Johnston		
Address:			44 Union Blvd, Suite 300
			Lakewood, CO 80228
Phone:			
Email:	CJohnston@GREnergy.com		

SS BAI
Event: March 2025
Sampled By: Jeremy Hay

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric	Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 201	19 Mar 25	1202	GW	X	X	X		6.66	3097	7.49	5.42	App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radio Chem, Dissolved and Total for Remainder of Metals.) (See Attachments)
002	MW- 202	19 Mar 25	1255	GW	X	X	X		6.49	2105	7.25	183.73	
003	MW- 203	19 Mar 25	1352	GW	X	X	X		4.36	2219	9.63	3338	
				~~GW~~	~~X~~	~~X~~	~~X~~						

Comments:

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		19 Mar 25 1740	Log In Walk In #2	3.3 °C/TM 905 ROI Y/N		20 Mar 25 0800
2						

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February 2025 GREAT RIVER ENERGY - STANTON STATION GL21509219.000
DRAFT - SUBJECT TO CHANGE

Table 1: Proposed 2025 Stanton Station Plant Facilities Schedule for Budgetary Estimation

Location	Well ID		2025				
			Q1 - Feb	Q1 - Mar	Q2 - Jun	Q3 - Sep	Q4 - Nov
Upgradient/Side-gradient	MW-6B	1		App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)		App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)
	MW-7A	1	TDS and Field Parameters				
	MW-7B	1					
	MW-8B	1				TDS and Field Parameters	
	MW-10S	1					
Bottom Ash Landfill	MW-9N	1					
	MW-102	1					
	MW-103	1					
Property Boundary	MW-PB1	1					
Wells Installed in May 2022	MW-210	1					
	MW-211	1					
	MW-212	1					
	MW-213	1					
	MW-214	1					
Piezometers [1]	PZ-BA-A	1					
	PZ-BA-B	1					
Sumps [2]	BAI-Sump-S	1					
Surface Water [3]	Missouri-River	1					
	Rail-Drainage	1					
Internal - Prior Bottom Ash Impoundment Downgradient	MW-1R	1					
	MW-104	1					
Bottom Ash Impoundment	MW-201	1				TDS and Field Parameters	
	MW-202	1	Boron, Sulfate, and Field Parameters				
	MW-203	1					
Closed Landfill	MW-10	1					
	MW-204	1					
	MW-205	1					
Additional Internal Locations	MW-4	1					
	MW-PB2	1					
Wells Installed in February 2023	MW-215	1					
	MW-216	1					
	MW-217	1					
	MW-218	1					
	MW-219	1					
	MW-220	1					
	MW-221	1					
	MW-222	1					
	MW-300	1					
	MW-301	1					
	MW-PB3	1					
Proposed Additional Wells for Installation in Q2 2025	TBD	1			App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
Proposed Additional Wells for Installation in Q1 2026	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
Total # of Sample Locations			2	40	53	15	53

Notes:
Suggested locations for collection of QA/QC samples in 2025 are listed in Table 2.
App III - Appendix III Detection Monitoring List, Table 5
App IV - Appendix IV Assessment Monitoring List, Table 6
Additional List - Table 7
Required field parameters are listed in Table 5 and Table 6
1. The piezometers do not have dedicated pumps and will need to be sampled by other methods.
2. The sump should be sampled using surface water collection methods via the sump riser.
3. Surface water samples to be collected only if safely accessible and free water is present.

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Account #: 5109 **Client:** Great River Energy

February 2025 GREAT RIVER ENERGY - STANTON STATION GL21509219.000
DRAFT - SUBJECT TO CHANGE

Table 2: 2025 Proposed Quality Assurance/Quality Control Sample Collection Locations for Budget Estimation

Location	Well ID	Q1 - Feb	Q1 - Mar	Q2 - Jun	Q3 - Sep	Q4 - Nov
Upgradient/Side-gradient	MW-6B		Field Blank			
	MW-7A					
	MW-7B		Duplicate			MS/MSD
	MW-8B			Duplicate		
	MW-105					
Bottom Ash Landfill	MW-9N					Duplicate
	MW-102			Field Blank		
	MW-103		Duplicate			
Property Boundary	MW-PB1					
Wells Installed in May 2022	MW-210		Field Blank			Duplicate
	MW-211			MS/MSD		
	MW-212					Field Blank
	MW-213			Duplicate		
	MW-214		MS/MSD			
Piezometers [1]	PZ-BA-A					
	PZ-BA-B					Field Blank
Sumps [2]	BAI-Sump-S					
Surface Water [3]	Missouri-River					
	Rail-Drainage					
Internal - Prior Bottom Ash Impoundment Downgradient	MW-1R			Duplicate		
	MW-104					MS/MSD
Bottom Ash Impoundment	MW-201			Field Blank		
	MW-202					
	MW-203					
Closed Landfill	MW-10		Duplicate			
	MW-204					
	MW-205					Duplicate
Additional Internal Locations	MW-4					
	MW-PB2					
Wells Installed in February 2023	MW-215			Field Blank		
	MW-216					
	MW-217		Field Blank			Duplicate
	MW-218			MS/MSD		
	MW-219					
	MW-220		Duplicate			Field Blank
	MW-221					
	MW-222					
	MW-300		MS/MSD			
	MW-301			Duplicate		
	MW-PB3					
Proposed Additional Wells for Installation in Q2 2025	TBD				Duplicate	
	TBD				MS/MSD	
	TBD					Field Blank
	TBD					
	TBD					
	TBD					
	TBD			Duplicate		
	TBD				Field Blank	
	TBD					
	TBD					Duplicate
	TBD				Duplicate	
	TBD			Field Blank		
Proposed Additional Wells for Installation in Q1 2026	TBD					
	TBD					
	TBD					
	TBD					
	TBD					
	TBD					
Total # of Sample Locations		2	40	53	15	53
Total # of QC Samples		0	9	11	4	11

Notes:
Locations to collect samples are **suggestions only** to help with the distribution of QA/QC samples across the site and between facilities while meeting QA/QC objectives for the sampling programs.
Notes for QA/QC
Duplicates = 10-15% of primary collected sample
Field Blanks = approximately 1 per sampling day.
Equipment Blanks - only needed for non-dedicated equipment.
MS/MSD = 1 per approximately 20 primary collected samples.

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February 2025 GL21509219.000

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.
* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

+ Iron, Aluminum, Manganese,
- Total Only for Mercury & Radiochem
- Dissolved & Total for remainder of Metals

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	201
Sampling Personal:	

Weather Conditions: Temp: 30 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.35	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.35	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
19 Mar 25	1137	Start of Well Purge									
	1142	7.22	3087	7.47	0.81	136.4	11.68	11.78	200.0	1.0	Clear
	1147	6.98	2916	7.48	0.34	117.5	14.06	12.31	200.0	1.0	Clear
	1152	6.83	3098	7.48	0.24	88.8	10.68	12.32	200.0	1.0	Clear
	1157	6.68	3072	7.49	0.18	86.8	7.41	12.33	200.0	1.0	Clear
	1202	6.66	3097	7.49	0.21	71.9	5.42	12.34	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
19 Mar 25	1202	6.66	3097	7.49	0.21	71.9	5.42				Clear

Comments: Had to thaw water line before purge & sampling

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company: GRE Stanton Station
Event: March 2025
Sample ID: 207
Sampling Personal:

Weather Conditions: Temp: 20 °F Wind: N @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	~~YES~~	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.82	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.88	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	3	Sec.
Recover:	27	Sec.
PSI:	—	

Bottle List:
1 Liter Raw 1 Gal Nitric
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
	1230	Start of Well Purge									
19 Mar 25	1235	~~1230~~ 6.50	2162	7.23	3.05	172.9	167.79	12.82	200.0	1.0	Slightly Turbid (ST)
	1240	6.30	2116	7.24	2.54	188.2	197.29	12.95	200.0	1.0	ST
	1245	6.38	2113	7.24	2.54	186.2	186.65	13.23	200.0	1.0	ST
	1250	6.42	2102	7.25	2.43	188.5	150.66	13.41	200.0	1.0	ST
	1255	6.49	2105	7.25	2.21	186.4	183.73	13.62	200.0	1.0	ST

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
19 Mar 25	1255	6.49	2105	7.25	2.21	186.4	183.73				ST

Comments: Had to thaw water line before purge & sampling

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www.MVTL.com

Member ACIL

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	203
Sampling Personal:	JTH

Weather Conditions: Temp: 20 °F Wind: N @ 10-15 Precip: Sunny / ~~Partly Cloudy~~ / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	9.31	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.36	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 20	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
19 Mar 25	1327	Start of Well Purge									
	1332	4.69	2065	9.62	0.34	24.0	46.50	10.31	200.0	1.0	Clear Tan
	1337	4.25	2109	9.66	0.39	14.5	41.47	10.95	200.0	1.0	Clear Tan
	1342	4.13	2202	9.65	0.31	-1.8	34.98	11.56	200.0	1.0	Clear Tan
	1347	4.22	2193	9.64	0.31	0.5	38.42	11.98	200.0	1.0	Clear Tan
	1352	4.36	2219	9.63	0.32	-4.1	33.38	12.20	200.0	1.0	Clear Tan

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
19 Mar 25	1352	4.36	2219	9.63	0.32	-4.1	33.38				Clear Tan

Comments: Had to thaw water line before purge & sampling

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 20 Mar 25 Time: 0924 Analyst: JAN

Work Order #: 81129

Containers Supplied by MVTL: ☒ Yes ☐ No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
3	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
3	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
3	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: SS BAI March 2025 (81134) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81134001 **Date Collected:** 03/19/2025 12:02 **Matrix:** Groundwater
Sample ID: MW-201 **Date Received:** 03/19/2025 17:10 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/18/2025 09:01	
Radium 228	See Attached			1		04/18/2025 09:01	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81134002 **Date Collected:** 03/19/2025 12:55 **Matrix:** Groundwater
Sample ID: MW-202 **Date Received:** 03/19/2025 17:10 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/18/2025 09:01	
Radium 228	See Attached			1		04/18/2025 09:01	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81134003 **Date Collected:** 03/19/2025 13:52 **Matrix:** Groundwater
Sample ID: MW-203 **Date Received:** 03/19/2025 17:10 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/18/2025 09:01	
Radium 228	See Attached			1		04/18/2025 09:01	

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Account #: 5109 **Client:** Great River Energy

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ANALYTICAL SUMMARY REPORT

April 18, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25030524 Quote ID: C15480
Project Name: 81134

Energy Laboratories, Inc. Casper WY received the following 3 samples for Minnesota Valley Testing Laboratories on 3/24/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25030524-001	81134001, MW-201	03/19/25 12:02	03/24/25	Aqueous	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25030524-002	81134002, MW-202	03/19/25 12:55	03/24/25	Aqueous	Same As Above
C25030524-003	81134003, MW-203	03/19/25 13:52	03/24/25	Aqueous	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 81134
Lab ID: C25030524-001
Client Sample ID: 81134001, MW-201

Report Date: 04/18/25
Collection Date: 03/19/25 12:02
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L	U			E903.0	04/08/25 10:37 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/08/25 10:37 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/08/25 10:37 / apt
Radium 228	0.7	pCi/L	U			RA-05	04/03/25 13:08 / apt
Radium 228 precision (±)	0.7	pCi/L				RA-05	04/03/25 13:08 / apt
Radium 228 MDC	1.1	pCi/L				RA-05	04/03/25 13:08 / apt
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	04/09/25 14:02 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	04/09/25 14:02 / dmf
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	04/09/25 14:02 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 81134
Lab ID: C25030524-002
Client Sample ID: 81134002, MW-202

Report Date: 04/18/25
Collection Date: 03/19/25 12:55
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	2.1	pCi/L				E903.0	04/08/25 10:37 / apt
Radium 226 precision (±)	0.5	pCi/L				E903.0	04/08/25 10:37 / apt
Radium 226 MDC	0.5	pCi/L				E903.0	04/08/25 10:37 / apt
Radium 228	1	pCi/L	U			RA-05	04/03/25 13:08 / apt
Radium 228 precision (±)	1.7	pCi/L				RA-05	04/03/25 13:08 / apt
Radium 228 MDC	2.7	pCi/L				RA-05	04/03/25 13:08 / apt
Radium 226 + Radium 228	3.4	pCi/L				A7500-RA	04/10/25 12:23 / dmf
Radium 226 + Radium 228 precision (±)	1.8	pCi/L				A7500-RA	04/10/25 12:23 / dmf
Radium 226 + Radium 228 MDC	2.8	pCi/L				A7500-RA	04/10/25 12:23 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 81134
Lab ID: C25030524-003
Client Sample ID: 81134003, MW-203

Report Date: 04/18/25
Collection Date: 03/19/25 13:52
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.4	pCi/L				E903.0	04/09/25 17:08 / apt
Radium 226 precision (±)	0.2	pCi/L				E903.0	04/09/25 17:08 / apt
Radium 226 MDC	0.3	pCi/L				E903.0	04/09/25 17:08 / apt
Radium 228	1.4	pCi/L	U			RA-05	04/03/25 13:08 / apt
Radium 228 precision (±)	1.1	pCi/L				RA-05	04/03/25 13:08 / apt
Radium 228 MDC	1.5	pCi/L				RA-05	04/03/25 13:08 / apt
Radium 226 + Radium 228	1.2	pCi/L	U			A7500-RA	04/10/25 12:23 / dmf
Radium 226 + Radium 228 precision (±)	1.1	pCi/L				A7500-RA	04/10/25 12:23 / dmf
Radium 226 + Radium 228 MDC	1.6	pCi/L				A7500-RA	04/10/25 12:23 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25030524 **Report Date:** 04/10/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11624R
Lab ID: LCS-RA226-11624	3	Laboratory Control Sample				Run: TENNELEC-3_250328C				04/08/25 10:37
Radium 226		10	pCi/L		103	70	130			
Radium 226 precision (±)		1.7	pCi/L							
Radium 226 MDC		0.25	pCi/L							
Lab ID: MB-RA226-11624	3	Method Blank				Run: TENNELEC-3_250328C				04/08/25 10:37
Radium 226		0.04	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C25030524-001ADUP	3	Sample Duplicate				Run: TENNELEC-3_250328C				04/08/25 10:37
Radium 226		0.15	pCi/L					9.2	30	U
Radium 226 precision (±)		0.15	pCi/L							
Radium 226 MDC		0.22	pCi/L							

- The RER result is 0.07.

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Account #: 5109 **Client:** Great River Energy

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25030524 **Report Date:** 04/10/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **RA-05**										Batch: RA228-7610
Lab ID: **LCS-228-RA226-11624**	3	Laboratory Control Sample				Run: TENNELEC-4_250328A				04/03/25 13:08
Radium 228		9.8	pCi/L		103	70	130			
Radium 228 precision (±)		2.6	pCi/L							
Radium 228 MDC		1.0	pCi/L							
Lab ID: **MB-RA226-11624**	3	Method Blank				Run: TENNELEC-4_250328A				04/03/25 13:08
Radium 228		-0.4	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: **C25030524-001ADUP**	3	Sample Duplicate				Run: TENNELEC-4_250328A				04/03/25 13:08
Radium 228		0.45	pCi/L					42	30	UR
Radium 228 precision (±)		0.67	pCi/L							
Radium 228 MDC		1.1	pCi/L							

- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.26.

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25030524

Login completed by: Lisa X. Quezada
Reviewed by: dsawyer
Reviewed Date: 3/25/2025

Date Received: 3/24/2025
Received by: LXQ
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	9.4°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature of the sample(s) in shipping container 1 was 8.0°C, shipping container 2 was 8.9°C, shipping container 4 was 7.3°C, shipping container 5 was 8.1°C, and shipping container 6 was 9.0°C. The temperature blank temperature

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Work Order Receipt Checklist - Continued

Minnesota Valley Testing Laboratories C25030524

in shipping container 3 was 9.4°C, shipping container 7 was 8.7°C, and shipping container 8 was 8.5°C. LXQ 03/24/25

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Current certificates are available at www.energylab.com website:

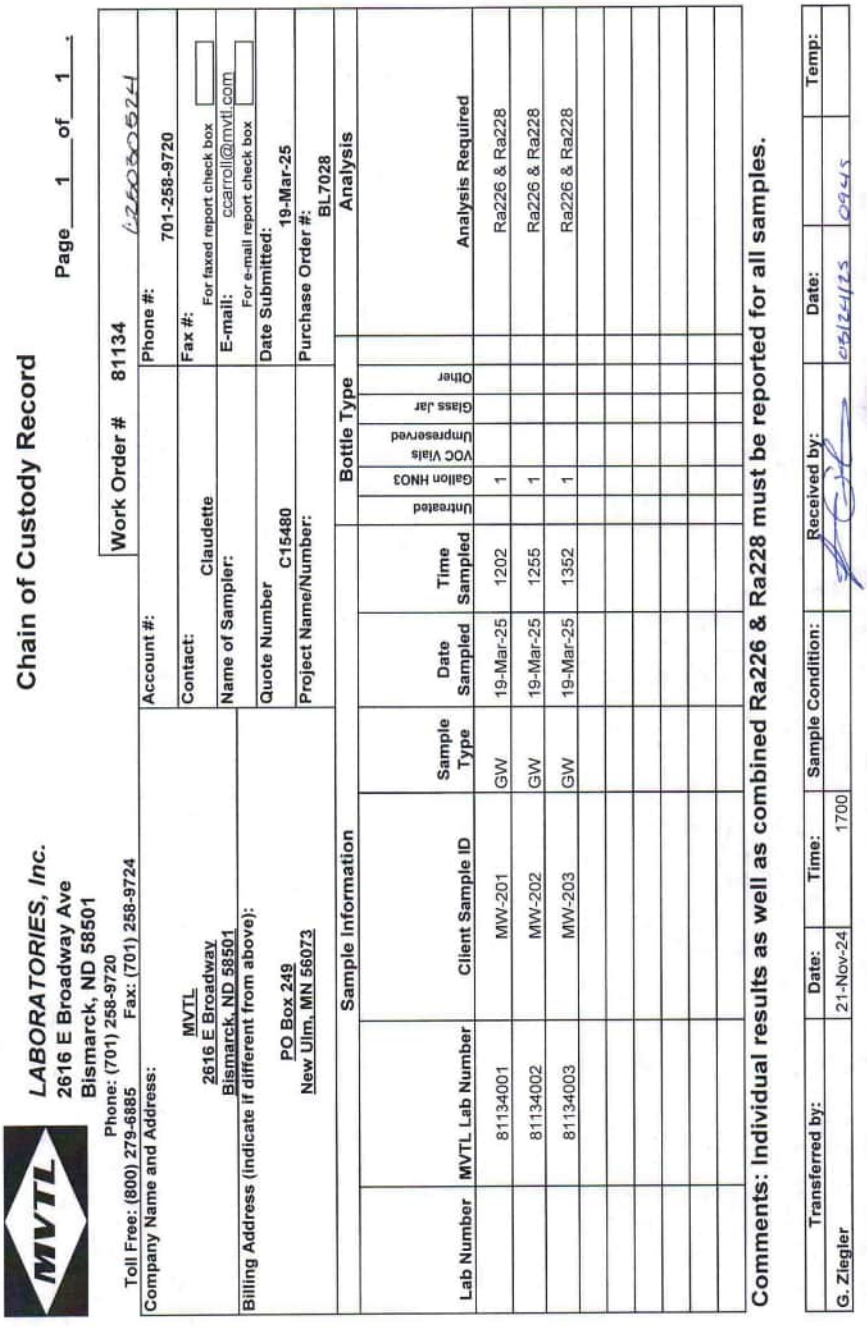
	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Account #: 5109 **Client:** Great River Energy



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Chain of Custody Record

Page 1 of 1

Work Order # 81134 L250305241

Company Name and Address: MVTL 2616 E Broadway Bismarck, ND 58501
Account #:
Contact: Claudette
Phone #: 701-258-9720
Fax #: For faxed report check box
Name of Sampler:
E-mail: ccarroll@mvtl.com For e-mail report check box
Billing Address (indicate if different from above): PO Box 249 New Ulm, MN 56073
Quote Number C15480
Date Submitted: 19-Mar-25
Project Name/Number:
Purchase Order #: BL7028

Lab Number	Sample Information: MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Untreated	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis: Analysis Required
	81134001	MW-201	GW	19-Mar-25	1202		1				Ra226 & Ra228
	81134002	MW-202	GW	19-Mar-25	1255		1				Ra226 & Ra228
	81134003	MW-203	GW	19-Mar-25	1352		1				Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
G. Ziegler	21-Nov-24	1700			03/24/25 0945	

Page 10 of 10

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Minnesota Valley Testing Laboratories
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Great River Energy
WO: 81134

Chain of Custody Record

Report To:	Great River Energy	CC:	Golder Associates
Attn:	Cassie Johnston		
Address:			44 Union Blvd, Suite 300
			Lakewood, CO 80228
Phone:			
Email:	CJohnston@GREnergy.com		

Project Name: SS BAI
Event: March 2025
Sampled By: Jeremy Meyer

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric										Analysis Required
001	MW- 201	19 Mar 25	1202	GW				X										
002	MW- 202	19 Mar 25	1255	GW				X										
003	MW- 203	19 Mar 25	1352	GW				X										
																		Radium 226 and 228 Combined

Comments:

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	19 Mar 25 1710	Log In Walk-In #2	Ambient °C/TM 805 ROI Y/N		20 Mar 25 0800
2					

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	201
Sampling Personal:	

Weather Conditions: Temp: 30 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.35	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.35	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28	Sec.
PSI:		

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
19 Mar 25	1137	Start of Well Purge									
	1142	7.22	3087	7.47	0.81	136.4	11.68	11.78	200.0	1.0	Clear
	1147	6.98	2916	7.48	0.34	117.5	14.06	12.31	200.0	1.0	Clear
	1152	6.83	3098	7.48	0.24	88.8	10.68	12.32	200.0	1.0	Clear
	1157	6.68	3072	7.49	0.18	86.8	7.41	12.33	200.0	1.0	Clear
	1202	6.66	3097	7.49	0.21	71.9	5.42	12.34	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
19 Mar 25	1202	6.66	3097	7.49	0.21	71.9	5.42				Clear

Comments: Had to thaw water line before purge & sampling

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	202
Sampling Personal:	

Weather Conditions: Temp: 20 °F Wind: N @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.82	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.88	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	3	Sec.
Recover:	27	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
19 Mar 25	1230	Start of Well Purge									
	1235	~~7.30~~ 6.90	2162	7.23	3.05	172.9	167.79	12.82	200.0	1.0	Slightly Turbid (ST)
	1240	6.30	2116	7.24	2.94	188.2	197.29	12.95	200.0	1.0	ST
	1245	6.38	2113	7.24	2.54	186.2	186.65	13.23	200.0	1.0	ST
	1250	6.42	2102	7.25	2.43	188.5	150.66	13.41	200.0	1.0	ST
	1255	6.49	2105	7.25	2.21	186.4	183.73	13.62	200.0	1.0	ST

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
19 Mar 25	1255	6.49	2105	7.25	2.21	1864	183.73				ST

Comments: Had to thaw water line before purge & sampling

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	203
Sampling Personal:	JM

Weather Conditions: Temp: 20 °F Wind: N @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	9.31	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.36	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 20	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
19 Mar 25	1327	Start of Well Purge									
	1332	4.69	2065	9.62	0.34	24.0	46.50	10.31	200.0	1.0	Clear Tan
	1337	4.25	2109	9.66	0.39	14.5	41.47	10.95	200.0	1.0	Clear Tan
	1342	4.13	2202	9.65	0.31	-1.8	34.98	11.56	200.0	1.0	Clear Tan
	1347	4.22	2193	9.64	0.31	0.5	38.42	11.98	200.0	1.0	Clear Tan
	1352	4.36	2219	9.63	0.32	-4.1	33.38	12.20	200.0	1.0	Clear Tan

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
19 Mar 25	1352	4.36	2219	9.63	0.32	-4.1	33.38				Clear Tan

Comments: Had to thaw water line before purge & sampling

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS Internal March 2025 (80790) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80790001 **Date Collected:** 03/17/2025 16:10 **Matrix:** Groundwater
Sample ID: MW-1R **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 8.2 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1337**	umhos/cm	1	1		03/17/2025 16:10	
Method: 150.2							
pH - Field	**7.77**	units	0.01	1		03/17/2025 16:10	
Method: 170.1							
Temperature - Field C	**9.17**	degrees C		1		03/17/2025 16:10	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/18/2025 11:05	03/18/2025 13:22	
Method: EPA 6010D							
Lithium	**0.0419**	mg/L	0.02	1	03/18/2025 16:16	03/21/2025 10:04	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/18/2025 16:16	03/31/2025 13:34	
Arsenic	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 13:34	
Barium	**0.0442**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 13:34	
Beryllium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 13:34	
Cadmium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 13:34	
Chromium	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 13:34	
Cobalt	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 13:34	
Lead	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 13:34	
Molybdenum	**0.0158**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 13:34	
Selenium	<0.005	mg/L	0.005	5	03/18/2025 16:16	03/31/2025 13:34	
Thallium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 13:34	
Method: SM4500 H+ B-2021							
pH	**8.5**	units	0.1	1		03/20/2025 13:48	*
Method: SM4500-F-C-2021							
Fluoride	**0.63**	mg/L	0.1	1		03/20/2025 13:48	*

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

Fluoride

Matrix spike and/or matrix spike duplicate recovery was high; the associated laboratory fortified blank recovery was acceptable.

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80790002 **Date Collected:** 03/17/2025 15:13 **Matrix:** Groundwater
Sample ID: MW-104 **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 8.2 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1520**	umhos/cm	1	1		03/17/2025 15:13	
Method: 150.2							
pH - Field	**7.32**	units	0.01	1		03/17/2025 15:13	
Method: 170.1							
Temperature - Field C	**9.19**	degrees C		1		03/17/2025 15:13	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/18/2025 11:05	03/18/2025 13:22	
Method: EPA 6010D							
Lithium	**0.0263**	mg/L	0.02	1	03/18/2025 16:16	03/21/2025 10:05	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/18/2025 16:16	03/31/2025 13:39	
Arsenic	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 13:39	
Barium	**0.0510**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 13:39	
Beryllium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 13:39	
Cadmium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 13:39	
Chromium	<0.002	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 13:39	
Cobalt	**0.0025**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 13:39	
Lead	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 13:39	
Molybdenum	**0.0480**	mg/L	0.002	5	03/18/2025 16:16	03/31/2025 13:39	
Selenium	<0.005	mg/L	0.005	5	03/18/2025 16:16	03/31/2025 13:39	
Thallium	<0.0005	mg/L	0.0005	5	03/18/2025 16:16	03/31/2025 13:39	
Method: SM4500 H+ B-2021							
pH	**7.7**	units	0.1	1		03/20/2025 13:55	*
Method: SM4500-F-C-2021							
Fluoride	**0.76**	mg/L	0.1	1		03/20/2025 13:55	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 80790

Aluminum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	100.0		85	115		
MB		<0.1							
PDS/PDSD	80618001		20	97.6	96.5	75	125	1.0	20
PDS/PDSD	80791006		0.4	94.2	91.4	75	125	2.3	20

Aluminum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.4	100.0		85	115		
MB		<0.1							
SPK/SPKD	80790001		0.4	104.0	104.0	75	125	0.3	20
SPK/SPKD	80946001		0.4	97.3	99.5	75	125	1.8	20
SPK/SPKD	80946001		2	96.6	96.8	75	125	0.2	20

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	108.0		85	115		
MB		<0.1							
PDS/PDSD	80618001		20	84.7	87.5	75	125	3.3	20
PDS/PDSD	80791006		0.4	89.0	90.4	75	125	1.1	20

Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.4	108.0		85	115		
MB		<0.1							
SPK/SPKD	80790001		0.4	79.2	75.6	75	125	1.1	20
SPK/SPKD	80946001		2	90.6	86.4	75	125	2.2	20

Lithium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	113.0		85	115		
MB		<0.04							

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Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	113.0		85	115		
MB		<0.04							
SPK/SPKD	80790001		0.4	89.8	89.3	75	125	0.5	20
SPK/SPKD	81122001		0.4	91.1	87.2	75	125	3.9	20
SPK/SPKD	81122005		0.4	89.0	92.0	75	125	3.0	20

Manganese — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	110.0		85	115		
MB		<0.05							
PDS/PDSD	80618001		50	85.7	84.1	75	125	1.7	20
PDS/PDSD	80618001		20	81.7	83.9	75	125	2.2	20
PDS/PDSD	80791006		0.4	84.9	86.8	75	125	1.4	20

Manganese, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.05							
LFB-OE			0.4	110.0		85	115		
MB		<0.05							
SPK/SPKD	80790001		0.4	89.7	87.9	75	125	1.5	20
SPK/SPKD	80946001		2	84.5	85.4	75	125	0.6	20

Antimony — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.001							
SPK/SPKD	80791007		0.1	105.0	104.0	75	125	0.5	20

Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.001							
SPK/SPKD	80791002		0.1	101.0	105.0	75	125	3.9	20
SPK/SPKD	80791007		0.1	105.0	104.0	75	125	0.5	20

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		

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Arsenic Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.002							
SPK/SPKD	80791007		0.1	110.0	108.0	75	125	1.2	20

Arsenic, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
MB		<0.002							
SPK/SPKD	80791002		0.1	104.0	107.0	75	125	3.2	20
SPK/SPKD	80791007		0.1	110.0	108.0	75	125	1.2	20

Barium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
MB		<0.002							
SPK/SPKD	80791007		0.1	107.0	110.0	75	125	2.1	20

Barium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
MB		<0.002							
SPK/SPKD	80791002		0.1	109.0	111.0	75	125	1.8	20
SPK/SPKD	80791007		0.1	107.0	110.0	75	125	2.1	20

Beryllium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							
SPK/SPKD	80791007		0.1	97.4	96.8	75	125	0.6	20

Beryllium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							
SPK/SPKD	80791002		0.1	105.0	107.0	75	125	2.0	20
SPK/SPKD	80791007		0.1	97.4	96.8	75	125	0.6	20

Cadmium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		

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Cadmium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0005							
SPK/SPKD	80791007		0.1	98.9	98.5	75	125	0.4	20

Cadmium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							
SPK/SPKD	80791002		0.1	102.0	104.0	75	125	2.1	20
SPK/SPKD	80791007		0.1	98.9	98.5	75	125	0.4	20

Chromium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	115.0		80	120		
MB		<0.002							
SPK/SPKD	80791007		0.1	111.0	113.0	75	125	1.5	20

Chromium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	115.0		80	120		
MB		<0.002							
SPK/SPKD	80791002		0.1	103.0	104.0	75	125	0.8	20
SPK/SPKD	80791007		0.1	111.0	113.0	75	125	1.5	20

Cobalt Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	114.0		80	120		
MB		<0.002							
SPK/SPKD	80791007		0.1	110.0	111.0	75	125	0.8	20

Cobalt, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	114.0		80	120		
MB		<0.002							
SPK/SPKD	80791002		0.1	104.0	106.0	75	125	1.9	20
SPK/SPKD	80791007		0.1	110.0	111.0	75	125	0.8	20

Lead Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	116.0		80	120		

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Lead Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0005							
SPK/SPKD	80791007		0.1	96.9	98.7	75	125	1.8	20

Lead, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	116.0		80	120		
MB		<0.0005							
SPK/SPKD	80791002		0.1	104.0	108.0	75	125	3.8	20
SPK/SPKD	80791007		0.1	96.9	98.7	75	125	1.8	20

Molybdenum Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	110.0		80	120		
MB		<0.002							
SPK/SPKD	80791007		0.1	113.0	114.0	75	125	0.5	20

Molybdenum, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	110.0		80	120		
MB		<0.002							
SPK/SPKD	80791002		0.1	100.0	103.0	75	125	2.9	20
SPK/SPKD	80791007		0.1	113.0	114.0	75	125	0.5	20

Selenium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
MB		<0.005							
SPK/SPKD	80791007		0.1	103.0	98.2	75	125	3.9	20

Selenium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
MB		<0.005							
SPK/SPKD	80791002		0.1	107.0	108.0	75	125	1.0	20
SPK/SPKD	80791007		0.1	103.0	98.2	75	125	3.9	20

Thallium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	114.0		80	120		

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Thallium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0005							
SPK/SPKD	80791007		0.1	95.0	96.2	75	125	1.3	20

Thallium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	114.0		80	120		
MB		<0.0005							
SPK/SPKD	80791003		0.1	102.0	106.0	75	125	4.0	20
SPK/SPKD	80791007		0.1	95.0	96.2	75	125	1.3	20

Mercury Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	102.0		85	115		
LRB		<0.0002							
MS/MSD	80791001		0.002	96.5	95.1	70	130	0.0	20
MS/MSD	80791007		0.002	104.0	103.0	70	130	0.0	20

pH Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	100.0					
CRM-PH			6	100.2					
CRM-PH			6	99.8					
CRM-PH			6	99.7					
CRM-PH			6	99.8					
DUP	80791007							0.9	20
DUP	80946001							1.5	20
DUP	81122006							1.1	20
DUP	81215003							0.0	20

Fluoride Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			0.64	100.0		83.99	111.11		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	108.0		90	110		
LFB-F			0.5	100.0		90	110		

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Fluoride Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-F			0.5	102.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	80790001		0.5	148.0	130.0	80	120	6.8	20
MS/MSD-F	80946001		0.5	98.0	98.0	80	120	0.0	20
MS/MSD-F	81131006		0.5	98.0	112.0	80	120	7.0	20
MS/MSD-F	81131004		0.5	100.0	104.0	80	120	2.5	20

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Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 80790

Chain of Custody Record

Report To:	Great River Energy	CC: Golder Associates	Project Name: SS Internal
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: March 2025
Address:		Lakewood, CO 80228	Sampled By:
Phone:			
Email:	CJohnston@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric						Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 1R	17Mar25	1610	GW	X	X	X							9.17	1337	7.77	8.72	App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radio Chem, Dissolved and Total for Remainder of Metals.) (See Attachments)
002	MW- 104	17Mar25	1513	GW	X	X	X							9.19	1520	7.32	0.05	

Comments:

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		17Mar25 1741	Log In Walk In #2	8.2 °C/TM 805 ROI Y/N		18Mar25 0730
2						

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Table 1: Proposed 2025 Stanton Station Plant Facilities Schedule for Budgetary Estimation

Location	Well ID		2025				
			Q1 - Feb	Q1 - Mar	Q2 - Jun	Q3 - Sep	Q4 - Nov
Upgradient/Side-gradient	MW-6B	1					
	MW-7A	1	TDS and Field Parameters				
	MW-7B	1					
	MW-8B	1				TDS and Field Parameters	
	MW-105	1					
Bottom Ash Landfill	MW-9N	1					
	MW-102	1					
	MW-103	1					
Property Boundary	MW-PB1	1					
Wells Installed in May 2022	MW-210	1					
	MW-211	1					
	MW-212	1					
	MW-213	1					
	MW-214	1					
Piezometers [1]	PZ-BA-A	1					
	PZ-BA-B	1					
Sumps [2]	BAI-Sump-S	1					
Surface Water [3]	Missouri River	1					
	Rail-Drainage	1					
Internal - Prior Bottom Ash Impoundment Downgradient	MW-1R	1		App IV, Iron, Aluminum, Mangengese (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)		App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)
	MW-104	1					
Bottom Ash Impoundment	MW-201	1				TDS and Field Parameters	
	MW-202	1	Boron, Sulfate, and Field Parameters				
	MW-203	1					
Closed Landfill	MW-10	1					
	MW-204	1					
	MW-205	1					
Additional Internal Locations	MW-4	1					
	MW-PB2	1					
Wells Installed in February 2023	MW-215	1					
	MW-216	1					
	MW-217	1					
	MW-218	1					
	MW-219	1					
	MW-220	1					
	MW-221	1					
	MW-222	1					
	MW-300	1					
	MW-301	1					
	MW-PB3	1					
Proposed Additional Wells for Installation in Q2 2025	TBD	1			App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
Proposed Additional Wells for Installation in Q1 2026	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
Total # of Sample Locations			2	40	53	15	53

Notes:
Suggested locations for collection of QA/QC samples in 2025 are listed in Table 2.
App III - Appendix III Detection Monitoring List, Table 5
App IV - Appendix IV Assessment Monitoring List, Table 6
Additional List - Table 7
Required field parameters are listed in Table 5 and Table 6
1. The piezometers do not have dedicated pumps and will need to be sampled by other methods.
2. The sump should be sampled using surface water collection methods via the sump riser.
3. Surface water samples to be collected only if safely accessible and free water is present.

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February 2025 GREAT RIVER ENERGY - STANTON STATION GL21509219.000
DRAFT - SUBJECT TO CHANGE

Table 2: 2025 Proposed Quality Assurance/Quality Control Sample Collection Locations for Budget Estimation

Location	Well ID	Q1 - Feb	Q1 - Mar	Q2 - Jun	Q3 - Sep	Q4 - Nov
Upgradient/Side-gradient	MW-6B		Field Blank			
	MW-7A					
	MW-7B		Duplicate			MS/MSD
	MW-8B			Duplicate		
	MW-105					
Bottom Ash Landfill	MW-9N					Duplicate
	MW-102			Field Blank		
	MW-103		Duplicate			
Property Boundary	MW-PB1					
Wells Installed in May 2022	MW-210		Field Blank			Duplicate
	MW-211			MS/MSD		
	MW-212					Field Blank
	MW-213			Duplicate		
	MW-214		MS/MSD			
Piezometers [1]	PZ-BA-A					
	PZ-BA-B					Field Blank
Sumps [2]	BAI-Sump-S					
Surface Water [3]	Missouri-River					
	Rail-Drainage					
Internal - Prior Bottom Ash Impoundment Downgradient	MW-1R			Duplicate		
	MW-104					MS/MSD
Bottom Ash Impoundment	MW-201			Field Blank		
	MW-202					
	MW-203					
Closed Landfill	MW-10		Duplicate			
	MW-204					
	MW-205					Duplicate
Additional Internal Locations	MW-4					
	MW-PB2					
Wells Installed in February 2023	MW-215			Field Blank		
	MW-216					
	MW-217		Field Blank			Duplicate
	MW-218			MS/MSD		
	MW-219					
	MW-220		Duplicate			Field Blank
	MW-221					
	MW-222					
	MW-300		MS/MSD			
	MW-301			Duplicate		
	MW-PB3					
Proposed Additional Wells for Installation in Q2 2025	TBD					
	TBD				Duplicate	
	TBD				MS/MSD	
	TBD					Field Blank
	TBD					
	TBD					
	TBD					
	TBD			Duplicate		
	TBD				Field Blank	
	TBD					
	TBD					Duplicate
	TBD				Duplicate	
	TBD			Field Blank		
Proposed Additional Wells for Installation in Q1 2026	TBD					
	TBD					
	TBD					
	TBD					
	TBD					
	TBD					
Total # of Sample Locations		2	40	53	15	53
Total # of QC Samples		0	9	11	4	11

Notes:
Locations to collect samples are **suggestions only** to help with the distribution of QA/QC samples across the site and between facilities while meeting QA/QC objectives for the sampling programs.
Notes for QA/QC
Duplicates = 10-15% of primary collected sample
Field Blanks = approximately 1 per sampling day.
Equipment Blanks - only needed for non-dedicated equipement.
MS/MSD = 1 per approximately 20 primary collected samples.

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Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

+ Iron, Aluminum, Manganese,
- Total only for Mercury & Radiochem
- Dissolved & Total for remainder of Metals

MSP

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	1R
Sampling Personal:	

Weather Conditions: Temp: 30°F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	17.43	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	17.48	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	3	Sec.
Recover:	27	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
17 Mar 25	1545	Start of Well Purge									
	1555	9.02	1356	7.73	0.17	-135.9	22.14	17.47	200	2.0	Clear
	1600	9.19	1323	7.76	0.12	-144.9	10.68	17.48	200	1.0	Clear
	1605	9.24	1334	7.77	0.10	-150.8	8.34	17.48	200	1.0	Clear
	1610	9.17	1337	7.77	0.09	-154.6	8.72	17.48	200	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
17 Mar 25	1610	9.17	1337	7.77	0.09	-154.6	8.72				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	104
Sampling Personal:	

Weather Conditions: Temp: 30 °F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	22.53	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	22.58	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	3	Sec.
Recover:	27	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
17Mar25	1448	Start of Well Purge									
	1458	9.23	1599	7.30	0.33	90.4	0.35	22.54	200.0	2.0	Clear
	1503	9.20	1596	7.31	0.23	73.0	0.25	22.56	200.0	1.0	Clear
	1508	9.20	1597	7.32	0.20	61.1	1.09	22.55	200.0	1.0	Clear
	1513	9.19	1520	7.32	0.19	53.6	0.05	22.55	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
17Mar25	1513	9.19	1520	7.32	0.19	53.6	0.05				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 18 Mar 25 Time: 0837 Analyst: PW

Work Order #: 80790

Containers Supplied by MVTL: ☒ Yes ☐ No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
2	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
2	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
2	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS Internal March 2025 (80793) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80793001 **Date Collected:** 03/17/2025 16:10 **Matrix:** Groundwater
Sample ID: MW-1R **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 10.0 **Received on Ice:** No

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/18/2025 07:58	
Radium 228	See Attached			1		04/18/2025 07:58	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80793002 **Date Collected:** 03/17/2025 15:13 **Matrix:** Groundwater
Sample ID: MW-104 **Date Received:** 03/17/2025 17:41 **Collector:** MVTL Field Service

Temp @ Receipt (C): 10.0 **Received on Ice:** No

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/18/2025 07:58	
Radium 228	See Attached			1		04/18/2025 07:58	

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ANALYTICAL SUMMARY REPORT

April 17, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25030482 Quote ID: C15480
Project Name: 80793

Energy Laboratories, Inc. Casper WY received the following 2 samples for Minnesota Valley Testing Laboratories on 3/20/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25030482-001	80793001, MW-1R	03/17/25 16:10	03/20/25	Aqueous	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25030482-002	80793002, MW-104	03/17/25 15:13	03/20/25	Aqueous	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80793
Lab ID: C25030482-001
Client Sample ID: 80793001, MW-1R

Report Date: 04/17/25
Collection Date: 03/17/25 16:10
DateReceived: 03/20/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	04/07/25 11:16 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/07/25 11:16 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/07/25 11:16 / apt
Radium 228	0.7	pCi/L	U			RA-05	03/31/25 16:18 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	03/31/25 16:18 / trs
Radium 228 MDC	1.0	pCi/L				RA-05	03/31/25 16:18 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 MDC	1.0	pCi/L				A7500-RA	04/08/25 13:28 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80793
Lab ID: C25030482-002
Client Sample ID: 80793002, MW-104

Report Date: 04/17/25
Collection Date: 03/17/25 15:13
DateReceived: 03/20/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.09	pCi/L	U			E903.0	04/07/25 11:16 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/07/25 11:16 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/07/25 11:16 / apt
Radium 228	0.9	pCi/L	U			RA-05	03/31/25 16:18 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	03/31/25 16:18 / trs
Radium 228 MDC	1.0	pCi/L				RA-05	03/31/25 16:18 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	04/08/25 13:28 / dmf
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	04/08/25 13:28 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25030482 **Report Date:** 04/09/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0									Batch: RA226-11623	
Lab ID: LCS-RA226-11623	3	Laboratory Control Sample				Run: TENNELEC-4_250326E			04/07/25 11:16	
Radium 226		10	pCi/L		103	70	130			
Radium 226 precision (±)		1.6	pCi/L							
Radium 226 MDC		0.19	pCi/L							
Lab ID: MB-RA226-11623	3	Method Blank				Run: TENNELEC-4_250326E			04/07/25 11:16	
Radium 226		0.06	pCi/L							U
Radium 226 precision (±)		0.09	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Lab ID: C25030482-002ADUP	3	Sample Duplicate				Run: TENNELEC-4_250326E			04/07/25 11:16	
Radium 226		-0.084	pCi/L					3900	30	UR
Radium 226 precision (±)		0.11	pCi/L							
Radium 226 MDC		0.20	pCi/L							

- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 1.01.

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25030482 **Report Date:** 04/09/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7609
Lab ID: LCS-228-RA226-11623	3	Laboratory Control Sample				Run: TENNELEC-4_250326A				03/31/25 16:18
Radium 228		8.7	pCi/L		91	70	130			
Radium 228 precision (±)		2.3	pCi/L							
Radium 228 MDC		1.0	pCi/L							
Lab ID: MB-RA226-11623	3	Method Blank				Run: TENNELEC-4_250326A				03/31/25 16:18
Radium 228		0.4	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		0.9	pCi/L							
Lab ID: C25030482-002ADUP	3	Sample Duplicate				Run: TENNELEC-4_250326A				03/31/25 16:18
Radium 228		0.64	pCi/L					31	30	UR
Radium 228 precision (±)		0.61	pCi/L							
Radium 228 MDC		0.96	pCi/L							

- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.27.

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25030482

Login completed by: Dakota R. Sawyer
Reviewed by: srichins
Reviewed Date: 3/24/2025
Date Received: 3/20/2025
Received by: SLR
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	9.7°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature of the sample(s) in shipping container 1 was 9.7°C and shipping container 2 was 9.0°C. DRS 03/20/25

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Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Member ACIL

Account #: 5109 **Client:** Great River Energy

C25030482

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Bismarck, ND 58501
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Toll Free: (800) 279-6885 Fax: (701) 258-9724

Chain of Custody Record

Page 1 of 1

Work Order # 80793

Company Name and Address: MVTL 2616 E Broadway Bismarck, ND 58501

Account #:
Contact: Claudette
Name of Sampler:
Quote Number C15480
Project Name/Number:

Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box x
Date Submitted: 18-Mar-25
Purchase Order #: BL7017

Billing Address (indicate if different from above): PO Box 249 New Ulm, MN 56073

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Untreated	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	80793001	MW-1R	GW	17-Mar-25	1610		1				Ra226 & Ra228
	80793002	MW-104	GW	17-Mar-25	1513		1				Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
G. Ziegler	18-Mar-25	1700		Shelby Robins	3/20/25	100 S

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 80793

Chain of Custody Record

Report To:	Great River Energy	CC: Golder Associates	Project Name: SS Internal
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: March 2025
Address:		Lakewood, CO 80228	Sampled By: Jeremy Ehlen
Phone:			
Email:	CJohnston@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric										Analysis Required
001	MW- 1R	17 Mar 25	1610	GW				X										Radium 226 and 228 Combined
002	MW- 104	17 Mar 25	1513	GW				X										

Comments:

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		17 Mar 25 1941	Log In Walk In #2	10.0 °C/TM 84 ROI Y/N		18 Mar 25 0735
2						

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Account #: 5109 **Client:** Great River Energy

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	1R
Sampling Personal:	

Weather Conditions: Temp: 30°F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	17.43	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	17.48	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
17 Mar 25	1545	Start of Well Purge									
	1555	9.02	1356	7.73	0.17	-135.9	22.14	17.47	200.0	2.0	Clear
	1600	9.19	1323	7.76	0.12	-144.9	10.68	17.48	200.0	1.0	Clear
	1605	9.24	1334	7.77	0.10	-159.8	8.34	17.48	200.0	1.0	Clear
	1610	9.17	1337	7.77	0.09	-154.6	8.72	17.48	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
17 Mar 25	1610	9.17	1337	7.77	0.09	-154.6	8.72				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	104
Sampling Personal:	

Weather Conditions: Temp: 30 °F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	22.53	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	22.58	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	3	Sec.
Recover:	27	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
17Mar25	1448	Start of Well Purge									
	1458	9.23	1599	7.30	0.33	90.4	0.35	22.54	200.0	2.0	Clear
	1503	9.20	1596	7.31	0.23	73.0	0.25	22.56	200.0	1.0	Clear
	1508	9.20	1597	7.32	0.20	61.1	1.09	22.55	200.0	1.0	Clear
	1513	9.19	1520	7.32	0.19	53.6	0.05	22.55	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
17Mar25	1513	9.19	1520	7.32	0.19	53.6	0.05				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy
Workorder: SS 2022 Wells March 2025 (81122) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81122001 **Date Collected:** 03/19/2025 12:55 **Matrix:** Groundwater
Sample ID: MW-210 **Date Received:** 03/19/2025 16:35 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.9 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1612**	umhos/cm	1	1		03/19/2025 12:55	
Method: 150.2							
pH - Field	**7.83**	units	0.01	1		03/19/2025 12:55	
Method: 170.1							
Temperature - Field C	**8.59**	degrees C		1		03/19/2025 12:55	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0409**	mg/L	0.02	1	03/20/2025 16:40	03/21/2025 10:36	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/20/2025 16:40	04/01/2025 12:34	
Arsenic	**0.0029**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:34	
Barium	**0.0540**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:34	
Beryllium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:34	
Cadmium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:34	
Chromium	<0.002	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:34	
Cobalt	<0.002	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:34	
Lead	**0.0008**	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:34	
Molybdenum	**0.0117**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:34	
Selenium	<0.005	mg/L	0.005	5	03/20/2025 16:40	04/01/2025 12:34	
Thallium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:34	
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		03/20/2025 16:23	*
Method: SM4500-F-C-2021							
Fluoride	**0.59**	mg/L	0.1	1		03/20/2025 16:23	

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Report Date: Tuesday, April 8, 2025 2:20:55 PM

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81122002 **Date Collected:** 03/19/2025 12:42 **Matrix:** Groundwater
Sample ID: FB 2022 **Date Received:** 03/19/2025 16:35 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.9 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	<0.02	mg/L	0.02	1	03/20/2025 16:40	03/21/2025 10:37	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/20/2025 16:40	04/01/2025 12:39	
Arsenic	<0.002	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:39	
Barium	<0.002	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:39	
Beryllium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:39	
Cadmium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:39	
Chromium	<0.002	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:39	
Cobalt	<0.002	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:39	
Lead	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:39	
Molybdenum	<0.002	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:39	
Selenium	<0.005	mg/L	0.005	5	03/20/2025 16:40	04/01/2025 12:39	
Thallium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:39	
Method: SM4500 H+ B-2021							
pH	**6.2**	units	0.1	1		03/20/2025 16:28	*
Method: SM4500-F-C-2021							
Fluoride	<0.1	mg/L	0.1	1		03/20/2025 16:28	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81122003 **Date Collected:** 03/19/2025 14:50 **Matrix:** Groundwater
Sample ID: MW-211 **Date Received:** 03/19/2025 16:35 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.9 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2542**	umhos/cm	1	1		03/19/2025 14:50	
Method: 150.2							
pH - Field	**8.07**	units	0.01	1		03/19/2025 14:50	
Method: 170.1							
Temperature - Field C	**8.3**	degrees C		1		03/19/2025 14:50	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0258**	mg/L	0.02	1	03/20/2025 16:40	03/21/2025 10:37	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/20/2025 16:40	04/01/2025 12:44	
Arsenic	**0.0127**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:44	
Barium	**0.1509**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:44	
Beryllium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:44	
Cadmium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:44	
Chromium	<0.002	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:44	
Cobalt	<0.002	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:44	
Lead	**0.0007**	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:44	
Molybdenum	**0.0231**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:44	
Selenium	<0.005	mg/L	0.005	5	03/20/2025 16:40	04/01/2025 12:44	
Thallium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:44	
Method: SM4500 H+ B-2021							
pH	**8.1**	units	0.1	1		03/20/2025 16:34	*
Method: SM4500-F-C-2021							
Fluoride	**0.55**	mg/L	0.1	1		03/20/2025 16:34	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81122004 **Date Collected:** 03/19/2025 13:50 **Matrix:** Groundwater
Sample ID: MW-212 **Date Received:** 03/19/2025 16:35 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.9 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1903**	umhos/cm	1	1		03/19/2025 13:50	
Method: 150.2							
pH - Field	**8.31**	units	0.01	1		03/19/2025 13:50	
Method: 170.1							
Temperature - Field C	**8.37**	degrees C		1		03/19/2025 13:50	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0275**	mg/L	0.02	1	03/20/2025 16:40	03/21/2025 10:38	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/20/2025 16:40	04/01/2025 12:49	
Arsenic	**0.0031**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:49	
Barium	**0.0749**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:49	
Beryllium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:49	
Cadmium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:49	
Chromium	<0.002	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:49	
Cobalt	**0.0024**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:49	
Lead	**0.0017**	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:49	
Molybdenum	**0.0350**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:49	
Selenium	<0.005	mg/L	0.005	5	03/20/2025 16:40	04/01/2025 12:49	
Thallium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:49	
Method: SM4500 H+ B-2021							
pH	**8.2**	units	0.1	1		03/20/2025 17:34	*
Method: SM4500-F-C-2021							
Fluoride	**0.44**	mg/L	0.1	1		03/20/2025 17:34	

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81122005 **Date Collected:** 03/19/2025 11:50 **Matrix:** Groundwater
Sample ID: MW-213 **Date Received:** 03/19/2025 16:35 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.9 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1518**	umhos/cm	1	1		03/19/2025 11:50	
Method: 150.2							
pH - Field	**7.85**	units	0.01	1		03/19/2025 11:50	
Method: 170.1							
Temperature - Field C	**9.08**	degrees C		1		03/19/2025 11:50	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0361**	mg/L	0.02	1	03/20/2025 16:40	03/21/2025 10:38	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/20/2025 16:40	04/01/2025 12:54	
Arsenic	**0.0037**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:54	
Barium	**0.0643**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:54	
Beryllium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:54	
Cadmium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:54	
Chromium	**0.0031**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:54	
Cobalt	<0.002	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:54	
Lead	**0.0011**	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:54	
Molybdenum	**0.0378**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:54	
Selenium	<0.005	mg/L	0.005	5	03/20/2025 16:40	04/01/2025 12:54	
Thallium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:54	
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		03/20/2025 17:39	*
Method: SM4500-F-C-2021							
Fluoride	**0.84**	mg/L	0.1	1		03/20/2025 17:39	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81122006 **Date Collected:** 03/19/2025 09:40 **Matrix:** Groundwater
Sample ID: MW-214 **Date Received:** 03/19/2025 16:35 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.9 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2028**	umhos/cm	1	1		03/19/2025 09:40	
Method: 150.2							
pH - Field	**7.75**	units	0.01	1		03/19/2025 09:40	
Method: 170.1							
Temperature - Field C	**3.57**	degrees C		1		03/19/2025 09:40	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0631**	mg/L	0.02	1	03/20/2025 16:40	03/21/2025 10:39	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/20/2025 16:40	04/01/2025 12:59	
Arsenic	<0.002	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:59	
Barium	**0.0435**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:59	
Beryllium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:59	
Cadmium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:59	
Chromium	**0.0024**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:59	
Cobalt	<0.002	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:59	
Lead	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:59	
Molybdenum	**0.0123**	mg/L	0.002	5	03/20/2025 16:40	04/01/2025 12:59	
Selenium	<0.005	mg/L	0.005	5	03/20/2025 16:40	04/01/2025 12:59	
Thallium	<0.0005	mg/L	0.0005	5	03/20/2025 16:40	04/01/2025 12:59	
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		03/20/2025 17:45	*
Method: SM4500-F-C-2021							
Fluoride	**0.48**	mg/L	0.1	1		03/20/2025 17:45	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 81122

Aluminum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	103.0		85	115		
MB		<0.1							
PDS/PDSD	80944002		2	90.9	94.1	75	125	2.6	20
PDS/PDSD	80946001		2	106.0	105.0	75	125	0.3	20
PDS/PDSD	81122006		1	94.8	90.3	75	125	2.3	20
PDS/PDSD	81242001		1	93.5	93.5	75	125	0.0	20

Aluminum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	103.0		85	115		
MB		<0.1							
SPK/SPKD	81122005		0.4	104.0	107.0	75	125	2.1	20
SPK/SPKD	81243002		0.4	101.0	101.0	75	125	0.8	20

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	110.0		85	115		
MB		<0.1							
PDS/PDSD	80944002		2	79.3	76.3	75	125	1.1	20
PDS/PDSD	80946001		2	89.3	89.1	75	125	0.1	20
MS/MSD	81122006		0.4	113.0	104.0	70	130	2.5	20
PDS/PDSD	81122006		1	86.0	87.6	75	125	0.9	20

Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	110.0		85	115		
MB		<0.1							
SPK/SPKD	81122005		0.4	79.6	79.3	75	125	0.1	20
SPK/SPKD	81243002		0.4	87.3	87.3	75	125	0.0	20

Lithium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	115.0		85	115		
MB		<0.04							
MS/MSD	81122006		0.4	97.4	97.3	70	130	0.1	20

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Lithium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	115.0		85	115		
MB		<0.04							
SPK/SPKD	80790001		0.4	89.8	89.3	75	125	0.5	20
SPK/SPKD	81122001		0.4	91.1	87.2	75	125	3.9	20
SPK/SPKD	81122005		0.4	89.0	92.0	75	125	3.0	20

Manganese Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	108.0		85	115		
MB		<0.05							
PDS/PDSD	80944002		2	87.0	85.8	75	125	1.2	20
PDS/PDSD	80946001		2	90.0	90.2	75	125	0.2	20
MS/MSD	81122006		0.4	90.9	89.1	70	130	1.7	20
PDS/PDSD	81122006		1	89.9	91.1	75	125	1.2	20

Manganese, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	108.0		85	115		
MB		<0.05							
SPK/SPKD	81122005		0.4	87.7	87.6	75	125	0.1	20
SPK/SPKD	81243002		0.4	84.9	85.3	75	125	0.3	20

Antimony Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	92.8		80	120		
MB		<0.001							
MS/MSD	81122006		0.4	104.0	107.0	75	125	3.1	20
SPK	81131001		0.1	102.0		75	125		

Antimony, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	92.8		80	120		
MB		<0.001							
MS/MSD	81122006		0.4	104.0	107.0	75	125	3.1	20
SPK/SPKD	81122006		0.1	101.0	105.0	75	125	3.4	20
SPK	81131001		0.1	102.0		75	125		

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Account #: 5109 **Client:** Great River Energy

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
MB		<0.002							
MS/MSD	81122006		0.4	103.0	103.0	75	125	0.0	20
SPK	81131001		0.1	102.0		75	125		

Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
MB		<0.002							
MS/MSD	81122006		0.4	103.0	103.0	75	125	0.0	20
SPK/SPKD	81122006		0.1	107.0	106.0	75	125	0.3	20
SPK	81131001		0.1	102.0		75	125		

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.9		80	120		
MB		<0.002							
MS/MSD	81122006		0.4	107.0	108.0	75	125	1.3	20
SPK	81131001		0.1	107.0		75	125		

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.9		80	120		
MB		<0.002							
MS/MSD	81122006		0.4	107.0	108.0	75	125	1.3	20
SPK/SPKD	81122006		0.1	106.0	110.0	75	125	2.6	20
SPK	81131001		0.1	107.0		75	125		

Beryllium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
MB		<0.0005							
MS/MSD	81122006		0.4	105.0	104.0	75	125	1.0	20
SPK	81131001		0.1	96.3		75	125		

Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		

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Account #: 5109 **Client:** Great River Energy

Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0005							
MS/MSD	81122006		0.4	105.0	104.0	75	125	1.0	20
SPK/SPKD	81122006		0.1	97.5	98.1	75	125	0.6	20
SPK	81131001		0.1	95.3		75	125		

Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	93.6		80	120		
MB		<0.0005							
MS/MSD	81122006		0.4	102.0	105.0	75	125	3.1	20
SPK	81131001		0.1	98.2		75	125		

Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	93.6		80	120		
MB		<0.0005							
MS/MSD	81122006		0.4	102.0	105.0	75	125	3.1	20
SPK/SPKD	81122006		0.1	97.0	99.1	75	125	2.1	20
SPK	81131001		0.1	98.2		75	125		

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
MB		<0.002							
MS/MSD	81122006		0.4	101.0	102.0	75	125	0.7	20
SPK	81131001		0.1	104.0		75	125		

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
MB		<0.002							
MS/MSD	81122006		0.4	101.0	102.0	75	125	0.7	20
SPK/SPKD	81122006		0.1	103.0	102.0	75	125	0.4	20
SPK	81131001		0.1	104.0		75	125		

Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		

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Account #: 5109 **Client:** Great River Energy

Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.002							
MS/MSD	81122006		0.4	103.0	101.0	75	125	2.0	20
SPK	81131001		0.1	104.0		75	125		

Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
MB		<0.002							
MS/MSD	81122006		0.4	103.0	101.0	75	125	2.0	20
SPK/SPKD	81122006		0.1	102.0	101.0	75	125	1.1	20
SPK	81131001		0.1	104.0		75	125		

Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MS/MSD	81122006		0.4	103.0	104.0	75	125	1.0	20
SPK	81131001		0.1	101.0		75	125		

Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MS/MSD	81122006		0.4	103.0	104.0	75	125	1.0	20
SPK/SPKD	81122006		0.1	99.4	107.0	75	125	3.0	20
SPK	81131001		0.1	101.0		75	125		

Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.7		80	120		
MB		<0.002							
MS/MSD	81122006		0.4	104.0	105.0	75	125	0.5	20
SPK	81131001		0.1	107.0		75	125		

Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.7		80	120		
MB		<0.002							

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Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	81122006		0.4	104.0	105.0	75	125	0.5	20
SPK/SPKD	81122006		0.1	106.0	107.0	75	125	1.2	20
SPK	81131001		0.1	107.0		75	125		

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
MB		<0.005							
MS/MSD	81122006		0.4	103.0	108.0	75	125	4.5	20
SPK	81131001		0.1	97.6		75	125		

Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
MB		<0.005							
MS/MSD	81122006		0.4	103.0	108.0	75	125	4.5	20
SPK/SPKD	81122006		0.1	106.0	106.0	75	125	0.1	20
SPK	81131001		0.1	97.6		75	125		

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
MB		<0.0005							
MS/MSD	81122006		0.4	98.2	96.7	75	125	1.5	20
SPK	81131001		0.1	99.6		75	125		

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
MB		<0.0005							
MS/MSD	81122006		0.4	98.2	96.7	75	125	1.5	20
SPK/SPKD	81122006		0.1	98.3	100.0	75	125	2.0	20
SPK	81131001		0.1	99.6		75	125		

Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	106.0		85	115		
LFB			0.002	106.0		85	115		

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Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LRB		<0.0002							
MB		<0.0002							
MS/MSD	80944009		0.002	96.6	101.0	70	130	5.1	20
MS/MSD	80946001		0.002	105.0	104.0	70	130	0.0	20
MS/MSD	81122006		0.002	110.0	107.0	70	130	4.7	20
MS/MSD	81243004		0.002	92.5	91.8	70	130	0.0	20

pH — Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	100.0					
CRM-PH			6	100.2					
CRM-PH			6	99.8					
CRM-PH			6	99.7					
CRM-PH			6	99.8					
DUP	80791007							0.9	20
DUP	80946001							1.5	20
DUP	81122006							1.1	20
DUP	81215003							0.0	20

Fluoride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			0.64	100.0		81.99	111.11		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	108.0		90	110		
LFB-F			0.5	100.0		90	110		
LFB-F			0.5	102.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	80790001		0.5	148.0	130.0	80	120	6.8	20

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Fluoride Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD-F	80946001		0.5	98.0	98.0	80	120	0.0	20
MS/MSD-F	81122006		0.5	98.0	112.0	80	120	7.0	20
MS/MSD-F	81131004		0.5	100.0	104.0	80	120	2.5	20

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Minnesota Valley Testing Laboratories
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Great River Energy
WO: 81122

Chain of Custody Record

Report To: Great River Energy
Attn: Cassie Johnston
Address:
Phone:
Email: CJohnston@GREnergy.com

CC: Golder Associates
44 Union Blvd, Suite 300
Lakewood, CO 80228

Project Name: SS 2022 Wells
Event: March 2025
Sampled By: Ethan Gress

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 210	19Mar25	1255	GW	X	X	X	8.59	16.12	7.83	81.54	App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radio Chem, Dissolved and Total for Remainder of Metals.) (See Attachments)
002	FB 2022	19Mar25	1242	GW	X	X	X	NA	NA	NA	NA	
—	~~MW- 2022~~	—	—	GW	~~X~~	~~X~~	~~X~~	—	—	—	~~Typo~~	
003	MW- 211	19Mar25	1450	GW	X	X	X	8.30	2542	8.07	0.17	
004	MW- 212	19Mar25	1350	GW	X	X	X	8.37	1903	8.31	622.24	
005	MW- 213	19Mar25	1150	GW	X	X	X	9.08	1518	7.85	151.36	
006	MW- 214/MS/MSD	19Mar25	0940	GW	X	X	X	8.57	2028	7.75	41.87	

Comments:

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		19Mar25 1635	(Log In) Walk In #2	3A °C/TM 805 ROI Y/N		19Mar25 1635
2						

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Table 1: Proposed 2025 Stanton Station Plant Facilities Schedule for Budgetary Estimation

Location	Well ID		2025				
			Q1 - Feb	Q1 - Mar	Q2 - Jun	Q3 - Sep	Q4 - Nov
Upgradient/Side-gradient	MW-6B	1		App IV, Iron, Aluminum, Manganese (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)		App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)
	MW-7A	1	TDS and Field Parameters				
	MW-7B	1					
	MW-8B	1				TDS and Field Parameters	
	MW-105	1					
Bottom Ash Landfill	MW-9N	1					
	MW-102	1					
	MW-103	1					
Property Boundary	MW-PB1	1					
Wells Installed in May 2022	MW-210	1					
	MW-211	1					
	MW-212	1					
	MW-213	1					
	MW-214	1					
Piezometers [1]	PZ-BA-A	1					
	PZ-BA-B	1					
Sumps [2]	BAI-Sump-S	1					
Surface Water [3]	Missouri River	1					
	Rail-Drainage	1					
Internal - Prior Bottom Ash Impoundment Downgradient	MW-1R	1					
	MW-104	1					
Bottom Ash Impoundment	MW-201	1				TDS and Field Parameters	
	MW-202	1	Boron, Sulfate, and Field Parameters				
	MW-203	1					
Closed Landfill	MW-10	1					
	MW-204	1					
	MW-205	1					
Additional Internal Locations	MW-4	1					
	MW-PB2	1					
Wells Installed in February 2023	MW-215	1					
	MW-216	1					
	MW-217	1					
	MW-218	1					
	MW-219	1					
	MW-220	1					
	MW-221	1					
	MW-222	1					
	MW-300	1					
	MW-301	1					
	MW-PB3	1					
Proposed Additional Wells for Installation in Q2 2025	TBD	1			App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
Proposed Additional Wells for Installation in Q1 2025	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
Total # of Sample Locations			2	40	53	15	53

Notes:
Suggested locations for collection of QA/QC samples in 2025 are listed in Table 2.
App III - Appendix III Detection Monitoring List, Table 5
App IV - Appendix IV Assessment Monitoring List, Table 6
Additional List - Table 7
Required field parameters are listed in Table 5 and Table 6
1. The piezometers do not have dedicated pumps and will need to be sampled by other methods.
2. The sump should be sampled using surface water collection methods via the sump riser.
3. Surface water samples to be collected only if safely accessible and free water is present.

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February 2025 GREAT RIVER ENERGY - STANTON STATION GL21509219.000
DRAFT - SUBJECT TO CHANGE

Table 2: 2025 Proposed Quality Assurance/Quality Control Sample Collection Locations for Budget Estimation

Location	Well ID	Q1 - Feb	Q1 - Mar	Q2 - Jun	Q3 - Sep	Q4 - Nov
Upgradient/Side-gradient	MW-6B		Field Blank			
	MW-7A					
	MW-7B		Duplicate			MS/MSD
	MW-8B			Duplicate		
	MW-10S					
Bottom Ash Landfill	MW-9N					Duplicate
	MW-102			Field Blank		
	MW-103		Duplicate			
Property Boundary	MW-PB1					
Wells Installed in May 2022	MW-210		Field Blank			Duplicate
	MW-211			MS/MSD		
	MW-212					Field Blank
	MW-213			Duplicate		
	MW-214		MS/MSD			
Piezometers [1]	PZ-BA-A					
	PZ-BA-B					Field Blank
Sumps [2]	BAI-Sump-S					
Surface Water [3]	Missouri-River					
	Rail-Drainage					
Internal - Prior Bottom Ash Impoundment Downgradient	MW-1R			Duplicate		
	MW-104					MS/MSD
Bottom Ash Impoundment	MW-201			Field Blank		
	MW-202					
	MW-203					
Closed Landfill	MW-10		Duplicate			
	MW-204					
	MW-205					Duplicate
Additional Internal Locations	MW-4					
	MW-PB2					
Wells Installed in February 2023	MW-215			Field Blank		
	MW-216					
	MW-217		Field Blank			Duplicate
	MW-218			MS/MSD		
	MW-219					
	MW-220		Duplicate			Field Blank
	MW-221					
	MW-222					
	MW-300		MS/MSD			
	MW-301			Duplicate		
	MW-PB3					
Proposed Additional Wells for Installation in Q2 2025	TBD				Duplicate	
	TBD				MS/MSD	
	TBD					Field Blank
	TBD					
	TBD					
	TBD					
	TBD			Duplicate		
	TBD				Field Blank	
	TBD					
	TBD					Duplicate
	TBD				Duplicate	
	TBD			Field Blank		
Proposed Additional Wells for Installation in Q1 2026	TBD					
	TBD					
	TBD					
	TBD					
	TBD					
	TBD					
Total # of Sample Locations		2	40	53	15	53
Total # of QC Samples		0	9	11	4	11

Notes:
Locations to collect samples are **suggestions only** to help with the distribution of QA/QC samples across the site and between facilities while meeting QA/QC objectives for the sampling programs.
Notes for QA/QC
Duplicates = 10-15% of primary collected sample
Field Blanks = approximately 1 per sampling day.
Equipment Blanks - only needed for non-dedicated equipement.
MS/MSD = 1 per approximately 20 primary collected samples.

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February 2025 GL21509219.000

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.
* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

+ Iron, Aluminum, Manganese,
- Total Only for Mercury & Radiochem
- Dissolved & Total for remainder of Metals

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Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	210
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 25 °F Wind: W @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.95	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.95	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	1230	Start of Well Purge									
	1235	7.96	16.10	7.81	0.31	-76.3	425.33	13.95	200.0	1.0	Turbid
19Mar25	1240	8.52	16.13	7.82	0.13	-93.2	405.81	13.95	200.0	1.0	Turbid
	1245	8.55	16.10	7.82	0.09	-96.8	222.56	13.95	200.0	1.0	Turbid
	1250	8.58	16.09	7.83	0.13	-92.8	130.69	13.95	200.0	1.0	ST
	1255	8.59	16.12	7.83	0.12	-98.4	81.54	13.95	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
19Mar25	1255	8.59	16.12	7.83	0.12	-98.4	81.54				Clear

Comments: FB 2022 collected hereat 1242 Had to pull pump up

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Member ACIL

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	211
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 30 °F Wind: W @ 15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	19.33	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	19.39	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
19Mar25	1425	Start of Well Purge									
	1430	8.22	2551	8.01	0.24	100.9	117.16	19.36	200.0	1.0	ST
	1435	8.35	2539	8.04	0.11	51.3	111.06	19.36	200.0	1.0	ST
	1440	8.33	2538	8.05	0.17	50.7	99.75	19.34	200.0	1.0	Clear
	1445	8.30	2537	8.06	0.11	48.8	64.72	19.35	200.0	1.0	Clear
	1450	8.30	2542	8.07	0.17	45.3	43.91	19.37	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
19Mar25	1450	8.30	2542	8.07	0.17	45.3	43.91				Clear

Comments:

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Member ACIL

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	212
Sampling Personal:	Ethan Greis

Weather Conditions: Temp: 25 °F Wind: S @ 15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	20.21	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	20.21	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	1325	Start of Well Purge									
	1330	8.26	1839	8.19	0.15	6.7	120.62	20.20	200.0	1.0	ST
19Mar25	1335	8.35	1861	8.25	0.12	16.0	103.46	20.21	200.0	1.0	ST
	1340	8.20	1886	8.30	0.08	20.0	68.93	20.21	200.0	1.0	Clear
	1345	8.41	1889	8.33	0.11	18.5	36.27	20.20	200.0	1.0	Clear
	1350	8.37	1903	8.31	0.08	18.7	22.28	20.21	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
19Mar25	1350	8.37	1903	8.31	0.08	18.7	22.28				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	213
Sampling Personal:	Ethan Grigg

Weather Conditions: Temp: 25 °F Wind: W @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	17.19	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	17.20	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	23	Sec.
Recover:	28 27	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
	1125	Start of Well Purge									
19 Mar 25	1130	8.56	1524	7.86	0.32	-52.1	572.48	17.23	200.0	1.0	Turbid
	1135	8.81	1518	7.85	0.20	-83.6	402.91	17.20	200.0	1.0	Turbid
	1140	9.04	1520	7.85	0.16	-92.8	269.18	17.22	200.0	1.0	Turbid
	1145	8.98	1517	7.85	0.21	-91.1	163.39	17.22	200.0	1.0	Turbid
	1150	9.08	1518	7.85	0.16	-97.8	151.36	17.20	200.0	1.0	ST

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
19 Mar 25	1150	9.08	1518	7.85	0.16	-97.8	151.36				ST

Comments: Had to pull pump up due to check ball being stuck

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Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	214/MS/MSD
Sampling Personal:	Ellen Gress

Weather Conditions: Temp: 25 °F Wind: NW @ 5-10 Precip: (Sunny / Partly Cloudy / Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	7.9	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	8.75	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
MS/MSD

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	0915	Start of Well Purge									
	0920	3.80	1940	7.78	0.48	112.7	85.65	8.75	200.0	1.0	Clear
19Mar25	0925	3.69	1959	7.81	0.32	125.5	97.05	8.75	200.0	1.0	Clear
	0930	3.57	1991	7.96	0.27	120.3	61.51	8.77	200.0	1.0	Clear
	0935	3.56	2011	7.76	0.21	116.2	55.06	8.80	200.0	1.0	Clear
	0940	3.57	2028	7.75	0.14	113.9	41.87	8.75	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 05.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
19Mar25	0940	3.57	2028	7.75	0.14	113.9	41.87				Clear

Comments:

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 19 Mar 25 Time: 1654 Analyst: PW

Work Order #: 81122

Containers Supplied by MVTL: ☒ Yes ☐ No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
8	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
8	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
8	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: SS 2022 Wells March 2025 (81123) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81123001 **Date Collected:** 03/19/2025 12:55 **Matrix:** Groundwater
Sample ID: MW-210 **Date Received:** 03/19/2025 16:35 **Collector:** MVTL Field Service

Temp @ Receipt (C): 7.3

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:58	
Radium 228	See Attached			1		04/24/2025 16:59	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID:	81123002	**Date Collected:**	03/19/2025 12:42	**Matrix:**	Groundwater
Sample ID:	FB 2022	**Date Received:**	03/19/2025 16:35	**Collector:**	MVTL Field Service

Temp @ Receipt (C): 7.3

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:59	
Radium 228	See Attached			1		04/24/2025 16:59	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81123003 **Date Collected:** 03/19/2025 14:50 **Matrix:** Groundwater
Sample ID: MW-211 **Date Received:** 03/19/2025 16:35 **Collector:** MVTL Field Service

Temp @ Receipt (C): 7.3

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:59	
Radium 228	See Attached			1		04/24/2025 16:59	

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81123004 **Date Collected:** 03/19/2025 13:50 **Matrix:** Groundwater
Sample ID: MW-212 **Date Received:** 03/19/2025 16:35 **Collector:** MVTL Field Service

Temp @ Receipt (C): 7.3

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:59	
Radium 228	See Attached			1		04/24/2025 16:59	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81123005 **Date Collected:** 03/19/2025 11:50 **Matrix:** Groundwater
Sample ID: MW-213 **Date Received:** 03/19/2025 16:35 **Collector:** MVTL Field Service

Temp @ Receipt (C): 7.3

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:59	
Radium 228	See Attached			1		04/24/2025 16:59	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 81123006 **Date Collected:** 03/19/2025 09:40 **Matrix:** Groundwater
Sample ID: MW-214 **Date Received:** 03/19/2025 16:35 **Collector:** MVTL Field Service

Temp @ Receipt (C): 7.3

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:59	
Radium 228	See Attached			1		04/24/2025 16:59	

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ANALYTICAL SUMMARY REPORT

April 22, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25030529 Quote ID: C15480
Project Name: 81123

Energy Laboratories, Inc. Casper WY received the following 6 samples for Minnesota Valley Testing Laboratories on 3/24/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25030529-001	81123001, MW-210	03/19/25 12:55	03/24/25	Aqueous	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25030529-002	81123002, FB 2022	03/19/25 12:42	03/24/25	Aqueous	Same As Above
C25030529-003	81123003, MW-211	03/19/25 14:50	03/24/25	Aqueous	Same As Above
C25030529-004	81123004, MW-212	03/19/25 13:50	03/24/25	Aqueous	Same As Above
C25030529-005	81123005, MW-213	03/19/25 11:50	03/24/25	Aqueous	Same As Above
C25030529-006	81123006, MW-214	03/19/25 9:40	03/24/25	Aqueous	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 81123
Lab ID: C25030529-001
Client Sample ID: 81123001, MW-210

Report Date: 04/22/25
Collection Date: 03/19/25 12:55
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	04/15/25 12:07 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/15/25 12:07 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/15/25 12:07 / apt
Radium 228	0.5	pCi/L	U			RA-05	04/18/25 14:48 / apt
Radium 228 precision (±)	0.5	pCi/L				RA-05	04/18/25 14:48 / apt
Radium 228 MDC	0.8	pCi/L				RA-05	04/18/25 14:48 / apt
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	04/21/25 13:10 / dmf
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	04/21/25 13:10 / dmf
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	04/21/25 13:10 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 81123
Lab ID: C25030529-002
Client Sample ID: 81123002, FB 2022

Report Date: 04/22/25
Collection Date: 03/19/25 12:42
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.04	pCi/L	U			E903.0	04/15/25 12:07 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/15/25 12:07 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/15/25 12:07 / apt
Radium 228	1.3	pCi/L				RA-05	04/18/25 14:48 / apt
Radium 228 precision (±)	0.7	pCi/L				RA-05	04/18/25 14:48 / apt
Radium 228 MDC	1.0	pCi/L				RA-05	04/18/25 14:48 / apt
Radium 226 + Radium 228	1.4	pCi/L				A7500-RA	04/21/25 13:10 / dmf
Radium 226 + Radium 228 precision (±)	0.8	pCi/L				A7500-RA	04/21/25 13:10 / dmf
Radium 226 + Radium 228 MDC	1.0	pCi/L				A7500-RA	04/21/25 13:10 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 81123
Lab ID: C25030529-003
Client Sample ID: 81123003, MW-211

Report Date: 04/22/25
Collection Date: 03/19/25 14:50
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	04/15/25 12:07 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/15/25 12:07 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/15/25 12:07 / apt
Radium 228	1.1	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 MDC	0.9	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 226 + Radium 228	1.2	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	04/16/25 13:27 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 81123
Lab ID: C25030529-004
Client Sample ID: 81123004, MW-212

Report Date: 04/22/25
Collection Date: 03/19/25 13:50
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	04/15/25 12:07 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/15/25 12:07 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/15/25 12:07 / apt
Radium 228	1.5	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 MDC	0.8	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 226 + Radium 228	1.6	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 MDC	0.8	pCi/L				A7500-RA	04/16/25 13:27 / dmf

Report Definitions:
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QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 81123
Lab ID: C25030529-005
Client Sample ID: 81123005, MW-213

Report Date: 04/22/25
Collection Date: 03/19/25 11:50
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	04/15/25 12:07 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/15/25 12:07 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/15/25 12:07 / apt
Radium 228	1.4	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 MDC	0.9	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 226 + Radium 228	1.4	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	04/16/25 13:27 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 81123
Lab ID: C25030529-006
Client Sample ID: 81123006, MW-214

Report Date: 04/22/25
Collection Date: 03/19/25 09:40
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.07	pCi/L	U			E903.0	04/15/25 12:07 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/15/25 12:07 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/15/25 12:07 / apt
Radium 228	1	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 MDC	0.8	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 226 + Radium 228	1.1	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	04/16/25 13:27 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25030529 **Report Date:** 04/21/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11630
Lab ID: LCS-RA226-11630	3	Laboratory Control Sample				Run: TENNELEC-4_250403E				04/15/25 12:07
Radium 226		9.2	pCi/L		92	70	130			
Radium 226 precision (±)		1.5	pCi/L							
Radium 226 MDC		0.19	pCi/L							
Lab ID: MB-RA226-11630	3	Method Blank				Run: TENNELEC-4_250403E				04/15/25 12:07
Radium 226		-0.02	pCi/L							U
Radium 226 precision (±)		0.08	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Lab ID: C25030529-006AMS	3	Sample Matrix Spike				Run: TENNELEC-4_250403E				04/15/25 14:19
Radium 226		8.6	pCi/L		85	70	130			
Radium 226 precision (±)		1.4	pCi/L							
Radium 226 MDC		0.14	pCi/L							
Lab ID: C25030529-006AMSD	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_250403E				04/15/25 14:19
Radium 226		8.9	pCi/L		88	70	130	3.2	30	
Radium 226 precision (±)		1.4	pCi/L							
Radium 226 MDC		0.14	pCi/L							

- The RER result is 0.14.

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25030529 **Report Date:** 04/21/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7615
Lab ID: MB-RA226-11630	3	Method Blank				Run: TENNELEC-4_250403C				04/10/25 12:06
Radium 228		1	pCi/L							
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		0.9	pCi/L							
Lab ID: LCS-228-RA226-11630	3	Laboratory Control Sample				Run: TENNELEC-4_250403C				04/10/25 12:06
Radium 228		7.6	pCi/L		80	70	130			
Radium 228 precision (±)		2.0	pCi/L							
Radium 228 MDC		0.91	pCi/L							
Lab ID: C25030529-006AMS4	3	Sample Matrix Spike				Run: TENNELEC-4_250403C				04/10/25 12:06
Radium 228		9.4	pCi/L		89	70	130			
Radium 228 precision (±)		2.4	pCi/L							
Radium 228 MDC		0.86	pCi/L							
Lab ID: C25030529-006AMSD4	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_250403C				04/10/25 12:06
Radium 228		8.5	pCi/L		79	70	130	10	30	
Radium 228 precision (±)		2.2	pCi/L							
Radium 228 MDC		0.84	pCi/L							
- The RER result is 0.27.										
Method: RA-05										Batch: RA228-7624
Lab ID: LCS-228-RA226-11639	3	Laboratory Control Sample				Run: TENNELEC-4_250415A				04/18/25 14:48
Radium 228		9.1	pCi/L		96	70	130			
Radium 228 precision (±)		2.4	pCi/L							
Radium 228 MDC		0.87	pCi/L							
Lab ID: MB-RA226-11639	3	Method Blank				Run: TENNELEC-4_250415A				04/18/25 14:48
Radium 228		0.6	pCi/L							U
Radium 228 precision (±)		0.7	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C25030529-002ADUP	3	Sample Duplicate				Run: TENNELEC-4_250415A				04/18/25 14:48
Radium 228		0.91	pCi/L					33	30	UR
Radium 228 precision (±)		0.74	pCi/L							
Radium 228 MDC		1.2	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.35.										

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Account #: 5109 **Client:** Great River Energy

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25030529

Login completed by: Lisa X. Quezada
Reviewed by: dsawyer
Reviewed Date: 3/25/2025
Date Received: 3/24/2025
Received by: LXQ
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	9.4°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature of the sample(s) in shipping container 1 was 8.0°C, shipping container 2 was 8.9°C, shipping container 4 was 7.3°C, shipping container 5 was 8.1°C, and shipping container 6 was 9.0°C. The temperature blank temperature

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Work Order Receipt Checklist - Continued

Minnesota Valley Testing Laboratories C25030529

in shipping container 3 was 9.4°C, shipping container 7 was 8.7°C, and shipping container 8 was 8.5°C. LXQ 03/24/25

The chain of custody indicates three containers for sample 81123002, FB 2022. Only one container was received. There is sufficient volume to proceed with analysis. LXQ 03/24/25

The chain of custody indicates one container for sample 81123006, MW-214. Three containers were received. There is sufficient volume to proceed with analysis. LXQ 03/24/25

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Current certificates are available at www.energylab.com website:

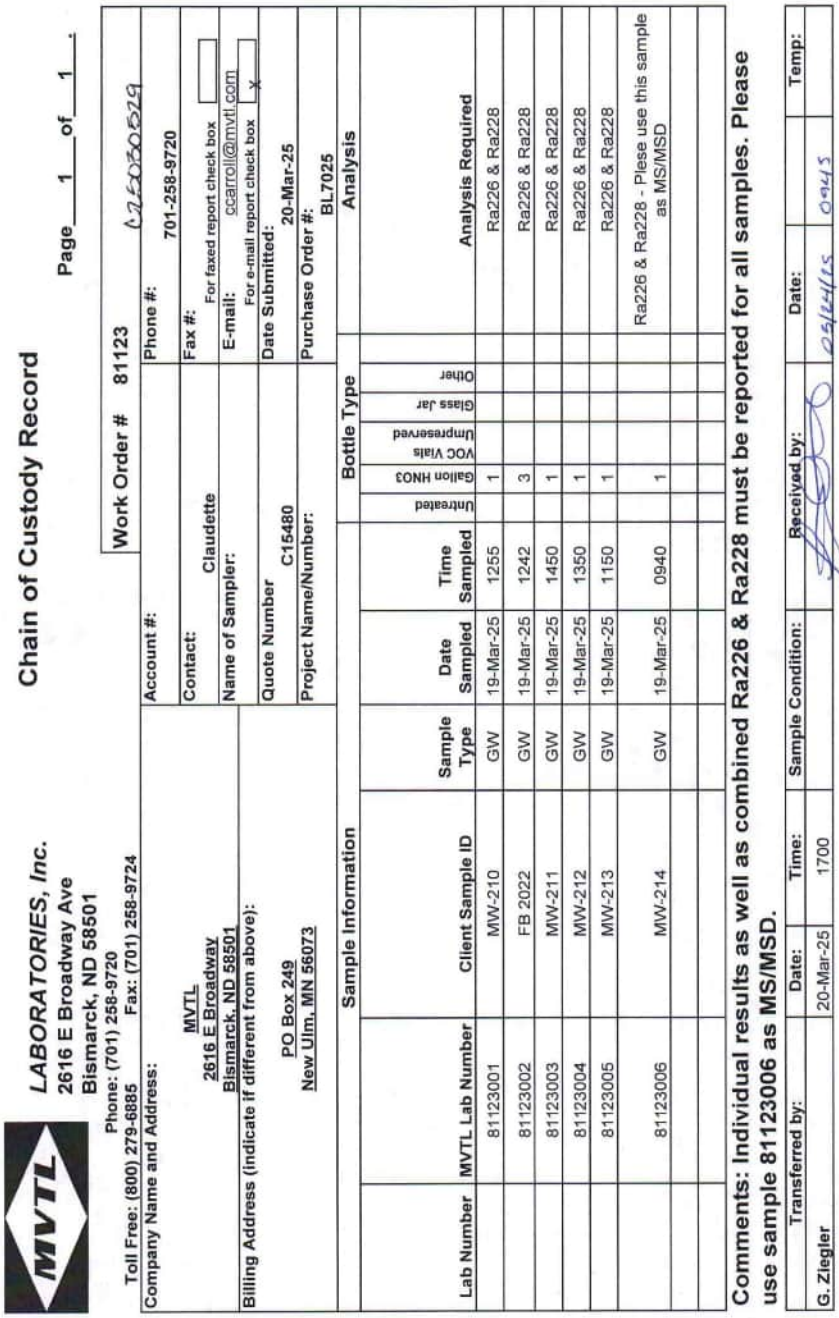
	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Chain of Custody Record

Page 1 of 1

Work Order # 81123 A25030529

Company Name and Address: MVTL 2616 E Broadway Bismarck, ND 58501
Account #:
Contact: Claudette
Name of Sampler:
Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box x
Billing Address (indicate if different from above): PO Box 249 New Ulm, MN 56073
Quote Number C15480
Project Name/Number:
Date Submitted: 20-Mar-25
Purchase Order #: BL7025

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Unpreserved	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	81123001	MW-210	GW	19-Mar-25	1255	1					Ra226 & Ra228
	81123002	FB 2022	GW	19-Mar-25	1242		3				Ra226 & Ra228
	81123003	MW-211	GW	19-Mar-25	1450		1				Ra226 & Ra228
	81123004	MW-212	GW	19-Mar-25	1350		1				Ra226 & Ra228
	81123005	MW-213	GW	19-Mar-25	1150		1				Ra226 & Ra228
	81123006	MW-214	GW	19-Mar-25	0940	1					Ra226 & Ra228 - Plese use this sample as MS/MSD

Sample Information | Analysis

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples. Please use sample 81123006 as MS/MSD.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
G. Ziegler	20-Mar-25	1700			25/03/25 0945	

Page 13 of 13

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Minnesota Valley Testing Laboratories
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Great River Energy
WO: 81123

Chain of Custody Record

Report To:	Great River Energy	CC: Golder Associates	Project Name: SS 2022 Wells
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: March 2025
Address:		Lakewood, CO 80228	Sampled By: Ethan Gress
Phone:			
Email:	CJohnston@GREnergy.com		

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric	Analysis Required
001	MW- 210	19Mar25	1255	GW				X	Radium 226 and 228 Combined
002	FB 2022	19Mar25	1242	GW				X	
—	MW- 2022	—	—	GW				X	
003	MW- 211	19Mar25	1450	GW				X	
004	MW- 212	19Mar25	1350	GW				X	
005	MW- 213	19Mar25	1150	GW				X	
006	MW- 214/MS/MSD	19Mar25	0940	GW				X	

Comments:

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	19Mar25 1635	Log In Walk In #2	7.3 °C/TM805 ROI Y/N		19mar25 1635
2					

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	210
Sampling Personal:	Ethan Gross

Weather Conditions: Temp: 25 °F Wind: W @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.95	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.95	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
19Mar25	1230	Start of Well Purge									
	1235	7.96	1618	7.81	0.31	-76.3	425.33	13.95	200.0	1.0	Turbid
	1240	8.52	1613	7.82	0.13	-93.2	465.81	13.95	200.0	1.0	Turbid
	1245	8.55	1610	7.83	0.09	-96.8	222.56	13.95	200.0	1.0	Turbid
	1250	8.58	1609	7.83	0.13	-92.0	136.69	13.95	200.0	1.0	ST
	1255	8.59	1612	7.83	0.12	-98.4	81.54	13.95	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
19Mar25	1255	8.59	1612	7.83	0.12	-98.4	81.54				Clear

Comments: FB 2022 collected hereon at 1242 Had to pull pump up

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	211
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 30 °F Wind: W @ 15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	19.73	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	19.39	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
19Mar25	1425	Start of Well Purge									
	1430	8.22	2551	8.01	0.24	108.9	117.16	19.36	260.0	1.0	ST
	1435	8.35	2559	8.04	0.11	51.3	111.06	19.36	200.0	1.0	ST
	1440	8.33	2538	8.05	0.17	50.7	99.75	19.34	200.0	1.0	Clear
	1445	8.30	2537	8.06	0.11	41.8	64.72	19.35	200.0	1.0	Clear
	1450	8.30	2542	8.07	0.17	45.3	43.91	19.37	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
19Mar25	1450	8.30	2542	8.07	0.17	45.3	43.91				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	212
Sampling Personal:	Ethan Greis

Weather Conditions: Temp: 25 °F Wind: W @ 15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	20.21	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	20.27	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
	1325	Start of Well Purge									
	1330	8.26	1839	8.19	0.15	6.7	120.62	20.20	200.0	1.0	ST
19Mar25	1335	8.35	1861	8.25	0.12	16.0	103.46	20.21	200.0	1.0	ST
	1340	8.20	1886	8.30	0.08	20.0	68.93	20.21	200.0	1.0	Clear
	1345	8.41	1889	8.33	0.11	18.5	36.27	20.20	200.0	1.0	Clear
	1350	8.37	1903	8.31	0.08	18.7	22.28	20.21	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.6 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
19Mar25	1350	8.37	1903	8.31	0.08	18.7	22.28				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company: GRE Stanton Station
Event: March 2025
Sample ID: 2|3
Sampling Personal: Ethan Greg

Weather Conditions: Temp: 25 °F Wind: W @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	17.19	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	17.20	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	3	Sec.
Recover:	27	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
	1125	Start of Well Purge									
19Mar25	1130	8.56	1524	7.86	0.32	-52.1	572.40	17.23	200.0	1.0	Turbid
	1135	8.81	1518	7.85	0.20	-83.6	402.91	17.20	200.0	1.0	Turbid
	1140	9.04	1520	7.85	0.16	-92.8	249.18	17.22	200.0	1.0	Turbid
	1145	8.98	1517	7.85	0.21	-91.1	163.39	17.22	200.0	1.0	Turbid
	1150	9.08	1518	7.85	0.16	-97.8	151.36	17.20	200.0	1.0	ST

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
19Mar25	1150	9.08	1518	7.85	0.16	-97.8	151.36				ST

Comments: Had to pull pump up due to check ball being stick

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	214/MS/MSD
Sampling Personal:	Ellen Gress

Weather Conditions: Temp: 25 °F Wind: NW @ 5-10 Precip: (Sunny / Partly Cloudy / Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	7.9	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	8.75	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
MS/MSD

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	0915	Start of Well Purge									
	0920	3.80	1940	7.78	0.48	142.7	85.65	8.75	200.0	1.0	Clear
	0925	3.69	1959	7.81	0.32	125.5	97.05	8.75	200.0	1.0	Clear
19Mar25	0930	3.57	1991	7.76	0.27	120.2	61.51	8.77	200.0	1.0	Clear
	0935	3.56	2011	7.76	0.21	116.2	55.06	8.80	200.0	1.0	Clear
	0940	3.57	2025	7.75	0.14	113.9	41.87	8.75	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: ~~95.0~~ Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
19Mar25	0940	3.57	2028	7.75	0.14	113.9	41.87				Clear

Comments:	

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MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	PB1
Sampling Personal:	JH

Weather Conditions: Temp: °F Wind: @ Precip: **Sunny / Partly Cloudy / Cloudy**

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	24.59	ft
Depth to Top of Pump:	25.19	ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	2	Sec.
Recover:	58	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	**Time**	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
18 Mar 24	1400	**Start of Well Purge**									clear, slightly turbid, turbid
	1405	6.58	1642	7.23	3.56	128.2	419.29	Below Pump	100.0	0.5	Slightly Turbid
		Purged Dry									

Well Stabilized? YES (NO) Total Volume Purged: _____ Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
—	—	—	—	—	—	—	—				—

Comments:	Insufficient recharge rate to sample well

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy
Workorder: SS 2023 Wells March 2025 (80944) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80944001 **Date Collected:** 03/18/2025 10:00 **Matrix:** Groundwater
Sample ID: MW-215 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.4 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2447**	umhos/cm	1	1		03/18/2025 10:00	
Method: 150.2							
pH - Field	**7.59**	units	0.01	1		03/18/2025 10:00	
Method: 170.1							
Temperature - Field C	**7.76**	degrees C		1		03/18/2025 10:00	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0434**	mg/L	0.02	1	03/19/2025 16:47	03/21/2025 10:17	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/19/2025 16:47	03/25/2025 13:43	
Arsenic	**0.0061**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 13:43	
Barium	**0.0598**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 13:43	
Beryllium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 13:43	
Cadmium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 13:43	
Chromium	**0.0032**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 13:43	
Cobalt	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 13:43	
Lead	**0.0011**	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 13:43	
Molybdenum	**0.0150**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 13:43	
Selenium	<0.005	mg/L	0.005	5	03/19/2025 16:47	03/25/2025 13:43	
Thallium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 13:43	
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		03/19/2025 14:09	*
Method: SM4500-F-C-2021							
Fluoride	**0.43**	mg/L	0.1	1		03/19/2025 14:09	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80944002 **Date Collected:** 03/18/2025 13:15 **Matrix:** Groundwater
Sample ID: MW-216 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.4 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2145**	umhos/cm	1	1		03/18/2025 13:15	
Method: 150.2							
pH - Field	**7.7**	units	0.01	1		03/18/2025 13:15	
Method: 170.1							
Temperature - Field C	**6.79**	degrees C		1		03/18/2025 13:15	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0487**	mg/L	0.02	1	03/19/2025 16:47	03/21/2025 10:18	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/19/2025 16:47	03/25/2025 13:48	
Arsenic	**0.0043**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 13:48	
Barium	**0.0492**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 13:48	
Beryllium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 13:48	
Cadmium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 13:48	
Chromium	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 13:48	
Cobalt	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 13:48	
Lead	**0.0005**	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 13:48	
Molybdenum	**0.0111**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 13:48	
Selenium	<0.005	mg/L	0.005	5	03/19/2025 16:47	03/25/2025 13:48	
Thallium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 13:48	
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		03/19/2025 14:15	*
Method: SM4500-F-C-2021							
Fluoride	**0.49**	mg/L	0.1	1		03/19/2025 14:15	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80944003 **Date Collected:** 03/18/2025 10:58 **Matrix:** Groundwater
Sample ID: MW-217 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.4 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2458**	umhos/cm	1	1		03/18/2025 10:58	
Method: 150.2							
pH - Field	**7.67**	units	0.01	1		03/18/2025 10:58	
Method: 170.1							
Temperature - Field C	**7.92**	degrees C		1		03/18/2025 10:58	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0464**	mg/L	0.02	1	03/19/2025 16:47	03/21/2025 10:20	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/19/2025 16:47	03/25/2025 14:26	
Arsenic	**0.0063**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:26	
Barium	**0.0485**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:26	
Beryllium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:26	
Cadmium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:26	
Chromium	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:26	
Cobalt	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:26	
Lead	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:26	
Molybdenum	**0.0140**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:26	
Selenium	<0.005	mg/L	0.005	5	03/19/2025 16:47	03/25/2025 14:26	
Thallium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:26	
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		03/19/2025 14:21	*
Method: SM4500-F-C-2021							
Fluoride	**0.55**	mg/L	0.1	1		03/19/2025 14:21	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80944004 **Date Collected:** 03/18/2025 12:20 **Matrix:** Groundwater
Sample ID: FB 2023 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.4 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	<0.02	mg/L	0.02	1	03/19/2025 16:47	03/21/2025 10:20	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/19/2025 16:47	03/25/2025 14:31	
Arsenic	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:31	
Barium	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:31	
Beryllium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:31	
Cadmium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:31	
Chromium	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:31	
Cobalt	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:31	
Lead	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:31	
Molybdenum	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:31	
Selenium	<0.005	mg/L	0.005	5	03/19/2025 16:47	03/25/2025 14:31	
Thallium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:31	
Method: SM4500 H+ B-2021							
pH	**6.5**	units	0.1	1		03/19/2025 14:27	*
Method: SM4500-F-C-2021							
Fluoride	<0.1	mg/L	0.1	1		03/19/2025 14:27	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80944005 **Date Collected:** 03/18/2025 12:15 **Matrix:** Groundwater
Sample ID: MW-218 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.4 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2163**	umhos/cm	1	1		03/18/2025 12:15	
Method: 150.2							
pH - Field	**7.69**	units	0.01	1		03/18/2025 12:15	
Method: 170.1							
Temperature - Field C	**7.88**	degrees C		1		03/18/2025 12:15	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0479**	mg/L	0.02	1	03/19/2025 16:47	03/21/2025 10:21	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/19/2025 16:47	03/25/2025 14:36	
Arsenic	**0.0026**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:36	
Barium	**0.0647**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:36	
Beryllium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:36	
Cadmium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:36	
Chromium	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:36	
Cobalt	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:36	
Lead	**0.0005**	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:36	
Molybdenum	**0.0115**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:36	
Selenium	<0.005	mg/L	0.005	5	03/19/2025 16:47	03/25/2025 14:36	
Thallium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:36	
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		03/19/2025 14:33	*
Method: SM4500-F-C-2021							
Fluoride	**0.55**	mg/L	0.1	1		03/19/2025 14:33	

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80944006 **Date Collected:** 03/18/2025 10:48 **Matrix:** Groundwater
Sample ID: MW-219 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.4 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**3643**	umhos/cm	1	1		03/18/2025 10:48	
Method: 150.2							
pH - Field	**7.2**	units	0.01	1		03/18/2025 10:48	
Method: 170.1							
Temperature - Field C	**8.5**	degrees C		1		03/18/2025 10:48	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0394**	mg/L	0.02	1	03/19/2025 16:47	03/21/2025 10:21	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/19/2025 16:47	03/25/2025 14:41	
Arsenic	**0.0225**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:41	
Barium	**0.1931**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:41	
Beryllium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:41	
Cadmium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:41	
Chromium	**0.0143**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:41	
Cobalt	**0.0096**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:41	
Lead	**0.0077**	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:41	
Molybdenum	**0.0133**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:41	
Selenium	<0.005	mg/L	0.005	5	03/19/2025 16:47	03/25/2025 14:41	
Thallium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:41	
Method: SM4500 H+ B-2021							
pH	**7.4**	units	0.1	1		03/19/2025 14:39	*
Method: SM4500-F-C-2021							
Fluoride	**0.16**	mg/L	0.1	1		03/19/2025 14:39	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80944007 **Date Collected:** 03/18/2025 14:15 **Matrix:** Groundwater
Sample ID: MW-220 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.4 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2102**	umhos/cm	1	1		03/18/2025 14:15	
Method: 150.2							
pH - Field	**7.64**	units	0.01	1		03/18/2025 14:15	
Method: 170.1							
Temperature - Field C	**6.36**	degrees C		1		03/18/2025 14:15	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0497**	mg/L	0.02	1	03/19/2025 16:47	03/21/2025 10:23	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/19/2025 16:47	03/25/2025 14:46	
Arsenic	**0.0041**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:46	
Barium	**0.0749**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:46	
Beryllium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:46	
Cadmium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:46	
Chromium	**0.0057**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:46	
Cobalt	**0.0023**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:46	
Lead	**0.0016**	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:46	
Molybdenum	**0.0114**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:46	
Selenium	<0.005	mg/L	0.005	5	03/19/2025 16:47	03/25/2025 14:46	
Thallium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:46	
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		03/19/2025 14:44	*
Method: SM4500-F-C-2021							
Fluoride	**0.55**	mg/L	0.1	1		03/19/2025 14:44	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80944008 **Date Collected:** 03/18/2025 10:58 **Matrix:** Groundwater
Sample ID: DUP 2023 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.4 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0461**	mg/L	0.02	1	03/19/2025 16:47	03/21/2025 10:24	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/19/2025 16:47	03/25/2025 14:51	
Arsenic	**0.0058**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:51	
Barium	**0.0491**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:51	
Beryllium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:51	
Cadmium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:51	
Chromium	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:51	
Cobalt	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:51	
Lead	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:51	
Molybdenum	**0.0138**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:51	
Selenium	<0.005	mg/L	0.005	5	03/19/2025 16:47	03/25/2025 14:51	
Thallium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:51	
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		03/20/2025 15:41	*
Method: SM4500-F-C-2021							
Fluoride	**0.62**	mg/L	0.1	1		03/20/2025 15:41	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80944009 **Date Collected:** 03/18/2025 15:27 **Matrix:** Groundwater
Sample ID: MW-221 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.4 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2220**	umhos/cm	1	1		03/18/2025 15:27	
Method: 150.2							
pH - Field	**7.62**	units	0.01	1		03/18/2025 15:27	
Method: 170.1							
Temperature - Field C	**7.86**	degrees C		1		03/18/2025 15:27	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0410**	mg/L	0.02	1	03/19/2025 16:47	03/21/2025 10:25	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/19/2025 16:47	03/25/2025 14:57	
Arsenic	**0.0149**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:57	
Barium	**0.0421**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:57	
Beryllium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:57	
Cadmium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:57	
Chromium	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:57	
Cobalt	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:57	
Lead	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:57	
Molybdenum	**0.0259**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 14:57	
Selenium	<0.005	mg/L	0.005	5	03/19/2025 16:47	03/25/2025 14:57	
Thallium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 14:57	
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		03/20/2025 15:47	*
Method: SM4500-F-C-2021							
Fluoride	**0.48**	mg/L	0.1	1		03/20/2025 15:47	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80944010 **Date Collected:** 03/18/2025 08:50 **Matrix:** Groundwater
Sample ID: MW-222 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.4 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2252**	umhos/cm	1	1		03/18/2025 08:50	
Method: 150.2							
pH - Field	**7.68**	units	0.01	1		03/18/2025 08:50	
Method: 170.1							
Temperature - Field C	**7.74**	degrees C		1		03/18/2025 08:50	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	<0.02	mg/L	0.02	1	03/19/2025 16:47	03/21/2025 10:25	
Method: EPA 6020B							
Antimony	**0.0011**	mg/L	0.001	5	03/19/2025 16:47	03/25/2025 15:48	
Arsenic	**0.0135**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 15:48	
Barium	**0.0963**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 15:48	
Beryllium	**0.0009**	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 15:48	
Cadmium	**0.0007**	mg/L	0.0005	5	03/19/2025 16:47	03/26/2025 14:00	
Chromium	**0.0093**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 15:48	
Cobalt	**0.0134**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 15:48	
Lead	**0.0053**	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 15:48	
Molybdenum	**0.4663**	mg/L	0.004	10	03/19/2025 16:47	03/25/2025 16:18	
Selenium	**0.0076**	mg/L	0.005	5	03/19/2025 16:47	03/25/2025 15:48	
Thallium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 15:48	
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		03/20/2025 15:53	*
Method: SM4500-F-C-2021							
Fluoride	**1.33**	mg/L	0.1	1		03/20/2025 15:53	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 80944

Aluminum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	99.6		85	115		
LFB-OE			0.4	102.0		85	115		
MB		<0.1							
MB		<0.1							
PDS/PDSD	80944002		2	90.9	94.1	75	125	2.6	20
PDS/PDSD	80946001		2	106.0	105.0	75	125	0.3	20
PDS/PDSD	81122006		1	94.8	90.3	75	125	2.3	20
PDS/PDSD	81242001		1	93.5	93.5	75	125	0.0	20

Aluminum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.4	99.0		85	115		
LFB-OE			0.4	102.0		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	80790001		0.4	104.0	104.0	75	125	0.3	20
SPK/SPKD	80946001		0.4	97.3	99.5	75	125	1.8	20
SPK/SPKD	80946001		2	96.6	96.8	75	125	0.2	20

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	108.0		85	115		
LFB-OE			0.4	109.0		85	115		
MB		<0.1							
MB		<0.1							
PDS/PDSD	80944002		2	79.3	76.3	75	125	1.1	20
PDS/PDSD	80946001		2	89.3	89.1	75	125	0.1	20
PDS/PDSD	81122006		1	86.0	87.6	75	125	0.9	20

Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							

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Account #: 5109 **Client:** Great River Energy

Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	108.0		85	115		
LFB-OE			0.4	109.0		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	80790001		0.4	79.2	75.6	75	125	1.1	20
SPK/SPKD	80946001		2	90.6	86.4	75	125	2.2	20

Lithium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	109.0		85	115		
LFB-OE			0.4	110.0		85	115		
MB		<0.04							
MB		<0.04							
MS/MSD	80944002		0.4	98.7	98.3	70	130	0.4	20

Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	109.0		85	115		
LFB-OE			0.4	110.0		85	115		
MB		<0.04							
MB		<0.04							
SPK/SPKD	80790001		0.4	89.8	89.3	75	125	0.5	20
SPK/SPKD	81122001		0.4	91.1	87.7	75	125	3.9	20
SPK/SPKD	81122005		0.4	89.0	92.0	75	125	3.0	20

Manganese — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	106.0		85	115		
LFB-OE			0.4	108.0		85	115		
MB		<0.05							
MB		<0.05							
MS/MSD	80944002		0.4	91.3	92.7	70	130	0.7	20
PDS/PDSD	80944002		2	87.0	85.8	75	125	1.3	20
PDS/PDSD	80946001		2	90.0	90.2	75	125	0.2	20

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Manganese				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	81122006		1	89.9	91.1	75	125	1.2	20

Manganese, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.05							
LFB-DF			0.4	106.0		85	115		
LFB-DF			0.4	108.0		85	115		
MB		<0.05							
MB		<0.05							
SPK/SPKD	80790001		0.4	89.7	87.9	75	125	1.5	20
SPK/SPKD	80946001		2	84.5	85.4	75	125	0.6	20

Antimony				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	95.2		80	120		
LFB-MS			0.1	98.9		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.001							
MB		<0.001							
MB		<0.001							
MB		<0.001							
MS/MSD	80944001		0.4	108.0	108.0	75	125	0.5	20

Antimony, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	95.2		80	120		
LFB-MS			0.1	98.9		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.001							
MB		<0.001							
MB		<0.001							
MB		<0.001							

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Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	80944002		0.4	108.0	108.0	75	125	0.5	20
SPK/SPKD	80946001		0.1	103.0	103.0	75	125	0.3	20

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
SPK	80619001		2	106.0		75	125		
SPK	80619001		2.5	107.0		75	125		
SPK	80678001		2	98.4		75	125		
MS/MSD	80944002		0.4	106.0	105.0	75	125	0.5	20

Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80944002		0.4	106.0	105.0	75	125	0.5	20
SPK/SPKD	80946001		0.1	107.0	106.0	75	125	0.7	20

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		

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Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	100.0		80	120		
LFB-MS			0.1	104.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80944002		0.4	106.0	106.0	75	125	0.4	20

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	100.0		80	120		
LFB-MS			0.1	104.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80944002		0.4	106.0	106.0	75	125	0.4	20
SPK/SPKD	80946001		0.1	104.0	103.0	75	125	0.6	20

Beryllium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	99.5		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	80944002		0.4	103.0	103.0	75	125	0.5	20

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Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	99.5		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	80944003		0.4	103.0	103.0	75	125	0.5	20
SPK/SPKD	80946001		0.1	100.0	96.7	75	125	3.6	20

Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	96.5		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	99.2		80	120		
LFB-MS			0.1	98.9		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	80944002		0.4	104.0	104.0	75	125	0.2	20

Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	96.5		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	99.2		80	120		
LFB-MS			0.1	98.9		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							

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Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	80944002		0.4	104.0	104.0	75	125	0.2	20
SPK/SPKD	80946001		0.1	96.9	97.1	75	125	0.2	20

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	111.0		80	120		
LFB-MS			0.1	109.0		80	120		
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80944002		0.4	103.0	103.0	75	125	0.7	20

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	111.0		80	120		
LFB-MS			0.1	109.0		80	120		
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80944002		0.4	103.0	103.0	75	125	0.7	20
SPK/SPKD	80946001		0.1	100.0	101.0	75	125	1.0	20

Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	110.0		80	120		
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	102.0		80	120		

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Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80944002		0.4	102.0	100.0	75	125	1.7	20

Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	110.0		80	120		
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80944002		0.4	102.0	100.0	75	125	1.7	20
SPK/SPKD	80946001		0.1	100.0	101.0	75	125	0.5	20

Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	108.0		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	80944002		0.4	106.0	106.0	75	125	0.5	20

Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		

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Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	108.0		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	80944002		0.4	106.0	106.0	75	125	0.5	20
SPK/SPKD	80946001		0.1	99.0	99.3	75	125	0.1	20

Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80944002		0.4	102.0	101.0	75	125	1.0	20

Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80944002		0.4	102.0	101.0	75	125	1.0	20

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Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	80946001		0.1	103.0	105.0	75	125	1.5	20

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	99.8		80	120		
MB		<0.005							
MB		<0.005							
MB		<0.005							
MB		<0.005							
SPK	80619001		2	93.8		75	125		
SPK	80619001		2.5	96.1		75	125		
SPK	80678001		2	99.7		75	125		
MS/MSD	80944002		0.4	105.0	108.0	75	125	3.1	20

Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	99.8		80	120		
MB		<0.005							
MB		<0.005							
MB		<0.005							
MB		<0.005							
MS/MSD	80944002		0.4	105.0	108.0	75	125	3.1	20
SPK/SPKD	80946001		0.1	105.0	106.0	75	125	1.8	20

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	106.0		80	120		

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Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	109.0		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	80944002		0.4	104.0	98.0	75	125	5.7	20

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	109.0		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	80944002		0.4	104.0	98.0	75	125	5.7	20
SPK/SPKD	80946001		0.1	97.4	97.6	75	125	0.2	20

Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	106.0		85	115		
LFB			0.002	106.0		85	115		
LRB		<0.0002							
MB		<0.0002							
MS/MSD	80944009		0.002	96.6	101.0	70	130	5.1	20
MS/MSD	80946001		0.002	105.0	104.0	70	130	0.0	20
MS/MSD	81122006		0.002	110.0	107.0	70	130	4.7	20
MS/MSD	81243004		0.002	92.5	91.8	70	130	0.0	20

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pH Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	100.0					
CRM-PH			6	100.2					
CRM-PH			6	100.0					
CRM-PH			6	100.2					
CRM-PH			6	99.8					
CRM-PH			6	99.7					
CRM-PH			6	99.8					
DUP	80791007							0.9	20
DUP	80942001							1.5	20
DUP	80946001							1.5	20
DUP	81122006							1.1	20
DUP	81215003							0.0	20

Fluoride Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			0.64	95.3		83.99	111.11		
CRM-F			0.64	100.0		83.99	111.11		
LFB-F			0.5	94.0		90	110		
LFB-F			0.5	92.0		90	110		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	108.0		90	110		
LFB-F			0.5	100.0		90	110		
LFB-F			0.5	102.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							

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Account #: 5109 **Client:** Great River Energy

Fluoride Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD-F	80790001		0.5	148.0	130.0	80	120	6.8	20
MS/MSD-F	80944004		0.5	94.0	94.0	80	120	0.0	20
MS/MSD-F	80946001		0.5	98.0	98.0	80	120	0.0	20
MS/MSD-F	81122006		0.5	98.0	112.0	80	120	7.0	20
MS/MSD-F	81131004		0.5	100.0	104.0	80	120	2.5	20

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Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 80944

Chain of Custody Record

Report To: Great River Energy
Attn: Cassie Johnston
Address:
Phone:
Email: CJohnston@GREnergy.com

CC: Golder Associates
44 Union Blvd, Suite 300
Lakewood, CO 80228

Project Name: SS 2023 Wells
Event: March 2025
Sampled By: Ethan Gress

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric	Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 215	18 Mar 25	1060	GW	X	X	X		7.76	2447	7.59	160.32	App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radio Chem, Dissolved and Total for Remainder of Metals.) (See Attachments)
002	MW- 216	18 Mar 25	1315	GW	X	X	X		6.79	2145	7.70	54.94	
003	MW- 217	18 Mar 25	1058	GW	X	X	X		7.92	2458	7.67	62.01	
004	FB 2023	18 Mar 25	1220	GW	X	X	X		NA	NA	NA	NA	
005	MW- 218	18 Mar 25	1215	GW	X	X	X		7.88	2163	7.69	46.95	
006	MW- 219	18 Mar 25	1048	GW	X	X	X		8.50	3643	7.20	449.72	
007	MW- 220	18 Mar 25	1415	GW	X	X	X		6.36	2102	7.64	347.35	
008	DUP 2023	18 Mar 25	1058	GW	X	X	X		7.92	2498	7.67	62.01	
009	MW- 221	18 Mar 25	1527	GW	X	X	X		7.86	2220	7.62	19.81	
010	MW- 222	18 Mar 25	0850	GW	X	X	X		7.74	2252	7.68	19.79	

Comments:

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		18Mar25 1728	Log In Walk In #2	3.4 °C/TM 805 ROI Y/N		19Mar25 0944
2						

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February 2025 GREAT RIVER ENERGY - STANTON STATION GL21509219.000
DRAFT - SUBJECT TO CHANGE

Table 1: Proposed 2025 Stanton Station Plant Facilities Schedule for Budgetary Estimation

Location	Well ID		2025				
			Q1 - Feb	Q1 - Mar	Q2 - Jun	Q3 - Sep	Q4 - Nov
Upgradient/Side-gradient	MW-6B	1		App IV, Iron, Aluminum, Manganese (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)		App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)
	MW-7A	1	TDS and Field Parameters				
	MW-7B	1					
	MW-8B	1				TDS and Field Parameters	
	MW-10S	1					
Bottom Ash Landfill	MW-9N	1					
	MW-102	1					
	MW-103	1					
Property Boundary	MW-PB1	1					
Wells Installed in May 2022	MW-210	1					
	MW-211	1					
	MW-212	1					
	MW-213	1					
	MW-214	1					
Piezometers [1]	PZ-BA-A	1					
	PZ-BA-B	1					
Sumps [2]	BAI-Sump-S	1					
Surface Water [3]	Missouri-River	1					
	Rail-Drainage	1					
Internal - Prior Bottom Ash Impoundment Downgradient	MW-1R	1					
	MW-104	1					
Bottom Ash Impoundment	MW-201	1				TDS and Field Parameters	
	MW-202	1	Boron, Sulfate, and Field Parameters				
	MW-203	1					
Closed Landfill	MW-10	1					
	MW-204	1					
	MW-205	1					
Additional Internal Locations	MW-4	1					
	MW-PB2	1					
Wells Installed in February 2023	MW-215	1					
	MW-216	1					
	MW-217	1					
	MW-218	1					
	MW-219	1					
	MW-220	1					
	MW-221	1					
	MW-222	1					
	MW-300	1					
	MW-301	1					
	MW-PB3	1					
Proposed Additional Wells for Installation in Q2 2025	TBD	1			App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
Proposed Additional Wells for Installation in Q1 2026	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
Total # of Sample Locations			2	40	53	15	53

Notes:
Suggested locations for collection of QA/QC samples in 2025 are listed in Table 2.
App III - Appendix III Detection Monitoring List, Table 5
App IV - Appendix IV Assessment Monitoring List, Table 6
Additional List - Table 7
Required field parameters are listed in Table 5 and Table 6
1. The piezometers do not have dedicated pumps and will need to be sampled by other methods.
2. The sump should be sampled using surface water collection methods via the sump riser.
3. Surface water samples to be collected only if safely accessible and free water is present.

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February 2025 GREAT RIVER ENERGY - STANTON STATION GL21509219.000
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Table 2: 2025 Proposed Quality Assurance/Quality Control Sample Collection Locations for Budget Estimation

Location	Well ID	Q1 - Feb	Q1 - Mar	Q2 - Jun	Q3 - Sep	Q4 - Nov
Upgradient/Side-gradient	MW-6B		Field Blank			
	MW-7A					
	MW-7B		Duplicate			MS/MSD
	MW-8B			Duplicate		
	MW-105					
Bottom Ash Landfill	MW-9N					Duplicate
	MW-102			Field Blank		
	MW-103		Duplicate			
Property Boundary	MW-PB1					
Wells Installed in May 2022	MW-210		Field Blank			Duplicate
	MW-211			MS/MSD		
	MW-212					Field Blank
	MW-213			Duplicate		
	MW-214		MS/MSD			
Piezometers [1]	PZ-BA-A					
	PZ-BA-9					Field Blank
Sumps [2]	BAI-Sump-S					
Surface Water [3]	Missouri-River					
	Rail-Drainage					
Internal - Prior Bottom Ash Impoundment Downgradient	MW-1R			Duplicate		
	MW-104					MS/MSD
Bottom Ash Impoundment	MW-201			Field Blank		
	MW-202					
	MW-203					
Closed Landfill	MW-10		Duplicate			
	MW-204					
	MW-205					Duplicate
Additional Internal Locations	MW-4					
	MW-PB2					
Wells Installed in February 2023	MW-215			Field Blank		
	MW-216					
	MW-217		Field Blank			Duplicate
	MW-218			MS/MSD		
	MW-219					
	MW-220		Duplicate			Field Blank
	MW-221					
	MW-222					
	MW-300		MS/MSD			
	MW-301			Duplicate		
	MW-PB3					
Proposed Additional Wells for Installation in Q2 2025	TBD				Duplicate	
	TBD				MS/MSD	
	TBD					Field Blank
	TBD					
	TBD					
	TBD					
	TBD			Duplicate		
	TBD				Field Blank	
	TBD					
	TBD					Duplicate
	TBD				Duplicate	
	TBD			Field Blank		
Proposed Additional Wells for Installation in Q1 2026	TBD					
	TBD					
	TBD					
	TBD					
	TBD					
	TBD					
Total # of Sample Locations		2	40	53	15	53
Total # of QC Samples		0	9	11	4	11

Notes:
Locations to collect samples are **suggestions only** to help with the distribution of QA/QC samples across the site and between facilities while meeting QA/QC objectives for the sampling programs.
Notes for QA/QC
Duplicates = 10-15% of primary collected sample
Field Blanks = approximately 1 per sampling day.
Equipment Blanks - only needed for non-dedicated equipement.
MS/MSD = 1 per approximately 20 primary collected samples.

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Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

+ Iron, Aluminum, Manganese,
- Total only for Mercury & Radiochem
- Dissolved & Total for remainder of Metals

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	215
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.20	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.25	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
18 Mar 24	0925	Start of Well Purge									
	0930	7.13	2451	7.62	0.14	-54.7	466.65	13.28	200.0	1.0	Turbid
	0935	7.43	2450	7.63	0.19	-58.1	408.71	13.38	200.0	1.0	Turbid
	0940	7.48	2450	7.60	0.18	-60.4	457.73	13.40	200.0	1.0	Turbid
	0945	7.51	2450	7.58	0.16	-63.2	374.45	13.35	200.0	1.0	Turbid
	0950	7.62	2449	7.58	0.12	-65.7	262.58	13.38	200.0	1.0	Turbid
	0955	7.68	2449	7.58	0.09	-72.1	261.42	13.40	200.0	1.0	Turbid
	1000	7.76	2447	7.59	0.07	-77.9	160.32	13.35	200.0	1.0	ST

Well Stabilized? (YES) NO Total Volume Purged: 7.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
18 Mar 24	1000	7.76	2447	7.59	0.07	-77.9	160.32				ST

Comments:

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	216
Sampling Personal:	

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.85	ft
Depth to Top of Pump:		ft
Water Level After Sample:	13.90	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: -	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
18Mar25	1250	Start of Well Purge									
	1255	5.93	1796	7.67	2.11	-5.3	109.35	13.88	200.0	1.0	Clear
	1300	6.40	1929	7.69	0.57	-46.8	75.55	13.90	200.0	1.0	Clear
	1305	6.65	2139	7.69	0.55	-55.4	57.33	13.92	200.0	1.0	Clear
	1310	6.86	2149	7.69	0.67	-58.3	51.77	13.94	200.0	1.0	Clear
	1315	6.79	2145	7.70	0.48	-66.1	54.94	13.96	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
18Mar25	1315	6.79	2145	7.70	0.48	-66.1	54.94				Clear

Comments:	

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	217
Sampling Personal:	Ethan Groers

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.55	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	11.58	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES NO
Duplicate Sample ID:
Dup 2023

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	1033	Start of Well Purge									
	1038	7.61	2470	7.67	0.42	-64.9	1,264.4	11.63	200.0	1.0	Turbid
18 Mar 25	1043	7.80	2461	7.67	0.21	-77.2	704.6	11.60	200.0	1.0	ST
	1048	7.86	2458	7.68	0.23	-77.6	176.58	11.62	200.0	1.0	ST
	1053	7.84	2455	7.67	0.23	-77.9	107.96	11.60	200.0	1.0	ST
	1058	7.92	2458	7.67	0.26	-78.0	62.01	11.60	200.0	1.0	ST

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
18 Mar 25	1058	7.92	2458	7.67	0.26	-78.0	62.01				ST

Comments:

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Account #: 5109 **Client:** Great River Energy

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	218
Sampling Personal:	Gross

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.36	ft
Depth to Top of Pump:		ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:
1 Liter Raw — 1 Gal Nitric
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
———

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
18Mar25	1150	Start of Well Purge									
	1155	7.64	2164	7.70	0.18	-88.7	85.08	12.40	200.0	1.0	SI
	1200	7.74	2161	7.69	0.12	-93.8	79.08	12.41	200.0	1.0	Clear
	1205	7.88	2161	7.69	0.07	-98.10	77.93	12.40	200.0	1.0	Clear
	1210	7.94	2169	~~7.69~~	0.07	-96.8	57.59	12.41	200.0	1.0	Clear
	1215	7.88	2163	7.69	0.09	-101.1	46.95	12.41	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
18Mar25	1215	7.88	2163	7.69	0.09	-101.1	46.95				Clear

Comments:	FB2023 was collected here at 1220

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	219
Sampling Personal:	

Weather Conditions: Temp: 20 °F Wind: E @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	15.21	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	15.95	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	3	Sec.
Recover:	27	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
18 Mar 25	1018	Start of Well Purge									
	1023	8.23	3776	7.40	0.37	-4.7	696.96	15.95	200.0	1.0	Slightly Turbid (ST)
	1028	8.18	3785	7.32	0.11	-33.1	557.90	15.95	200.0	1.0	ST
	1033	8.35	3695	7.27	0.08	-38.7	555.99	15.95	200.0	1.0	ST
	1038	8.37	3574	7.24	0.07	-40.2	561.20	15.95	200.0	1.0	ST
	1043	8.45	3586	7.21	0.07	-39.7	445.73	15.95	200.0	1.0	ST
	1048	8.50	3643	7.20	0.07	-39.0	449.72	15.95	200.0	1.0	ST

Well Stabilized? (YES) NO Total Volume Purged: 6.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
18 Mar 25	1048	8.50	3643	7.20	0.07	-39.0	449.72				ST

Comments: Check ball on pump stuck. Removed pump to free check ball. Reinstalled pump

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Account #: 5109 **Client:** Great River Energy

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	220
Sampling Personal:	Ethan Cotes

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.35	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.35	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
18Mar25	1350	Start of Well Purge									
	1355	6.95	2063	7.70	1.13	-26.6	149.0	13.40	200.0	1.0	Clear
	1400	6.73	2085	7.64	0.40	19.2	278.85	13.42	200.0	1.0	ST
	1405	8.33	2081	7.63	0.29	51.8	331.42	13.38	200.0	1.0	Turbid
	1410	6.54	2098	7.63	0.37	61.0	340.10	13.40	200.0	1.0	Turbid
	1415	6.36	2102	7.64	0.42	66.3	347.35	13.42	200.0	1.0	Turbid
	~~1418~~										

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
18Mar25	1415	6.36	2102	7.64	0.42	66.3	347.35				Turbid

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	221
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 38 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	15.87	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:
1 Liter Raw — 1 Gal Nitric
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	1457	Start of Well Purge									
	1502	7.86	2204	7.61	0.16	-52.9	317.50	15.85	200.0	1.0	Turbid
18 Mar25	1507	7.84	2207	7.61	0.13	-56.1	183.80	15.87	200.0	1.0	ST
	1512	7.84	2211	7.61	0.10	-65.3	212.11	15.85	200.0	1.0	ST
	1517	8.05	2213	7.62	0.13	-71.3	114.31	15.87	200.0	1.0	ST
	1522	7.71	2211	7.62	0.18	-80.5	72.50	15.85	200.0	1.0	Clear
	1527	7.86	2220	7.62	0.15	-85.3	49.61	15.87	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 6.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
18 Mar25	1527	7.86	2220	7.62	0.15	-85.3	49.61				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company: GRE Stanton Station
Event: March 2025
Sample ID: ~~225~~ / 222
Sampling Personal: JJ / KK

Weather Conditions: Temp: 20 °F Wind: E @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	32.27	ft
Depth to Top of Pump:	34.15	ft
Water Level After Sample:	Below Pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
18 Mar 25	0820	Start of Well Purge									
	0830	7.28	1964	7.75	2.72	92.5	20.55	33.36	200.0	2.0	Clear Brown
	0835	7.50	2372	7.76	1.72	102.7	19.83	35.28	200.0	1.0	Clear Brown
	0840	7.66	2249	7.72	1.63	95.5	20.61	37.30	200.0	1.0	Clear Brown
	0845	7.65	2255	7.76	2.16	92.9	22.51	39.85	200.0	1.0	Clear Brown
	0850	7.74	2252	7.68	1.47	84.9	19.79	Below Pump	200.0	1.0	Clear Brown

Well Stabilized? (YES) NO Total Volume Purged: 6.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
18 Mar 25	0850	7.74	2252	7.68	1.47	84.9	19.79				Clear Brown

Comments: Sampled @ 100mL/min

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Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 19 Mar 25 Time: 0910 Analyst: PW

Work Order #: 80944

Containers Supplied by MVTL: [X] Yes [ ] No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
10	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
10	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
10	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: SS 2023 Wells March 2025 (80949) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Report Date: Thursday, April 24, 2025 5:11:13 PM **Corrected 80949 - 4145767**

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80949001 **Date Collected:** 03/18/2025 10:00 **Matrix:** Groundwater
Sample ID: MW-215 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.4

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:27	
Radium 228	See Attached			1		04/24/2025 16:27	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80949002 **Date Collected:** 03/18/2025 13:15 **Matrix:** Groundwater
Sample ID: MW-216 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.4

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:27	
Radium 228	See Attached			1		04/24/2025 16:27	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80949003 **Date Collected:** 03/18/2025 10:58 **Matrix:** Groundwater
Sample ID: MW-217 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.4

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:27	
Radium 228	See Attached			1		04/24/2025 16:27	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80949004 **Date Collected:** 03/18/2025 12:20 **Matrix:** Groundwater
Sample ID: FB 2023 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.4

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:27	
Radium 228	See Attached			1		04/24/2025 16:27	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80949005 **Date Collected:** 03/18/2025 12:15 **Matrix:** Groundwater
Sample ID: MW-218 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.4

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:27	
Radium 228	See Attached			1		04/24/2025 16:27	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80949006 **Date Collected:** 03/18/2025 10:48 **Matrix:** Groundwater
Sample ID: MW-219 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.4

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:27	
Radium 228	See Attached			1		04/24/2025 16:27	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80949007 **Date Collected:** 03/18/2025 14:15 **Matrix:** Groundwater
Sample ID: MW-220 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.4

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:27	
Radium 228	See Attached			1		04/24/2025 16:27	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80949008 **Date Collected:** 03/18/2025 10:58 **Matrix:** Groundwater
Sample ID: DUP 2023 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.4

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:27	
Radium 228	See Attached			1		04/24/2025 16:27	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80949009 **Date Collected:** 03/18/2025 15:27 **Matrix:** Groundwater
Sample ID: MW-221 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.4

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:27	
Radium 228	See Attached			1		04/24/2025 16:27	

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Analytical Results

Lab ID: 80949010 **Date Collected:** 03/18/2025 08:50 **Matrix:** Groundwater
Sample ID: MW-222 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.4

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:27	
Radium 228	See Attached			1		04/24/2025 16:27	

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ANALYTICAL SUMMARY REPORT

April 22, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25030530 Quote ID: C15480
Project Name: 80949

Energy Laboratories, Inc. Casper WY received the following 10 samples for Minnesota Valley Testing Laboratories on 3/24/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25030530-001	80949001, MW-215	03/18/25 10:00	03/24/25	Aqueous	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25030530-002	80949002, MW-216	03/18/25 13:15	03/24/25	Aqueous	Same As Above
C25030530-003	80949003, MW-217	03/18/25 10:58	03/24/25	Aqueous	Same As Above
C25030530-004	80949004, FB 2023	03/18/25 12:20	03/24/25	Aqueous	Same As Above
C25030530-005	80949005, MW-218	03/18/25 12:15	03/24/25	Aqueous	Same As Above
C25030530-006	80949006, MW-219	03/18/25 10:48	03/24/25	Aqueous	Same As Above
C25030530-007	80949007, MW-220	03/18/25 14:15	03/24/25	Aqueous	Same As Above
C25030530-008	80949008, DUP 2023	03/18/25 10:58	03/24/25	Aqueous	Same As Above
C25030530-009	80949009, MW-221	03/18/25 15:27	03/24/25	Aqueous	Same As Above
C25030530-010	80949010, MW-222	03/18/25 8:50	03/24/25	Aqueous	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80949
Lab ID: C25030530-001
Client Sample ID: 80949001, MW-215

Report Date: 04/22/25
Collection Date: 03/18/25 10:00
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L				E903.0	04/15/25 14:19 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/15/25 14:19 / apt
Radium 226 MDC	0.1	pCi/L				E903.0	04/15/25 14:19 / apt
Radium 228	2.2	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 precision (±)	0.8	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 MDC	0.8	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 226 + Radium 228	2.3	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 precision (±)	0.8	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 MDC	0.8	pCi/L				A7500-RA	04/16/25 13:27 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80949
Lab ID: C25030530-002
Client Sample ID: 80949002, MW-216

Report Date: 04/22/25
Collection Date: 03/18/25 13:15
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	04/15/25 14:19 / apt
Radium 226 precision (±)	0.09	pCi/L				E903.0	04/15/25 14:19 / apt
Radium 226 MDC	0.1	pCi/L				E903.0	04/15/25 14:19 / apt
Radium 228	2.3	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 precision (±)	0.9	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 MDC	0.8	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 226 + Radium 228	2.4	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 precision (±)	0.9	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	04/16/25 13:27 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80949
Lab ID: C25030530-003
Client Sample ID: 80949003, MW-217

Report Date: 04/22/25
Collection Date: 03/18/25 10:58
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.09	pCi/L	U			E903.0	04/15/25 14:19 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/15/25 14:19 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/15/25 14:19 / apt
Radium 228	1.6	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 MDC	0.8	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 226 + Radium 228	1.7	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 MDC	0.8	pCi/L				A7500-RA	04/16/25 13:27 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80949
Lab ID: C25030530-004
Client Sample ID: 80949004, FB 2023

Report Date: 04/22/25
Collection Date: 03/18/25 12:20
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.03	pCi/L	U			E903.0	04/15/25 14:19 / apt
Radium 226 precision (±)	0.09	pCi/L				E903.0	04/15/25 14:19 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/15/25 14:19 / apt
Radium 228	0.6	pCi/L	U			RA-05	04/18/25 14:48 / apt
Radium 228 precision (±)	0.7	pCi/L				RA-05	04/18/25 14:48 / apt
Radium 228 MDC	1.0	pCi/L				RA-05	04/18/25 14:48 / apt
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	04/21/25 13:10 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	04/21/25 13:10 / dmf
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	04/21/25 13:10 / dmf

Report Definitions:
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QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80949
Lab ID: C25030530-005
Client Sample ID: 80949005, MW-218

Report Date: 04/22/25
Collection Date: 03/18/25 12:15
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.05	pCi/L	U			E903.0	04/15/25 14:19 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/15/25 14:19 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/15/25 14:19 / apt
Radium 228	1.6	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 MDC	0.8	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 226 + Radium 228	1.7	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	04/16/25 13:27 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80949
Lab ID: C25030530-006
Client Sample ID: 80949006, MW-219

Report Date: 04/22/25
Collection Date: 03/18/25 10:48
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.4	pCi/L				E903.0	04/15/25 14:49 / apt
Radium 226 precision (±)	0.2	pCi/L				E903.0	04/15/25 14:49 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/15/25 14:49 / apt
Radium 228	1.7	pCi/L				RA-05	04/10/25 13:36 / trs
Radium 228 precision (±)	0.8	pCi/L				RA-05	04/10/25 13:36 / trs
Radium 228 MDC	1.1	pCi/L				RA-05	04/10/25 13:36 / trs
Radium 226 + Radium 228	2.1	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 precision (±)	0.8	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	04/16/25 13:27 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80949
Lab ID: C25030530-007
Client Sample ID: 80949007, MW-220

Report Date: 04/22/25
Collection Date: 03/18/25 14:15
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	04/15/25 14:19 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/15/25 14:19 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/15/25 14:19 / apt
Radium 228	3.1	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 precision (±)	1	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 MDC	0.8	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 226 + Radium 228	3.2	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 precision (±)	1	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 MDC	0.8	pCi/L				A7500-RA	04/16/25 13:27 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80949
Lab ID: C25030530-008
Client Sample ID: 80949008, DUP 2023

Report Date: 04/22/25
Collection Date: 03/18/25 10:58
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.07	pCi/L	U			E903.0	04/15/25 14:19 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/15/25 14:19 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/15/25 14:19 / apt
Radium 228	2.3	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 precision (±)	0.8	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 MDC	0.8	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 226 + Radium 228	2.4	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 precision (±)	0.8	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 MDC	0.8	pCi/L				A7500-RA	04/16/25 13:27 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80949
Lab ID: C25030530-009
Client Sample ID: 80949009, MW-221

Report Date: 04/22/25
Collection Date: 03/18/25 15:27
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.08	pCi/L	U			E903.0	04/15/25 14:19 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/15/25 14:19 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/15/25 14:19 / apt
Radium 228	1.1	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 228 MDC	0.8	pCi/L				RA-05	04/10/25 12:06 / trs
Radium 226 + Radium 228	1.2	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 MDC	0.8	pCi/L				A7500-RA	04/16/25 13:27 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80949
Lab ID: C25030530-010
Client Sample ID: 80949010, MW-222

Report Date: 04/22/25
Collection Date: 03/18/25 08:50
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	1.3	pCi/L	U			E903.0	04/15/25 15:49 / apt
Radium 226 precision (±)	1.7	pCi/L				E903.0	04/15/25 15:49 / apt
Radium 226 MDC	2.2	pCi/L				E903.0	04/15/25 15:49 / apt
Radium 228	9.6	pCi/L	U			RA-05	04/10/25 13:36 / trs
Radium 228 precision (±)	8.3	pCi/L				RA-05	04/10/25 13:36 / trs
Radium 228 MDC	12.6	pCi/L				RA-05	04/10/25 13:36 / trs
Radium 226 + Radium 228	7.4	pCi/L	U			A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 precision (±)	8.5	pCi/L				A7500-RA	04/16/25 13:27 / dmf
Radium 226 + Radium 228 MDC	12.8	pCi/L				A7500-RA	04/16/25 13:27 / dmf

Report Definitions:
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QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25030530 **Report Date:** 04/21/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11630
Lab ID: LCS-RA226-11630	3	Laboratory Control Sample				Run: TENNELEC-4_250403E				04/15/25 12:07
Radium 226		9.2	pCi/L		92	70	130			
Radium 226 precision (±)		1.5	pCi/L							
Radium 226 MDC		0.19	pCi/L							
Lab ID: MB-RA226-11630	3	Method Blank				Run: TENNELEC-4_250403E				04/15/25 12:07
Radium 226		-0.02	pCi/L							U
Radium 226 precision (±)		0.08	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Lab ID: C25030529-006AMS	3	Sample Matrix Spike				Run: TENNELEC-4_250403E				04/15/25 14:19
Radium 226		8.6	pCi/L		85	70	130			
Radium 226 precision (±)		1.4	pCi/L							
Radium 226 MDC		0.14	pCi/L							
Lab ID: C25030529-006AMSD	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_250403E				04/15/25 14:19
Radium 226		8.9	pCi/L		88	70	130	3.2	30	
Radium 226 precision (±)		1.4	pCi/L							
Radium 226 MDC		0.14	pCi/L							

- The RER result is 0.14.

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Account #: 5109 **Client:** Great River Energy

QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25030530 **Report Date:** 04/21/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7615
Lab ID: MB-RA226-11630	3	Method Blank				Run: TENNELEC-4_250403C				04/10/25 12:06
Radium 228		1	pCi/L							
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		0.9	pCi/L							
Lab ID: LCS-228-RA226-11630	3	Laboratory Control Sample				Run: TENNELEC-4_250403C				04/10/25 12:06
Radium 228		7.6	pCi/L		80	70	130			
Radium 228 precision (±)		2.0	pCi/L							
Radium 228 MDC		0.91	pCi/L							
Lab ID: C25030529-006AMS4	3	Sample Matrix Spike				Run: TENNELEC-4_250403C				04/10/25 12:06
Radium 228		9.4	pCi/L		89	70	130			
Radium 228 precision (±)		2.4	pCi/L							
Radium 228 MDC		0.86	pCi/L							
Lab ID: C25030529-006AMSD4	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_250403C				04/10/25 12:06
Radium 228		8.5	pCi/L		79	70	130	10	30	
Radium 228 precision (±)		2.2	pCi/L							
Radium 228 MDC		0.84	pCi/L							
- The RER result is 0.27.										
Method: RA-05										Batch: RA228-7624
Lab ID: LCS-228-RA226-11639	3	Laboratory Control Sample				Run: TENNELEC-4_250415A				04/18/25 14:48
Radium 228		9.1	pCi/L		96	70	130			
Radium 228 precision (±)		2.4	pCi/L							
Radium 228 MDC		0.87	pCi/L							
Lab ID: MB-RA226-11639	3	Method Blank				Run: TENNELEC-4_250415A				04/18/25 14:48
Radium 228		0.6	pCi/L							U
Radium 228 precision (±)		0.7	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C25030529-002ADUP	3	Sample Duplicate				Run: TENNELEC-4_250415A				04/18/25 14:48
Radium 228		0.91	pCi/L					33	30	UR
Radium 228 precision (±)		0.74	pCi/L							
Radium 228 MDC		1.2	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.35.										

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25030530

Login completed by: Lisa X. Quezada
Reviewed by: dsawyer
Reviewed Date: 3/25/2025

Date Received: 3/24/2025
Received by: LXQ
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	9.4°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature of the sample(s) in shipping container 1 was 8.0°C, shipping container 2 was 8.9°C, shipping container 4 was 7.3°C, shipping container 5 was 8.1°C, and shipping container 6 was 9.0°C. The temperature blank temperature

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Work Order Receipt Checklist - Continued

Minnesota Valley Testing Laboratories C25030530

in shipping container 3 was 9.4°C, shipping container 7 was 8.7°C, and shipping container 8 was 8.5°C. LXQ 03/24/25

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Account #: 5109 **Client:** Great River Energy

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Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

Laboratory Certifications and Accreditations

Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Chain of Custody Record

Page 1 of 1

LABORATORIES, Inc.
2616 E Broadway Ave
Bismarck, ND 58501
Phone: (701) 258-9720
Toll Free: (800) 279-6885 Fax: (701) 258-9724

Work Order # 80949 A260300350

Company Name and Address: MVTL 2616 E Broadway Bismarck, ND 58501

Account #:
Contact: Claudette
Name of Sampler:
Quote Number C15480
Project Name/Number:

Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box x
Date Submitted: 19-Mar-25
Purchase Order #: BL7021

Billing Address (indicate if different from above): PO Box 249 New Ulm, MN 56073

Lab Number	Sample Information: MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Untreated	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	80949001	MW- 215	GW	18-Mar-25	1000		1				Ra226 & Ra228
	80949002	MW-216	GW	18-Mar-25	1315		1				Ra226 & Ra228
	80949003	MW-217	GW	18-Mar-25	1058		1				Ra226 & Ra228
	80949004	FB 2023	GW	18-Mar-25	1220		1				Ra226 & Ra228
	80949005	MW-218	GW	18-Mar-25	1215		1				Ra226 & Ra228
	80949006	MW-219	GW	18-Mar-25	1048		1				Ra226 & Ra228
	80949007	MW-220	GW	18-Mar-25	1415		1				Ra226 & Ra228
	80949008	DUP 2023	GW	18-Mar-25	1058		1				Ra226 & Ra228
	80949009	MW-221	GW	18-Mar-25	1527		1				Ra226 & Ra228
	80949010	MW-222	GW	18-Mar-25	850		1				Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:		Temp:
G. Ziegler	19-Mar-25	1700			03/24/25	0945	

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Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 80949

Chain of Custody Record

Report To:	Great River Energy	CC:	Golder Associates
Attn:	Cassie Johnston		44 Union Blvd, Suite 300
Address:			Lakewood, CO 80228
Phone:			
Email:	CJohnston@GREnergy.com		

Project Name: SS 2023 Wells
Event: March 2025
Sampled By: Ethan Greces, Screven Meyer

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric	Field Readings	Analysis Required
001	MW- 215	18Mar25	1000	GW				X		Radium 226 and 228 Combined
002	MW- 216	18Mar25	1315	GW				X		
003	MW- 217	18Mar25	1058	GW				X		
004	FB 2023	18Mar25	1220	GW				X		
005	MW- 218	18Mar25	1215	GW				X		
006	MW- 219	18Mar25	1048	GW				X		
007	MW- 220	18Mar25	1415	GW				X		
008	DUP 2023	18Mar25	1058	GW				X		
009	MW- 221	18Mar25	1527	GW				X		
010	MW- 222	18Mar25	0850	GW				X		

Comments:

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		18Mar25 1728	Log In (Walk In #2)	6.4 °C/TM 805 ROI Y/N		19Mar25 0744
2						

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	215
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.20	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.25	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	0925	Start of Well Purge									
18 Mar 24	0930	7.13	2451	7.62	0.14	-54.7	466.65	13.28	200.0	1.0	Turbid
	0935	7.43	2450	7.63	0.19	-58.1	408.31	13.38	200.0	1.0	Turbid
	0940	7.48	2450	7.60	0.18	-60.4	457.73	13.40	200.0	1.0	Turbid
	0945	7.51	2450	7.58	0.16	-63.2	374.45	13.35	200.0	1.0	Turbid
	0950	7.62	2449	7.58	0.12	-65.7	262.58	13.38	200.0	1.0	Turbid
	0955	7.68	2449	7.58	0.09	-72.1	261.42	13.40	200.0	1.0	Turbid
	1000	7.76	2447	7.59	0.07	-77.9	160.32	13.35	200.0	1.0	ST

Well Stabilized? (YES) NO Total Volume Purged: 7.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
18 Mar 24	1000	7.76	2447	7.59	0.07	-77.9	160.32				ST

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	216
Sampling Personal:	

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.85	ft
Depth to Top of Pump:		ft
Water Level After Sample:	13.90	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: -	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
18Mar25	1250	Start of Well Purge									
	1255	5.93	1790	7.67	2.11	-5.3	109.35	13.88	200.0	1.0	Clear
	1300	6.40	1929	7.69	0.57	-46.8	75.55	13.90	200.0	1.0	Clear
	1305	6.65	2139	7.69	0.55	-55.4	57.33	13.92	200.0	1.0	Clear
	1310	6.86	2149	7.69	0.63	-58.3	51.77	13.94	200.0	1.0	Clear
	1315	6.79	2145	7.70	0.48	-66.1	54.94	13.96	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
18Mar25	1315	6.79	2145	7.70	0.48	-66.1	54.94				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	217
Sampling Personal:	Ethan Greis

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.55	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	11.58	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
(YES) NO
Duplicate Sample ID:
Dup 2023

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	1033	Start of Well Purge									
18 Mar 25	1038	7.61	2470	7.67	0.42	-64.9	1,264.4	11.63	200.0	1.0	Turbid
	1043	7.80	2461	7.67	0.21	-77.2	304.6	11.60	200.0	1.0	ST
	1048	7.86	2458	7.68	0.23	-77.8	176.58	11.62	200.0	1.0	ST
	1053	7.84	2455	7.67	0.23	-77.9	107.96	11.60	200.0	1.0	ST
	1058	7.92	2458	7.67	0.26	-78.0	62.01	11.60	200.0	1.0	ST

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
18 Mar 25	1058	7.92	2458	7.67	0.26	-78.0	62.01				ST

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	218
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.36	ft
Depth to Top of Pump:		ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
———

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
18Mar25	1150	Start of Well Purge									
	1155	7.64	2164	7.70	0.16	-88.7	85.08	12.40	200.0	1.0	SI
	1200	7.74	2161	7.69	0.12	-93.8	79.08	12.41	200.0	1.0	Clear
	1205	7.88	2161	7.69	0.07	-98.0	72.93	12.40	200.0	1.0	Clear
	1210	7.94	2169	7.69	0.07	-96.8	57.59	12.41	200.0	1.0	Clear
	1215	7.88	2163	7.69	0.09	-101.4	46.95	12.41	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
18Mar25	1215	7.88	2163	7.69	0.09	-101.4	46.95				Clear

Comments:	FB20223 was collected here at 1220

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	219
Sampling Personal:	

Weather Conditions: Temp: 20 °F Wind: E @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	15.21	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	15.95	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
18 Mar 25	1018	Start of Well Purge									
	1023	8.23	3776	7.40	0.37	-4.7	696.96	15.95	200.0	1.0	Slightly Turbid (ST)
	1028	8.18	3785	7.32	0.11	-33.1	557.90	15.95	200.0	1.0	ST
	1033	8.35	3695	7.27	0.08	-38.7	555.99	15.95	200.0	1.0	ST
	1038	8.37	3574	7.24	0.07	-40.2	561.20	15.95	200.0	1.0	ST
	1043	8.45	3586	7.21	0.07	-39.7	445.73	15.95	200.0	1.0	ST
	1048	8.50	3643	7.20	0.07	-39.0	449.72	15.95	200.0	1.0	ST

Well Stabilized? YES NO Total Volume Purged: 6.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
18 Mar 25	1048	8.50	3643	7.20	0.07	-39.0	449.72				ST

Comments: Check ball on pump stuck. Removed pump to free check ball. Reinstalled pump

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Member ACIL

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	220
Sampling Personal:	Ethan Gates

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.35	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.35	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
18Mar25	1350	Start of Well Purge									
	1355	6.95	2062	7.70	1.13	-26.6	149.0	13.40	200.0	1.0	Clear
	1400	6.73	2085	7.64	0.40	49.2	278.85	13.42	200.0	1.0	ST
	1405	6.33	2081	7.63	0.20	51.6	331.42	13.38	200.0	1.0	Turbid
	1410	6.54	2098	7.63	0.34	61.0	340.10	13.40	200.0	1.0	Turbid
	1415	6.36	2102	7.64	0.42	66.3	347.35	13.42	200.0	1.0	Turbid
	~~1417~~										

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
18Mar25	1415	6.36	2102	7.64	0.42	66.3	347.35				Turbid

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	221
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 30 °F Wind: NW @ 5 -10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	15.87	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
18 Mar25	1457	Start of Well Purge									
	1502	7.86	2204	7.61	0.16	-52.9	317.50	15.85	200.0	1.0	Turbid
	1507	7.84	2207	7.61	0.13	-56.1	183.80	15.87	200.0	1.0	ST
	1512	7.84	2211	7.61	0.10	-65.3	212.11	15.85	200.0	1.0	ST
	1517	8.05	2213	7.62	0.13	-71.3	114.31	15.87	200.0	1.0	ST
	1522	7.71	2211	7.62	0.18	-80.5	72.50	15.85	200.0	1.0	Clear
	1527	7.86	2220	7.62	0.15	-85.3	49.61	15.87	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 6.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
18 Mar25	1527	7.86	2220	7.62	0.15	-85.3	49.01				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	~~225~~ / 222
Sampling Personal:	JJ/KL

Weather Conditions: Temp: 20 °F Wind: E @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	32.27	ft
Depth to Top of Pump:	34.15	ft
Water Level After Sample:	Below Pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:
1 Liter Raw — 1 Gal Nitric
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
18 Mar 25	0820	Start of Well Purge									clear, slightly turbid, turbid
	0830	7.28	1964	7.75	2.72	92.5	20.55	33.36	200.0	2.0	Clear Brown
	0835	7.50	2372	7.76	1.72	102.7	19.83	35.28	200.0	1.0	Clear Brown
	0840	7.66	2249	7.72	1.63	95.5	20.61	37.30	200.0	1.0	Clear Brown
	0845	7.65	2255	7.76	2.16	92.9	22.51	39.85	200.0	1.0	Clear Brown
	0850	7.74	2252	7.68	1.47	84.9	19.79	Below Pump	200.0	1.0	Clear Brown

Well Stabilized? (YES) NO Total Volume Purged: 6.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
18 Mar 25	0850	7.74	2252	7.68	1.47	84.9	19.79				Clear Brown

Comments: Sampled @ 100mL/min

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Account #: 5109 **Client:** Great River Energy
Workorder: SS 2023 Wells March 2025 (80946) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80946001 **Date Collected:** 03/18/2025 13:34 **Matrix:** Groundwater
Sample ID: MW-300 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.4 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2326**	umhos/cm	1	1		03/18/2025 13:34	
Method: 150.2							
pH - Field	**7.47**	units	0.01	1		03/18/2025 13:34	
Method: 170.1							
Temperature - Field C	**6.94**	degrees C		1		03/18/2025 13:34	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0378**	mg/L	0.02	1	03/19/2025 16:47	03/21/2025 10:26	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/19/2025 16:47	03/25/2025 15:58	
Arsenic	**0.0042**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 15:58	
Barium	**0.0781**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 15:58	
Beryllium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 15:58	
Cadmium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 15:58	
Chromium	**0.0035**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 15:58	
Cobalt	**0.0049**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 15:58	
Lead	**0.0009**	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 15:58	
Molybdenum	**0.0147**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 15:58	
Selenium	<0.005	mg/L	0.005	5	03/19/2025 16:47	03/25/2025 15:58	
Thallium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 15:58	
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		03/20/2025 16:05	*
Method: SM4500-F-C-2021							
Fluoride	**0.68**	mg/L	0.1	1		03/20/2025 16:05	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80946002 **Date Collected:** 03/18/2025 11:25 **Matrix:** Groundwater
Sample ID: MW-301 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.4 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1108**	umhos/cm	1	1		03/18/2025 11:25	
Method: 150.2							
pH - Field	**7.8**	units	0.01	1		03/18/2025 11:25	
Method: 170.1							
Temperature - Field C	**8.45**	degrees C		1		03/18/2025 11:25	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0711**	mg/L	0.02	1	03/19/2025 16:47	03/21/2025 10:28	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/19/2025 16:47	03/25/2025 16:23	
Arsenic	**0.0048**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 16:23	
Barium	**0.1337**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 16:23	
Beryllium	**0.0015**	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 16:23	
Cadmium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 16:23	
Chromium	**0.0127**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 16:23	
Cobalt	**0.0066**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 16:23	
Lead	**0.0166**	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 16:23	
Molybdenum	**0.0043**	mg/L	0.002	5	03/19/2025 16:47	03/26/2025 14:05	
Selenium	<0.005	mg/L	0.005	5	03/19/2025 16:47	03/25/2025 16:23	
Thallium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 16:23	
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		03/20/2025 16:11	*
Method: SM4500-F-C-2021							
Fluoride	**0.34**	mg/L	0.1	1		03/20/2025 16:11	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80946003 **Date Collected:** 03/18/2025 12:27 **Matrix:** Groundwater
Sample ID: MW-PB3 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.4 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1919**	umhos/cm	1	1		03/18/2025 12:27	
Method: 150.2							
pH - Field	**7.4**	units	0.01	1		03/18/2025 12:27	
Method: 170.1							
Temperature - Field C	**7.79**	degrees C		1		03/18/2025 12:27	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	03/26/2025 08:15	03/26/2025 10:31	
Method: EPA 6010D							
Lithium	**0.0354**	mg/L	0.02	1	03/19/2025 16:47	03/21/2025 10:29	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	03/19/2025 16:47	03/25/2025 16:28	
Arsenic	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 16:28	
Barium	**0.0421**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 16:28	
Beryllium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 16:28	
Cadmium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 16:28	
Chromium	<0.002	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 16:28	
Cobalt	**0.0022**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 16:28	
Lead	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 16:28	
Molybdenum	**0.0284**	mg/L	0.002	5	03/19/2025 16:47	03/25/2025 16:28	
Selenium	<0.005	mg/L	0.005	5	03/19/2025 16:47	03/25/2025 16:28	
Thallium	<0.0005	mg/L	0.0005	5	03/19/2025 16:47	03/25/2025 16:28	
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		03/20/2025 16:17	*
Method: SM4500-F-C-2021							
Fluoride	**0.67**	mg/L	0.1	1		03/20/2025 16:17	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 80946

Aluminum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	99.6		85	115		
LFB-OE			0.4	102.0		85	115		
MB		<0.1							
MB		<0.1							
PDS/PDSD	80944002		2	90.9	94.1	75	125	2.6	20
PDS/PDSD	80946001		2	106.0	105.0	75	125	0.3	20
PDS/PDSD	81122006		1	94.8	90.3	75	125	2.3	20
PDS/PDSD	81242001		1	93.5	93.5	75	125	0.0	20

Aluminum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.4	99.0		85	115		
LFB-OE			0.4	102.0		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	80790001		0.4	104.0	104.0	75	125	0.3	20
SPK/SPKD	80946001		0.4	97.3	99.5	75	125	1.8	20
SPK/SPKD	80946001		2	96.6	96.8	75	125	0.2	20

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	108.0		85	115		
LFB-OE			0.4	109.0		85	115		
MB		<0.1							
MB		<0.1							
PDS/PDSD	80944002		2	79.3	76.3	75	125	1.1	20
PDS/PDSD	80946001		2	89.3	89.1	75	125	0.1	20
PDS/PDSD	81122006		1	86.0	87.6	75	125	0.9	20

Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							

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Account #: 5109 **Client:** Great River Energy

Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	108.0		85	115		
LFB-OE			0.4	109.0		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	80790001		0.4	79.2	75.6	75	125	1.1	20
SPK/SPKD	80946001		2	90.6	86.4	75	125	2.2	20

Lithium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	109.0		85	115		
LFB-OE			0.4	110.0		85	115		
MB		<0.04							
MB		<0.04							
MS/MSD	80946001		0.4	99.9	100.0	70	130	0.2	20

Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	109.0		85	115		
LFB-OE			0.4	110.0		85	115		
MB		<0.04							
MB		<0.04							
SPK/SPKD	80790001		0.4	89.8	89.3	75	125	0.5	20
SPK/SPKD	81122001		0.4	91.1	87.7	75	125	3.9	20
SPK/SPKD	81122005		0.4	89.0	92.0	75	125	3.0	20

Manganese — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	106.0		85	115		
LFB-OE			0.4	108.0		85	115		
MB		<0.05							
MB		<0.05							
PDS/PDSD	80944002		2	87.0	85.8	75	125	1.3	20
MS/MSD	80946001		0.4	87.2	91.4	70	130	0.9	20
PDS/PDSD	80946001		2	90.0	90.2	75	125	0.2	20

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Manganese				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	81122006		1	89.9	91.1	75	125	1.2	20

Manganese, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.05							
LFB-DF			0.4	106.0		85	115		
LFB-DF			0.4	108.0		85	115		
MB		<0.05							
MB		<0.05							
SPK/SPKD	80790001		0.4	89.7	87.9	75	125	1.5	20
SPK/SPKD	80946001		2	84.5	85.4	75	125	0.6	20

Antimony				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	95.2		80	120		
LFB-MS			0.1	98.9		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.001							
MB		<0.001							
MB		<0.001							
MB		<0.001							
MS/MSD	80946001		0.4	112.0	112.0	75	125	0.5	20

Antimony, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	95.2		80	120		
LFB-MS			0.1	98.9		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.001							
MB		<0.001							
MB		<0.001							
MB		<0.001							

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Antimony, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	80946001		0.4	112.0	112.0	75	125	0.5	20
SPK/SPKD	80946001		0.1	103.0	103.0	75	125	0.3	20

Arsenic				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
SPK	80619001		2	106.0		75	125		
SPK	80619001		2.5	107.0		75	125		
SPK	80678001		2	98.4		75	125		
MS/MSD	80946001		0.4	107.0	108.0	75	125	0.7	20

Arsenic, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80946001		0.4	107.0	108.0	75	125	0.7	20
SPK/SPKD	80946001		0.1	107.0	106.0	75	125	0.7	20

Barium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		

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Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	100.0		80	120		
LFB-MS			0.1	104.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80946001		0.4	110.0	113.0	75	125	2.7	20

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	100.0		80	120		
LFB-MS			0.1	104.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80946001		0.4	110.0	113.0	75	125	2.7	20
SPK/SPKD	80946001		0.1	104.0	103.0	75	125	0.6	20

Beryllium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	99.5		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	80946001		0.4	102.0	103.0	75	125	1.5	20

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Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	99.5		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	80946001		0.4	102.0	103.0	75	125	1.5	20
SPK/SPKD	80946001		0.1	100.0	96.7	75	125	3.6	20

Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	96.5		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	99.2		80	120		
LFB-MS			0.1	98.9		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	80946001		0.4	110.0	109.0	75	125	1.4	20

Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	96.5		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	99.2		80	120		
LFB-MS			0.1	98.9		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							

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Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	80946001		0.4	110.0	109.0	75	125	1.4	20
SPK/SPKD	80946001		0.1	96.9	97.1	75	125	0.2	20

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	111.0		80	120		
LFB-MS			0.1	109.0		80	120		
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80946001		0.4	101.0	106.0	75	125	5.5	20

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	111.0		80	120		
LFB-MS			0.1	109.0		80	120		
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80946001		0.4	101.0	106.0	75	125	5.5	20
SPK/SPKD	80946001		0.1	100.0	101.0	75	125	1.0	20

Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	110.0		80	120		
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	102.0		80	120		

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Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80946001		0.4	101.0	105.0	75	125	4.1	20

Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	110.0		80	120		
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80946001		0.4	101.0	105.0	75	125	4.1	20
SPK/SPKD	80946001		0.1	100.0	101.0	75	125	0.5	20

Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	108.0		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	80946001		0.4	109.0	111.0	75	125	1.6	20

Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		

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Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	108.0		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	80946001		0.4	109.0	111.0	75	125	1.6	20

Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80946001		0.4	103.0	106.0	75	125	2.5	20

Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	80946001		0.4	103.0	106.0	75	125	2.5	20
SPK/SPKD	80946001		0.1	103.0	105.0	75	125	1.5	20

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Account #: 5109 **Client:** Great River Energy

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	99.8		80	120		
MB		<0.005							
MB		<0.005							
MB		<0.005							
MB		<0.005							
SPK	80619001		2	93.8		75	125		
SPK	80619001		2.5	96.1		75	125		
SPK	80678001		2	99.7		75	125		
MS/MSD	80946001		0.4	103.0	107.0	75	125	3.3	20

Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	99.8		80	120		
MB		<0.005							
MB		<0.005							
MB		<0.005							
MB		<0.005							
MS/MSD	80946001		0.4	103.0	107.0	75	125	3.3	20
SPK/SPKD	80946001		0.1	105.0	106.0	75	125	1.8	20

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	109.0		80	120		
MB		<0.0005							

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Account #: 5109 **Client:** Great River Energy

Thallium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	80946001		0.4	105.0	108.0	75	125	2.4	20

Thallium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	109.0		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	80946001		0.4	105.0	108.0	75	125	2.4	20
SPK/SPKD	80946001		0.1	97.4	97.6	75	125	0.2	20

Mercury Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	106.0		85	115		
LFB			0.002	106.0		85	115		
LRB		<0.0002							
MB		<0.0002							
MS/MSD	80944009		0.002	96.6	101.0	70	130	5.1	20
MS/MSD	80946001		0.002	105.0	104.0	70	130	0.0	20
MS/MSD	81122006		0.002	110.0	107.0	70	130	4.7	20
MS/MSD	81243004		0.002	92.5	91.8	70	130	0.0	20

pH Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	100.0					
CRM-PH			6	100.2					
CRM-PH			6	99.8					

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Account #: 5109 **Client:** Great River Energy

pH Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	99.7					
CRM-PH			6	99.8					
DUP	80791007							0.9	20
DUP	80946001							1.5	20
DUP	81122006							1.1	20
DUP	81215003							0.0	20

Fluoride Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			0.64	100.0		83.99	111.11		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	108.0		90	110		
LFB-F			0.5	100.0		90	110		
LFB-F			0.5	102.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	80790001		0.5	148.0	130.0	80	120	6.8	20
MS/MSD-F	80946001		0.5	98.0	98.0	80	120	0.0	20
MS/MSD-F	81122006		0.5	98.0	112.0	80	120	7.0	20
MS/MSD-F	81131004		0.5	100.0	104.0	80	120	7.5	20

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Bismarck, ND 58501
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Great River Energy
WO: 80946

Chain of Custody Record

Report To:	Great River Energy	CC: Golder Associates	Project Name: SS 2023 Wells
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: March 2025
Address:		Lakewood, CO 80228	Sampled By: Jeremy Meyer / Ethan Gress
Phone:			
Email:	CJohnston@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric						Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 300/MS/MSD	18 Mar 25	1334	GW	3	3	3							6.94	2326	7.47	42.36	App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radio Chem, Dissolved and Total for Remainder of Metals.) (See Attachments)
002	MW- 301	18 Mar 25	1125	GW	X	X	X							8.45	1108	7.80	261.27	
003	MW- PB3	18 Mar 25	1227	GW	X	X	X							7.79	1919	7.40	0.24	

Comments:

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	18 Mar 25 1728	Log In / Walk In #2	3.4 °C/TM855 ROI Y/N		19 Mar 25 0744
2					

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February 2025 GREAT RIVER ENERGY - STANTON STATION GL21509219.000
DRAFT - SUBJECT TO CHANGE

Table 1: Proposed 2025 Stanton Station Plant Facilities Schedule for Budgetary Estimation

Location	Well ID		2025				
			Q1 - Feb	Q1 - Mar	Q2 - Jun	Q3 - Sep	Q4 - Nov
Upgradient/Side-gradient	MW-6B	1		App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)		App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)
	MW-7A	1	TDS and Field Parameters				
	MW-7B	1					
	MW-9B	1				TDS and Field Parameters	
	MW-105	1					
Bottom Ash Landfill	MW-9N	1					
	MW-102	1					
	MW-103	1					
Property Boundary	MW-PB1	1					
Wells Installed in May 2022	MW-210	1					
	MW-211	1					
	MW-212	1					
	MW-213	1					
	MW-214	1					
Piezometers [1]	PZ-BA-A	1					
	PZ-BA-B	1					
Sumps [2]	BAI-Sump-S	1					
Surface Water [3]	Missouri-River	1					
	Rail-Drainage	1					
Internal - Prior Bottom Ash Impoundment Downgradient	MW-1R	1					
	MW-104	1					
Bottom Ash Impoundment	MW-201	1				TDS and Field Parameters	
	MW-202	1	Boron, Sulfate, and Field Parameters				
	MW-203	1					
Closed Landfill	MW-10	1					
	MW-204	1					
	MW-205	1					
Additional Internal Locations	MW-4	1					
	MW-PB2	1					
Wells Installed in February 2023	MW-215	1					
	MW-216	1					
	MW-217	1					
	MW-218	1					
	MW-219	1					
	MW-220	1					
	MW-221	1					
	MW-222	1					
	MW-300	1					
	MW-301	1					
	MW-PB3	1					
Proposed Additional Wells for Installation in Q2 2025	TBD	1			App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
Proposed Additional Wells for Installation in Q1 2026	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
Total # of Sample Locations			2	40	53	15	53

Notes:
Suggested locations for collection of QA/QC samples in 2025 are listed in Table 2.
App III - Appendix III Detection Monitoring List, Table 5
App IV - Appendix IV Assessment Monitoring List, Table 6
Additional List - Table 7
Required field parameters are listed in Table 5 and Table 6
1. The piezometers do not have dedicated pumps and will need to be sampled by other methods.
2. The sump should be sampled using surface water collection methods via the sump riser.
3. Surface water samples to be collected only if safely accessible and free water is present.

wsp DRAFT - SUBJECT TO CHANGE

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February 2025 GREAT RIVER ENERGY - STANTON STATION GL21509219.000
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Table 2: 2025 Proposed Quality Assurance/Quality Control Sample Collection Locations for Budget Estimation

Location	Well ID	Q1 - Feb	Q1 - Mar	Q2 - Jun	Q3 - Sep	Q4 - Nov
Upgradient/Side-gradient	MW-6B		Field Blank			
	MW-7A					
	MW-7B		Duplicate			MS/MSD
	MW-8B			Duplicate		
	MW-10S					
Bottom Ash Landfill	MW-9N					Duplicate
	MW-102			Field Blank		
	MW-103		Duplicate			
Property Boundary	MW-PB1					
Wells Installed in May 2022	MW-210		Field Blank			Duplicate
	MW-211			MS/MSD		
	MW-212					Field Blank
	MW-213			Duplicate		
	MW-214		MS/MSD			
Piezometers [1]	PZ-BA-A					
	PZ-BA-B					Field Blank
Sumps [2]	BAI-Sump-S					
Surface Water [3]	Missouri-River					
	Rail-Drainage					
Internal - Prior Bottom Ash Impoundment Downgradient	MW-1R			Duplicate		
	MW-104					MS/MSD
Bottom Ash Impoundment	MW-201			Field Blank		
	MW-202					
	MW-203					
Closed Landfill	MW-10		Duplicate			
	MW-204					
	MW-205					Duplicate
Additional Internal Locations	MW-4					
	MW-PB2					
Wells Installed in February 2023	MW-215			Field Blank		
	MW-216					
	MW-217		Field Blank			Duplicate
	MW-218			MS/MSD		
	MW-219					
	MW-220		Duplicate			Field Blank
	MW-221					
	MW-222					
	MW-300		MS/MSD			
	MW-301			Duplicate		
	MW-PB3					
Proposed Additional Wells for Installation in Q2 2025	TBD				Duplicate	
	TBD				MS/MSD	
	TBD					Field Blank
	TBD					
	TBD					
	TBD					
	TBD			Duplicate		
	TBD				Field Blank	
	TBD					
	TBD					Duplicate
	TBD				Duplicate	
	TBD			Field Blank		
Proposed Additional Wells for Installation in Q1 2026	TBD					
	TBD					
	TBD					
	TBD					
	TBD					
	TBD					
Total # of Sample Locations		2	40	53	15	53
Total # of QC Samples		0	9	11	4	11

Notes:
Locations to collect samples are **suggestions only** to help with the distribution of QA/QC samples across the site and between facilities while meeting QA/QC objectives for the sampling programs.
Notes for QA/QC
Duplicates = 10-15% of primary collected sample
Field Blanks = approximately 1 per sampling day.
Equipment Blanks - only needed for non-dedicated equipement.
MS/MSD = 1 per approximately 20 primary collected samples.

wsp

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February 2025 GL21509219.000

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.
* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

+ Iron, Aluminum, Manganese
- Total only for Mercury & Radiochem
- Dissolved & Total for remainder of Metals

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	300
Sampling Personal:	JMH

Weather Conditions: Temp: 25 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.41	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.95	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:		
1 Liter Raw	1 Gal Nitric	X3
500mL Nitric		
500mL Nitric (filtered)		

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
MS/MSD

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
18 Mar 25	1309	Start of Well Purge									
	1314	6.88	2347	7.47	1.02	-89.5	206.42	12.95	200.0	1.0	Slightly Turbid (ST)
	1319	7.00	2348	7.46	0.09	-87.5	135.19	12.92	200.0	1.0	ST
	1324	6.97	2311	7.46	0.06	-96.0	100.61	12.90	200.0	1.0	Clear
	1329	7.00	2339	7.47	0.05	-103.9	73.92	12.92	200.0	1.0	Clear
	1334	6.94	2326	7.47	0.05	-102.8	42.36	12.96	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
18 Mar 25	1334	6.94	2326	7.47	0.05	-102.8	42.36				Clear

Comments:

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	301
Sampling Personal:	

Weather Conditions: Temp: 30 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	17.89	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	24.50	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: ~~27~~ 57	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
18 Mar 25	1100	Start of Well Purge									
	1105	8.53	1048	7.80	0.40	66.1	226.73	19.95	200.0	~~0.5~~ 1.0	Slightly Turbid (ST)
	1110	8.13	1110	7.79	0.15	51.9	176.98	21.70	100.0	0.5	ST
	1115	8.31	1100	7.79	0.10	38.5	203.74	22.78	100.0	0.5	ST
	1120	8.37	1111	7.79	0.09	36.3	218.52	23.20	100.0	0.5	ST
	1125	8.45	1108	7.80	0.08	20.2	261.27	23.87	100.0	0.5	ST

Well Stabilized? YES NO Total Volume Purged: 3.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
18 Mar 25	1125	8.45	1108	7.80	0.08	20.2	261.27				ST

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	PB3
Sampling Personal:	Jeremy Meyer

Weather Conditions: Temp: 25 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	27.37	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	30.10	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: 57	Sec.
PSI: —	

Bottle List:
1 Liter Raw — 1 Gal Nitric
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
18 Mar 25	1202	Start of Well Purge									
	1207	7.38	1838	7.45	2.35	52.5	3.82	28.40	100.0	0.5	Clear
	1212	7.62	1917	7.51	1.32	76.1	0.86	29.07	100.0	0.5	Clear
	1217	7.64	1918	7.42	1.46	84.2	0.68	29.30	100.0	0.5	Clear
	1222	7.72	1908	7.37	1.06	84.6	0.90	29.62	100.0	0.5	Clear
	1227	7.79	1919	7.40	1.32	83.0	0.24	29.95	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
18 Mar 25	1227	7.79	1919	7.40	1.32	83.0	0.24				Clear

Comments:

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 19 Mar 25 Time: 0922 Analyst: PN

Work Order #: 80946

Containers Supplied by MVTL: ☒ Yes ☐ No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
5	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
5	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
5	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: SS 2023 Wells March 2025 (80950) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80950001 **Date Collected:** 03/18/2025 13:34 **Matrix:** Groundwater
Sample ID: MW-300 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.4

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:27	
Radium 228	See Attached			1		04/24/2025 16:27	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80950002 **Date Collected:** 03/18/2025 11:25 **Matrix:** Groundwater
Sample ID: MW-301 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.4

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:27	
Radium 228	See Attached			1		04/24/2025 16:27	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 80950003 **Date Collected:** 03/18/2025 12:27 **Matrix:** Groundwater
Sample ID: MW-PB3 **Date Received:** 03/18/2025 17:28 **Collector:** MVTL Field Service

Temp @ Receipt (C): 6.4

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		04/24/2025 16:27	
Radium 228	See Attached			1		04/24/2025 16:27	

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ANALYTICAL SUMMARY REPORT

April 22, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25030527 Quote ID: C15480
Project Name: 80950

Energy Laboratories, Inc. Casper WY received the following 3 samples for Minnesota Valley Testing Laboratories on 3/24/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25030527-001	80950001, MW-300/MS/MSD	03/18/25 13:34	03/24/25	Aqueous	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25030527-002	80950002, MW-301	03/18/25 11:25	03/24/25	Aqueous	Same As Above
C25030527-003	80950003, MW-PB3	03/18/25 12:27	03/24/25	Aqueous	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80950
Lab ID: C25030527-001
Client Sample ID: 80950001, MW-300/MS/MSD

Report Date: 04/22/25
Collection Date: 03/18/25 13:34
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.07	pCi/L	U			E903.0	04/14/25 12:17 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/14/25 12:17 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/14/25 12:17 / apt
Radium 228	1.5	pCi/L				RA-05	04/08/25 11:30 / trs
Radium 228 precision (±)	0.8	pCi/L				RA-05	04/08/25 11:30 / trs
Radium 228 MDC	1.1	pCi/L				RA-05	04/08/25 11:30 / trs
Radium 226 + Radium 228	1.6	pCi/L				A7500-RA	04/15/25 09:47 / dmf
Radium 226 + Radium 228 precision (±)	0.8	pCi/L				A7500-RA	04/15/25 09:47 / dmf
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	04/15/25 09:47 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80950
Lab ID: C25030527-002
Client Sample ID: 80950002, MW-301

Report Date: 04/22/25
Collection Date: 03/18/25 11:25
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	2.0	pCi/L				E903.0	04/14/25 12:17 / apt
Radium 226 precision (±)	0.5	pCi/L				E903.0	04/14/25 12:17 / apt
Radium 226 MDC	0.3	pCi/L				E903.0	04/14/25 12:17 / apt
Radium 228	2.4	pCi/L				RA-05	04/08/25 11:30 / trs
Radium 228 precision (±)	1.4	pCi/L				RA-05	04/08/25 11:30 / trs
Radium 228 MDC	1.9	pCi/L				RA-05	04/08/25 11:30 / trs
Radium 226 + Radium 228	4.4	pCi/L				A7500-RA	04/15/25 09:47 / dmf
Radium 226 + Radium 228 precision (±)	1.5	pCi/L				A7500-RA	04/15/25 09:47 / dmf
Radium 226 + Radium 228 MDC	1.9	pCi/L				A7500-RA	04/15/25 09:47 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 80950
Lab ID: C25030527-003
Client Sample ID: 80950003, MW-PB3

Report Date: 04/22/25
Collection Date: 03/18/25 12:27
DateReceived: 03/24/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.02	pCi/L	U			E903.0	04/14/25 12:17 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/14/25 12:17 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	04/14/25 12:17 / apt
Radium 228	1	pCi/L	U			RA-05	04/08/25 11:30 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	04/08/25 11:30 / trs
Radium 228 MDC	1	pCi/L				RA-05	04/08/25 11:30 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	04/15/25 09:47 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	04/15/25 09:47 / dmf
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	04/15/25 09:47 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25030527 **Report Date:** 04/15/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11628
Lab ID: LCS-RA226-11628	3	Laboratory Control Sample				Run: TENNELEC-4_250402F				04/14/25 12:17
Radium 226		11	pCi/L		105	70	130			
Radium 226 precision (±)		1.7	pCi/L							
Radium 226 MDC		0.14	pCi/L							
Lab ID: MB-RA226-11628	3	Method Blank				Run: TENNELEC-4_250402F				04/14/25 12:17
Radium 226		-0.02	pCi/L							U
Radium 226 precision (±)		0.08	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Lab ID: C25030527-001AMS	3	Sample Matrix Spike				Run: TENNELEC-4_250402F				04/14/25 12:17
Radium 226		10	pCi/L		101	70	130			
Radium 226 precision (±)		1.6	pCi/L							
Radium 226 MDC		0.17	pCi/L							
Lab ID: C25030527-001AMSD	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_250402F				04/14/25 12:17
Radium 226		9.9	pCi/L		98	70	130	3.0	30	
Radium 226 precision (±)		1.6	pCi/L							
Radium 226 MDC		0.19	pCi/L							

- The RER result is 0.13.

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25030527 **Report Date:** 04/15/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7613
Lab ID: LCS-228-RA226-11628	3	Laboratory Control Sample				Run: TENNELEC-4_250402C				04/08/25 11:30
Radium 228		8.9	pCi/L		94	70	130			
Radium 228 precision (±)		2.4	pCi/L							
Radium 228 MDC		0.98	pCi/L							
Lab ID: MB-RA226-11628	3	Method Blank				Run: TENNELEC-4_250402C				04/08/25 11:30
Radium 228		0.4	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C25030527-001AMS4	3	Sample Matrix Spike				Run: TENNELEC-4_250402C				04/08/25 11:30
Radium 228		11	pCi/L		101	70	130			
Radium 228 precision (±)		2.9	pCi/L							
Radium 228 MDC		0.98	pCi/L							
Lab ID: C25030527-001AMSD4	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_250402C				04/08/25 11:30
Radium 228		9.6	pCi/L		86	70	130	14	30	
Radium 228 precision (±)		2.5	pCi/L							
Radium 228 MDC		0.98	pCi/L							

- The RER result is 0.39.

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25030527

Login completed by: Lisa X. Quezada
Reviewed by: dsawyer
Reviewed Date: 3/25/2025

Date Received: 3/24/2025
Received by: LXQ
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	9.4°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature of the sample(s) in shipping container 1 was 8.0°C, shipping container 2 was 8.9°C, shipping container 4 was 7.3°C, shipping container 5 was 8.1°C, and shipping container 6 was 9.0°C. The temperature blank temperature

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Work Order Receipt Checklist - Continued

Minnesota Valley Testing Laboratories C25030527

in shipping container 3 was 9.4°C, shipping container 7 was 8.7°C, and shipping container 8 was 8.5°C. LXQ 03/24/25

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Laboratory Certifications and Accreditations

Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Account #: 5109 **Client:** Great River Energy

Chain of Custody Record

Page 1 of 1

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2616 E Broadway Ave
Bismarck, ND 58501
Phone: (701) 258-9720
Toll Free: (800) 279-6885 Fax: (701) 258-9724

Work Order # 80950 (12503052)

Company Name and Address: MVTL 2616 E Broadway Bismarck, ND 58501

Account #:
Contact: Claudette
Name of Sampler:
Quote Number C15480
Project Name/Number:

Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box X
Date Submitted: 19-Mar-25
Purchase Order #: BL7020

Billing Address (indicate if different from above): PO Box 249 New Ulm, MN 56073

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Unpreserved	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	80950001	MW-300/MS/MSD	GW	18-Mar-25	1334		3				Ra226 & Ra228 Please use as MS/MSD
	80950002	MW-301	GW	18-Mar-25	1125		1				Ra226 & Ra228
	80950003	MW-PB3	GW	18-Mar-25	1227		1				Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples. Please use sample 80950001 as MS/MSD.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
T. Olson	19-Mar-25	1700			03/24/25	04.5

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 80950

Chain of Custody Record

Report To:	Great River Energy	CC:	Golder Associates
Attn:	Cassie Johnston		44 Union Blvd, Suite 300
Address:			Lakewood, CO 80228
Phone:			
Email:	CJohnston@GREnergy.com		

Project Name: SS 2023 Wells
Event: March 2025
Sampled By: Jerry Meyer / Ethan Gress

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric	Field Readings				Analysis Required
001	MW- 300/MS/MSD	18 Mar 25	1374	GW				3					Radium 226 and 228 Combined
002	MW- 301	18 Mar 25	1125	GW				X					
005	MW- PB3	18 Mar 25	1227	GW				X					

Comments:

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		18 Mar 25 1728	Log In Walk in #2	6.4 °C/TM 805 ROI Y/N		19 Mar 25 0744
2						

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	March 2025
Sample ID:	300
Sampling Personal:	JM

Weather Conditions: Temp: 25 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.41	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.95	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	X3
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
MS/MSD

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
18 Mar 25	1309	Start of Well Purge									
	1314	6.88	2347	7.47	1.02	-89.5	206.42	12.95	200.0	1.0	Slightly Turbid (ST)
	1319	7.00	2348	7.46	0.09	-87.5	135.19	12.92	200.0	1.0	ST
	1324	6.97	2311	7.46	0.06	-96.0	100.61	12.90	200.0	1.0	Clear
	1329	7.00	2339	7.47	0.05	-103.9	73.92	12.92	200.0	1.0	Clear
	1334	6.94	2326	7.47	0.05	-102.8	42.36	12.96	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
18 Mar 25	1334	6.94	2326	7.47	0.05	-102.8	42.36				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company: GRE Stanton Station
Event: March 2025
Sample ID: 301
Sampling Personal:

Weather Conditions: Temp: 30 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	17.89	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	24.50	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:
Purge: 3 Sec.
Recover: 27.57 Sec.
PSI: —

Bottle List:
1 Liter Raw 1 Gal Nitric
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample?
YES / NO
Duplicate Sample ID: —

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
18 Mar 25	1100	Start of Well Purge									
	1105	8.53	1048	7.80	0.40	66.1	226.73	19.95	200.0	~~2.5~~ 1.0	Slightly Turbid (ST)
	1110	8.13	1110	7.79	0.15	51.9	176.98	21.70	100.0	0.5	ST
	1115	8.31	1100	7.79	0.10	38.5	203.74	22.78	100.0	0.5	ST
	1120	8.37	1111	7.79	0.09	36.3	218.52	23.20	100.0	0.5	ST
	1125	8.45	1108	7.80	0.08	20.2	261.27	23.87	100.0	0.5	ST

Well Stabilized? YES NO Total Volume Purged: 3.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
18 Mar 25	1125	8.45	1108	7.80	0.08	20.2	261.27				ST

Comments:

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Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company: GRE Stanton Station
Event: March 2025
Sample ID: PB3
Sampling Personal: Jeremy Meyer

Weather Conditions: Temp: 25°F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	29.37	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	30.10	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: 57	Sec.
PSI: —	

Bottle List:
1 Liter Raw
1 Gal Nitric
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample? YES / NO
Duplicate Sample ID: —

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level (ft)	Pumping Rate mL/Min	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
Purge Date	Time	±0.3°	±3%	±0.1							
18 Mar 25	1202	Start of Well Purge									
	1207	7.38	1838	7.45	2.35	52.5	3.82	28.40	100.0	0.5	Clear
	1212	7.62	1917	7.51	1.32	76.1	0.86	29.07	100.0	0.5	Clear
	1217	7.64	1918	7.42	1.46	84.2	0.68	29.30	100.0	0.5	Clear
	1222	7.72	1908	7.37	1.06	84.6	0.90	29.62	100.0	0.5	Clear
	1227	7.79	1919	7.40	1.32	83.0	0.24	29.95	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
18 Mar 25	1227	7.79	1919	7.40	1.32	83.0	0.24				Clear

Comments:

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APPENDIX B-4

Q2 2025

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS UP June 2025 (90443) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90443001 **Date Collected:** 06/23/2025 15:03 **Matrix:** Groundwater
Sample ID: MW-6B **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1720**	umhos/cm	1	1		06/23/2025 15:03	
Method: 150.2							
pH - Field	**7.8**	units	0.01	1		06/23/2025 15:03	
Method: 170.1							
Temperature - Field C	**12.72**	degrees C		1		06/23/2025 15:03	
Method: ASTM D516-16							
Sulfate	**357**	mg/L	25	5		06/25/2025 09:45	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**0.33**	mg/L	0.1	1	06/24/2025 16:25	06/26/2025 11:53	
Calcium	**24.6**	mg/L	1	1	06/24/2025 16:25	07/01/2025 10:46	
Lithium	**0.0467**	mg/L	0.02	1	06/24/2025 16:25	07/03/2025 09:14	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/24/2025 16:25	06/25/2025 16:36	
Arsenic	**0.0041**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 16:36	
Barium	**0.0263**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 16:36	
Beryllium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 16:36	
Cadmium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 16:36	
Chromium	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 16:36	
Cobalt	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 16:36	
Lead	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 16:36	
Molybdenum	**0.0133**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 16:36	
Selenium	<0.005	mg/L	0.005	5	06/24/2025 16:25	06/25/2025 16:36	
Thallium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 16:36	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90443001 **Date Collected:** 06/23/2025 15:03 **Matrix:** Groundwater
Sample ID: MW-6B **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		06/24/2025 19:06	*
Method: SM4500-F-C-2021							
Fluoride	**0.54**	mg/L	0.1	1		06/24/2025 19:06	
Method: USGS I-1750-85							
Total Dissolved Solids	**1060**	mg/L	10	1		06/25/2025 10:21	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90443002 **Date Collected:** 06/23/2025 09:47 **Matrix:** Groundwater
Sample ID: MW-7A **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**18092**	umhos/cm	1	1		06/23/2025 09:47	
Method: 150.2							
pH - Field	**7.43**	units	0.01	1		06/23/2025 09:47	
Method: 170.1							
Temperature - Field C	**8.72**	degrees C		1		06/23/2025 09:47	
Method: ASTM D516-16							
Sulfate	**11200**	mg/L	500	100		06/25/2025 09:53	*
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**0.66**	mg/L	0.5	5	06/24/2025 16:25	06/26/2025 11:54	
Calcium	**463**	mg/L	5	5	06/24/2025 16:25	07/01/2025 10:52	
Lithium	**0.259**	mg/L	0.1	5	06/24/2025 16:25	07/03/2025 09:14	
Method: EPA 6020B							
Antimony	<0.004	mg/L	0.004	20	06/24/2025 16:25	06/25/2025 17:24	*
Arsenic	<0.004	mg/L	0.004	10	06/24/2025 16:25	06/25/2025 17:13	*
Barium	**0.0085**	mg/L	0.004	10	06/24/2025 16:25	06/25/2025 17:13	
Beryllium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 16:41	
Cadmium	<0.002	mg/L	0.002	20	06/24/2025 16:25	06/25/2025 17:24	*
Chromium	<0.004	mg/L	0.004	10	06/24/2025 16:25	06/25/2025 17:13	*
Cobalt	<0.004	mg/L	0.004	10	06/24/2025 16:25	06/25/2025 17:13	*
Lead	<0.001	mg/L	0.001	10	06/24/2025 16:25	06/25/2025 17:13	*
Molybdenum	**0.0113**	mg/L	0.008	20	06/24/2025 16:25	06/25/2025 17:24	
Selenium	<0.01	mg/L	0.01	10	06/24/2025 16:25	06/25/2025 17:13	*
Thallium	<0.001	mg/L	0.001	10	06/24/2025 16:25	06/25/2025 17:13	*

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90443002 **Date Collected:** 06/23/2025 09:47 **Matrix:** Groundwater
Sample ID: MW-7A **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.6**	units	0.1	1		06/24/2025 19:16	*
Method: SM4500-F-C-2021							
Fluoride	**0.50**	mg/L	0.1	1		06/24/2025 19:16	
Method: USGS I-1750-85							
Total Dissolved Solids	**17900**	mg/L	10	1		06/25/2025 10:21	

Analysis Results Comments

Antimony
Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Antimony, Dissolved
Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Arsenic
Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Arsenic, Dissolved
Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Cadmium
Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Cadmium, Dissolved
Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Chromium
Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Chromium, Dissolved
Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Cobalt
Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Cobalt, Dissolved
Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

Lead

Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Lead, Dissolved

Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Selenium

Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Selenium, Dissolved

Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Sulfate

Matrix spike and/or matrix spike duplicate recovery was low; the associated laboratory control sample recovery was acceptable.

Thallium

Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

Thallium, Dissolved

Recovery of internal standard out of acceptance limits; sample required dilution. Reporting limit has been elevated to account for this dilution.

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90443003 **Date Collected:** 06/23/2025 08:18 **Matrix:** Groundwater
Sample ID: MW-7B **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1790**	umhos/cm	1	1		06/23/2025 08:18	
Method: 150.2							
pH - Field	**7.76**	units	0.01	1		06/23/2025 08:18	
Method: 170.1							
Temperature - Field C	**10.16**	degrees C		1		06/23/2025 08:18	
Method: ASTM D516-16							
Sulfate	**301**	mg/L	25	5		06/25/2025 09:58	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**0.44**	mg/L	0.1	1	06/24/2025 16:25	06/26/2025 11:56	
Calcium	**18.0**	mg/L	1	1	06/24/2025 16:25	07/01/2025 10:53	
Lithium	**0.0512**	mg/L	0.02	1	06/24/2025 16:25	07/03/2025 09:16	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/24/2025 16:25	06/25/2025 17:18	
Arsenic	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:18	
Barium	**0.0191**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:18	
Beryllium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:18	
Cadmium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:18	
Chromium	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:18	
Cobalt	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:18	
Lead	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:18	
Molybdenum	**0.0038**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:18	
Selenium	<0.005	mg/L	0.005	5	06/24/2025 16:25	06/25/2025 17:18	
Thallium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:18	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90443003 **Date Collected:** 06/23/2025 08:18 **Matrix:** Groundwater
Sample ID: MW-7B **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		06/24/2025 19:27	*
Method: SM4500-F-C-2021							
Fluoride	**0.59**	mg/L	0.1	1		06/24/2025 19:27	
Method: USGS I-1750-85							
Total Dissolved Solids	**1120**	mg/L	10	1		06/25/2025 10:21	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90443004 **Date Collected:** 06/23/2025 12:43 **Matrix:** Groundwater
Sample ID: MW-8B **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1409**	umhos/cm	1	1		06/23/2025 12:43	
Method: 150.2							
pH - Field	**7.39**	units	0.01	1		06/23/2025 12:43	
Method: 170.1							
Temperature - Field C	**12.06**	degrees C		1		06/23/2025 12:43	
Method: ASTM D516-16							
Sulfate	**265**	mg/L	5	1		06/25/2025 10:12	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**0.28**	mg/L	0.1	1	06/24/2025 16:25	06/26/2025 11:56	
Calcium	**93.9**	mg/L	1	1	06/24/2025 16:25	07/01/2025 10:54	
Lithium	**0.0728**	mg/L	0.02	1	06/24/2025 16:25	07/03/2025 09:17	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/24/2025 16:25	06/25/2025 17:29	
Arsenic	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:29	
Barium	**0.0341**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:29	
Beryllium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:29	
Cadmium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:29	
Chromium	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:29	
Cobalt	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:29	
Lead	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:29	
Molybdenum	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:29	
Selenium	**0.0081**	mg/L	0.005	5	06/24/2025 16:25	06/25/2025 17:29	
Thallium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:29	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90443004 **Date Collected:** 06/23/2025 12:43 **Matrix:** Groundwater
Sample ID: MW-8B **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		06/24/2025 19:37	*
Method: SM4500-F-C-2021							
Fluoride	**0.20**	mg/L	0.1	1		06/24/2025 19:37	
Method: USGS I-1750-85							
Total Dissolved Solids	**849**	mg/L	10	1		06/25/2025 10:21	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90443005 **Date Collected:** 06/23/2025 12:43 **Matrix:** Groundwater
Sample ID: Dup UP **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1409**	umhos/cm	1	1		06/23/2025 12:43	
Method: 150.2							
pH - Field	**7.39**	units	0.01	1		06/23/2025 12:43	
Method: 170.1							
Temperature - Field C	**12.06**	degrees C		1		06/23/2025 12:43	
Method: ASTM D516-16							
Sulfate	**248**	mg/L	5	1		06/25/2025 10:13	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**0.28**	mg/L	0.1	1	06/24/2025 16:25	06/26/2025 11:57	
Calcium	**92.7**	mg/L	1	1	06/24/2025 16:25	07/01/2025 10:55	
Lithium	**0.0733**	mg/L	0.02	1	06/24/2025 16:25	07/03/2025 09:18	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/24/2025 16:25	06/25/2025 17:34	
Arsenic	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:34	
Barium	**0.0334**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:34	
Beryllium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:34	
Cadmium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:34	
Chromium	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:34	
Cobalt	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:34	
Lead	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:34	
Molybdenum	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:34	
Selenium	**0.0084**	mg/L	0.005	5	06/24/2025 16:25	06/25/2025 17:34	
Thallium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:34	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90443005 **Date Collected:** 06/23/2025 12:43 **Matrix:** Groundwater
Sample ID: Dup UP **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		06/24/2025 19:48	*
Method: SM4500-F-C-2021							
Fluoride	**0.20**	mg/L	0.1	1		06/24/2025 19:48	
Method: USGS I-1750-85							
Total Dissolved Solids	**888**	mg/L	10	1		06/25/2025 10:21	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90443006 **Date Collected:** 06/23/2025 11:18 **Matrix:** Groundwater
Sample ID: MW-105 **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1998**	umhos/cm	1	1		06/23/2025 11:18	
Method: 150.2							
pH - Field	**7.82**	units	0.01	1		06/23/2025 11:18	
Method: 170.1							
Temperature - Field C	**9.75**	degrees C		1		06/23/2025 11:18	
Method: ASTM D516-16							
Sulfate	**386**	mg/L	25	5		06/25/2025 10:01	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**0.33**	mg/L	0.1	1	06/24/2025 16:25	06/26/2025 11:58	
Calcium	**41.9**	mg/L	1	1	06/24/2025 16:25	07/01/2025 10:57	
Lithium	**0.0460**	mg/L	0.02	1	06/24/2025 16:25	07/03/2025 09:18	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/24/2025 16:25	06/25/2025 17:39	
Arsenic	**0.0020**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:39	
Barium	**0.0435**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:39	
Beryllium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:39	
Cadmium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:39	
Chromium	**0.0022**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:39	
Cobalt	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:39	
Lead	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:39	
Molybdenum	**0.0279**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:39	
Selenium	**0.0259**	mg/L	0.005	5	06/24/2025 16:25	06/25/2025 17:39	
Thallium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:39	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90443006 **Date Collected:** 06/23/2025 11:18 **Matrix:** Groundwater
Sample ID: MW-105 **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		06/24/2025 19:59	*
Method: SM4500-F-C-2021							
Fluoride	**0.88**	mg/L	0.1	1		06/24/2025 19:59	
Method: USGS I-1750-85							
Total Dissolved Solids	**1320**	mg/L	10	1		06/25/2025 10:21	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 90443

Sulfate Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			100	102.0		85	115		
LFB			100	102.0		85	115		
LFB			100	102.0		85	115		
LFB			100	100.0		85	115		
LFB			100	100.0		85	115		
LFB			100	100.0		85	115		
LFB			100	100.0		85	115		
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MS/MSD	90334001		1000	80.6	82.2	85	115	1.2	20
MS/MSD	90167004		100	98.1	99.5	85	115	1.4	20
MS/MSD	90304002		100000	86.5	89.8	85	115	2.7	20
MS/MSD	90443002		10000	81.1	84.2	85	115	1.5	20
MS/MSD	90446002		500	81.0	85.8	85	115	2.6	20
MS/MSD	90448004		100	98.8	98.8	85	115	0.0	20

Aluminum Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-DF			0.4	97.8		85	115		
MB		<0.1							
PDS/PDSD	90443002		2	97.5	101.0	75	125	3.4	20

Aluminum, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-DE			0.4	97.8		85	115		
MB		<0.1							

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Aluminum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	90443004		0.4	112.0	111.0	75	125	0.7	20
SPK/SPKD	90446002		0.4	99.8	101.0	75	125	1.0	20
SPK/SPKD	90613001		0.4	105.0	105.0	75	125	0.1	20

Boron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	101.0		85	115		
MB		<0.1							
PDS/PDSD	89556001		8	95.4	108.0	75	125	0.8	20
PDS/PDSD	90443002		2	82.3	83.0	75	125	0.6	20

Boron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	101.0		85	115		
MB		<0.1							
PDS/PDSD	90300001		40	87.8	87.0	75	125	1.4	20
SPK/SPKD	90443004		0.4	87.0	88.7	75	125	1.1	20
SPK/SPKD	90446002		1	92.3	92.5	75	125	0.1	20
SPK/SPKD	90774005		0.4	85.2	84.5	75	125	0.3	20

Calcium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
MB		<1							
DUP	90442001							0.2	20
PDS/PDSD	90443005		100	102.0	101.0	75	125	0.1	20
PDS/PDSD	90446002		100	101.0	99.6	75	125	0.9	20
PDS/PDSD	90446002		500	105.0	104.0	75	125	0.3	20
PDS/PDSD	90589002		100	104.0	102.0	75	125	0.8	20
PDS/PDSD	90590005		100	104.0	103.0	75	125	0.7	20
PDS/PDSD	90762001		100	103.0	104.0	75	125	0.7	20
PDS/PDSD	90767002		100	102.0	102.0	75	125	0.2	20
PDS/PDSD	90774005		100	98.3	98.7	75	125	0.2	20
PDS/PDSD	90776006		100	96.0	95.8	75	125	0.1	20

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Calcium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	90856001		100	100.0	101.0	75	125	0.4	20
PDS/PDSD	90916004		100	100.0	101.0	75	125	0.4	20

Calcium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
MB		<1							
SPK/SPKD	90446003		100	104.0	104.0	75	125	0.4	20
SPK/SPKD	90613001		100	100.0	99.7	75	125	0.2	20
SPK/SPKD	90774005		100	102.0	100.0	75	125	0.8	20

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	105.0		85	115		
MB		<0.1							
PDS/PDSD	90443002		2	75.9	77.8	75	125	2.4	20

Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	105.0		85	115		
MB		<0.1							
SPK/SPKD	90443004		0.4	100.0	102.0	75	125	1.8	20
SPK/SPKD	90446002		0.4	93.8	94.6	75	125	0.9	20
SPK/SPKD	90613001		0.4	79.9	79.8	75	125	0.0	20

Lithium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	105.0		85	115		
MB		<0.04							
PDS/PDSD	90443002		2	87.7	88.0	75	125	0.3	20

Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	105.0		85	115		
MB		<0.04							
SPK/SPKD	90443004		0.4	89.3	88.2	75	125	1.0	20
SPK/SPKD	90446002		0.4	90.6	88.7	75	125	2.0	20
SPK/SPKD	90613003		0.4	90.8	91.1	75	125	0.3	20

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Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	90774005		0.4	91.7	90.9	75	125	0.8	20

Magnesium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	113.0		85	115		
MB		<1							
DUP	90442001							0.9	20
PDS/PDSD	90443005		100	103.0	103.0	75	125	0.1	20
PDS/PDSD	90446002		100	102.0	101.0	75	125	0.5	20
PDS/PDSD	90446002		500	106.0	105.0	75	125	0.7	20
PDS/PDSD	90589002		100	108.0	106.0	75	125	0.8	20
PDS/PDSD	90590005		100	108.0	107.0	75	125	0.8	20
PDS/PDSD	90767001		100	107.0	108.0	75	125	1.7	20
PDS/PDSD	90767002		100	106.0	106.0	75	125	0.2	20
PDS/PDSD	90774005		100	102.0	102.0	75	125	0.5	20
PDS/PDSD	90776006		100	101.0	100.0	75	125	0.5	20
PDS/PDSD	90856001		100	104.0	105.0	75	125	0.6	20
PDS/PDSD	90916004		100	104.0	105.0	75	125	0.7	20

Magnesium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	113.0		85	115		
MB		<1							
SPK/SPKD	90446002		100	105.0	103.0	75	125	0.9	20
SPK/SPKD	90613001		100	106.0	106.0	75	125	0.2	20
SPK/SPKD	90774005		100	106.0	105.0	75	125	0.4	20

Manganese — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	106.0		85	115		
MB		<0.05							
PDS/PDSD	90443002		2	80.1	81.9	75	125	2.2	20

Manganese, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	106.0		85	115		

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Account #: 5109 **Client:** Great River Energy

Manganese, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.05							
SPK/SPKD	90443004		0.4	85.8	87.6	75	125	1.4	20
SPK/SPKD	90446002		0.4	75.8	75.2	75	125	0.3	20
SPK/SPKD	90613001		0.4	88.6	88.2	75	125	0.3	20

Potassium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	114.0		85	115		
MB		<1							
DUP	90442001							3.5	20
PDS/PDSD	90443005		100	107.0	108.0	75	125	1.0	20
PDS/PDSD	90446002		100	105.0	106.0	75	125	0.9	20
PDS/PDSD	90446007		500	106.0	104.0	75	125	1.7	20
PDS/PDSD	90589002		100	108.0	107.0	75	125	1.4	20
PDS/PDSD	90590005		100	106.0	106.0	75	125	0.4	20
PDS/PDSD	90762001		100	106.0	108.0	75	125	1.6	20
PDS/PDSD	90762002		100	104.0	105.0	75	125	0.5	20
PDS/PDSD	90774005		100	104.0	104.0	75	125	0.1	20
PDS/PDSD	90776006		100	109.0	106.0	75	125	2.0	20
PDS/PDSD	90856001		100	108.0	108.0	75	125	0.4	20
PDS/PDSD	90916004		100	105.0	106.0	75	125	1.1	20

Potassium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	114.0		85	115		
MB		<1							
SPK/SPKD	90443004		100	105.0	106.0	75	125	1.6	20
SPK/SPKD	90446002		100	107.0	104.0	75	125	2.4	20
SPK/SPKD	90613001		100	107.0	107.0	75	125	0.1	20
SPK/SPKD	90774005		100	106.0	106.0	75	125	0.0	20

Sodium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	115.0		85	115		

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Sodium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<1							
DUP	90442001							0.1	20
PDS/PDSD	90443005		100	97.9	97.0	75	125	0.4	20
PDS/PDSD	90446002		500	95.7	97.5	75	125	0.9	20
PDS/PDSD	90589002		100	111.0	110.0	75	125	1.0	20
PDS/PDSD	90590005		100	112.0	109.0	75	125	2.5	20
PDS/PDSD	90762001		100	110.0	112.0	75	125	1.3	20
PDS/PDSD	90762002		100	108.0	108.0	75	125	0.0	20
PDS/PDSD	90774005		100	73.4	71.9	75	125	0.3	20
PDS/PDSD	90776006		100	95.1	95.6	75	125	0.2	20
PDS/PDSD	90856001		100	103.0	104.0	75	125	0.2	20
PDS/PDSD	90916004		100	102.0	102.0	75	125	0.2	20

Sodium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	115.0		85	115		
MB		<1							
SPK/SPKD	90443004		100	94.6	96.4	75	125	0.8	20
SPK/SPKD	90446002		500	101.0	99.4	75	125	0.8	20
SPK/SPKD	90613001		100	85.5	88.7	75	125	0.9	20
SPK/SPKD	90774005		100	78.6	78.8	75	125	0.0	20

Antimony — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
MB		<0.001							
MS/MSD	90443002		0.4	105.0	103.0	75	125	5.4	20

Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
MB		<0.001							
MS/MSD	90443002		0.4	109.0	103.0	75	125	5.4	20
SPK/SPKD	90446002		0.1	109.0	111.0	75	125	1.5	20

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Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	90448004		0.1	105.0	103.0	75	125	1.5	20

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	113.0	112.0	75	125	0.0	20

Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	113.0	112.0	75	125	0.0	20
SPK/SPKD	90446002		0.1	108.0	107.0	75	125	0.4	20
SPK/SPKD	90448004		0.1	105.0	106.0	75	125	1.1	20

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	113.0	106.0	75	125	5.8	20

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	113.0	106.0	75	125	5.8	20
SPK/SPKD	90446002		0.1	109.0	104.0	75	125	2.2	20
SPK/SPKD	90448004		0.1	112.0	112.0	75	125	0.3	20

Beryllium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
MB		<0.0005							
MS/MSD	90443002		0.4	101.0	99.2	75	125	1.5	20

Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		

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Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0005							
MS/MSD	90443002		0.4	101.0	99.2	75	125	1.5	20
SPK/SPKD	90446002		0.1	98.7	98.2	75	125	0.5	20
SPK/SPKD	90448004		0.1	99.1	99.5	75	125	0.4	20

Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							
MS/MSD	90443002		0.4	104.0	98.2	75	125	5.7	20

Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							
MS/MSD	90443002		0.4	104.0	98.2	75	125	5.7	20
SPK/SPKD	90446002		0.1	104.0	104.0	75	125	0.1	20
SPK/SPKD	90448004		0.1	104.0	105.0	75	125	0.4	20

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	119.0	121.0	75	125	1.2	20

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	119.0	121.0	75	125	1.2	20
SPK/SPKD	90446002		0.1	104.0	103.0	75	125	0.3	20
SPK/SPKD	90448004		0.1	107.0	107.0	75	125	0.0	20

Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	115.0	115.0	75	125	0.7	20

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Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	115.0	115.0	75	125	0.7	20
SPK/SPKD	90446002		0.1	104.0	104.0	75	125	0.0	20
SPK/SPKD	90448004		0.1	108.0	107.0	75	125	0.2	20

Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MS/MSD	90443002		0.4	112.0	109.0	75	125	2.9	20

Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MS/MSD	90443002		0.4	112.0	109.0	75	125	2.9	20
SPK/SPKD	90446002		0.1	110.0	108.0	75	125	1.9	20
SPK/SPKD	90448004		0.1	105.0	104.0	75	125	1.0	20

Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	117.0	111.0	75	125	4.9	20

Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	117.0	111.0	75	125	4.9	20
SPK/SPKD	90446002		0.1	111.0	114.0	75	125	2.9	20
SPK/SPKD	90448004		0.1	104.0	104.0	75	125	0.1	20

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.005							

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Selenium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	90443002		0.4	118.0	116.0	75	125	2.1	20

Selenium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.005							
MS/MSD	90443002		0.4	118.0	116.0	75	125	2.1	20
SPK/SPKD	90446002		0.1	106.0	105.0	75	125	0.9	20
SPK/SPKD	90448004		0.1	104.0	104.0	75	125	0.4	20

Thallium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MS/MSD	90443002		0.4	105.0	103.0	75	125	1.9	20

Thallium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MS/MSD	90443002		0.4	105.0	103.0	75	125	1.9	20
SPK/SPKD	90446002		0.1	109.0	106.0	75	125	2.7	20
SPK/SPKD	90448004		0.1	103.0	103.0	75	125	0.3	20

Mercury Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	100.0		85	115		
LFB			0.002	98.1		85	115		
LRB		<0.0002							
MB		<0.0002							
MS/MSD	90446001		0.002	93.5	91.4	70	130	5.4	20
MS/MSD	90446002		0.002	85.2	90.8	70	130	5.7	20
MS/MSD	90610004		0.002	89.3	99.0	70	130	10.5	20
MS/MSD	90641001		0.002	95.0	87.4	70	130	11.1	20

Alkalinity, Total Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			501	93.1		80	120		

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Alkalinity, Total — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			410	96.9		90	110		
LFB			410	96.6		90	110		
LFB			410	95.7		90	110		
LFB			410	96.5		90	110		
LFB			410	98.3		90	110		
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MS/MSD	90275006		410	90.5	89.3	80	120	0.8	20
MS/MSD	90304006		410	92.2	87.0	80	120	3.2	20
MS/MSD	90442002		410	91.2	91.4	80	120	0.1	20
MS/MSD	90446002		410	91.7	91.7	80	120	0.0	20

pH — Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	100.5					
CRM-PH			6	100.5					
CRM-PH			6	100.5					
CRM-PH			6	100.2					
CRM-PH			6	100.0					
DUP	90275002							0.7	20
DUP	90391001							0.1	20
DUP	90440001							0.4	20
DUP	90446002							0.9	20

Fluoride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			0.6	102.0		83.99	111.11		
LFB-F			0.5	96.0		90	110		
LFB-F			0.5	100.0		90	110		
LFB-F			0.5	100.0		90	110		

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Fluoride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	90443002		0.5	82.0	84.0	80	120	1.1	20
MS/MSD-F	90446002		0.5	114.0	104.0	80	120	4.5	20

Total Dissolved Solids — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	100.0		90.35	110.33		
MB		<10							
DUP	90442001							1.0	20
DUP	90446002							6.2	20

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Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS UP
Attn:	Cassie Johnston		Event: June 2025
Address:		44 Union Blvd, Suite 300 Lakewood, CO 80228	Sampled By: Ethan Gress
Phone:			
Email:	CJohnston@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)							Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 6B	23Jun25	1503	GW	X	X	X							12.72	1720	7.80	1.17	* ~~App IV, Iron, Aluminum, Mangangese~~ (Total Only for Mercury and Radio Chem, Dissolved and Total for Remainder of Metals.) (See Attachments)
002	MW- 7A	23Jun25	0947	GW	X	X	X							8.72	18092	7.43	0.14	
003	MW- 7B	23Jun25	0818	GW	X	X	X							10.16	1790	7.76	8.00	
004	MW- 8B	23Jun25	1243	GW	X	X	X							12.06	1409	7.39	5.59	
005	Dup Up	23Jun25	1243	GW	X	X	X							12.06	1409	7.39	5.59	
006	MW- 105	23Jun25	1118	GW	X	X	X							9.75	1998	7.82	0.79	

Comments: Upgradient/Side-gradient Wells

* App III + IV, additional parameters per email from Erin Hunter@WSP 4D 24Jun25

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		23Jun25 2015	Log In / Walk In #2	3.5 °C/TM 805 ROI(Y)N		24 Jun25 0500
2						

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	GB
Sampling Personal:	Ethan Cossel

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	17.71	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	20.23	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 5	Sec.
Recover: 57	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
23June25	1438	Start of Well Purge									
	1448	13.60	1722	7.79	5.40	274.8	0.18	18.92	100.0	1.0	Clear
	1453	12.87	1722	7.80	5.49	234.7	0.60	19.19	100.0	0.5	Clear
	1458	12.70	1707	7.80	5.31	230.8	0.90	19.37	100.0	0.5	Clear
	1503	12.72	1720	7.80	5.00	225.8	1.165	19.52	100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
23June25	1503	12.72	1720	7.80	5.00	225.8	1.165				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	7A
Sampling Personal:	Ethan Gross

Weather Conditions: Temp: 50 °F Wind: NW @ 10-15 Precip: ~~Sunny~~ / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	10.87	ft
Depth to Top of Pump:	14.65	ft
Water Level After Sample:	13.95	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28/158	Sec.
PSI:		

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
23 June 25	0922	Start of Well Purge									clear, slightly turbid, turbid
	0932	8.62	18138	7.41	6.02	197.5	0.00	12.03	200.0	2.0	Clear
	0937	8.75	17957	7.52	8.13	203.5	8.00	12.44	200.0	1.0	Clear
	0942	8.56	17834	7.49	7.64	212.2	0.00	12.73	200.0	1.0	Clear
	0947	8.72	18092	7.43	6.29	209.8	0.14	13.11	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
23 June 25	0947	8.72	18092	7.43	6.29	209.8	0.14				Clear

Comments:

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	FD
Sampling Personal:	Ethan Greis

Weather Conditions: Temp: 56 °F Wind: NW @ 10-15 Precip: (Sunny) / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	10.61	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	10.64	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28	Sec.
PSI:		

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
23 June 25	0753	Start of Well Purge									
	0803	10.15	1816	7.76	0.13	-88.2	0.00	10.62	200.0	2.0	Clear
	0808	10.11	1816	7.76	0.07	-97.7	0.00	10.62	200.0	1.0	Clear
	0813	10.14	1799	7.76	0.04	-102.6	0.00	10.63	200.0	1.0	Clear
	0818	10.16	1790	7.76	0.03	-106.0	0.00	10.64	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
23 June 25	0818	10.16	1790	7.76	0.03	-106.0	0.00				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	8D
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 50 °F Wind: NW @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	41.89	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	44.90	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 5	Sec.
Recover: 10	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
(YES) NO
Duplicate Sample ID:
Dup #4

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
	1218	Start of Well Purge									
23June25	1228	12.57	1461	7.37	0.29	103.0	7.40	44.90	100.0	1.0	Clear
	1233	11.93	1446	7.38	0.21	92.1	7.17	44.90	100.0	0.5	Clear
	1238	12.07	1426	7.38	0.24	93.0	6.49	44.90	100.0	0.5	Clear
	1243	12.06	1409	7.39	0.28	97.0	5.59	44.90	100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 3.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
23June25	1243	12.06	1409	7.39	0.28	97.0	5.59				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	105
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 50 °F Wind: NW @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	14.40	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	14.50	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
23June25	1053	Start of Well Purge									
	1103	9.94	1963	7.81	1.62	184.0	1.58	14.55	200.0	2.0	Clear
	1108	9.80	2055	7.81	1.23	177.1	0.39	14.50	200.0	1.0	Clear
	1113	9.76	2034	7.82	1.15	180.5	0.93	14.52	200.0	1.0	Clear
	1118	9.75	1998	7.82	1.51	186.0	0.79		200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
23June25	1118	9.75	1998	7.82	1.51	186.0	0.79				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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Account #: 5109 **Client:** Great River Energy

February 2025 GL21509219.000

Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy

February 2025 GL21509219.000

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 24 Jun 25 Time: 1156 Analyst: PN

Work Order #: 90443

Containers Supplied by MVTL: [X] Yes [ ] No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
6	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
6	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
6	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS UP June 2025 (90424) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90424001 **Date Collected:** 06/23/2025 15:03 **Matrix:** Groundwater
Sample ID: MW-6B **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:29	
Radium 228	See Attached			1		08/01/2025 13:29	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90424002 **Date Collected:** 06/23/2025 09:47 **Matrix:** Groundwater
Sample ID: MW-7A **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:29	
Radium 228	See Attached			1		08/01/2025 13:29	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90424003 **Date Collected:** 06/23/2025 08:18 **Matrix:** Groundwater
Sample ID: MW-7B **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:29	
Radium 228	See Attached			1		08/01/2025 13:29	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90424004 **Date Collected:** 06/23/2025 12:43 **Matrix:** Groundwater
Sample ID: MW-8B **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:29	
Radium 228	See Attached			1		08/01/2025 13:29	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90424005 **Date Collected:** 06/23/2025 12:43 **Matrix:** Groundwater
Sample ID: Dup UP **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:29	
Radium 228	See Attached			1		08/01/2025 13:29	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90424006 **Date Collected:** 06/23/2025 11:18 **Matrix:** Groundwater
Sample ID: MW-105 **Date Received:** 06/23/2025 20:15 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:29	
Radium 228	See Attached			1		08/01/2025 13:29	

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Account #: 5109 **Client:** Great River Energy

ANALYTICAL SUMMARY REPORT

July 30, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25060962 Quote ID: C15480
Project Name: 90424

Energy Laboratories, Inc. Casper WY received the following 6 samples for Minnesota Valley Testing Laboratories on 6/27/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25060962-001	90424001, MW-6B	06/23/25 15:03	06/27/25	Groundwater	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25060962-002	90424002, MW-7A	06/23/25 09:47	06/27/25	Groundwater	Same As Above
C25060962-003	90424003, MW-7B	06/23/25 08:18	06/27/25	Groundwater	Same As Above
C25060962-004	90424004, MW-8B	06/23/25 12:43	06/27/25	Groundwater	Same As Above
C25060962-005	90424005, DUP UP	06/23/25 12:43	06/27/25	Groundwater	Same As Above
C25060962-006	90424006, MW-105	06/23/25 11:18	06/27/25	Groundwater	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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Account #: 5109 **Client:** Great River Energy

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90424
Lab ID: C25060962-001
Client Sample ID: 90424001, MW-6B

Report Date: 07/30/25
Collection Date: 06/23/25 15:03
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.4	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 228	1	pCi/L	U			RA-05	07/17/25 16:44 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	07/17/25 16:44 / trs
Radium 228 MDC	1.0	pCi/L				RA-05	07/17/25 16:44 / trs
Radium 226 + Radium 228	0.9	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1.0	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90424
Lab ID: C25060962-002
Client Sample ID: 90424002, MW-7A

Report Date: 07/30/25
Collection Date: 06/23/25 09:47
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.03	pCi/L	U			E903.0	07/23/25 15:50 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 228	0.8	pCi/L	U			RA-05	07/17/25 16:44 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/17/25 16:44 / trs
Radium 228 MDC	0.9	pCi/L				RA-05	07/17/25 16:44 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90424
Lab ID: C25060962-003
Client Sample ID: 90424003, MW-7B

Report Date: 07/30/25
Collection Date: 06/23/25 08:18
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.02	pCi/L	U			E903.0	07/23/25 15:50 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 228	-0.2	pCi/L	U			RA-05	07/17/25 16:47 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/17/25 16:47 / trs
Radium 228 MDC	1.0	pCi/L				RA-05	07/17/25 16:47 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1.0	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90424
Lab ID: C25060962-004
Client Sample ID: 90424004, MW-8B

Report Date: 07/30/25
Collection Date: 06/23/25 12:43
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	07/23/25 15:50 / dmr
Radium 226 precision (±)	0.2	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 226 MDC	0.3	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 228	0.7	pCi/L	U			RA-05	07/17/25 16:44 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	07/17/25 16:44 / trs
Radium 228 MDC	1.1	pCi/L				RA-05	07/17/25 16:44 / trs
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

Page 5 of 13

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Account #: 5109 **Client:** Great River Energy

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90424
Lab ID: C25060962-005
Client Sample ID: 90424005, DUP UP

Report Date: 07/30/25
Collection Date: 06/23/25 12:43
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.03	pCi/L	U			E903.0	07/23/25 15:50 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 228	0.07	pCi/L	U			RA-05	07/17/25 16:47 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/17/25 16:47 / trs
Radium 228 MDC	0.9	pCi/L				RA-05	07/17/25 16:47 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90424
Lab ID: C25060962-006
Client Sample ID: 90424006, MW-105

Report Date: 07/30/25
Collection Date: 06/23/25 11:18
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.04	pCi/L	U			E903.0	07/23/25 15:50 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 228	0.3	pCi/L	U			RA-05	07/17/25 16:47 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/17/25 16:47 / trs
Radium 228 MDC	1	pCi/L				RA-05	07/17/25 16:47 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25060962 **Report Date:** 07/29/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11739
Lab ID: LCS-RA226-11739	3	Laboratory Control Sample				Run: TENNELEC-4_250714D				07/23/25 15:50
Radium 226		10	pCi/L		100	70	130			
Radium 226 precision (±)		1.6	pCi/L							
Radium 226 MDC		0.18	pCi/L							
Lab ID: MB-RA226-11739	3	Method Blank				Run: TENNELEC-4_250714D				07/23/25 15:50
Radium 226		-0.03	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C25060962-004ADUP	3	Sample Duplicate				Run: TENNELEC-4_250714D				07/23/25 15:50
Radium 226		0.046	pCi/L					74	30	UR
Radium 226 precision (±)		0.14	pCi/L							
Radium 226 MDC		0.23	pCi/L							

- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.25.

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25060962 **Report Date:** 07/29/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **RA-05**									Batch: RA228-7707	
Lab ID: **LCS-228-RA226-11739**	3	Laboratory Control Sample				Run: TENNELEC-4_250714B			07/17/25 16:44	
Radium 228		10	pCi/L		111	70	130			
Radium 228 precision (±)		2.7	pCi/L							
Radium 228 MDC		1.2	pCi/L							
Lab ID: **MB-RA226-11739**	3	Method Blank				Run: TENNELEC-4_250714B			07/17/25 16:44	
Radium 228		0.6	pCi/L							U
Radium 228 precision (±)		0.7	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: **C25060962-004ADUP**	3	Sample Duplicate				Run: TENNELEC-4_250714B			07/17/25 16:44	
Radium 228		1.0	pCi/L					38	30	UR
Radium 228 precision (±)		0.73	pCi/L							
Radium 228 MDC		1.0	pCi/L							

- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.32.

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25060962

Login completed by: Lisa X. Quezada
Reviewed by: darcy
Reviewed Date: 7/9/2025
Date Received: 6/27/2025
Received by: LDS
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	22.2°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature blank temperature in shipping container 1 was 21.7°C, shipping container 2 was 22.2°C, shipping container 3 was 21.9°C, shipping container 4 was 22.0°C, shipping container 5 was 22.0°C. shipping container 6 was

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Work Order Receipt Checklist - Continued

Minnesota Valley Testing Laboratories C25060962

22.2°C and shipping container 7 was 21.6°C.

The chain of custody indicates to analyze an MS/MSD on sample 71313003. This sample is not indicated on the chain of custody and was not received. MS/MSD is not needed on this report per email from Tera Olson on 06/27/25. LXQ 06/27/25

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Laboratory Certifications and Accreditations

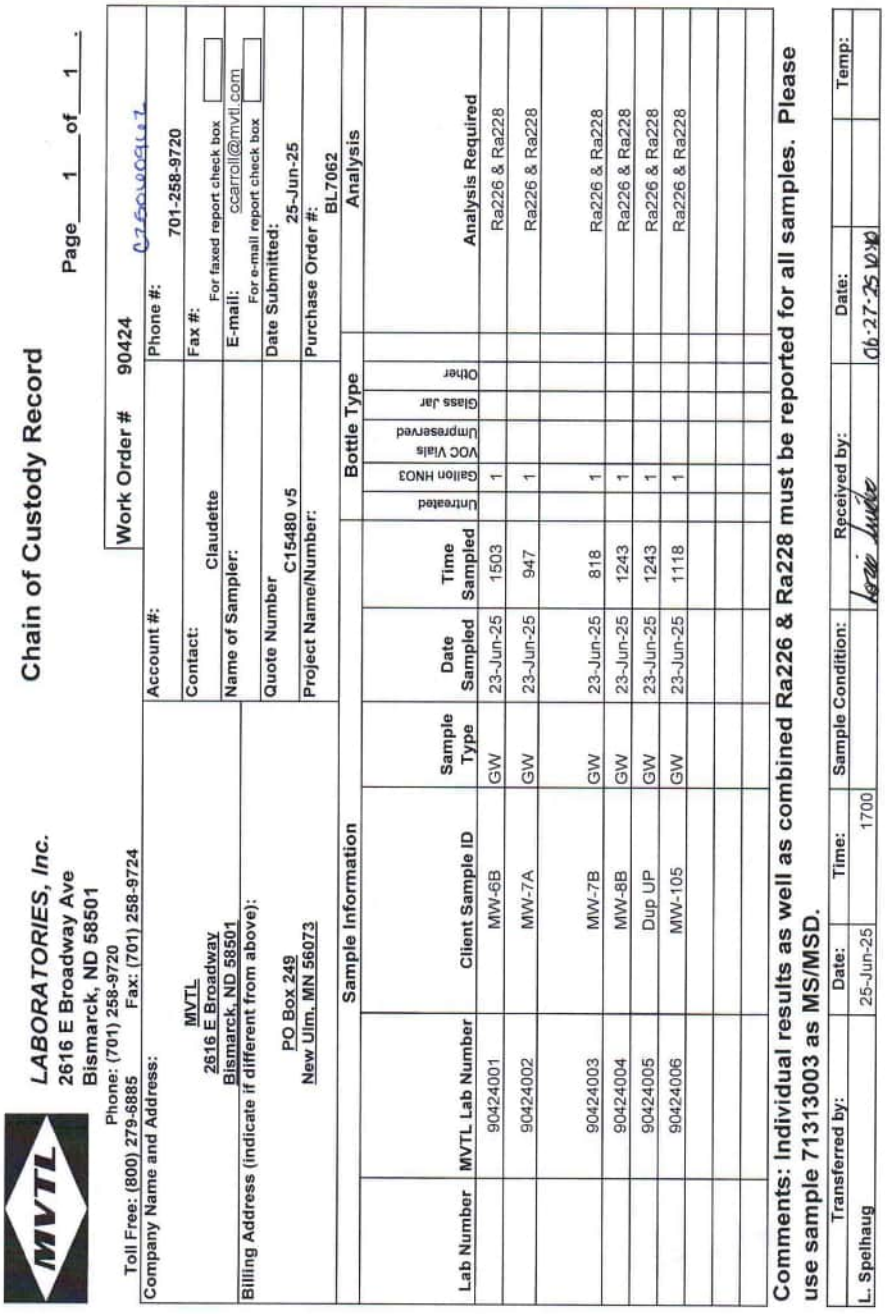
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	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Chain of Custody Record

Page 1 of 1

Work Order # 90424 C250609017

Company Name and Address: MVTL 2616 E Broadway Bismarck, ND 58501
Account #:
Contact: Claudette
Name of Sampler:
Quote Number C15480 v5
Project Name/Number:
Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box
Date Submitted: 25-Jun-25
Purchase Order #: BL7062
Billing Address (indicate if different from above): PO Box 249 New Ulm, MN 56073

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Untreated	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	90424001	MW-6B	GW	23-Jun-25	1503		1				Ra226 & Ra228
	90424002	MW-7A	GW	23-Jun-25	947		1				Ra226 & Ra228
	90424003	MW-7B	GW	23-Jun-25	818		1				Ra226 & Ra228
	90424004	MW-8B	GW	23-Jun-25	1243		1				Ra226 & Ra228
	90424005	Dup UP	GW	23-Jun-25	1243		1				Ra226 & Ra228
	90424006	MW-105	GW	23-Jun-25	1118		1				Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples. Please use sample 71313003 as MS/MSD.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
L. Spelhaug	25-Jun-25	1700		Kerri Tucker	06-27-25 1030	

Page 13 of 13

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Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 90424

Chain of Custody Record

Report To:	Great River Energy	CC:	WSP
Attn:	Cassie Johnston		44 Union Blvd, Suite 300
Address:			Lakewood, CO 80228
Phone:			
Email:	CJohnston@GREnergy.com		

Project Name: SS UP
Event: June 2025
Sampled By: Ethan Gress

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric	Field Readings	Analysis Required
001	MW- 6B	23June25	1303	GW				X		Radium 226 and 228 Combined
002	MW- 7A	23June25	0947	GW				X		
003	MW- 7B	23June25	0818	GW				X		
004	MW- 8B	23June25	1243	GW				X		
005	Dup Up	23June25	1243	GW				X		
006	MW- 105	23June25	1118	GW				X		

Comments: Upgradient/Side-gradient Wells

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	23June25 1515	Log In Walk In #2	Ambient		24Jun25 0800
2					

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	GD
Sampling Personal:	Ethan Crest

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	17.71	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	20.23	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: 57	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
23Jun25	1438	Start of Well Purge									
	1448	13.60	1722	7.79	5.40	274.8	0.18	18.92	100.0	1.0	Clear
	1453	12.87	1722	7.80	5.49	234.7	0.00	19.19	100.0	0.5	Clear
	1458	12.70	1707	7.80	5.31	230.8	0.00	19.37	100.0	0.5	Clear
	1503	12.72	1720	7.80	5.00	225.8	1.165	19.52	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
23Jun25	1503	12.72	1720	7.80	5.00	225.8	1.165				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	7A
Sampling Personal:	EHughes

Weather Conditions: Temp: 50 °F Wind: NW @ 10-15 Precip: ~~Sunny~~ / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	10.87	ft
Depth to Top of Pump:	14.65	ft
Water Level After Sample:	13.95	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28/158	Sec.
PSI:		

Bottle List:
1 Liter Raw
1 Gal Nitric
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample? YES / (NO)
Duplicate Sample ID: —

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
23 June 25	0922	Start of Well Purge									
	0932	8.62	18138	7.41	6.02	197.5	0.00	12.03	200.0	2.0	Clear
	0937	8.75	17957	7.52	8.13	203.5	8.00	12.44	200.0	1.0	Clear
	0942	8.56	17834	7.49	7.64	212.2	0.00	12.73	200.0	1.0	Clear
	0947	8.72	18092	7.43	6.29	209.8	0.14	13.11	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
23 June 25	0947	8.72	18092	7.43	6.29	209.8	0.14				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company: GRE Stanton Station
Event: June 2025
Sample ID: FD
Sampling Personal: Ethan Green

Weather Conditions: Temp: 56 °F Wind: NW @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	10.61	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	10.64	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28	Sec.
PSI:		

Bottle List:
1 Liter Raw 1 Gal Nitric
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample? YES / NO
Duplicate Sample ID: —

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
23 June 25	0753	Start of Well Purge									
	0803	10.15	1816	7.76	0.13	-88.2	0.00	10.62	200.0	2.0	Clear
	0808	10.11	1816	7.76	0.07	-97.7	0.00	10.62	200.0	1.0	Clear
	0813	10.14	1799	7.76	0.04	-102.6	0.00	10.63	200.0	1.0	Clear
	0818	10.16	1790	7.76	0.03	-106.0	0.00	10.64	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
23 June 25	0818	10.16	1790	7.76	0.03	-106.0	0.00				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company: GRE Stanton Station
Event: June 2025
Sample ID: SB
Sampling Personal: Ethan Bress

Weather Conditions: Temp: 50 °F Wind: NW @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	44.89	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	44.90	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 5	Sec.
Recover: 10	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
Dup 4p

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
23June25	1218	Start of Well Purge									
	1228	12.57	1461	7.37	0.29	103.0	7.40	44.90	100.0	1.0	Clear
	1233	11.93	1446	7.38	0.21	92.1	7.17	44.90	100.0	0.5	Clear
	1238	12.07	1426	7.38	0.24	93.0	6.49	44.90	100.0	0.5	Clear
	1243	12.06	1409	7.39	0.28	97.0	5.59	44.90	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 3.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
23June25	1243	12.06	1409	7.39	0.28	97.0	5.59				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	105
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 50 °F Wind: NW @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	14.48	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	14.50	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
	1053	Start of Well Purge									
	1103	9.94	1963	7.81	1.62	184.0	1.58	14.55	200.0	2.0	Clear
23 June 25	1108	9.80	2055	7.81	1.23	177.1	0.39	14.50	200.0	1.0	Clear
	1113	9.78	2034	7.82	1.15	180.5	0.93	14.52	200.0	1.0	Clear
	1118	9.75	1998	7.82	1.51	186.0	0.79		200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
23 June 25	1118	9.75	1998	7.82	1.51	186.0	0.79				Clear

Comments:

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Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	–	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	–	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	–	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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Account #: 5109 **Client:** Great River Energy

February 2025 GL21509219.000

Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-108-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS BAL June 2025 (90448) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90448001 **Date Collected:** 06/23/2025 07:35 **Matrix:** Groundwater
Sample ID: MW-9N **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**3918**	umhos/cm	1	1		06/23/2025 07:35	
Method: 150.2							
pH - Field	**7.03**	units	0.01	1		06/23/2025 07:35	
Method: 170.1							
Temperature - Field C	**9.03**	degrees C		1		06/23/2025 07:35	
Method: ASTM D516-16							
Sulfate	**1110**	mg/L	25	5		06/25/2025 10:20	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**2.50**	mg/L	0.1	1	06/24/2025 16:25	06/26/2025 12:06	
Calcium	**84.0**	mg/L	1	1	06/24/2025 16:25	07/01/2025 11:08	
Lithium	**0.0457**	mg/L	0.02	1	06/24/2025 16:25	07/03/2025 09:25	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/24/2025 16:25	06/25/2025 18:48	
Arsenic	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:48	
Barium	**0.0543**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:48	
Beryllium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:48	
Cadmium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:48	
Chromium	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:48	
Cobalt	**0.0041**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:48	
Lead	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:48	
Molybdenum	**0.0464**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:48	
Selenium	**0.0103**	mg/L	0.005	5	06/24/2025 16:25	06/25/2025 18:48	
Thallium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:48	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90448001 **Date Collected:** 06/23/2025 07:35 **Matrix:** Groundwater
Sample ID: MW-9N **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		06/24/2025 22:48	*
Method: SM4500-F-C-2021							
Fluoride	**0.71**	mg/L	0.1	1		06/24/2025 22:48	
Method: USGS I-1750-85							
Total Dissolved Solids	**2850**	mg/L	10	1		06/25/2025 10:21	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90448002 **Date Collected:** 06/23/2025 08:26 **Matrix:** Groundwater
Sample ID: MW-102 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2017**	umhos/cm	1	1		06/23/2025 08:26	
Method: 150.2							
pH - Field	**7.51**	units	0.01	1		06/23/2025 08:26	
Method: 170.1							
Temperature - Field C	**9.89**	degrees C		1		06/23/2025 08:26	
Method: ASTM D516-16							
Sulfate	**578**	mg/L	25	5		06/25/2025 10:21	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**0.43**	mg/L	0.1	1	06/24/2025 16:25	06/26/2025 12:07	
Calcium	**61.6**	mg/L	1	1	06/24/2025 16:25	07/01/2025 11:09	
Lithium	**0.0538**	mg/L	0.02	1	06/24/2025 16:25	07/03/2025 09:25	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/24/2025 16:25	06/25/2025 18:53	
Arsenic	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:53	
Barium	**0.0293**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:53	
Beryllium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:53	
Cadmium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:53	
Chromium	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:53	
Cobalt	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:53	
Lead	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:53	
Molybdenum	**0.0206**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:53	
Selenium	<0.005	mg/L	0.005	5	06/24/2025 16:25	06/25/2025 18:53	
Thallium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:53	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90448002 **Date Collected:** 06/23/2025 08:26 **Matrix:** Groundwater
Sample ID: MW-102 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		06/24/2025 22:59	*
Method: SM4500-F-C-2021							
Fluoride	**0.48**	mg/L	0.1	1		06/24/2025 22:59	
Method: USGS I-1750-85							
Total Dissolved Solids	**1440**	mg/L	10	1		06/25/2025 10:21	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90448003 **Date Collected:** 06/23/2025 09:20 **Matrix:** Groundwater
Sample ID: MW-103 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2504**	umhos/cm	1	1		06/23/2025 09:20	
Method: 150.2							
pH - Field	**8.84**	units	0.01	1		06/23/2025 09:20	
Method: 170.1							
Temperature - Field C	**9.27**	degrees C		1		06/23/2025 09:20	
Method: ASTM D516-16							
Sulfate	**693**	mg/L	25	5		06/25/2025 10:22	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**0.98**	mg/L	0.1	1	06/24/2025 16:25	06/26/2025 12:08	
Calcium	**32.3**	mg/L	1	1	06/24/2025 16:25	07/01/2025 11:10	
Lithium	**0.0411**	mg/L	0.02	1	06/24/2025 16:25	07/03/2025 09:26	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/24/2025 16:25	06/25/2025 18:58	
Arsenic	**0.0091**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:58	
Barium	**0.0986**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:58	
Beryllium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:58	
Cadmium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:58	
Chromium	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:58	
Cobalt	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:58	
Lead	**0.0006**	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:58	
Molybdenum	**0.0242**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:58	
Selenium	<0.005	mg/L	0.005	5	06/24/2025 16:25	06/25/2025 18:58	
Thallium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:58	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90448003 **Date Collected:** 06/23/2025 09:20 **Matrix:** Groundwater
Sample ID: MW-103 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.8**	units	0.1	1		06/24/2025 23:10	*
Method: SM4500-F-C-2021							
Fluoride	**0.27**	mg/L	0.1	1		06/24/2025 23:10	
Method: USGS I-1750-85							
Total Dissolved Solids	**1810**	mg/L	10	1		06/25/2025 10:21	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90448004 **Date Collected:** 06/23/2025 09:30 **Matrix:** Groundwater
Sample ID: FB BAL **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	<5	mg/L	5	1		06/25/2025 10:23	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	<0.1	mg/L	0.1	1	06/24/2025 16:25	06/26/2025 12:08	
Calcium	<1	mg/L	1	1	06/24/2025 16:25	07/01/2025 11:11	
Lithium	<0.02	mg/L	0.02	1	06/24/2025 16:25	07/03/2025 09:27	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/24/2025 16:25	06/25/2025 19:03	
Arsenic	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 19:03	
Barium	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 19:03	
Beryllium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 19:03	
Cadmium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 19:03	
Chromium	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 19:03	
Cobalt	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 19:03	
Lead	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 19:03	
Molybdenum	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 19:03	
Selenium	<0.005	mg/L	0.005	5	06/24/2025 16:25	06/25/2025 19:03	
Thallium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 19:03	
Method: SM4500 H+ B-2021							
pH	**6.3**	units	0.1	1		06/24/2025 23:23	*
Method: SM4500-F-C-2021							
Fluoride	<0.1	mg/L	0.1	1		06/24/2025 23:23	
Method: USGS I-1750-85							
Total Dissolved Solids	<10	mg/L	10	1		06/25/2025 10:21	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 90448

Sulfate — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			100	102.0		85	115		
LFB			100	102.0		85	115		
LFB			100	102.0		85	115		
LFB			100	100.0		85	115		
LFB			100	100.0		85	115		
LFB			100	100.0		85	115		
LFB			100	100.0		85	115		
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MS/MSD	90134001		1000	80.6	82.2	85	115	1.2	20
MS/MSD	90167004		100	98.1	99.5	85	115	1.4	20
MS/MSD	90304002		100000	86.5	89.8	85	115	2.7	20
MS/MSD	90443002		10000	81.1	84.2	85	115	1.5	20
MS/MSD	90446002		500	81.0	85.8	85	115	2.6	20
MS/MSD	90448004		100	98.8	98.8	85	115	0.0	20

Aluminum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	97.8		85	115		
MB		<0.1							
PDS/PDSD	90443002		2	97.5	101.0	75	125	3.4	20
MS/MSD	90446002		0.4	126.0	128.0	70	130	1.4	20

Aluminum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	97.8		85	115		

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Aluminum, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.1							
SPK/SPKD	90443004		0.4	112.0	111.0	75	125	0.7	20
SPK/SPKD	90446002		0.4	99.8	101.0	75	125	1.0	20
SPK/SPKD	90613001		0.4	105.0	105.0	75	125	0.1	20

Boron				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OF			0.4	101.0		85	115		
MB		<0.1							
PDS/PDSD	89556001		8	95.4	108.0	75	125	0.8	20
PDS/PDSD	90443002		2	82.3	83.0	75	125	0.6	20
MS/MSD	90446002		0.4	98.2	92.2	70	130	1.4	20

Boron, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OF			0.4	101.0		85	115		
MB		<0.1							
PDS/PDSD	90300001		40	87.8	82.0	75	125	1.4	20
SPK/SPKD	90443004		0.4	87.0	88.7	75	125	1.1	20
SPK/SPKD	90446002		1	92.3	92.5	75	125	0.1	20
SPK/SPKD	90774005		0.4	85.2	84.5	75	125	0.3	20

Calcium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
MB		<1							
PDS/PDSD	90443005		100	102.0	101.0	75	125	0.1	20
DUP	90446002							1.0	20
PDS/PDSD	90446002		100	101.0	99.6	75	125	0.9	20
PDS/PDSD	90446002		500	105.0	104.0	75	125	0.3	20
PDS/PDSD	90589002		100	104.0	102.0	75	125	0.8	20
PDS/PDSD	90590005		100	104.0	103.0	75	125	0.7	20
PDS/PDSD	90762001		100	103.0	104.0	75	125	0.7	20
PDS/PDSD	90762002		100	102.0	102.0	75	125	0.2	20

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Account #: 5109 **Client:** Great River Energy

Calcium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	90774005		100	98.3	98.7	75	125	0.2	20
PDS/PDSD	90776006		100	96.0	95.8	75	125	0.1	20
PDS/PDSD	90856001		100	100.0	101.0	75	125	0.4	20
PDS/PDSD	90916004		100	100.0	101.0	75	125	0.4	20

Calcium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
MB		<1							
SPK/SPKD	90443004		100	100.0	101.0	75	125	0.5	20
SPK/SPKD	90446002		100	104.0	104.0	75	125	0.4	20
SPK/SPKD	90613001		100	100.0	99.7	75	125	0.2	20
SPK/SPKD	90774005		100	102.0	100.0	75	125	0.8	20

Iron Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	105.0		85	115		
MB		<0.1							
PDS/PDSD	90443002		2	75.9	77.8	75	125	2.4	20
MS/MSD	90446002		0.4	99.6	91.0	70	130	6.6	20

Iron, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	105.0		85	115		
MB		<0.1							
SPK/SPKD	90443004		0.4	100.0	102.0	75	125	1.8	20
SPK/SPKD	90446002		0.4	93.8	94.6	75	125	0.9	20
SPK/SPKD	90613001		0.4	79.9	79.8	75	125	0.0	20

Lithium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	105.0		85	115		
MB		<0.04							
PDS/PDSD	90443002		2	87.7	88.0	75	125	0.3	20
MS/MSD	90446002		0.4	93.6	98.3	70	130	1.3	20

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Account #: 5109 **Client:** Great River Energy

Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	105.0		85	115		
MB		<0.04							
SPK/SPKD	90443004		0.4	89.3	88.2	75	125	1.0	20
SPK/SPKD	90446002		0.4	90.6	88.7	75	125	2.0	20
SPK/SPKD	90613003		0.4	90.8	91.1	75	125	0.3	20
SPK/SPKD	90774005		0.4	91.7	90.9	75	125	0.8	20

Magnesium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	113.0		85	115		
MB		<1							
PDS/PDSD	90443005		100	103.0	103.0	75	125	0.1	20
DUP	90446002							0.8	20
PDS/PDSD	90446002		100	102.0	101.0	75	125	0.5	20
PDS/PDSD	90446002		500	106.0	105.0	75	125	0.7	20
PDS/PDSD	90589002		100	108.0	106.0	75	125	0.8	20
PDS/PDSD	90590005		100	108.0	107.0	75	125	0.8	20
PDS/PDSD	90762001		100	107.0	108.0	75	125	1.7	20
PDS/PDSD	90762002		100	106.0	106.0	75	125	0.2	20
PDS/PDSD	90774005		100	102.0	102.0	75	125	0.5	20
PDS/PDSD	90776006		100	101.0	100.0	75	125	0.5	20
PDS/PDSD	90856001		100	104.0	105.0	75	125	0.6	20
PDS/PDSD	90916004		100	104.0	105.0	75	125	0.7	20

Magnesium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	113.0		85	115		
MB		<1							
SPK/SPKD	90443004		100	102.0	103.0	75	125	0.6	20
SPK/SPKD	90446002		100	105.0	103.0	75	125	0.9	20
SPK/SPKD	90613001		100	106.0	106.0	75	125	0.2	20
SPK/SPKD	90774005		100	106.0	105.0	75	125	0.4	20

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Account #: 5109 **Client:** Great River Energy

Manganese				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	106.0		85	115		
MB		<0.05							
PDS/PDSD	90443002		2	80.1	81.9	75	125	2.2	20
MS/MSD	90446002		0.4	84.3	85.9	70	130	0.7	20

Manganese, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	106.0		85	115		
MB		<0.05							
SPK/SPKD	90443004		0.4	85.8	87.6	75	125	1.4	20
SPK/SPKD	90446002		0.4	75.8	75.2	75	125	0.3	20
SPK/SPKD	90613001		0.4	88.6	88.2	75	125	0.3	20

Potassium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	114.0		85	115		
MB		<1							
PDS/PDSD	90443005		100	107.0	108.0	75	125	1.0	20
DUP	90446002							1.3	20
PDS/PDSD	90446002		100	105.0	106.0	75	125	0.9	20
PDS/PDSD	90446002		500	106.0	104.0	75	125	1.7	20
PDS/PDSD	90589002		100	108.0	107.0	75	125	1.4	20
PDS/PDSD	90590005		100	106.0	106.0	75	125	0.4	20
PDS/PDSD	90762001		100	106.0	108.0	75	125	1.6	20
PDS/PDSD	90762002		100	104.0	105.0	75	125	0.5	20
PDS/PDSD	90774005		100	104.0	104.0	75	125	0.1	20
PDS/PDSD	90776006		100	109.0	106.0	75	125	2.0	20
PDS/PDSD	90856001		100	108.0	108.0	75	125	0.4	20
PDS/PDSD	90916004		100	105.0	106.0	75	125	1.1	20

Potassium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	114.0		85	115		
MB		<1							

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Potassium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	90443004		100	105.0	106.0	75	125	1.6	20
SPK/SPKD	90446002		100	107.0	104.0	75	125	2.4	20
SPK/SPKD	90613001		100	107.0	107.0	75	125	0.1	20
SPK/SPKD	90774005		100	106.0	106.0	75	125	0.0	20

Sodium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	115.0		85	115		
MB		<1							
PDS/PDSD	90443005		100	97.9	97.0	75	125	0.4	20
DUP	90446002							1.3	20
PDS/PDSD	90446002		500	95.7	97.5	75	125	0.9	20
PDS/PDSD	90589002		100	111.0	110.0	75	125	1.0	20
PDS/PDSD	90590005		100	112.0	109.0	75	125	2.5	20
PDS/PDSD	90762001		100	110.0	112.0	75	125	1.3	20
PDS/PDSD	90762002		100	108.0	108.0	75	125	0.0	20
PDS/PDSD	90774005		100	73.4	71.9	75	125	0.3	20
PDS/PDSD	90776006		100	95.1	95.6	75	125	0.2	20
PDS/PDSD	90856001		100	103.0	104.0	75	125	0.2	20
PDS/PDSD	90916004		100	102.0	102.0	75	125	0.2	20

Sodium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	115.0		85	115		
MB		<1							
SPK/SPKD	90443004		100	94.6	96.4	75	125	0.8	20
SPK/SPKD	90446002		500	101.0	99.4	75	125	0.8	20
SPK/SPKD	90613001		100	85.5	88.7	75	125	0.9	20
SPK/SPKD	90774005		100	78.6	78.8	75	125	0.0	20

Antimony — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
MB		<0.001							

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Antimony — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	90446002		0.4	110.0	107.0	75	125	3.7	20

Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
MB		<0.001							
MS/MSD	90446002		0.4	110.0	107.0	75	125	3.7	20
SPK/SPKD	90446002		0.1	109.0	111.0	75	125	1.5	20
SPK/SPKD	90448004		0.1	105.0	103.0	75	125	1.5	20

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MS/MSD	90446002		0.4	114.0	109.0	75	125	5.0	20

Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MS/MSD	90446002		0.4	114.0	109.0	75	125	5.0	20
SPK/SPKD	90446002		0.1	108.0	107.0	75	125	0.4	20
SPK/SPKD	90448004		0.1	105.0	106.0	75	125	1.1	20

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MS/MSD	90446002		0.4	118.0	111.0	75	125	4.3	20

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MS/MSD	90446002		0.4	118.0	111.0	75	125	4.3	20
SPK/SPKD	90446002		0.1	109.0	104.0	75	125	2.2	20
SPK/SPKD	90448004		0.1	112.0	112.0	75	125	0.3	20

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Beryllium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
MB		<0.0005							
MS/MSD	90446002		0.4	111.0	109.0	75	125	1.4	20

Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
MB		<0.0005							
MS/MSD	90446002		0.4	111.0	109.0	75	125	1.4	20
SPK/SPKD	90446002		0.1	98.7	98.2	75	125	0.5	20
SPK/SPKD	90448004		0.1	99.1	99.5	75	125	0.4	20

Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							
MS/MSD	90446002		0.4	113.0	107.0	75	125	5.5	20

Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							
MS/MSD	90446002		0.4	113.0	107.0	75	125	5.5	20
SPK/SPKD	90446002		0.1	104.0	104.0	75	125	0.1	20
SPK/SPKD	90448004		0.1	104.0	105.0	75	125	0.4	20

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MS/MSD	90446002		0.4	118.0	115.0	75	125	2.2	20

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MS/MSD	90446002		0.4	118.0	115.0	75	125	2.2	20
SPK/SPKD	90446002		0.1	104.0	103.0	75	125	0.3	20

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Chromium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	90448004		0.1	107.0	107.0	75	125	0.0	20

Cobalt Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MS/MSD	90446002		0.4	115.0	114.0	75	125	1.3	20

Cobalt, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MS/MSD	90446002		0.4	115.0	114.0	75	125	1.3	20
SPK/SPKD	90446002		0.1	104.0	104.0	75	125	0.0	20
SPK/SPKD	90448004		0.1	108.0	107.0	75	125	0.2	20

Lead Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MS/MSD	90446002		0.4	111.0	107.0	75	125	3.2	20

Lead, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MS/MSD	90446002		0.4	111.0	107.0	75	125	3.2	20
SPK/SPKD	90446002		0.1	110.0	108.0	75	125	1.9	20
SPK/SPKD	90448004		0.1	105.0	104.0	75	125	1.0	20

Molybdenum Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MS/MSD	90446002		0.4	114.0	108.0	75	125	5.0	20

Molybdenum, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		

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Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.002							
MS/MSD	90446002		0.4	114.0	108.0	75	125	5.0	20
SPK/SPKD	90446002		0.1	111.0	114.0	75	125	2.9	20
SPK/SPKD	90448004		0.1	104.0	104.0	75	125	0.1	20

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.005							
MS/MSD	90446002		0.4	118.0	111.0	75	125	5.5	20

Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.005							
MS/MSD	90446002		0.4	118.0	111.0	75	125	5.5	20
SPK/SPKD	90446002		0.1	106.0	105.0	75	125	0.9	20
SPK/SPKD	90448004		0.1	104.0	104.0	75	125	0.4	20

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MS/MSD	90446002		0.4	108.0	98.7	75	125	9.2	20

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MS/MSD	90446002		0.4	108.0	98.7	75	125	9.2	20
SPK/SPKD	90446002		0.1	109.0	106.0	75	125	2.7	20
SPK/SPKD	90448004		0.1	103.0	103.0	75	125	0.3	20

Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	98.1		85	115		
LFB			0.002	100.0		85	115		
LRB		<0.0002							

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Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0002							
MS/MSD	90446001		0.002	93.5	91.4	70	130	5.4	20
MS/MSD	90446002		0.002	85.2	90.8	70	130	5.7	20
MS/MSD	90610004		0.002	89.3	99.0	70	130	10.5	20
MS/MSD	90641001		0.002	95.0	87.4	70	130	11.1	20

Alkalinity, Total — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			501	93.1		80	120		
LFB			410	96.9		90	110		
LFB			410	96.6		90	110		
LFB			410	95.7		90	110		
LFB			410	96.5		90	110		
LFB			410	96.3		90	110		
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MS/MSD	90275006		410	90.5	89.3	80	120	0.8	20
MS/MSD	90304006		410	92.2	87.0	80	120	3.2	20
MS/MSD	90442002		410	91.2	91.4	80	120	0.1	20
MS/MSD	90446002		410	91.7	91.7	80	120	0.0	20

pH — Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	100.5					
CRM-PH			6	100.5					
CRM-PH			6	100.5					
CRM-PH			6	100.2					
CRM-PH			6	100.0					
DUP	90275002							0.7	20
DUP	90391001							0.1	20

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

pH Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
DUP	90440001							0.4	20
DUP	90446002							0.9	20

Fluoride Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			0.6	102.0		83.99	111.11		
LFB-F			0.5	96.0		90	110		
LFB-F			0.5	100.0		90	110		
LFB-F			0.5	100.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	90443002		0.5	82.0	84.0	80	120	1.1	20
MS/MSD-F	90446002		0.5	114.0	104.0	80	120	4.5	20

Total Dissolved Solids Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	100.0		90.35	110.33		
MB		<10							
DUP	90442001							1.0	20
DUP	90446002							6.2	20

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Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 90448

Chain of Custody Record

Report To:	Great River Energy	CC:	WSP
Attn:	Cassie Johnston		44 Union Blvd, Suite 300
Address:			Lakewood, CO 80228
Phone:			
Email:	CJohnston@GREnergy.com		

Project Name: SS BAL
Event: June 2025
Sampled By:

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 9N	23 Jun 25	0735	GW	X	X	X	9.03	3918	7.03	5.39	* ~~App IV, Iron, Aluminum, Mangangese~~ (Total Only for Mercury and Radio Chem, Dissolved and Total for Remainder of Metals.) (See Attachments)
002	MW- 102	23 Jun 25	0826	GW	X	X	X	9.89	2017	7.51	3.63	
003	MW- 103	23 Jun 25	0920	GW	X	X	X	9.27	2504	8.84	0.94	
004	FB BAL	23 Jun 25	0930	GW	X	X	X	NA	NA	NA	NA	

Comments: Bottom Ash Landfill Wells

* App III, App IV + additional parameters per email from Erin Hunter @ WSP. 24 Jun 25

	Relinquished By Name	Date/Time	Sample Condition Location	Temp (°C)	Received By Name	Date/Time
1		23 Jun 25 1745	Log In ~~Walk In #2~~	5.5 °C/TM BOS ROI Y/N		24 Jun 25 0800
2						

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	9N
Sampling Personal:	

Weather Conditions: Temp: 50 °F Wind: W @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	~~YES~~	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.68	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.10	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
23 Jun 25	0710	Start of Well Purge									
	0715	9.58	3839	7.02	3.13	244.4	16.35	13.10	200.0	1.0	Clear
	0720	9.08	3953	7.01	2.57	239.5	4.63	13.10	200.0	1.0	Clear
	0725	9.06	3926	7.01	1.97	229.9	6.98	13.11	200.0	1.0	Clear
	0730	9.07	3923	7.02	1.97	217.8	6.40	13.10	200.0	1.0	Clear
	0735	9.03	3918	7.03	1.91	204.4	5.39	13.10	200.0	1.0	Clear

Well Stabilized? ~~YES~~ NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
23 June 25	0735	9.03	3918	7.03	1.91	204.4	5.39				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	102
Sampling Personal:	

Weather Conditions: Temp: 50 °F Wind: W @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	~~YES~~	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	16.98	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	17.92	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
23 June 25	0801	Start of Well Purge									
	0806	9.96	2033	7.45	0.49	149.2	3.40	17.35	200.0	1.0	Clear
	0811	9.91	2034	7.46	0.46	147.9	2.36	17.42	200.0	1.0	Clear
	0816	9.84	2027	7.48	0.34	129.3	9.98	17.58	200.0	1.0	Clear
	0821	9.94	2026	7.50	0.30	118.5	3.17	17.67	200.0	1.0	Clear
	0826	9.89	2017	7.51	0.24	105.2	3.63	17.75	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
23 June 25	0826	9.89	2017	7.51	0.24	105.2	3.63				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	103
Sampling Personal:	JTL

Weather Conditions: Temp: 55 °F Wind: W @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	18.56	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	18.80	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge:	Sec.
Recover:	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
23 Jun 25	0855	Start of Well Purge									
	0900	9.31	2389	9.02	0.54	39.6	1.31	18.68	200.0	1.0	Clear
	0905	9.24	2506	8.96	0.28	14.1	2.80	18.74	200.0	1.0	Clear
	0910	9.25	2528	8.92	0.25	13.9	0.14	18.78	200.0	1.0	Clear
	0915	9.34	2524	8.88	0.24	2.8	0.40	18.80	200.0	1.0	Clear
	0920	9.27	2504	8.84	0.19	3.7	0.94	18.80	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
23 Jun 25	0920	9.27	2504	8.84	0.19	3.7	0.94	HB			Clear

Comments: Collected FB BAL @ 0930

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Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

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Account #: 5109 **Client:** Great River Energy

February 2025 GL21509219.000

Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-108-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy

February 2025 GL21509219.000

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 24 Jun 25 Time: 1209 Analyst: RN

Work Order #: 904478

Containers Supplied by MVTL: ☒ Yes ☐ No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS BAL June 2025 (90421) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90421001 **Date Collected:** 06/23/2025 07:35 **Matrix:** Groundwater
Sample ID: MW-9N **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/26/2025 10:40	
Radium 228	See Attached			1		08/26/2025 10:40	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90421002 **Date Collected:** 06/23/2025 08:26 **Matrix:** Groundwater
Sample ID: MW-102 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/26/2025 10:40	
Radium 228	See Attached			1		08/26/2025 10:40	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90421003 **Date Collected:** 06/23/2025 09:20 **Matrix:** Groundwater
Sample ID: MW-103 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/26/2025 10:40	
Radium 228	See Attached			1		08/26/2025 10:40	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90421004 **Date Collected:** 06/23/2025 09:30 **Matrix:** Groundwater
Sample ID: FB BAL **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/26/2025 10:40	
Radium 228	See Attached			1		08/26/2025 10:40	

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Account #: 5109 **Client:** Great River Energy

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ANALYTICAL SUMMARY REPORT

August 07, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25070287 Quote ID: C15480
Project Name: 90421

Energy Laboratories, Inc. Casper WY received the following 4 samples for Minnesota Valley Testing Laboratories on 7/8/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25070287-001	90421001, MW-9N	06/23/25 07:35	07/08/25	Aqueous	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25070287-002	90421002, MW-102	06/23/25 08:26	07/08/25	Aqueous	Same As Above
C25070287-003	90421003, MW-103	06/23/25 09:20	07/08/25	Aqueous	Same As Above
C25070287-004	90421004, DUP BAL	06/23/25 09:30	07/08/25	Aqueous	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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Account #: 5109 **Client:** Great River Energy

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90421
Lab ID: C25070287-001
Client Sample ID: 90421001, MW-9N

Report Date: 08/07/25
Collection Date: 06/23/25 07:35
DateReceived: 07/08/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L	U			E903.0	08/04/25 14:56 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	08/04/25 14:56 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	08/04/25 14:56 / dmr
Radium 228	0.9	pCi/L	U			RA-05	07/29/25 12:36 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	07/29/25 12:36 / trs
Radium 228 MDC	1.1	pCi/L				RA-05	07/29/25 12:36 / trs
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	08/05/25 12:03 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	08/05/25 12:03 / dmf
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	08/05/25 12:03 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90421
Lab ID: C25070287-002
Client Sample ID: 90421002, MW-102

Report Date: 08/07/25
Collection Date: 06/23/25 08:26
DateReceived: 07/08/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.06	pCi/L	U			E903.0	08/04/25 14:56 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	08/04/25 14:56 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	08/04/25 14:56 / dmr
Radium 228	1.2	pCi/L				RA-05	07/29/25 12:36 / trs
Radium 228 precision (±)	0.8	pCi/L				RA-05	07/29/25 12:36 / trs
Radium 228 MDC	1.2	pCi/L				RA-05	07/29/25 12:36 / trs
Radium 226 + Radium 228	1.3	pCi/L				A7500-RA	08/05/25 12:03 / dmf
Radium 226 + Radium 228 precision (±)	0.8	pCi/L				A7500-RA	08/05/25 12:03 / dmf
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	08/05/25 12:03 / dmf

Report Definitions:
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QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90421
Lab ID: C25070287-003
Client Sample ID: 90421003, MW-103

Report Date: 08/07/25
Collection Date: 06/23/25 09:20
DateReceived: 07/08/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	08/04/25 14:57 / dmr
Radium 226 precision (±)	0.2	pCi/L				E903.0	08/04/25 14:57 / dmr
Radium 226 MDC	0.3	pCi/L				E903.0	08/04/25 14:57 / dmr
Radium 228	3.0	pCi/L				RA-05	07/29/25 12:36 / trs
Radium 228 precision (±)	1.2	pCi/L				RA-05	07/29/25 12:36 / trs
Radium 228 MDC	1.3	pCi/L				RA-05	07/29/25 12:36 / trs
Radium 226 + Radium 228	3.2	pCi/L				A7500-RA	08/05/25 12:03 / dmf
Radium 226 + Radium 228 precision (±)	1.2	pCi/L				A7500-RA	08/05/25 12:03 / dmf
Radium 226 + Radium 228 MDC	1.3	pCi/L				A7500-RA	08/05/25 12:03 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90421
Lab ID: C25070287-004
Client Sample ID: 90421004, DUP BAL

Report Date: 08/07/25
Collection Date: 06/23/25 09:30
DateReceived: 07/08/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.05	pCi/L	U			E903.0	08/06/25 16:05 / dmr
Radium 226 precision (±)	0.2	pCi/L				E903.0	08/06/25 16:05 / dmr
Radium 226 MDC	0.3	pCi/L				E903.0	08/06/25 16:05 / dmr
Radium 228	-0.4	pCi/L	U			RA-05	07/29/25 14:25 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	07/29/25 14:25 / trs
Radium 228 MDC	1.3	pCi/L				RA-05	07/29/25 14:25 / trs
Radium 226 + Radium 228	0.8	pCi/L	U			A7500-RA	08/07/25 10:47 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	08/07/25 10:47 / dmf
Radium 226 + Radium 228 MDC	1.3	pCi/L				A7500-RA	08/07/25 10:47 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25070287 **Report Date:** 08/07/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11752R
Lab ID: LCS-RA226-11752	3	Laboratory Control Sample				Run: TENNELEC-3_250721A				08/04/25 10:27
Radium 226		10	pCi/L		105	70	130			
Radium 226 precision (±)		1.7	pCi/L							
Radium 226 MDC		0.23	pCi/L							
Lab ID: MB-RA226-11752	3	Method Blank				Run: TENNELEC-3_250721A				08/04/25 10:27
Radium 226		0.002	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C25070363-004EDUP	3	Sample Duplicate				Run: TENNELEC-3_250721A				08/04/25 12:32
Radium 226		2.4	pCi/L					0.4	30	
Radium 226 precision (±)		0.49	pCi/L							
Radium 226 MDC		0.28	pCi/L							
- The RER result is 0.01.										
Method: E903.0										Batch: RA226-11753
Lab ID: LCS-RA226-11753	3	Laboratory Control Sample				Run: TENNELEC-3_250721B				08/04/25 14:57
Radium 226		10	pCi/L		102	70	130			
Radium 226 precision (±)		1.7	pCi/L							
Radium 226 MDC		0.23	pCi/L							
Lab ID: MB-RA226-11753	3	Method Blank				Run: TENNELEC-3_250721B				08/04/25 14:57
Radium 226		0.008	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C25070366-006DDUP	3	Sample Duplicate				Run: TENNELEC-3_250721B				08/06/25 13:45
Radium 226		3.5	pCi/L					13	30	
Radium 226 precision (±)		0.62	pCi/L							
Radium 226 MDC		0.18	pCi/L							
- The RER result is 0.50.										

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

Page 6 of 9

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25070287 **Report Date:** 08/07/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7718
Lab ID: LCS-228-RA226-11753	3	Laboratory Control Sample				Run: TENNELEC-4_250721C				07/29/25 12:52
Radium 228		8.5	pCi/L		93	70	130			
Radium 228 precision (±)		2.2	pCi/L							
Radium 228 MDC		0.85	pCi/L							
Lab ID: MB-RA226-11753	3	Method Blank				Run: TENNELEC-4_250721C				07/29/25 12:52
Radium 228		0.6	pCi/L							U
Radium 228 precision (±)		0.5	pCi/L							
Radium 228 MDC		0.8	pCi/L							
Lab ID: C25070366-006DDUP	3	Sample Duplicate				Run: TENNELEC-4_250721C				07/29/25 12:52
Radium 228		1.9	pCi/L					6.4	30	
Radium 228 precision (±)		0.76	pCi/L							
Radium 228 MDC		0.76	pCi/L							
- The RER result is 0.12.										
Method: RA-05										Batch: RA228-7717
Lab ID: LCS-228-RA226-11752	3	Laboratory Control Sample				Run: TENNELEC-4_250721D				07/29/25 10:58
Radium 228		7.9	pCi/L		86	70	130			
Radium 228 precision (±)		2.1	pCi/L							
Radium 228 MDC		0.92	pCi/L							
Lab ID: MB-RA226-11752	3	Method Blank				Run: TENNELEC-4_250721D				07/29/25 10:58
Radium 228		0.4	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C25070363-004EDUP	3	Sample Duplicate				Run: TENNELEC-4_250721D				07/29/25 10:58
Radium 228		8.9	pCi/L					5.5	30	
Radium 228 precision (±)		2.4	pCi/L							
Radium 228 MDC		1.2	pCi/L							
- The RER result is 0.14.										

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25070287

Login completed by: Lisa X. Quezada
Reviewed by: srichins
Reviewed Date: 7/14/2025
Date Received: 7/8/2025
Received by: LXQ
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	25.0°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

None

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Chain of Custody Record

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MVTL LABORATORIES, Inc.
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Bismarck, ND 58501
Phone: (701) 258-9720
Toll Free: (800) 279-6885 Fax: (701) 258-9724

Work Order # 90421 (1509108.87)

Company Name and Address: MVTL 2616 E Broadway Bismarck, ND 58501

Billing Address (indicate if different from above): PO Box 249 New Ulm, MN 56073

Account #:
Contact: Claudette
Name of Sampler:
Quote Number C15480
Project Name/Number:

Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box
Date Submitted: 25-Jun-25
Purchase Order #: BL7059

Lab Number	Sample Information: MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Untreated	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	90421001	MW-9N	GW	23-Jun-25	735		1				Ra226 & Ra228
	90421002	MW-102	GW	23-Jun-25	826		1				Ra226 & Ra228
	90421003	MW-103	GW	23-Jun-25	920		1				Ra226 & Ra228
	90421004	DUP BAL	GW	23-Jun-25	930		1				Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
L. Spelhaug	25-Jun-25	1700		[illegible]	06-27-25 VM	

07/08/25 1005

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Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 90421

Chain of Custody Record

Report To:	Great River Energy	CC:	WSP
Attn:	Cassie Johnston		44 Union Blvd, Suite 300
Address:			Lakewood, CO 80228
Phone:			
Email:	CJohnston@GREnergy.com		

Project Name: SS BAL
Event: June 2025
Sampled By:

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric	Field Readings	Analysis Required
001	MW- 9N	23 Jun 25	0735	GW				X		Radium 226 and 228 Combined
002	MW- 102	23 Jun 25	0826	GW				X		
003	MW- 103	23 Jun 25	0920	GW				X		
004	FB BAL	23 Jun 25	0930	GW				X		

Comments:

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	23 Jun 25 1745	Log In Walk In #2	Ambient		24 Jun 25 0800
2					

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Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

1

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Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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February 2025 GL21509219.000

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.
* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	9N
Sampling Personal:	

Weather Conditions: Temp: 50 °F Wind: W @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.68	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.10	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
23 Jun 25	0710	Start of Well Purge									
	0715	9.58	3839	7.02	3.13	244.4	16.35	13.10	200.0	1.0	Clear
	0720	9.08	3953	7.01	2.57	239.5	4.63	13.10	200.0	1.0	Clear
	0725	9.06	3926	7.01	1.97	229.9	6.98	13.11	200.0	1.0	Clear
	0730	9.07	3923	7.02	1.97	217.8	6.40	13.10	200.0	1.0	Clear
	0735	9.03	3918	7.03	1.91	204.4	5.39	13.10	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
23 June 25	0735	9.03	3918	7.03	1.91	204.4	5.39				Clear

Comments:

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MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	102
Sampling Personal:	

Weather Conditions: Temp: 50 °F Wind: W @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	16.98	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	17.92	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
23 June 25	0801	Start of Well Purge									
	0806	9.96	2033	7.45	0.49	149.2	3.40	17.35	200.0	1.0	Clear
	0811	9.91	2034	7.46	0.46	147.9	2.36	17.42	200.0	1.0	Clear
	0816	9.84	2027	7.48	0.34	129.3	9.98	17.58	200.0	1.0	Clear
	0821	9.94	2026	7.50	0.30	118.5	3.17	17.67	200.0	1.0	Clear
	0826	9.89	2017	7.51	0.24	105.2	3.63	17.75	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
23 June 25	0826	9.89	2017	7.51	0.24	105.2	3.63				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company: GRE Stanton Station
Event: June 2025
Sample ID: 103
Sampling Personal: JM

Weather Conditions: Temp: 55 °F Wind: W @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	18.56	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	18.80	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge:	Sec.
Recover:	Sec.
PSI:	

Bottle List:
1 Liter Raw
1 Gal Nitric
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample? YES / NO
Duplicate Sample ID: —

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
23 Jun 25	0855	Start of Well Purge									
	0900	9.31	2389	9.02	0.54	39.6	1.31	18.68	200.0	1.0	Clear
	0905	9.24	2506	8.96	0.28	14.1	2.80	18.74	200.0	1.0	Clear
	0910	9.25	2528	8.92	0.25	13.9	0.14	18.78	200.0	1.0	Clear
	0915	9.34	2524	8.88	0.24	2.8	0.40	18.80	200.0	1.0	Clear
	0920	9.27	2504	8.84	0.19	3.7	0.94	18.80	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
23 Jun 25	0920	9.27	2504	8.84	0.19	3.7	0.94	FB			Clear

Comments: Collected FB BAL @ 0930

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS Internal June 2025 (90613) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90613001 **Date Collected:** 06/24/2025 08:18 **Matrix:** Groundwater
Sample ID: MW-1R **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1647**	umhos/cm	1	1		06/24/2025 08:18	
Method: 150.2							
pH - Field	**7.76**	units	0.01	1		06/24/2025 08:18	
Method: 170.1							
Temperature - Field C	**9.83**	degrees C		1		06/24/2025 08:18	
Method: ASTM D516-16							
Sulfate	**324**	mg/L	25	5		06/27/2025 10:35	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**1.16**	mg/L	0.1	1	06/25/2025 16:09	06/26/2025 12:27	
Calcium	**89.9**	mg/L	1	1	06/25/2025 16:09	07/01/2025 11:55	
Lithium	**0.0384**	mg/L	0.02	1	06/25/2025 16:09	07/03/2025 09:38	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/25/2025 16:09	07/07/2025 17:43	
Arsenic	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:43	
Barium	**0.0446**	mg/L	0.002	5	06/25/2025 16:09	07/08/2025 16:12	
Beryllium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:43	
Cadmium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:43	
Chromium	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:43	
Cobalt	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:43	
Lead	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:43	
Molybdenum	**0.0135**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:43	
Selenium	<0.005	mg/L	0.005	5	06/25/2025 16:09	07/07/2025 17:43	
Thallium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:43	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90613001 **Date Collected:** 06/24/2025 08:18 **Matrix:** Groundwater
Sample ID: MW-1R **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.1**	units	0.1	1		06/25/2025 22:15	*
Method: SM4500-F-C-2021							
Fluoride	**0.77**	mg/L	0.1	1		06/25/2025 22:15	
Method: USGS I-1750-85							
Total Dissolved Solids	**1010**	mg/L	10	1		06/27/2025 14:09	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90613002 **Date Collected:** 06/24/2025 08:18 **Matrix:** Groundwater
Sample ID: DUP Internal **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1647**	umhos/cm	1	1		06/24/2025 08:18	
Method: 150.2							
pH - Field	**7.76**	units	0.01	1		06/24/2025 08:18	
Method: 170.1							
Temperature - Field C	**9.83**	degrees C		1		06/24/2025 08:18	
Method: ASTM D516-16							
Sulfate	**326**	mg/L	25	5		06/27/2025 10:36	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**1.16**	mg/L	0.1	1	06/25/2025 16:09	06/26/2025 12:29	
Calcium	**89.2**	mg/L	1	1	06/25/2025 16:09	07/01/2025 11:56	
Lithium	**0.0383**	mg/L	0.02	1	06/25/2025 16:09	07/03/2025 09:41	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/25/2025 16:09	07/07/2025 18:23	
Arsenic	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 18:23	
Barium	**0.0447**	mg/L	0.002	5	06/25/2025 16:09	07/08/2025 16:32	
Beryllium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 18:23	
Cadmium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 18:23	
Chromium	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 18:23	
Cobalt	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 18:23	
Lead	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 18:23	
Molybdenum	**0.0137**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 18:23	
Selenium	<0.005	mg/L	0.005	5	06/25/2025 16:09	07/07/2025 18:23	
Thallium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 18:23	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90613002 **Date Collected:** 06/24/2025 08:18 **Matrix:** Groundwater
Sample ID: DUP Internal **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.1**	units	0.1	1		06/25/2025 22:25	*
Method: SM4500-F-C-2021							
Fluoride	**0.77**	mg/L	0.1	1		06/25/2025 22:25	
Method: USGS I-1750-85							
Total Dissolved Solids	**1030**	mg/L	10	1		06/27/2025 14:09	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90613003 **Date Collected:** 06/24/2025 09:30 **Matrix:** Groundwater
Sample ID: MW-104 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1897**	umhos/cm	1	1		06/24/2025 09:30	
Method: 150.2							
pH - Field	**7.38**	units	0.01	1		06/24/2025 09:30	
Method: 170.1							
Temperature - Field C	**10.22**	degrees C		1		06/24/2025 09:30	
Method: ASTM D516-16							
Sulfate	**402**	mg/L	25	5		06/27/2025 10:46	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**0.69**	mg/L	0.1	1	06/25/2025 16:09	06/26/2025 12:30	
Calcium	**68.8**	mg/L	1	1	06/25/2025 16:09	07/01/2025 11:56	
Lithium	**0.0256**	mg/L	0.02	1	06/25/2025 16:09	07/03/2025 09:42	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/25/2025 16:09	07/07/2025 18:28	
Arsenic	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 18:28	
Barium	**0.0487**	mg/L	0.002	5	06/25/2025 16:09	07/08/2025 16:37	
Beryllium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 18:28	
Cadmium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 18:28	
Chromium	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 18:28	
Cobalt	**0.0023**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 18:28	
Lead	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 18:28	
Molybdenum	**0.0485**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 18:28	
Selenium	<0.005	mg/L	0.005	5	06/25/2025 16:09	07/07/2025 18:28	
Thallium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 18:28	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90613003 **Date Collected:** 06/24/2025 09:30 **Matrix:** Groundwater
Sample ID: MW-104 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		06/25/2025 22:36	*
Method: SM4500-F-C-2021							
Fluoride	**0.83**	mg/L	0.1	1		06/25/2025 22:36	
Method: USGS I-1750-85							
Total Dissolved Solids	**1170**	mg/L	10	1		06/27/2025 14:09	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 90613

Sulfate Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			100	101.0		85	115		
LFB			100	99.2		85	115		
LFB			100	97.1		85	115		
LFB			100	94.2		85	115		
LFB			100	92.7		85	115		
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MS/MSD	90589004		100	85.3	85.7	85	115	0.4	20
MS/MSD	90604001		1000	77.9	80.3	85	115	1.1	20
MS/MSD	90613001		500	91.5	90.2	85	115	0.8	20
MS/MSD	90766001		100	95.6	96.3	85	115	0.7	20

Aluminum Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-DF			0.5	103.0		85	115		
MB		<0.1							
PDS/PDSD	90589005		2	95.3	95.0	75	125	0.3	20
PDS/PDSD	90607001		2	92.6	92.9	75	125	0.3	20
PDS/PDSD	90607002		5	96.0	97.2	75	125	0.5	20
PDS/PDSD	90613001		2	93.0	92.7	75	125	0.3	20
PDS/PDSD	90763004		5	103.0	104.0	75	125	0.4	20
PDS/PDSD	90774005		2	91.4	91.2	75	125	0.2	20
PDS/PDSD	90776007		0.4	84.0	86.1	75	125	1.3	20

Aluminum, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
FB		<0.1							

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Account #: 5109 **Client:** Great River Energy

Aluminum, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.5	103.0		85	115		
MB		<0.1							
SPK/SPKD	90443004		0.4	112.0	111.0	75	125	0.7	20
SPK/SPKD	90446002		0.4	99.8	101.0	75	125	1.0	20
SPK/SPKD	90613001		0.4	105.0	105.0	75	125	0.1	20
SPK/SPKD	90774005		0.4	107.0	107.0	75	125	0.2	20
SPK/SPKD	90774005		0.4	116.0	113.0	75	125	2.3	20
SPK/SPKD	90774005		2	94.4	95.8	75	125	1.5	20
PDS/PDSD	90774009		1	93.3	94.2	75	125	0.8	20
SPK/SPKD	90776013		10	106.0	104.0	75	125	2.7	20
SPK/SPKD	91097005		0.4	91.3	92.3	75	125	1.1	20

Boron				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.5	103.0		85	115		
MB		<0.1							
PDS/PDSD	89556001		8	95.4	108.0	75	125	0.8	20
PDS/PDSD	90443002		2	82.3	83.0	75	125	0.6	20
MS/MSD	90613001		0.4	96.5	98.0	70	130	0.4	20

Boron, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.5	103.0		85	115		
MB		<0.1							
PDS/PDSD	90300001		40	87.8	82.0	75	125	1.4	20
SPK/SPKD	90304006		0.4	87.0	90.1	75	125	1.8	20
SPK/SPKD	90604001		0.4	86.7	85.6	75	125	0.8	20

Calcium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
MB		<1							
PDS/PDSD	90443005		100	102.0	101.0	75	125	0.1	20
PDS/PDSD	90446002		100	101.0	99.6	75	125	0.9	20

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Calcium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	90446002		500	105.0	104.0	75	125	0.3	20
PDS/PDSD	90589002		100	104.0	102.0	75	125	0.8	20
PDS/PDSD	90590005		100	104.0	103.0	75	125	0.7	20
DUP	90610001							1.6	20
PDS/PDSD	90762001		100	103.0	104.0	75	125	0.7	20
PDS/PDSD	90762002		100	102.0	102.0	75	125	0.2	20
PDS/PDSD	90774005		100	98.3	98.7	75	125	0.2	20
PDS/PDSD	90776006		100	96.0	95.8	75	125	0.1	20
PDS/PDSD	90856001		100	100.0	101.0	75	125	0.4	20
PDS/PDSD	90916004		100	100.0	101.0	75	125	0.4	20

Calcium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
MB		<1							
SPK/SPKD	90443004		100	100.0	101.0	75	125	0.5	20
SPK/SPKD	90446002		100	104.0	104.0	75	125	0.4	20
SPK/SPKD	90613001		100	100.0	99.7	75	125	0.2	20
SPK/SPKD	90774005		100	102.0	100.0	75	125	0.8	20

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OF			0.5	108.0		85	115		
MB		<0.1							
PDS/PDSD	90589005		2	95.2	94.1	75	125	0.6	20
PDS/PDSD	90607001		2	85.5	82.8	75	125	1.0	20
PDS/PDSD	90607002		5	94.0	93.6	75	125	0.2	20
PDS/PDSD	90613001		2	84.6	85.2	75	125	0.2	20
PDS/PDSD	90763004		5	98.5	98.4	75	125	0.1	20
PDS/PDSD	90774005		2	81.7	82.1	75	125	0.1	20

Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							

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Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.5	108.0		85	115		
MB		<0.1							
SPK/SPKD	90443004		0.4	100.0	102.0	75	125	1.8	20
SPK/SPKD	90446002		0.4	93.8	94.6	75	125	0.9	20
SPK/SPKD	90613001		0.4	79.9	79.8	75	125	0.0	20
SPK/SPKD	90774005		0.4	67.7	68.9	75	125	0.3	20
SPK/SPKD	90774005		2	92.6	91.5	75	125	0.6	20
PDS/PDSD	90774009		1	84.1	82.7	75	125	0.7	20
SPK/SPKD	90776013		10	89.7	89.0	75	125	0.8	20
SPK/SPKD	91097005		0.4	87.2	89.8	75	125	2.9	20

Lithium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.5	108.0		85	115		
MB		<0.04							
PDS/PDSD	90443002		2	87.7	88.0	75	125	0.3	20
MS/MSD	90613001		0.4	99.9	97.6	70	130	2.2	20

Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.5	108.0		85	115		
MB		<0.04							
SPK/SPKD	90443004		0.4	89.3	88.2	75	125	1.0	20
SPK/SPKD	90446002		0.4	90.6	88.7	75	125	2.0	20
SPK/SPKD	90613003		0.4	90.8	91.1	75	125	0.3	20
SPK/SPKD	90774005		0.4	91.7	90.9	75	125	0.8	20

Magnesium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	114.0		85	115		
MB		<1							
PDS/PDSD	90443005		100	103.0	103.0	75	125	0.1	20
PDS/PDSD	90446002		100	102.0	101.0	75	125	0.5	20

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Magnesium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	90446002		500	106.0	105.0	75	125	0.7	20
PDS/PDSD	90589002		100	108.0	106.0	75	125	0.8	20
PDS/PDSD	90590005		100	108.0	107.0	75	125	0.8	20
DUP	90610001							1.7	20
PDS/PDSD	90762001		100	107.0	108.0	75	125	1.2	20
PDS/PDSD	90762002		100	106.0	106.0	75	125	0.2	20
PDS/PDSD	90774005		100	102.0	102.0	75	125	0.5	20
PDS/PDSD	90776006		100	101.0	100.0	75	125	0.5	20
PDS/PDSD	90856001		100	104.0	105.0	75	125	0.6	20
PDS/PDSD	90916004		100	104.0	105.0	75	125	0.7	20

Magnesium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	114.0		85	115		
MB		<1							
SPK/SPKD	90443004		100	102.0	103.0	75	125	0.6	20
SPK/SPKD	90446002		100	105.0	103.0	75	125	0.9	20
SPK/SPKD	90613001		100	106.0	106.0	75	125	0.2	20
SPK/SPKD	90774005		100	106.0	105.0	75	125	0.4	20

Manganese				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-DF			0.5	110.0		85	115		
MB		<0.05							
PDS/PDSD	90589005		2	93.2	92.2	75	125	0.6	20
PDS/PDSD	90607001		2	79.4	79.0	75	125	0.2	20
PDS/PDSD	90607002		5	98.5	98.3	75	125	0.2	20
MS/MSD	90613001		0.4	98.5	98.6	70	130	0.1	20
PDS/PDSD	90613001		2	85.1	85.9	75	125	0.8	20
PDS/PDSD	90763004		5	95.2	94.0	75	125	0.8	20
PDS/PDSD	90774005		2	83.5	83.9	75	125	0.4	20
PDS/PDSD	90776007		0.4	82.4	83.0	75	125	0.5	20

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Manganese, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.05							
FB		<0.05							
LFB-OC			0.5	110.0		85	115		
MB		<0.05							
SPK/SPKD	90443004		0.4	85.8	87.6	75	125	1.4	20
SPK/SPKD	90446002		0.4	75.8	75.2	75	125	0.3	20
SPK/SPKD	90613001		0.4	88.6	88.2	75	125	0.3	20
SPK/SPKD	90774005		0.4	82.0	82.1	75	125	0.1	20
SPK/SPKD	90774005		0.4	90.6	89.8	75	125	1.0	20
SPK/SPKD	90774005		2	100.0	99.8	75	125	0.2	20
PDS/PDSD	90774009		1	87.7	84.8	75	125	2.5	20
SPK/SPKD	90776013		10	93.2	93.1	75	125	0.2	20
SPK/SPKD	91097005		0.4	87.4	89.8	75	125	2.6	20

Potassium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	115.0		85	115		
MB		<1							
PDS/PDSD	90443005		100	107.0	108.0	75	125	1.0	20
PDS/PDSD	90446002		100	105.0	106.0	75	125	0.9	20
PDS/PDSD	90446002		500	106.0	104.0	75	125	1.7	20
PDS/PDSD	90589002		100	108.0	107.0	75	125	1.4	20
PDS/PDSD	90590005		100	106.0	106.0	75	125	0.4	20
DUP	90610001							3.4	20
PDS/PDSD	90762001		100	106.0	108.0	75	125	1.6	20
PDS/PDSD	90762002		100	104.0	105.0	75	125	0.5	20
PDS/PDSD	90774005		100	104.0	104.0	75	125	0.1	20
PDS/PDSD	90776006		100	109.0	106.0	75	125	2.0	20
PDS/PDSD	90856001		100	108.0	108.0	75	125	0.4	20
PDS/PDSD	90916004		100	105.0	106.0	75	125	1.1	20

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Account #: 5109 **Client:** Great River Energy

Potassium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	115.0		85	115		
MB		<1							
SPK/SPKD	90443004		100	105.0	106.0	75	125	1.6	20
SPK/SPKD	90446002		100	107.0	104.0	75	125	2.4	20
SPK/SPKD	90613001		100	107.0	107.0	75	125	0.1	20
SPK/SPKD	90774005		100	106.0	106.0	75	125	0.0	20

Sodium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	114.0		85	115		
MB		<1							
PDS/PDSD	90443005		100	97.9	97.0	75	125	0.4	20
PDS/PDSD	90446007		500	95.7	97.5	75	125	0.9	20
PDS/PDSD	90589002		100	111.0	110.0	75	125	1.0	20
PDS/PDSD	90590005		100	112.0	109.0	75	125	2.5	20
DUP	90610001							2.0	20
PDS/PDSD	90762001		100	110.0	112.0	75	125	1.3	20
PDS/PDSD	90762002		100	108.0	108.0	75	125	0.0	20
PDS/PDSD	90774005		100	73.4	71.9	75	125	0.3	20
PDS/PDSD	90776006		100	95.1	95.6	75	125	0.2	20
PDS/PDSD	90856001		100	103.0	104.0	75	125	0.2	20
PDS/PDSD	90916004		100	102.0	102.0	75	125	0.2	20

Sodium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	114.0		85	115		
MB		<1							
SPK/SPKD	90443004		100	94.6	96.4	75	125	0.8	20
SPK/SPKD	90446002		500	101.0	99.4	75	125	0.8	20
SPK/SPKD	90613001		100	85.5	88.7	75	125	0.9	20
SPK/SPKD	90774005		100	78.6	78.8	75	125	0.0	20

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Account #: 5109 **Client:** Great River Energy

Antimony — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	97.4		80	120		
MB		<0.001							
MB		<0.001							
SPK	90607002		0.1	102.0		75	125		
MS/MSD	90613001		0.4	104.0	102.0	75	125	1.9	20
MS/MSD	90613001		0.4	106.0	102.0	75	125	2.2	20

Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	97.4		80	120		
MB		<0.001							
MB		<0.001							
SPK	90607002		0.1	102.0		75	125		
SPK/SPKD	90610004		0.1	96.5	96.8	75	125	0.3	20
MS/MSD	90613001		0.4	104.0	102.0	75	125	1.9	20
MS/MSD	90613001		0.4	106.0	102.0	75	125	2.2	20

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MB		<0.002							
SPK	90607002		0.1	107.0		75	125		
MS/MSD	90613001		0.4	111.0	108.0	75	125	2.1	20
MS/MSD	90613001		0.4	109.0	106.0	75	125	2.1	20

Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	106.0		80	120		
MB		<0.002							

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Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.002							
SPK	90607002		0.1	107.0		75	125		
SPK/SPKD	90610004		0.1	96.7	97.8	75	125	1.1	20
MS/MSD	90613001		0.4	111.0	108.0	75	125	2.1	20
MS/MSD	90613001		0.4	109.0	106.0	75	125	2.1	20

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MS/MSD	90613001		0.4	109.0	104.0	75	125	4.0	20

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	114.0		80	120		
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MB		<0.002							
SPK/SPKD	90610004		0.1	102.0	102.0	75	125	0.0	20
MS/MSD	90613001		0.4	116.0	111.0	75	125	4.2	20
MS/MSD	90613001		0.4	109.0	104.0	75	125	4.0	20

Beryllium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	108.0		80	120		
MB		<0.0005							
MB		<0.0005							
SPK	90607002		0.1	85.4		75	125		
MS/MSD	90613001		0.4	109.0	108.0	75	125	0.9	20
MS/MSD	90613001		0.4	110.0	109.0	75	125	0.2	20

Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	108.0		80	120		

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Account #: 5109 **Client:** Great River Energy

Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0005							
MB		<0.0005							
SPK	90607002		0.1	85.4		75	125		
SPK/SPKD	90610004		0.1	98.2	98.1	75	125	0.1	20
MS/MSD	90613001		0.4	109.0	108.0	75	125	0.9	20
MS/MSD	90613001		0.4	110.0	109.0	75	125	0.2	20

Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	96.7		80	120		
MB		<0.0005							
MB		<0.0005							
SPK	90607002		0.1	97.5		75	125		
MS/MSD	90613001		0.4	105.0	102.0	75	125	2.7	20
MS/MSD	90613001		0.4	105.0	102.0	75	125	2.9	20

Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	96.7		80	120		
MB		<0.0005							
MB		<0.0005							
SPK	90607002		0.1	97.5		75	125		
SPK/SPKD	90610004		0.1	92.8	92.2	75	125	0.7	20
MS/MSD	90613001		0.4	105.0	102.0	75	125	2.7	20
MS/MSD	90613001		0.4	105.0	102.0	75	125	2.9	20

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	112.0		80	120		
MB		<0.002							
MB		<0.002							

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Account #: 5109 **Client:** Great River Energy

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	90607002		0.1	112.0		75	125		
MS/MSD	90613001		0.4	114.0	114.0	75	125	0.2	20
MS/MSD	90613001		0.4	111.0	111.0	75	125	0.0	20

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	112.0		80	120		
MB		<0.002							
MB		<0.002							
SPK	90607002		0.1	112.0		75	125		
SPK/SPKD	90610004		0.1	105.0	107.0	75	125	2.2	20
MS/MSD	90613001		0.4	114.0	114.0	75	125	0.2	20
MS/MSD	90613001		0.4	111.0	111.0	75	125	0.0	20

Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MB		<0.002							
SPK	90607002		0.1	109.0		75	125		
MS/MSD	90613001		0.4	112.0	112.0	75	125	0.0	20
MS/MSD	90613001		0.4	109.0	108.0	75	125	0.5	20

Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MB		<0.002							
SPK	90607002		0.1	109.0		75	125		
SPK/SPKD	90610004		0.1	103.0	105.0	75	125	1.7	20
MS/MSD	90613001		0.4	112.0	112.0	75	125	0.0	20

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Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	90613001		0.4	109.0	108.0	75	125	0.5	20

Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.0005							
MB		<0.0005							
SPK	90607002		0.1	103.0		75	125		
MS/MSD	90613001		0.4	110.0	106.0	75	125	3.7	20
MS/MSD	90613001		0.4	112.0	108.0	75	125	2.1	20

Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.0005							
MB		<0.0005							
SPK	90607002		0.1	103.0		75	125		
SPK/SPKD	90610004		0.1	99.0	102.0	75	125	2.8	20
MS/MSD	90613001		0.4	110.0	106.0	75	125	3.7	20
MS/MSD	90613001		0.4	112.0	108.0	75	125	2.1	20

Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	99.1		80	120		
MB		<0.002							
MB		<0.002							
SPK	90607002		0.1	108.0		75	125		
MS/MSD	90613001		0.4	105.0	105.0	75	125	0.5	20
MS/MSD	90613001		0.4	104.0	101.0	75	125	3.1	20

Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		

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Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.1		80	120		
MB		<0.002							
MB		<0.002							
SPK	90607002		0.1	108.0		75	125		
SPK/SPKD	90610004		0.1	99.3	100.0	75	125	1.1	20
MS/MSD	90613001		0.4	105.0	105.0	75	125	0.5	20
MS/MSD	90613001		0.4	104.0	101.0	75	125	3.1	20

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	101.0		80	120		
MB		<0.005							
MB		<0.005							
SPK	90607002		0.1	96.0		75	125		
MS/MSD	90613001		0.4	106.0	107.0	75	125	0.7	20
MS/MSD	90613001		0.4	111.0	108.0	75	125	2.1	20

Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	101.0		80	120		
MB		<0.005							
MB		<0.005							
SPK	90607002		0.1	96.0		75	125		
SPK/SPKD	90610004		0.1	90.5	92.2	75	125	1.9	20
MS/MSD	90613001		0.4	106.0	107.0	75	125	0.7	20
MS/MSD	90613001		0.4	111.0	108.0	75	125	2.1	20

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.6		80	120		
LFB-MS			0.1	99.2		80	120		
MB		<0.0005							

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Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0005							
SPK	90607002		0.1	103.0		75	125		
MS/MSD	90613001		0.4	109.0	104.0	75	125	5.2	20
MS/MSD	90613001		0.4	111.0	105.0	75	125	4.2	20

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.6		80	120		
LFB-MS			0.1	99.2		80	120		
MB		<0.0005							
MB		<0.0005							
SPK	90607002		0.1	103.0		75	125		
SPK/SPKD	90610004		0.1	97.0	100.0	75	125	3.4	20
MS/MSD	90613001		0.4	109.0	104.0	75	125	5.2	20
MS/MSD	90613001		0.4	111.0	105.0	75	125	4.2	20

Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	100.0		85	115		
LFB			0.002	98.1		85	115		
LRB		<0.0002							
MB		<0.0002							
MS/MSD	90446001		0.002	93.5	91.4	70	130	5.4	20
MS/MSD	90446002		0.002	85.2	90.8	70	130	5.7	20
MS/MSD	90610004		0.002	89.3	99.0	70	130	10.5	20
MS/MSD	90641001		0.002	95.0	87.4	70	130	11.1	20

Alkalinity, Total — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			501	93.1		80	120		
LFB			410	95.8		90	110		
LFB			410	92.7		90	110		
LFB			410	94.4		90	110		
LFB			410	94.9		90	110		

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Alkalinity, Total — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MS/MSD	90589005		410	88.8	89.4	80	120	0.4	20
MS/MSD	90590002		410	61.1	69.6	80	120	4.6	20
MS/MSD	90610003		410	92.4	90.5	80	120	0.0	20

pH — Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	100.5					
CRM-PH			6	100.3					
CRM-PH			6	100.0					
CRM-PH			6	100.0					
DUP	90590001							0.6	20
DUP	90590006							0.5	20
DUP	90610002							0.9	20

Fluoride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			0.6	104.0		83.99	111.11		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	94.0		90	110		
LFB-F			0.5	100.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	90583001		0.5	100.0	100.0	80	120	0.0	20
MS/MSD-F	90607001		0.5	112.0	114.0	80	120	0.8	20
MS/MSD-F	90613003		0.5	114.0	104.0	80	120	3.6	20

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Total Dissolved Solids Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	100.0		90.35	110.33		
CRM			736	97.0		90.35	110.33		
MB		<10							
MB		<10							
DUP	90598001							10.5	20
DUP	90610003							1.2	20
DUP	90774005							1.4	20
DUP	90774009							0.0	20

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Minnesota Valley Testing Laboratories
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Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 90613

Chain of Custody Record

Report To:	Great River Energy	CC:	WSP
Attn:	Cassie Johnston		44 Union Blvd, Suite 300
Address:			Lakewood, CO 80228
Phone:			
Email:	CJohnston@GREnergy.com		

Project Name: SS Internal
Event: June 2025
Sampled By: Ethan Gress

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric	Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 1R	24 Jun 25	0818	GW	X	X	X		9.83	1647	7.76	49.89	* App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radio Chem, Dissolved and Total for Remainder of Metals.) (See Attachments)
002	DUP Internal	24 Jun 25	0818	GW	X	X	X		9.83	1647	7.76	49.89	
003	MW- 104	24 Jun 25	0930	GW	X	X	X		10.22	1897	7.38	0.00	

Comments: Internal Wells * App III, App IV + additional parameters per email from Erin Hunter @ WSP LS 25 Jun 25

	Relinquished By Name	Date/Time	Sample Condition Location	Temp (°C)	Received By Name	Date/Time
1		24 Jun 25 2045	Log In Walk In #2	4.0 °C/TM 805 RO Y/N		25 Jun 25 0800
2						

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Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	1R
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	16.10	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	16.10	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
Dup Internal

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
	0753	Start of Well Purge									clear, slightly turbid, turbid
	0803	9.84	1053	7.74	0.12	-109.3	101.0	16.10	200.0	2.0	Clear
24 June 25	0808	9.86	1650	7.75	0.06	-118.0	91.88	16.10	200.0	1.0	Clear
	0813	9.83	1647	7.75	0.03	-122.3	81.90	16.10	200.0	1.0	Clear
	0818	9.83	1647	7.76	0.03	-126.2	49.89	16.11	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24 June 25	0818	9.83	1647	7.76	0.03	-126.2	49.89				Clear

Comments:

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	104
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	21.19	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	21.21	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	5	Sec.
Recover:	27	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
	0905	Start of Well Purge									clear, slightly turbid, turbid
	0915	18.19	1902	7.36	0.09	77.3	0.16	21.19	200.0	2.0	Clear
	0920	18.21	1907	7.37	0.04	72.6	0.04	21.20	200.0	1.0	Clear
24 June 25	0925	18.18	1897	7.37	0.03	72.3	0.00	21.20	200.0	1.0	Clear
	0930	18.22	1897	7.38	0.04	76.5	0.00	21.21	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24 June 25	0930	18.22	1897	7.38	0.04	76.5	0.00				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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Account #: 5109 **Client:** Great River Energy

February 2025 GL21509219.000

Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy

February 2025 GL21509219.000

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.
* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 25 Jun 25 Time: 1155 Analyst: PW

Work Order #: 90613

Containers Supplied by MVTL: [X] Yes [ ] No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
3	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
3	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
3	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS Internal June 2025 (90622) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90622001 **Date Collected:** 06/24/2025 08:18 **Matrix:** Groundwater
Sample ID: MW-1R **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:37	
Radium 228	See Attached			1		08/01/2025 13:37	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90622002 **Date Collected:** 06/24/2025 08:18 **Matrix:** Groundwater
Sample ID: DUP Internal **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:37	
Radium 228	See Attached			1		08/01/2025 13:37	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90622003 **Date Collected:** 06/24/2025 09:30 **Matrix:** Groundwater
Sample ID: MW-104 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:37	
Radium 228	See Attached			1		08/01/2025 13:37	

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Account #: 5109 **Client:** Great River Energy

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ANALYTICAL SUMMARY REPORT

July 30, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25060965 Quote ID: C15480
Project Name: 90622

Energy Laboratories, Inc. Casper WY received the following 3 samples for Minnesota Valley Testing Laboratories on 6/27/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25060965-001	90622001, MW-1R	06/24/25 08:18	06/27/25	Groundwater	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25060965-002	90622002, DUP Internal	06/24/25 08:18	06/27/25	Groundwater	
C25060965-003	90622003, MW-104	06/24/25 09:30	06/27/25	Groundwater	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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Account #: 5109 **Client:** Great River Energy

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90622
Lab ID: C25060965-001
Client Sample ID: 90622001, MW-1R

Report Date: 07/30/25
Collection Date: 06/24/25 08:18
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.07	pCi/L	U			E903.0	07/23/25 15:50 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 226 MDC	0.1	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 228	0.5	pCi/L	U			RA-05	07/17/25 16:47 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/17/25 16:47 / trs
Radium 228 MDC	0.9	pCi/L				RA-05	07/17/25 16:47 / trs
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90622
Lab ID: C25060965-003
Client Sample ID: 90622003, MW-104

Report Date: 07/30/25
Collection Date: 06/24/25 09:30
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.06	pCi/L	U			E903.0	07/23/25 15:50 / dmr
Radium 226 precision (±)	0.09	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 226 MDC	0.1	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 228	0.6	pCi/L	U			RA-05	07/17/25 16:50 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/17/25 16:50 / trs
Radium 228 MDC	0.9	pCi/L				RA-05	07/17/25 16:50 / trs
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25060965 **Report Date:** 07/29/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11739
Lab ID: LCS-RA226-11739	3	Laboratory Control Sample				Run: TENNELEC-4_250714D				07/23/25 15:50
Radium 226		10	pCi/L		100	70	130			
Radium 226 precision (±)		1.6	pCi/L							
Radium 226 MDC		0.18	pCi/L							
Lab ID: MB-RA226-11739	3	Method Blank				Run: TENNELEC-4_250714D				07/23/25 15:50
Radium 226		-0.03	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C25060962-004ADUP	3	Sample Duplicate				Run: TENNELEC-4_250714D				07/23/25 15:50
Radium 226		0.046	pCi/L					74	30	UR
Radium 226 precision (±)		0.14	pCi/L							
Radium 226 MDC		0.23	pCi/L							

- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.25.

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25060965 **Report Date:** 07/29/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **RA-05**										Batch: RA228-7707
Lab ID: **LCS-228-RA226-11739**	3	Laboratory Control Sample				Run: TENNELEC-4_250714B				07/17/25 16:44
Radium 228		10	pCi/L		111	70	130			
Radium 228 precision (±)		2.7	pCi/L							
Radium 228 MDC		1.2	pCi/L							
Lab ID: **MB-RA226-11739**	3	Method Blank				Run: TENNELEC-4_250714B				07/17/25 16:44
Radium 228		0.6	pCi/L							U
Radium 228 precision (±)		0.7	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: **C25060962-004ADUP**	3	Sample Duplicate				Run: TENNELEC-4_250714B				07/17/25 16:44
Radium 228		1.0	pCi/L					38	30	UR
Radium 228 precision (±)		0.73	pCi/L							
Radium 228 MDC		1.0	pCi/L							

- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.32.

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25060965

Login completed by: Lisa X. Quezada
Reviewed by: darcy
Reviewed Date: 7/9/2025
Date Received: 6/27/2025
Received by: LDS
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☐	No ☑	
Sufficient sample volume for indicated test?	Yes ☐	No ☑	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	22.2°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature blank temperature in shipping container 1 was 21.7°C, shipping container 2 was 22.2°C, shipping container 3 was 21.9°C, shipping container 4 was 22.0°C, shipping container 5 was 22.0°C. shipping container 6 was

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Work Order Receipt Checklist - Continued

Minnesota Valley Testing Laboratories C25060965

22.2°C and shipping container 7 was 21.6°C.

The sample 90622002, DUP Internal for radium 226/228 was received broken. All sample volume was lost. Cancel analysis per phone conversation with Tera on 06/27/25. LXQ 06/27/25

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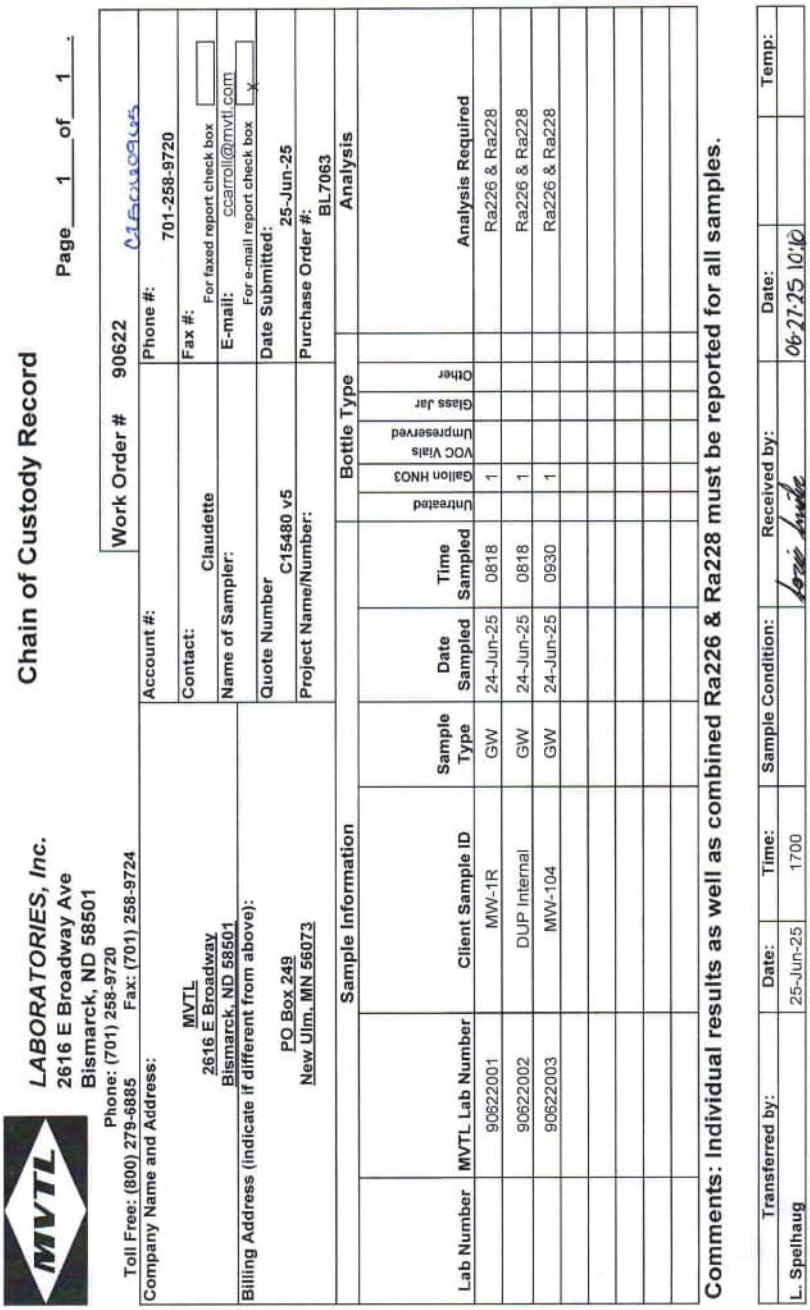
	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Chain of Custody Record

Page 1 of 1

Work Order # 90622 0525309525

Company Name and Address: MVTL 2616 E Broadway Bismarck, ND 58501

Billing Address (indicate if different from above): PO Box 249 New Ulm, MN 56073

Account #:
Contact: Claudette
Name of Sampler:
Quote Number C15480 v5
Project Name/Number:

Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box X
Date Submitted: 25-Jun-25
Purchase Order #: BL7063

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Unpreserved	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	90622001	MW-1R	GW	24-Jun-25	0818		1				Ra226 & Ra228
	90622002	DUP Internal	GW	24-Jun-25	0818		1				Ra226 & Ra228
	90622003	MW-104	GW	24-Jun-25	0930		1				Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
L. Spelhaug	25-Jun-25	1700		Lorri Lindke	06-27-25 10:10	

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Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 90622

Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS Internal
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: June 2025
Address:		Lakewood, CO 80228	Sampled By: Ethan Gress
Phone:			
Email:	CJohnston@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric										Analysis Required
001	MW- 1R	24 June 25	0818	GW				X										Radium 226 and 228 Combined
002	DUP Internal	24 June 25	0818	GW				X										
003	MW- 104	24 June 25	0930	GW				X										

Comments:

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	24 June 25 2045	Log In Walk In #2	Ambient		25 Jun 25 0800
2					

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	TR
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	16.10	ft
Depth to Top of Pump:	~	ft
Water Level After Sample:	16.10	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:
1 Liter Raw
500mL Nitric
500mL Nitric (filtered)
1 Gal Nitric

Duplicate Sample? (YES) / NO
Duplicate Sample ID: Dup Interval

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	0753	Start of Well Purge									
	0803	9.84	1653	7.74	0.12	-109.3	101.0	16.10	200.0	2.0	Clear
24 June 25	0808	9.86	1650	7.75	0.06	-118.0	91.88	16.10	200.0	1.0	Clear
	0813	9.83	1647	7.75	0.03	-122.3	61.90	16.10	200.0	1.0	Clear
	0818	9.83	1647	7.76	0.03	-126.2	49.89	16.11	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24 June 25	0818	9.83	1647	7.76	0.03	-126.2	49.89				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	104
Sampling Personal:	Ethan Cress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	21.19	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	21.27	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	3	Sec.
Recover:	27	Sec.
PSI:	—	

Bottle List:
1 Liter Raw
500mL Nitric
500mL Nitric (filtered)
1 Gal Nitric

Duplicate Sample? YES (NO)
Duplicate Sample ID: —

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
24June25	0905	Start of Well Purge									
	0915	10.19	1902	7.36	0.09	77.3	0.16	21.19	200.0	2.0	Clear
	0920	10.21	1907	7.37	0.04	72.6	0.04	21.20	200.0	1.0	Clear
	0925	10.18	1897	7.37	0.03	72.3	0.00	21.20	200.0	1.0	Clear
	0930	10.22	1897	7.38	0.04	76.5	0.00	21.21	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24June25	0930	10.22	1897	7.38	0.04	76.5	0.00				Clear

Comments:

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Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

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February 2025 GL21509219.000

Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.
* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS BAI June 2025 (90610) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90610001 **Date Collected:** 06/24/2025 12:30 **Matrix:** Groundwater
Sample ID: MW-201 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**3403**	umhos/cm	1	1		06/24/2025 12:30	
Method: 150.2							
pH - Field	**7.43**	units	0.01	1		06/24/2025 12:30	
Method: 170.1							
Temperature - Field C	**11.76**	degrees C		1		06/24/2025 12:30	
Method: ASTM D516-16							
Sulfate	**1120**	mg/L	25	5		06/27/2025 10:31	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**1.43**	mg/L	0.1	1	06/25/2025 16:09	06/26/2025 12:24	
Calcium	**103**	mg/L	1	1	06/25/2025 16:09	07/01/2025 11:50	
Lithium	<0.02	mg/L	0.02	1	06/25/2025 16:09	07/03/2025 09:36	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/25/2025 16:09	07/07/2025 17:23	
Arsenic	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:23	
Barium	**0.0165**	mg/L	0.002	5	06/25/2025 16:09	07/08/2025 15:58	
Beryllium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:23	
Cadmium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:23	
Chromium	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:23	
Cobalt	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:23	
Lead	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:23	
Molybdenum	**0.1683**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:23	
Selenium	<0.005	mg/L	0.005	5	06/25/2025 16:09	07/07/2025 17:23	
Thallium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:23	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90610001 **Date Collected:** 06/24/2025 12:30 **Matrix:** Groundwater
Sample ID: MW-201 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		06/25/2025 21:30	*
Method: SM4500-F-C-2021							
Fluoride	**0.77**	mg/L	0.1	1		06/25/2025 21:30	
Method: USGS I-1750-85							
Total Dissolved Solids	**2230**	mg/L	10	1		06/27/2025 14:09	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90610002 **Date Collected:** 06/24/2025 11:25 **Matrix:** Groundwater
Sample ID: MW-202 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2296**	umhos/cm	1	1		06/24/2025 11:25	
Method: 150.2							
pH - Field	**7.17**	units	0.01	1		06/24/2025 11:25	
Method: 170.1							
Temperature - Field C	**11.83**	degrees C		1		06/24/2025 11:25	
Method: ASTM D516-16							
Sulfate	**579**	mg/L	25	5		06/27/2025 10:32	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**1.72**	mg/L	0.1	1	06/25/2025 16:09	06/26/2025 12:25	
Calcium	**191**	mg/L	1	1	06/25/2025 16:09	07/01/2025 11:52	
Lithium	**0.0219**	mg/L	0.02	1	06/25/2025 16:09	07/03/2025 09:36	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/25/2025 16:09	07/07/2025 17:28	
Arsenic	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:28	
Barium	**0.0511**	mg/L	0.002	5	06/25/2025 16:09	07/08/2025 16:03	
Beryllium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:28	
Cadmium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:28	
Chromium	**0.0046**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:28	
Cobalt	**0.0036**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:28	
Lead	**0.0010**	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:28	
Molybdenum	**0.0029**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:28	
Selenium	**0.0057**	mg/L	0.005	5	06/25/2025 16:09	07/07/2025 17:28	
Thallium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:28	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90610002 **Date Collected:** 06/24/2025 11:25 **Matrix:** Groundwater
Sample ID: MW-202 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.7**	units	0.1	1		06/25/2025 21:41	*
Method: SM4500-F-C-2021							
Fluoride	**0.12**	mg/L	0.1	1		06/25/2025 21:41	
Method: USGS I-1750-85							
Total Dissolved Solids	**1530**	mg/L	10	1		06/27/2025 14:09	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90610003 **Date Collected:** 06/24/2025 10:27 **Matrix:** Groundwater
Sample ID: MW-203 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**3906**	umhos/cm	1	1		06/24/2025 10:27	
Method: 150.2							
pH - Field	**8.51**	units	0.01	1		06/24/2025 10:27	
Method: 170.1							
Temperature - Field C	**11.9**	degrees C		1		06/24/2025 10:27	
Method: ASTM D516-16							
Sulfate	**1010**	mg/L	50	10		06/27/2025 10:33	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**2.41**	mg/L	0.1	1	06/25/2025 16:09	06/26/2025 12:25	
Calcium	**36.6**	mg/L	1	1	06/25/2025 16:09	07/01/2025 11:52	
Lithium	**0.0205**	mg/L	0.02	1	06/25/2025 16:09	07/03/2025 09:37	
Method: EPA 6020B							
Antimony	**0.0012**	mg/L	0.001	5	06/25/2025 16:09	07/07/2025 17:33	
Arsenic	**0.0118**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:33	
Barium	**0.0530**	mg/L	0.002	5	06/25/2025 16:09	07/08/2025 16:08	
Beryllium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:33	
Cadmium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:33	
Chromium	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:33	
Cobalt	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:33	
Lead	**0.0015**	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:33	
Molybdenum	**0.0517**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:33	
Selenium	<0.005	mg/L	0.005	5	06/25/2025 16:09	07/07/2025 17:33	
Thallium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:33	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90610003 **Date Collected:** 06/24/2025 10:27 **Matrix:** Groundwater
Sample ID: MW-203 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.6**	units	0.1	1		06/25/2025 21:52	*
Method: SM4500-F-C-2021							
Fluoride	**0.75**	mg/L	0.1	1		06/25/2025 21:52	
Method: USGS I-1750-85							
Total Dissolved Solids	**2470**	mg/L	10	1		06/27/2025 14:09	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90610004 **Date Collected:** 06/24/2025 12:09 **Matrix:** Groundwater
Sample ID: FB BAI **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	<5	mg/L	5	1		06/27/2025 10:34	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	<0.1	mg/L	0.1	1	06/25/2025 16:09	06/26/2025 12:26	
Calcium	<1	mg/L	1	1	06/25/2025 16:09	07/01/2025 11:53	
Lithium	<0.02	mg/L	0.02	1	06/25/2025 16:09	07/03/2025 09:37	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/25/2025 16:09	07/07/2025 17:38	
Arsenic	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:38	
Barium	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:38	
Beryllium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:38	
Cadmium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:38	
Chromium	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:38	
Cobalt	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:38	
Lead	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:38	
Molybdenum	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:38	
Selenium	<0.005	mg/L	0.005	5	06/25/2025 16:09	07/07/2025 17:38	
Thallium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:38	
Method: SM4500 H+ B-2021							
pH	**6.2**	units	0.1	1		06/25/2025 22:06	*
Method: SM4500-F-C-2021							
Fluoride	<0.1	mg/L	0.1	1		06/25/2025 22:06	
Method: USGS I-1750-85							
Total Dissolved Solids	<10	mg/L	10	1		06/27/2025 14:09	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 90610

Sulfate — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			100	101.0		85	115		
LFB			100	93.2		85	115		
LFB			100	97.1		85	115		
LFB			100	94.2		85	115		
LFB			100	92.7		85	115		
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MS/MSD	90589004		100	85.3	85.7	85	115	0.4	20
MS/MSD	90604001		1000	77.9	80.3	85	115	1.1	20
MS/MSD	90613001		500	91.5	90.2	85	115	0.8	20
MS/MSD	90766001		100	95.6	96.3	85	115	0.7	20

Aluminum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-DF			0.5	103.0		85	115		
MB		<0.1							
PDS/PDSD	90589005		2	95.3	95.0	75	125	0.3	20
PDS/PDSD	90607001		2	92.6	92.9	75	125	0.3	20
PDS/PDSD	90607002		5	96.0	97.2	75	125	0.5	20
PDS/PDSD	90613001		2	93.0	92.7	75	125	0.3	20
PDS/PDSD	90763004		5	103.0	104.0	75	125	0.4	20
PDS/PDSD	90774005		2	91.4	91.2	75	125	0.2	20
PDS/PDSD	90776007		0.4	84.0	86.1	75	125	1.3	20

Aluminum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-DE			0.5	103.0		85	115		
MB		<0.1							

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Account #: 5109 **Client:** Great River Energy

Aluminum, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	90443004		0.4	112.0	111.0	75	125	0.7	20
SPK/SPKD	90446002		0.4	99.8	101.0	75	125	1.0	20
SPK/SPKD	90613001		0.4	105.0	105.0	75	125	0.1	20
PDS/PDSD	90774009		1	93.3	94.2	75	125	0.8	20

Boron				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OF			0.5	103.0		85	115		
MB		<0.1							
PDS/PDSD	89556001		8	95.4	108.0	75	125	0.8	20
PDS/PDSD	90443002		2	82.3	83.0	75	125	0.6	20
MS/MSD	90607001		0.4	94.8	98.0	70	130	1.0	20

Boron, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OF			0.5	103.0		85	115		
MB		<0.1							
PDS/PDSD	90300001		40	87.8	82.0	75	125	1.4	20
SPK/SPKD	90304006		0.4	87.0	90.1	75	125	1.8	20
SPK/SPKD	90604001		0.4	86.7	85.6	75	125	0.8	20

Calcium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
MB		<1							
PDS/PDSD	90443005		100	102.0	101.0	75	125	0.1	20
PDS/PDSD	90446002		100	101.0	99.6	75	125	0.9	20
PDS/PDSD	90446002		500	105.0	104.0	75	125	0.3	20
PDS/PDSD	90589002		100	104.0	102.0	75	125	0.8	20
PDS/PDSD	90590005		100	104.0	103.0	75	125	0.7	20
DUP	90610001							1.6	20
PDS/PDSD	90762001		100	103.0	104.0	75	125	0.7	20
PDS/PDSD	90762002		100	102.0	102.0	75	125	0.2	20
PDS/PDSD	90774005		100	98.3	98.7	75	125	0.2	20

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Calcium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	90776006		100	96.0	95.8	75	125	0.1	20
PDS/PDSD	90856001		100	100.0	101.0	75	125	0.4	20
PDS/PDSD	90916004		100	100.0	101.0	75	125	0.4	20

Calcium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
MB		<1							
SPK/SPKD	90443004		100	100.0	101.0	75	125	0.5	20
SPK/SPKD	90446002		100	104.0	104.0	75	125	0.4	20
SPK/SPKD	90613001		100	100.0	99.7	75	125	0.2	20
SPK/SPKD	90774005		100	102.0	100.0	75	125	0.8	20

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.5	108.0		85	115		
MB		<0.1							
PDS/PDSD	90589005		2	95.2	94.1	75	125	0.6	20
PDS/PDSD	90607001		2	85.5	82.8	75	125	1.0	20
PDS/PDSD	90607002		5	94.0	93.6	75	125	0.2	20
PDS/PDSD	90613001		2	84.6	85.2	75	125	0.2	20
PDS/PDSD	90763004		5	98.5	98.4	75	125	0.1	20
PDS/PDSD	90774005		2	81.7	82.1	75	125	0.1	20

Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.5	108.0		85	115		
MB		<0.1							
SPK/SPKD	90443004		0.4	100.0	102.0	75	125	1.8	20
SPK/SPKD	90446002		0.4	93.8	94.6	75	125	0.9	20
SPK/SPKD	90613001		0.4	79.9	79.8	75	125	0.0	20
PDS/PDSD	90774009		1	84.1	87.7	75	125	0.7	20

Lithium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.5	108.0		85	115		

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Lithium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.04							
PDS/PDSD	90443002		2	87.7	88.0	75	125	0.3	20
MS/MSD	90607001		0.4	99.6	98.4	70	130	1.2	20

Lithium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-DF			0.5	108.0		85	115		
MB		<0.04							
SPK/SPKD	90443004		0.4	89.3	88.2	75	125	1.0	20
SPK/SPKD	90446002		0.4	90.6	88.7	75	125	2.0	20
SPK/SPKD	90613003		0.4	90.8	91.1	75	125	0.3	20
SPK/SPKD	90774005		0.4	91.7	90.9	75	125	0.8	20

Magnesium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	114.0		85	115		
MB		<1							
PDS/PDSD	90443005		100	103.0	103.0	75	125	0.1	20
PDS/PDSD	90446002		100	102.0	101.0	75	125	0.5	20
PDS/PDSD	90446002		500	106.0	105.0	75	125	0.7	20
PDS/PDSD	90589002		100	108.0	106.0	75	125	0.8	20
PDS/PDSD	90590005		100	108.0	107.0	75	125	0.8	20
DUP	90610001							1.7	20
PDS/PDSD	90762001		100	107.0	108.0	75	125	1.3	20
PDS/PDSD	90762002		100	106.0	106.0	75	125	0.2	20
PDS/PDSD	90774005		100	102.0	102.0	75	125	0.5	20
PDS/PDSD	90776006		100	101.0	100.0	75	125	0.5	20
PDS/PDSD	90856001		100	104.0	105.0	75	125	0.6	20
PDS/PDSD	90916004		100	104.0	105.0	75	125	0.7	20

Magnesium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	114.0		85	115		
MB		<1							

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Magnesium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	90443004		100	102.0	103.0	75	125	0.6	20
SPK/SPKD	90446002		100	105.0	103.0	75	125	0.9	20
SPK/SPKD	90613001		100	106.0	106.0	75	125	0.2	20
SPK/SPKD	90774005		100	106.0	105.0	75	125	0.4	20

Manganese				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.5	110.0		85	115		
MB		<0.05							
PDS/PDSD	90589005		2	93.2	92.2	75	125	0.6	20
MS/MSD	90607001		0.4	83.9	74.5	70	130	2.0	20
PDS/PDSD	90607001		2	79.4	79.0	75	125	0.2	20
PDS/PDSD	90607002		5	98.5	98.3	75	125	0.2	20
PDS/PDSD	90613001		2	85.1	85.9	75	125	0.8	20
PDS/PDSD	90763004		5	95.2	94.0	75	125	0.8	20
PDS/PDSD	90774005		2	83.5	83.9	75	125	0.4	20
PDS/PDSD	90776007		0.4	82.4	83.0	75	125	0.5	20

Manganese, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-DE			0.5	110.0		85	115		
MB		<0.05							
SPK/SPKD	90443004		0.4	85.8	87.6	75	125	1.4	20
SPK/SPKD	90446002		0.4	75.8	75.2	75	125	0.3	20
SPK/SPKD	90613001		0.4	88.6	88.2	75	125	0.3	20
PDS/PDSD	90774009		1	87.7	84.8	75	125	2.5	20

Potassium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	115.0		85	115		
MB		<1							
PDS/PDSD	90443005		100	107.0	108.0	75	125	1.0	20
PDS/PDSD	90446002		100	105.0	106.0	75	125	0.9	20
PDS/PDSD	90446002		500	106.0	104.0	75	125	1.7	20

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Potassium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	90589002		100	108.0	107.0	75	125	1.4	20
PDS/PDSD	90590005		100	106.0	106.0	75	125	0.4	20
DUP	90610001							3.4	20
PDS/PDSD	90762001		100	106.0	108.0	75	125	1.6	20
PDS/PDSD	90762002		100	104.0	105.0	75	125	0.5	20
PDS/PDSD	90774005		100	104.0	104.0	75	125	0.1	20
PDS/PDSD	90776006		100	109.0	106.0	75	125	2.0	20
PDS/PDSD	90856001		100	108.0	108.0	75	125	0.4	20
PDS/PDSD	90916004		100	105.0	106.0	75	125	1.1	20

Potassium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	115.0		85	115		
MB		<1							
SPK/SPKD	90443004		100	105.0	106.0	75	125	1.6	20
SPK/SPKD	90446002		100	107.0	104.0	75	125	2.4	20
SPK/SPKD	90613001		100	107.0	107.0	75	125	0.1	20
SPK/SPKD	90774005		100	106.0	106.0	75	125	0.0	20

Sodium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	114.0		85	115		
MB		<1							
PDS/PDSD	90443005		100	97.5	97.0	75	125	0.4	20
PDS/PDSD	90446002		500	95.7	97.5	75	125	0.9	20
PDS/PDSD	90589002		100	111.0	110.0	75	125	1.0	20
PDS/PDSD	90590005		100	112.0	109.0	75	125	2.5	20
DUP	90610001							2.0	20
PDS/PDSD	90762001		100	110.0	112.0	75	125	1.3	20
PDS/PDSD	90762002		100	108.0	108.0	75	125	0.0	20
PDS/PDSD	90774005		100	73.4	71.9	75	125	0.3	20
PDS/PDSD	90776006		100	95.1	95.6	75	125	0.2	20
PDS/PDSD	90856001		100	103.0	104.0	75	125	0.2	20

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Account #: 5109 **Client:** Great River Energy

Sodium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	90916004		100	102.0	102.0	75	125	0.2	20

Sodium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	114.0		85	115		
MB		<1							
SPK/SPKD	90443004		100	94.6	96.4	75	125	0.8	20
SPK/SPKD	90446002		500	101.0	99.4	75	125	0.8	20
SPK/SPKD	90613001		100	85.5	88.7	75	125	0.9	20
SPK/SPKD	90774005		100	78.6	78.8	75	125	0.0	20

Antimony Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	97.4		80	120		
MB		<0.001							
MB		<0.001							
MS/MSD	90607001		0.4	110.0	107.0	75	125	2.8	20
SPK	90607002		0.1	102.0		75	125		

Antimony, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	97.4		80	120		
MB		<0.001							
MB		<0.001							
MS/MSD	90607001		0.4	110.0	107.0	75	125	2.8	20
SPK	90607002		0.1	102.0		75	125		
SPK/SPKD	90610004		0.1	96.5	96.8	75	125	0.3	20

Arsenic Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MB		<0.002							

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Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	90607001		0.4	111.0	108.0	75	125	3.2	20
SPK	90607002		0.1	107.0		75	125		

Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	111.0	108.0	75	125	3.2	20
SPK	90607002		0.1	107.0		75	125		
SPK/SPKD	90610004		0.1	96.7	97.8	75	125	1.1	20

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MS/MSD	90607001		0.4	113.0	114.0	75	125	0.8	20

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	114.0		80	120		
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	113.0	114.0	75	125	0.8	20
SPK/SPKD	90610004		0.1	102.0	102.0	75	125	0.0	20

Beryllium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	108.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	90607001		0.4	109.0	108.0	75	125	1.6	20
SPK	90607002		0.1	85.4		75	125		

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Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	108.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	90607001		0.4	109.0	108.0	75	125	1.6	20
SPK	90607002		0.1	85.4		75	125		
SPK/SPKD	90610004		0.1	98.2	98.1	75	125	0.1	20

Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	96.7		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	90607001		0.4	108.0	106.0	75	125	1.4	20
SPK	90607002		0.1	97.5		75	125		

Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	96.7		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	90607001		0.4	108.0	106.0	75	125	1.4	20
SPK	90607002		0.1	97.5		75	125		
SPK/SPKD	90610004		0.1	92.8	92.2	75	125	0.7	20

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	112.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	115.0	112.0	75	125	2.2	20

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Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	90607002		0.1	112.0		75	125		

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	112.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	115.0	112.0	75	125	2.2	20
SPK	90607002		0.1	112.0		75	125		
SPK/SPKD	90610004		0.1	105.0	107.0	75	125	2.2	20

Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	112.0	108.0	75	125	4.1	20
SPK	90607002		0.1	109.0		75	125		

Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	112.0	108.0	75	125	4.1	20
SPK	90607002		0.1	109.0		75	125		
SPK/SPKD	90610004		0.1	103.0	105.0	75	125	1.7	20

Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.0005							

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Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0005							
MS/MSD	90607001		0.4	109.0	107.0	75	125	1.4	20
SPK	90607002		0.1	103.0		75	125		

Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	90607001		0.4	109.0	107.0	75	125	1.4	20
SPK	90607002		0.1	103.0		75	125		
SPK/SPKD	90610004		0.1	99.0	102.0	75	125	2.8	20

Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	99.1		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	111.0	106.0	75	125	4.0	20
SPK	90607002		0.1	108.0		75	125		

Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	99.1		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	111.0	106.0	75	125	4.0	20
SPK	90607002		0.1	108.0		75	125		
SPK/SPKD	90610004		0.1	99.3	100.0	75	125	1.1	20

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		

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Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
MB		<0.005							
MB		<0.005							
MS/MSD	90607001		0.4	108.0	106.0	75	125	1.6	20
SPK	90607002		0.1	96.0		75	125		

Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	101.0		80	120		
MB		<0.005							
MB		<0.005							
MS/MSD	90607001		0.4	108.0	106.0	75	125	1.6	20
SPK	90607002		0.1	96.0		75	125		
SPK/SPKD	92610004		0.1	90.5	92.2	75	125	1.9	20

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.6		80	120		
LFB-MS			0.1	99.2		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	90607001		0.4	108.0	106.0	75	125	1.4	20
SPK	90607002		0.1	103.0		75	125		

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.6		80	120		
LFB-MS			0.1	99.2		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	90607001		0.4	108.0	106.0	75	125	1.4	20
SPK	90607002		0.1	103.0		75	125		
SPK/SPKD	92610004		0.1	97.0	100.0	75	125	3.4	20

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Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	100.0		85	115		
LFB			0.002	98.1		85	115		
LRB		<0.0002							
MB		<0.0002							
MS/MSD	90446001		0.002	93.5	91.4	70	130	5.4	20
MS/MSD	90446002		0.002	85.2	90.8	70	130	5.7	20
MS/MSD	90610004		0.002	89.3	99.0	70	130	10.5	20
MS/MSD	90641001		0.002	95.0	87.4	70	130	11.1	20

Alkalinity, Total — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			501	93.1		80	120		
LFB			410	95.8		90	110		
LFB			410	92.7		90	110		
LFB			410	94.4		90	110		
LFB			410	94.9		90	110		
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MS/MSD	90589005		410	88.8	89.4	80	120	0.4	20
MS/MSD	90590002		410	61.1	69.6	80	120	4.6	20
MS/MSD	90610003		410	92.4	90.5	80	120	0.0	20

pH — Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	100.5					
CRM-PH			6	100.3					
CRM-PH			6	100.0					
CRM-PH			6	100.0					
DUP	90590001							0.6	20
DUP	90590006							0.5	20
DUP	90610002							0.9	20

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Fluoride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			0.6	104.0		83.99	111.11		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	94.0		90	110		
LFB-F			0.5	100.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	90583001		0.5	100.0	100.0	80	120	0.0	20
MS/MSD-F	90607001		0.5	112.0	114.0	80	120	0.8	20
MS/MSD-F	90613003		0.5	114.0	104.0	80	120	3.6	20

Total Dissolved Solids — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	100.0		90.35	110.33		
CRM			736	97.0		90.35	110.33		
MB		<10							
MB		<10							
DUP	90598001							10.5	20
DUP	90610003							1.2	20
DUP	90774005							1.4	20
DUP	90774009							0.0	20

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 90610

Chain of Custody Record

Report To:	Great River Energy	CC:	WSP
Attn:	Cassie Johnston		44 Union Blvd, Suite 300
Address:			Lakewood, CO 80228
Phone:			
Email:	CJohnston@GREnergy.com		

Project Name: SS BAI
Event: June 2025
Sampled By: Ethan Gress

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric	Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 201	24Jun25	1230	GW	X	X	X		11.76	3403	7.43	0.73	* App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radio Chem, Dissolved and Total for Remainder of Metals.) (See Attachments)
002	MW- 202	24Jun25	1125	GW	X	X	X		11.83	2296	7.17	49.46	
003	MW- 203	24Jun25	1027	GW	X	X	X		11.90	3806	8.51	0.29	
004	FB BAI	24Jun25	1209	GW	X	X	X		NA	NA	NA	NA	

Comments: Bottom Ash Impoundment Wells App III, App IV + additional parameters per email from Erin Hunter @ WSP LS 25 Jun 25

	Relinquished By		Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		24Jun25 2045	Log In Walk In #2	4.0 °C/TM 805 ROG/N		25 Jun 25 0800
2						

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	201
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: (Sunny / Partly Cloudy / Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	10.07	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	10.78	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
	1205	Start of Well Purge									clear, slightly turbid, turbid
	1210	—	—	—	—	—	—	—	—	—	
24 Jun 25	1215	12.01	3412	7.40	0.45	162.0	1.67	10.62	200.0	2.0	Clear
	1220	11.92	3409	7.41	0.24	142.8	1.08	10.72	200.0	1.0	Clear
	1225	11.89	3398	7.42	0.17	133.6	0.89	10.76	200.0	1.0	Clear
	1230	11.76	3403	7.43	0.10	125.6	0.73	10.78	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24 Jun 25	1230	11.76	3403	7.43	0.10	125.6	0.73				Clear

Comments: FB BAI collected here @ 1209

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	202
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	10.28	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.10	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28	Sec.
PSI:		

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
24 June 25	1100	Start of Well Purge									
	1110	11.63	2326	7.17	2.88	258.5	74.88	10.90	200.0	2.0	Clear
	1115	11.73	2311	7.17	2.55	256.0	60.00	11.12	200.0	1.0	Clear
	1120	11.76	2302	7.18	2.32	232.1	55.05	11.28	200.0	1.0	Clear
	1125	11.83	2296	7.17	2.21	230.8	49.46	11.50	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24 June 25	1125	11.83	2296	7.17	2.21	230.8	49.46				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	203
Sampling Personal:	EthanGress

Weather Conditions: Temp: 65 °F Wind: NW @ 5-10 Precip: (Sunny) / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	7.89	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	11.05	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
	COL	Start of Well Purge									
	1012	11.53	3948	8.49	0.98	119.2	0.00	9.54	200.0	2.0	Clear Tan
24June25	1017	11.71	3944	8.50	0.92	109.8	0.00	9.87	200.0	1.0	Clear Tan
	1022	11.81	3913	8.50	0.87	112.3	0.00	10.02	200.0	1.0	Clear Tan
	1027	11.90	3906	8.51	1.02	114.9	0.29	10.22	200.0	1.0	Clear Tan

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
24June25	1027	11.90	3906	8.51	1.02	114.9	0.29				Clear Tan

Comments:

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Account #: 5109 **Client:** Great River Energy

Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

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February 2025 GL21509219.000

Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-108-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: ~~26 J~~ 25 Jun 25 Time: 1154 Analyst: PW
@25JUN25 PM
Work Order #: 90610

Containers Supplied by MVTL: [X] Yes [ ] No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS BAI June 2025 (90611) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90611001 **Date Collected:** 06/24/2025 12:30 **Matrix:** Groundwater
Sample ID: MW-201 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:37	
Radium 228	See Attached			1		08/01/2025 13:37	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90611002 **Date Collected:** 06/24/2025 11:25 **Matrix:** Groundwater
Sample ID: MW-202 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:37	
Radium 228	See Attached			1		08/01/2025 13:37	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90611003 **Date Collected:** 06/24/2025 10:27 **Matrix:** Groundwater
Sample ID: MW-203 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:37	
Radium 228	See Attached			1		08/01/2025 13:37	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90611004 **Date Collected:** 06/24/2025 12:09 **Matrix:** Groundwater
Sample ID: FB BAI **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:37	
Radium 228	See Attached			1		08/01/2025 13:37	

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Account #: 5109 **Client:** Great River Energy

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ANALYTICAL SUMMARY REPORT

July 30, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25060967 Quote ID: C15480
Project Name: 90611

Energy Laboratories, Inc. Casper WY received the following 4 samples for Minnesota Valley Testing Laboratories on 6/27/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25060967-001	90611001, MW-201	06/24/25 12:30	06/27/25	Groundwater	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25060967-002	90611002, MW-202	06/24/25 11:25	06/27/25	Groundwater	Same As Above
C25060967-003	90611003, MW-203	06/24/25 10:27	06/27/25	Groundwater	Same As Above
C25060967-004	90611004, FB BAI	06/24/25 12:09	06/27/25	Groundwater	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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Account #: 5109 **Client:** Great River Energy

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90611
Lab ID: C25060967-001
Client Sample ID: 90611001, MW-201

Report Date: 07/30/25
Collection Date: 06/24/25 12:30
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.06	pCi/L	U			E903.0	07/28/25 11:21 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 228	0.5	pCi/L	U			RA-05	07/22/25 15:39 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 228 MDC	0.9	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90611
Lab ID: C25060967-002
Client Sample ID: 90611002, MW-202

Report Date: 07/30/25
Collection Date: 06/24/25 11:25
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.08	pCi/L	U			E903.0	07/28/25 11:21 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 228	0.4	pCi/L	U			RA-05	07/22/25 15:39 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 228 MDC	1.1	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	07/29/25 13:32 / meh

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U - Not detected
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ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90611
Lab ID: C25060967-003
Client Sample ID: 90611003, MW-203

Report Date: 07/30/25
Collection Date: 06/24/25 10:27
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 228	0.03	pCi/L	U			RA-05	07/22/25 15:39 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 228 MDC	1.0	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1.0	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
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ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90611
Lab ID: C25060967-004
Client Sample ID: 90611004, FB BAI

Report Date: 07/30/25
Collection Date: 06/24/25 12:09
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.05	pCi/L	U			E903.0	07/28/25 11:21 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 228	0.4	pCi/L	U			RA-05	07/22/25 15:39 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 228 MDC	1	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	07/29/25 13:32 / meh

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Account #: 5109 **Client:** Great River Energy

QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25060967 **Report Date:** 07/30/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11742
Lab ID: LCS-RA226-11742	3	Laboratory Control Sample				Run: TENNELEC-4_250715I				07/28/25 11:21
Radium 226		11	pCi/L		111	70	130			
Radium 226 precision (±)		1.8	pCi/L							
Radium 226 MDC		0.24	pCi/L							
Lab ID: MB-RA226-11742	3	Method Blank				Run: TENNELEC-4_250715I				07/28/25 11:21
Radium 226		-0.2	pCi/L							U
Radium 226 precision (±)		0.2	pCi/L							
Radium 226 MDC		0.3	pCi/L							
Lab ID: C25060960-002AMS	3	Sample Matrix Spike				Run: TENNELEC-4_250715I				07/28/25 11:21
Radium 226		11	pCi/L		105	70	130			
Radium 226 precision (±)		1.7	pCi/L							
Radium 226 MDC		0.19	pCi/L							
Lab ID: C25060960-002AMSD	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_250715I				07/28/25 11:21
Radium 226		9.8	pCi/L		98	70	130	6.8	30	
Radium 226 precision (±)		1.6	pCi/L							
Radium 226 MDC		0.24	pCi/L							

- The RER result is 0.30.

Qualifiers:

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Account #: 5109 **Client:** Great River Energy

QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25060967 **Report Date:** 07/30/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7709
Lab ID: LCS-228-RA226-11742	3	Laboratory Control Sample				Run: TENNELEC-4_250715G				07/22/25 15:39
Radium 228		9.6	pCi/L		105	70	130			
Radium 228 precision (±)		2.6	pCi/L							
Radium 228 MDC		0.98	pCi/L							
Lab ID: MB-RA226-11742	3	Method Blank				Run: TENNELEC-4_250715G				07/22/25 15:39
Radium 228		0.2	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C25060960-002AMS4	3	Sample Matrix Spike				Run: TENNELEC-4_250715G				07/22/25 15:39
Radium 228		8.8	pCi/L		93	70	130			
Radium 228 precision (±)		2.3	pCi/L							
Radium 228 MDC		0.95	pCi/L							
Lab ID: C25060960-002AMSD4	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_250715G				07/22/25 15:39
Radium 228		8.2	pCi/L		87	70	130	6.5	30	
Radium 228 precision (±)		2.2	pCi/L							
Radium 228 MDC		0.92	pCi/L							

- The RER result is 0.17.

Qualifiers:

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25060967

Login completed by: Lisa X. Quezada
Reviewed by: darcy
Reviewed Date: 7/9/2025
Date Received: 6/27/2025
Received by: LDS
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	22.2°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature blank temperature in shipping container 1 was 21.7°C, shipping container 2 was 22.2°C, shipping container 3 was 21.9°C, shipping container 4 was 22.0°C, shipping container 5 was 22.0°C. shipping container 6 was

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Work Order Receipt Checklist - Continued

Minnesota Valley Testing Laboratories C25060967

22.2°C and shipping container 7 was 21.6°C. LXQ 06/27/25

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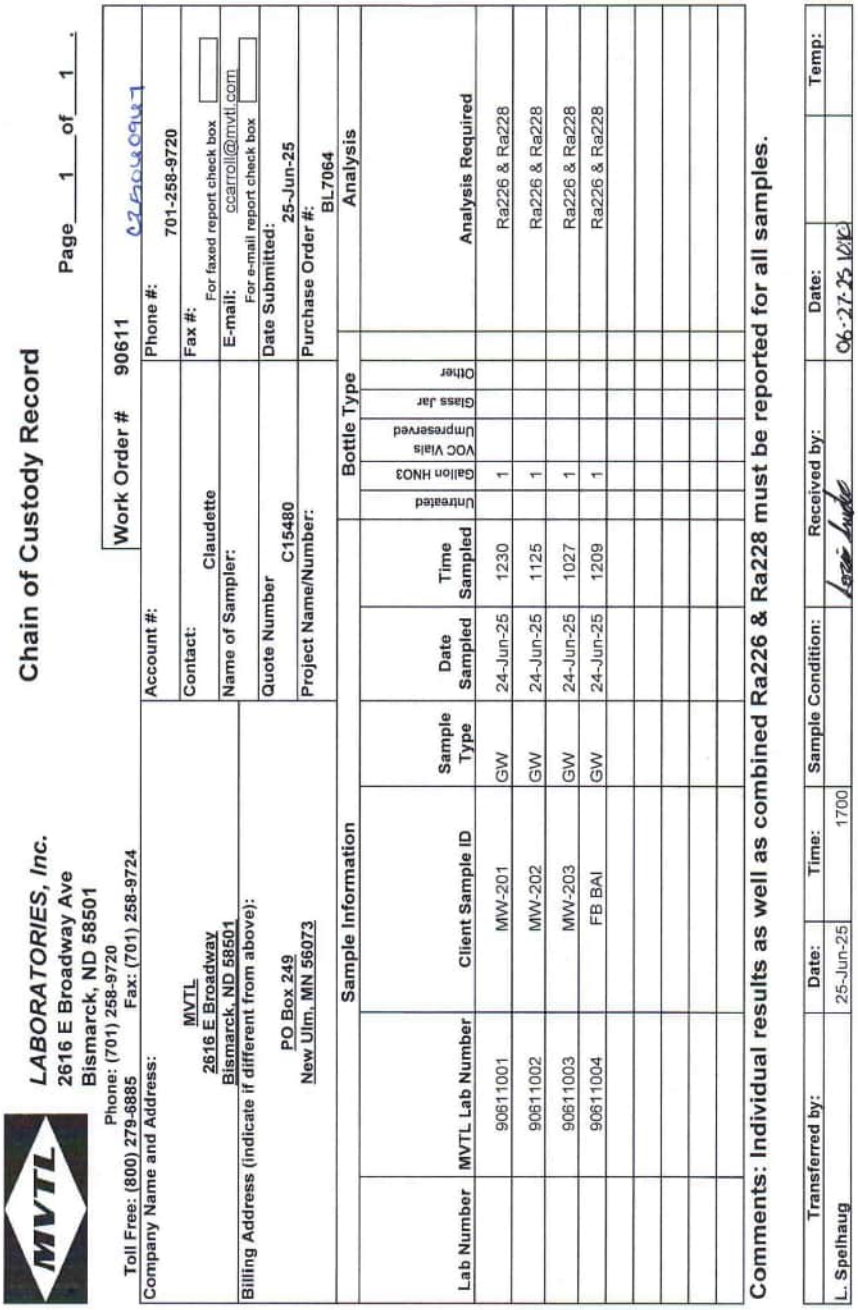
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	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Chain of Custody Record

Page 1 of 1

Work Order # 90611

Company Name and Address: MVTL, 2616 E Broadway, Bismarck, ND 58501
Account #:
Contact: Claudette
Name of Sampler:
Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box

Billing Address (indicate if different from above): PO Box 249, New Ulm, MN 56073
Quote Number C15480
Project Name/Number:
Date Submitted: 25-Jun-25
Purchase Order #: BL7064

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Unpreserved	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	90611001	MW-201	GW	24-Jun-25	1230		1				Ra226 & Ra228
	90611002	MW-202	GW	24-Jun-25	1125		1				Ra226 & Ra228
	90611003	MW-203	GW	24-Jun-25	1027		1				Ra226 & Ra228
	90611004	FB BAI	GW	24-Jun-25	1209		1				Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
L. Spelhaug	25-Jun-25	1700		Lorie Ludke	06-27-25 LVK	

Page 11 of 11

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(701) 258-9720

Great River Energy
WO: 90611

Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS BAI
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: June 2025
Address:		Lakewood, CO 80228	Sampled By: Ethan Gres
Phone:			
Email:	CJohnston@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric										Analysis Required
001	MW- 201	24 June 25	1230	GW				X										
002	MW- 202	24 June 25	1125	GW				X										
003	MW- 203	24 June 25	1027	GW				X										
004	FB BAI	24 June 25	1209	GW				X										Radium 226 and 228 Combined

Comments:

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	24 June 25 2015	Log In Walk In #2	Ambient		25 Jun 25 0800
2					

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	201
Sampling Personal:	Ethan Goess

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: (Sunny / Partly Cloudy / Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	10.67	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	10.78	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
24Sep25	1205	Start of Well Purge									
	~~1210~~	—	—	—	—	—	—	—	—	—	
	1215	12.01	3412	7.40	0.45	182.0	1.67	10.62	200.0	2.0	Clear
	1220	11.92	3409	7.41	0.24	142.8	1.08	10.72	200.0	1.0	Clear
	1225	11.89	3398	7.42	0.17	133.6	0.89	10.70	200.0	1.0	Clear
	1230	11.76	3403	7.43	0.10	125.6	0.73	10.78	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
24Sep25	1230	11.76	3403	7.43	0.10	125.6	0.73				Clear

Comments: FB BAI collected here @ 1209

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	202
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	10.28	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.10	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	1100	Start of Well Purge									
	1110	11.63	2326	7.17	2.88	238.5	74.88	10.90	200.0	2.0	Clear
24 June 25	1115	11.73	2311	7.17	2.55	236.0	60.00	11.12	200.0	1.0	Clear
	1120	11.76	2307	7.18	2.32	232.1	55.05	11.28	200.0	1.0	Clear
	1125	11.83	2296	7.17	2.21	230.8	49.46	11.50	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24 June 25	1125	11.83	2296	7.17	2.21	230.8	49.46				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	203
Sampling Personal:	EthanGress

Weather Conditions: Temp: 65 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	7.89	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	10.00	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	1002	Start of Well Purge									
	1012	11.53	3948	8.49	0.98	119.2	0.00	9.54	200.0	2.0	Clear Tan
24June25	1017	11.71	3944	8.50	0.92	109.8	0.00	9.87	200.0	1.0	Clear Tan
	1022	11.81	3913	8.50	0.87	112.3	0.00	10.02	200.0	1.0	Clear Tan
	1027	11.90	3906	8.51	1.02	114.9	0.29	10.22	200.0	1.0	Clear Tan

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24June25	1027	11.90	3906	8.51	1.02	114.9	0.29				Clear Tan

Comments:

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Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

1

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February 2025 GL21509219.000

Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy

February 2025 GL21509219.000

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-108-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS 2022 Wells June 2025 (90446) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90446001 **Date Collected:** 06/23/2025 13:45 **Matrix:** Groundwater
Sample ID: MW-210 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1593**	umhos/cm	1	1		06/23/2025 13:45	
Method: 150.2							
pH - Field	**7.67**	units	0.01	1		06/23/2025 13:45	
Method: 170.1							
Temperature - Field C	**10.63**	degrees C		1		06/23/2025 13:45	
Method: ASTM D516-16							
Sulfate	**424**	mg/L	25	5		06/25/2025 10:02	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**0.63**	mg/L	0.1	1	06/24/2025 16:25	06/26/2025 11:59	
Calcium	**68.8**	mg/L	1	1	06/24/2025 16:25	07/01/2025 11:00	
Lithium	**0.0369**	mg/L	0.02	1	06/24/2025 16:25	07/03/2025 09:20	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/24/2025 16:25	06/25/2025 17:44	
Arsenic	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:44	
Barium	**0.0346**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:44	
Beryllium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:44	
Cadmium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:44	
Chromium	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:44	
Cobalt	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:44	
Lead	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:44	
Molybdenum	**0.0115**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 17:44	
Selenium	<0.005	mg/L	0.005	5	06/24/2025 16:25	06/25/2025 17:44	
Thallium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 17:44	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90446001 **Date Collected:** 06/23/2025 13:45 **Matrix:** Groundwater
Sample ID: MW-210 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.1**	units	0.1	1		06/24/2025 21:43	*
Method: SM4500-F-C-2021							
Fluoride	**0.55**	mg/L	0.1	1		06/24/2025 21:43	
Method: USGS I-1750-85							
Total Dissolved Solids	**1110**	mg/L	10	1		06/25/2025 10:21	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90446002 **Date Collected:** 06/23/2025 10:11 **Matrix:** Groundwater
Sample ID: MW-211 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2476**	umhos/cm	1	1		06/23/2025 10:11	
Method: 150.2							
pH - Field	**7.97**	units	0.01	1		06/23/2025 10:11	
Method: 170.1							
Temperature - Field C	**9.29**	degrees C		1		06/23/2025 10:11	
Method: ASTM D516-16							
Sulfate	**750**	mg/L	25	5		06/25/2025 10:03	*
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**1.31**	mg/L	0.1	1	06/24/2025 16:25	06/26/2025 11:59	
Calcium	**55.4**	mg/L	1	1	06/24/2025 16:25	07/01/2025 11:01	
Lithium	**0.0218**	mg/L	0.02	1	06/24/2025 16:25	07/03/2025 09:21	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/24/2025 16:25	06/25/2025 18:08	
Arsenic	**0.0098**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:08	
Barium	**0.1181**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:08	
Beryllium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:08	
Cadmium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:08	
Chromium	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:08	
Cobalt	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:08	
Lead	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:08	
Molybdenum	**0.0208**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:08	
Selenium	<0.005	mg/L	0.005	5	06/24/2025 16:25	06/25/2025 18:08	
Thallium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:08	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90446002 **Date Collected:** 06/23/2025 10:11 **Matrix:** Groundwater
Sample ID: MW-211 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.2**	units	0.1	1		06/24/2025 21:54	*
Method: SM4500-F-C-2021							
Fluoride	**0.56**	mg/L	0.1	1		06/24/2025 21:54	
Method: USGS I-1750-85							
Total Dissolved Solids	**1730**	mg/L	10	1		06/25/2025 10:21	

Analysis Results Comments

Sulfate

Matrix spike and/or matrix spike duplicate recovery was low; the associated laboratory control sample recovery was acceptable.

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90446003 **Date Collected:** 06/23/2025 11:41 **Matrix:** Groundwater
Sample ID: MW-212 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1852**	umhos/cm	1	1		06/23/2025 11:41	
Method: 150.2							
pH - Field	**7.93**	units	0.01	1		06/23/2025 11:41	
Method: 170.1							
Temperature - Field C	**10.05**	degrees C		1		06/23/2025 11:41	
Method: ASTM D516-16							
Sulfate	**520**	mg/L	25	5		06/25/2025 10:04	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**0.71**	mg/L	0.1	1	06/24/2025 16:25	06/26/2025 12:02	
Calcium	**47.6**	mg/L	1	1	06/24/2025 16:25	07/01/2025 11:05	
Lithium	**0.0316**	mg/L	0.02	1	06/24/2025 16:25	07/03/2025 09:23	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/24/2025 16:25	06/25/2025 18:28	
Arsenic	**0.0031**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:28	
Barium	**0.0585**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:28	
Beryllium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:28	
Cadmium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:28	
Chromium	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:28	
Cobalt	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:28	
Lead	**0.0007**	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:28	
Molybdenum	**0.0325**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:28	
Selenium	<0.005	mg/L	0.005	5	06/24/2025 16:25	06/25/2025 18:28	
Thallium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:28	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90446003 **Date Collected:** 06/23/2025 11:41 **Matrix:** Groundwater
Sample ID: MW-212 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.2**	units	0.1	1		06/24/2025 22:05	*
Method: SM4500-F-C-2021							
Fluoride	**0.44**	mg/L	0.1	1		06/24/2025 22:05	
Method: USGS I-1750-85							
Total Dissolved Solids	**1300**	mg/L	10	1		06/25/2025 10:21	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90446004 **Date Collected:** 06/23/2025 14:38 **Matrix:** Groundwater
Sample ID: MW-213 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1522**	umhos/cm	1	1		06/23/2025 14:38	
Method: 150.2							
pH - Field	**7.64**	units	0.01	1		06/23/2025 14:38	
Method: 170.1							
Temperature - Field C	**10.45**	degrees C		1		06/23/2025 14:38	
Method: ASTM D516-16							
Sulfate	**406**	mg/L	25	5		06/25/2025 10:05	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**1.16**	mg/L	0.1	1	06/24/2025 16:25	06/26/2025 12:04	
Calcium	**101**	mg/L	1	1	06/24/2025 16:25	07/01/2025 11:06	
Lithium	**0.0370**	mg/L	0.02	1	06/24/2025 16:25	07/03/2025 09:23	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/24/2025 16:25	06/25/2025 18:33	
Arsenic	**0.0033**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:33	
Barium	**0.0784**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:33	
Beryllium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:33	
Cadmium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:33	
Chromium	**0.0046**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:33	
Cobalt	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:33	
Lead	**0.0018**	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:33	
Molybdenum	**0.0138**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:33	
Selenium	<0.005	mg/L	0.005	5	06/24/2025 16:25	06/25/2025 18:33	
Thallium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:33	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90446004 **Date Collected:** 06/23/2025 14:38 **Matrix:** Groundwater
Sample ID: MW-213 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		06/24/2025 22:16	*
Method: SM4500-F-C-2021							
Fluoride	**0.73**	mg/L	0.1	1		06/24/2025 22:16	
Method: USGS I-1750-85							
Total Dissolved Solids	**1070**	mg/L	10	1		06/25/2025 10:21	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90446005 **Date Collected:** 06/23/2025 14:38 **Matrix:** Groundwater
Sample ID: DUP 2022 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1522**	umhos/cm	1	1		06/23/2025 14:38	
Method: 150.2							
pH - Field	**7.64**	units	0.01	1		06/23/2025 14:38	
Method: 170.1							
Temperature - Field C	**10.45**	degrees C		1		06/23/2025 14:38	
Method: ASTM D516-16							
Sulfate	**402**	mg/L	25	5		06/25/2025 10:06	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**1.15**	mg/L	0.1	1	06/24/2025 16:25	06/26/2025 12:05	
Calcium	**102**	mg/L	1	1	06/24/2025 16:25	07/01/2025 11:07	
Lithium	**0.0372**	mg/L	0.02	1	06/24/2025 16:25	07/03/2025 09:24	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/24/2025 16:25	06/25/2025 18:38	
Arsenic	**0.0036**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:38	
Barium	**0.0808**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:38	
Beryllium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:38	
Cadmium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:38	
Chromium	**0.0050**	mg/L	0.002	5	06/24/2025 16:25	06/26/2025 17:13	
Cobalt	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:38	
Lead	**0.0019**	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:38	
Molybdenum	**0.0139**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:38	
Selenium	<0.005	mg/L	0.005	5	06/24/2025 16:25	06/25/2025 18:38	
Thallium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:38	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90446005 **Date Collected:** 06/23/2025 14:38 **Matrix:** Groundwater
Sample ID: DUP 2022 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		06/24/2025 22:27	*
Method: SM4500-F-C-2021							
Fluoride	**0.72**	mg/L	0.1	1		06/24/2025 22:27	
Method: USGS I-1750-85							
Total Dissolved Solids	**1070**	mg/L	10	1		06/25/2025 10:21	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90446006 **Date Collected:** 06/23/2025 12:57 **Matrix:** Groundwater
Sample ID: MW-214 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2104**	umhos/cm	1	1		06/23/2025 12:57	
Method: 150.2							
pH - Field	**7.52**	units	0.01	1		06/23/2025 12:57	
Method: 170.1							
Temperature - Field C	**10.6**	degrees C		1		06/23/2025 12:57	
Method: ASTM D516-16							
Sulfate	**616**	mg/L	25	5		06/25/2025 10:08	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**0.35**	mg/L	0.1	1	06/24/2025 16:25	06/26/2025 12:05	
Calcium	**73.1**	mg/L	1	1	06/24/2025 16:25	07/01/2025 11:07	
Lithium	**0.0542**	mg/L	0.02	1	06/24/2025 16:25	07/03/2025 09:24	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/24/2025 16:25	06/25/2025 18:43	
Arsenic	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:43	
Barium	**0.0433**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:43	
Beryllium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:43	
Cadmium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:43	
Chromium	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:43	
Cobalt	<0.002	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:43	
Lead	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:43	
Molybdenum	**0.0133**	mg/L	0.002	5	06/24/2025 16:25	06/25/2025 18:43	
Selenium	**0.0069**	mg/L	0.005	5	06/24/2025 16:25	06/25/2025 18:43	
Thallium	<0.0005	mg/L	0.0005	5	06/24/2025 16:25	06/25/2025 18:43	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90446006 **Date Collected:** 06/23/2025 12:57 **Matrix:** Groundwater
Sample ID: MW-214 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		06/24/2025 22:37	*
Method: SM4500-F-C-2021							
Fluoride	**0.49**	mg/L	0.1	1		06/24/2025 22:37	
Method: USGS I-1750-85							
Total Dissolved Solids	**1460**	mg/L	10	1		06/25/2025 10:21	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 90446

Sulfate — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			100	102.0		85	115		
LFB			100	102.0		85	115		
LFB			100	102.0		85	115		
LFB			100	100.0		85	115		
LFB			100	100.0		85	115		
LFB			100	100.0		85	115		
LFB			100	100.0		85	115		
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MS/MSD	90134001		1000	80.6	82.2	85	115	1.2	20
MS/MSD	90167004		100	98.1	99.5	85	115	1.4	20
MS/MSD	90304002		100000	86.5	89.8	85	115	2.7	20
MS/MSD	90443002		10000	81.1	84.2	85	115	1.5	20
MS/MSD	90446002		500	81.0	85.8	85	115	2.6	20
MS/MSD	90448004		100	98.8	98.8	85	115	0.0	20

Aluminum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	97.8		85	115		
MB		<0.1							
PDS/PDSD	90443002		2	97.5	101.0	75	125	3.4	20
MS/MSD	90446002		0.4	126.0	128.0	70	130	1.4	20

Aluminum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	97.8		85	115		

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Aluminum, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.1							
SPK/SPKD	90443004		0.4	112.0	111.0	75	125	0.7	20
SPK/SPKD	90446002		0.4	99.8	101.0	75	125	1.0	20
SPK/SPKD	90613001		0.4	105.0	105.0	75	125	0.1	20

Boron				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OF			0.4	101.0		85	115		
MB		<0.1							
PDS/PDSD	89556001		8	95.4	108.0	75	125	0.8	20
PDS/PDSD	90443002		2	82.3	83.0	75	125	0.6	20
MS/MSD	90446002		0.4	98.2	92.2	70	130	1.4	20

Boron, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OF			0.4	101.0		85	115		
MB		<0.1							
PDS/PDSD	90300001		40	87.8	82.0	75	125	1.4	20
SPK/SPKD	90443004		0.4	87.0	88.7	75	125	1.1	20
SPK/SPKD	90446002		1	92.3	92.5	75	125	0.1	20
SPK/SPKD	90774005		0.4	85.2	84.5	75	125	0.3	20

Calcium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
MB		<1							
DUP	90442001							0.2	20
PDS/PDSD	90443005		100	102.0	101.0	75	125	0.1	20
DUP	90446002							1.0	20
PDS/PDSD	90446002		100	101.0	99.6	75	125	0.9	20
PDS/PDSD	90446002		500	105.0	104.0	75	125	0.3	20
PDS/PDSD	90589002		100	104.0	102.0	75	125	0.8	20
PDS/PDSD	90590005		100	104.0	103.0	75	125	0.7	20
PDS/PDSD	90762001		100	103.0	104.0	75	125	0.7	20

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Account #: 5109 **Client:** Great River Energy

Calcium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	90762002		100	102.0	102.0	75	125	0.2	20
PDS/PDSD	90774005		100	98.3	98.7	75	125	0.2	20
PDS/PDSD	90776006		100	96.0	95.8	75	125	0.1	20
PDS/PDSD	90856001		100	100.0	101.0	75	125	0.4	20
PDS/PDSD	90916004		100	100.0	101.0	75	125	0.4	20

Calcium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
MB		<1							
SPK/SPKD	90443004		100	100.0	101.0	75	125	0.5	20
SPK/SPKD	90446002		100	104.0	104.0	75	125	0.4	20
SPK/SPKD	90613001		100	100.0	99.7	75	125	0.2	20
SPK/SPKD	90774005		100	102.0	100.0	75	125	0.8	20

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	105.0		85	115		
MB		<0.1							
PDS/PDSD	90443002		2	75.9	77.8	75	125	2.4	20
MS/MSD	90446002		0.4	99.6	91.0	70	130	6.6	20

Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	105.0		85	115		
MB		<0.1							
SPK/SPKD	90443004		0.4	100.0	102.0	75	125	1.8	20
SPK/SPKD	90446002		0.4	93.8	94.6	75	125	0.9	20
SPK/SPKD	90613001		0.4	79.9	79.8	75	125	0.0	20

Lithium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	105.0		85	115		
MB		<0.04							
PDS/PDSD	90443002		2	87.7	88.0	75	125	0.3	20
MS/MSD	90446002		0.4	99.6	98.3	70	130	1.3	20

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Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	105.0		85	115		
MB		<0.04							
SPK/SPKD	90443004		0.4	89.3	88.2	75	125	1.0	20
SPK/SPKD	90446002		0.4	90.6	88.7	75	125	2.0	20
SPK/SPKD	90613003		0.4	90.8	91.1	75	125	0.3	20
SPK/SPKD	90774005		0.4	91.7	90.9	75	125	0.8	20

Magnesium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	113.0		85	115		
MB		<1							
DUP	90442001							0.9	20
PDS/PDSD	90443005		100	103.0	103.0	75	125	0.1	20
DUP	90446002							0.8	20
PDS/PDSD	90446002		100	102.0	101.0	75	125	0.5	20
PDS/PDSD	90446002		500	106.0	105.0	75	125	0.7	20
PDS/PDSD	90589002		100	108.0	106.0	75	125	0.8	20
PDS/PDSD	90590005		100	108.0	107.0	75	125	0.8	20
PDS/PDSD	90762001		100	107.0	108.0	75	125	1.2	20
PDS/PDSD	90762002		100	106.0	106.0	75	125	0.2	20
PDS/PDSD	90774005		100	102.0	102.0	75	125	0.5	20
PDS/PDSD	90776006		100	101.0	100.0	75	125	0.5	20
PDS/PDSD	90856001		100	104.0	105.0	75	125	0.6	20
PDS/PDSD	90916004		100	104.0	105.0	75	125	0.7	20

Magnesium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	113.0		85	115		
MB		<1							
SPK/SPKD	90443004		100	102.0	103.0	75	125	0.6	20
SPK/SPKD	90446002		100	105.0	103.0	75	125	0.9	20
SPK/SPKD	90613001		100	106.0	106.0	75	125	0.2	20
SPK/SPKD	90774005		100	106.0	105.0	75	125	0.4	20

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Account #: 5109 **Client:** Great River Energy

Manganese				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	106.0		85	115		
MB		<0.05							
PDS/PDSD	90443002		2	80.1	81.9	75	125	2.2	20
MS/MSD	90446002		0.4	84.3	85.9	70	130	0.7	20

Manganese, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	106.0		85	115		
MB		<0.05							
SPK/SPKD	90443004		0.4	85.8	87.6	75	125	1.4	20
SPK/SPKD	90446002		0.4	75.8	75.2	75	125	0.3	20
SPK/SPKD	90613001		0.4	88.6	88.2	75	125	0.3	20

Potassium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	114.0		85	115		
MB		<1							
DUP	90442001							3.5	20
PDS/PDSD	90443005		100	107.0	108.0	75	125	1.0	20
DUP	90446002							1.3	20
PDS/PDSD	90446002		100	105.0	106.0	75	125	0.9	20
PDS/PDSD	90446002		500	106.0	104.0	75	125	1.7	20
PDS/PDSD	90589002		100	108.0	107.0	75	125	1.4	20
PDS/PDSD	90590005		100	106.0	106.0	75	125	0.4	20
PDS/PDSD	90762001		100	106.0	108.0	75	125	1.6	20
PDS/PDSD	90762002		100	104.0	105.0	75	125	0.5	20
PDS/PDSD	90774005		100	104.0	104.0	75	125	0.1	20
PDS/PDSD	90776006		100	109.0	106.0	75	125	2.0	20
PDS/PDSD	90856001		100	108.0	108.0	75	125	0.4	20
PDS/PDSD	90916004		100	105.0	106.0	75	125	1.1	20

Potassium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	114.0		85	115		

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Account #: 5109 **Client:** Great River Energy

Potassium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<1							
SPK/SPKD	90443004		100	105.0	106.0	75	125	1.6	20
SPK/SPKD	90446002		100	107.0	104.0	75	125	2.4	20
SPK/SPKD	90613001		100	107.0	107.0	75	125	0.1	20
SPK/SPKD	90774005		100	106.0	106.0	75	125	0.0	20

Sodium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	115.0		85	115		
MB		<1							
DUP	90442001							0.1	20
PDS/PDSD	90443005		100	97.9	97.0	75	125	0.4	20
DUP	90446007							1.3	20
PDS/PDSD	90446002		500	95.7	97.5	75	125	0.9	20
PDS/PDSD	90589002		100	111.0	110.0	75	125	1.0	20
PDS/PDSD	90590005		100	112.0	109.0	75	125	2.5	20
PDS/PDSD	90762001		100	110.0	112.0	75	125	1.3	20
PDS/PDSD	90762007		100	108.0	108.0	75	125	0.0	20
PDS/PDSD	90774005		100	73.4	71.9	75	125	0.3	20
PDS/PDSD	90776006		100	95.1	95.6	75	125	0.2	20
PDS/PDSD	90856001		100	103.0	104.0	75	125	0.2	20
PDS/PDSD	90916004		100	102.0	102.0	75	125	0.2	20

Sodium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	115.0		85	115		
MB		<1							
SPK/SPKD	90443004		100	94.6	96.4	75	125	0.8	20
SPK/SPKD	90446002		500	101.0	99.4	75	125	0.8	20
SPK/SPKD	90613001		100	85.5	88.7	75	125	0.9	20
SPK/SPKD	90774005		100	78.6	78.8	75	125	0.0	20

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Antimony				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
MB		<0.001							
MS/MSD	90443002		0.4	109.0	103.0	75	125	5.4	20
MS/MSD	90446002		0.4	110.0	107.0	75	125	3.7	20

Antimony, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
MB		<0.001							
MS/MSD	90443002		0.4	109.0	103.0	75	125	5.4	20
MS/MSD	90446002		0.4	110.0	107.0	75	125	3.7	20
SPK/SPKD	90446002		0.1	109.0	111.0	75	125	1.5	20
SPK/SPKD	90448004		0.1	105.0	103.0	75	125	1.5	20

Arsenic				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	113.0	112.0	75	125	0.0	20
MS/MSD	90446002		0.4	114.0	109.0	75	125	5.0	20

Arsenic, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	113.0	112.0	75	125	0.0	20
MS/MSD	90446002		0.4	114.0	109.0	75	125	5.0	20
SPK/SPKD	90446002		0.1	108.0	107.0	75	125	0.4	20
SPK/SPKD	90448004		0.1	105.0	106.0	75	125	1.1	20

Barium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	113.0	106.0	75	125	5.8	20
MS/MSD	90446002		0.4	118.0	111.0	75	125	4.3	20

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Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	113.0	106.0	75	125	5.8	20
MS/MSD	90446002		0.4	118.0	111.0	75	125	4.3	20
SPK/SPKD	90446002		0.1	109.0	104.0	75	125	2.2	20
SPK/SPKD	90448004		0.1	112.0	112.0	75	125	0.3	20

Beryllium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
MB		<0.0005							
MS/MSD	90443002		0.4	101.0	99.2	75	125	1.5	20
MS/MSD	90446002		0.4	111.0	109.0	75	125	1.4	20

Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
MB		<0.0005							
MS/MSD	90443002		0.4	101.0	99.2	75	125	1.5	20
MS/MSD	90446002		0.4	111.0	109.0	75	125	1.4	20
SPK/SPKD	90446002		0.1	98.7	98.2	75	125	0.5	20
SPK/SPKD	90448004		0.1	99.1	99.5	75	125	0.4	20

Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							
MS/MSD	90443002		0.4	104.0	98.2	75	125	5.7	20
MS/MSD	90446002		0.4	113.0	107.0	75	125	5.5	20

Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							
MS/MSD	90443002		0.4	104.0	98.3	75	125	5.7	20
MS/MSD	90446002		0.4	113.0	107.0	75	125	5.5	20

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Cadmium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	90446002		0.1	104.0	104.0	75	125	0.1	20
SPK/SPKD	90448004		0.1	104.0	105.0	75	125	0.4	20

Chromium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	119.0	121.0	75	125	1.7	20
MS/MSD	90446002		0.4	118.0	115.0	75	125	2.2	20

Chromium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	119.0	121.0	75	125	1.7	20
MS/MSD	90446002		0.4	118.0	115.0	75	125	2.2	20
SPK/SPKD	90446002		0.1	104.0	103.0	75	125	0.3	20
SPK/SPKD	90448004		0.1	107.0	107.0	75	125	0.0	20

Cobalt Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	115.0	115.0	75	125	0.7	20
MS/MSD	90446002		0.4	115.0	114.0	75	125	1.3	20

Cobalt, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	115.0	115.0	75	125	0.7	20
MS/MSD	90446002		0.4	115.0	114.0	75	125	1.3	20
SPK/SPKD	90446002		0.1	104.0	104.0	75	125	0.0	20
SPK/SPKD	90448004		0.1	108.0	107.0	75	125	0.2	20

Lead Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		

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Lead				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0005							
MS/MSD	90443002		0.4	112.0	109.0	75	125	2.9	20
MS/MSD	90446002		0.4	111.0	107.0	75	125	3.2	20

Lead, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MS/MSD	90443002		0.4	112.0	109.0	75	125	2.9	20
MS/MSD	90446002		0.4	111.0	107.0	75	125	3.2	20
SPK/SPKD	90446002		0.1	110.0	108.0	75	125	1.9	20
SPK/SPKD	90448004		0.1	105.0	104.0	75	125	1.0	20

Molybdenum				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	117.0	111.0	75	125	4.9	20
MS/MSD	90446002		0.4	114.0	108.0	75	125	5.0	20

Molybdenum, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MS/MSD	90443002		0.4	117.0	111.0	75	125	4.9	20
MS/MSD	90446002		0.4	114.0	108.0	75	125	5.0	20
SPK/SPKD	90446002		0.1	111.0	114.0	75	125	2.9	20
SPK/SPKD	90448004		0.1	104.0	104.0	75	125	0.1	20

Selenium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.005							
MS/MSD	90443002		0.4	118.0	116.0	75	125	2.1	20
MS/MSD	90446002		0.4	118.0	111.0	75	125	5.5	20

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Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.005							
MS/MSD	90443002		0.4	118.0	116.0	75	125	2.1	20
MS/MSD	90446002		0.4	118.0	111.0	75	125	5.5	20
SPK/SPKD	90446002		0.1	106.0	105.0	75	125	0.9	20
SPK/SPKD	90448004		0.1	104.0	104.0	75	125	0.4	20

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MS/MSD	90443002		0.4	105.0	103.0	75	125	1.9	20
MS/MSD	90446002		0.4	108.0	98.7	75	125	9.2	20

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MS/MSD	90443002		0.4	105.0	103.0	75	125	1.9	20
MS/MSD	90446002		0.4	108.0	98.7	75	125	9.2	20
SPK/SPKD	90446002		0.1	109.0	106.0	75	125	2.7	20
SPK/SPKD	90448004		0.1	103.0	103.0	75	125	0.3	20

Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	98.1		85	115		
LFB			0.002	100.0		85	115		
LRB		<0.0002							
MB		<0.0002							
MS/MSD	90446001		0.002	93.5	91.4	70	130	5.4	20
MS/MSD	90446002		0.002	85.2	90.8	70	130	5.7	20
MS/MSD	90610004		0.002	89.3	99.0	70	130	10.5	20
MS/MSD	90641001		0.002	95.0	87.4	70	130	11.1	20

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Alkalinity, Total — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			501	93.1		80	120		
LFB			410	96.9		90	110		
LFB			410	96.6		90	110		
LFB			410	95.7		90	110		
LFB			410	96.5		90	110		
LFB			410	96.3		90	110		
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MS/MSD	90275006		410	90.5	89.3	80	120	0.8	20
MS/MSD	90304006		410	92.2	87.0	80	120	3.2	20
MS/MSD	90442002		410	91.2	91.4	80	120	0.1	20
MS/MSD	90446002		410	91.7	91.7	80	120	0.0	20

pH — Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	100.5					
CRM-PH			6	100.5					
CRM-PH			6	100.5					
CRM-PH			6	100.2					
CRM-PH			6	100.0					
DUP	90275003							0.7	20
DUP	90391001							0.1	20
DUP	90440001							0.4	20
DUP	90446002							0.9	20

Fluoride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			0.6	102.0		83.99	111.11		
LFB-F			0.5	96.0		90	110		
LFB-F			0.5	100.0		90	110		

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
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Account #: 5109 **Client:** Great River Energy

Fluoride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-F			0.5	100.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	90443002		0.5	82.0	84.0	80	120	1.1	20
MS/MSD-F	90446002		0.5	114.0	104.0	80	120	4.5	20

Total Dissolved Solids — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	100.0		90.35	110.33		
MB		<10							
DUP	90442001							1.0	20
DUP	90446002							6.7	20

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 90446

Chain of Custody Record

Report To: Great River Energy
Attn: Cassie Johnston
Address:
Phone:
Email: CJohnston@GREnergy.com

CC: WSP
44 Union Blvd, Suite 300
Lakewood, CO 80228

Project Name: SS 2022 Wells
Event: June 2025
Sampled By:

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)							Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 210	23 Jun 25	1345	GW	X	X	X							10.63	1593	7.67	28.87	* ~~App IV, Iron, Aluminum, Mangangese~~ (Total Only for Mercury and Radio Chem, Dissolved and Total for Remainder of Metals.) (See Attachments)
002	MW- 211/MS/MSD	23 Jun 25	1011	GW	3	3	3							9.29	2476	7.97	1.12	
003	MW- 212	23 Jun 25	1141	GW	X	X	X							10.05	1852	7.93	0.41	
004	MW- 213	23 Jun 25	1438	GW	X	X	X							10.45	1522	7.64	155.0	
005	DUP 2022	23 Jun 25	1438	GW	X	X	X							10.45	1522	7.64	155.0	
006	MW- 214	23 Jun 25	1257	GW	X	X	X							10.60	2104	7.52	5.12	

Comments: Wells installed in 2022

* App III, App IV + additional parameters per email from Erin Hunter @ WSP. KS 24 Jun 25

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		23 Jun 25 1745	Log In Walk-In #2	5.5 °C/TM 805 ROI Y/N		24 Jun 25 0800
2						

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	210
Sampling Personal:	

Weather Conditions: Temp: 60 °F Wind: W @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.60	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.60	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 22	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
23 June 25	1320	Start of Well Purge									
	1325	10.86	1581	7.69	0.34	-91.5	220.6	12.62	200.0	1.0	Slightly Turbid ST
	1330	10.75	1581	7.67	0.23	-100.7	435.6	12.60	200.0	1.0	ST
	1335	10.69	1591	7.66	0.14	-109.3	343.1	12.60	200.0	1.0	ST
	1340	10.50	1587	7.67	0.12	-115.6	46.02	12.60	200.0	1.0	Clear
	1345	10.63	1593	7.67	0.11	-118.4	23.87	12.60	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
23 June 25	1345	10.63	1593	7.67	0.11	-118.4	23.87				Clear

Comments:

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	24
Sampling Personal:	

Weather Conditions: Temp: 55 °F Wind: N @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	~~YES~~	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	18.01	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	18.09	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:		
1 Liter Raw	1 Gal Nitric	×3
500mL Nitric		
500mL Nitric (filtered)		

Duplicate Sample?
~~YES~~ / NO
Duplicate Sample ID:
MS/MSD

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
23 Jun 25	0946	Start of Well Purge									clear, slightly turbid, turbid
	0951	~~6476~~ 9.26	2482	7.96	0.58	18.8	21.80	18.09	200.0	1.0	Clear
	0956	9.36	2461	7.96	0.39	6.4	7.20	18.12	200.0	1.0	Clear
	1000	9.56	2443	7.96	0.26	-7.3	3.23	18.10	200.0	1.0	Clear
	1006	9.33	2472	7.96	0.19	-18.8	1.48	18.08	200.0	1.0	Clear
	1011	9.29	2476	7.97	0.13	-26.2	1.12	18.07	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
23 Jun 25	1011	9.29	2476	7.97	0.13	-26.2	1.12				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	212
Sampling Personal:	JH

Weather Conditions: Temp: 60 °F Wind: W @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	18.83	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	18.90	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge:	Sec.
Recover:	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
23 June 25	1116	Start of Well Purge									
	1121	10.07	1829	7.84	0.71	107.4	0.63	19.05	200.0	1.0	Clear
	1126	9.84	1834	7.92	0.29	62.8	0.44	18.92	200.0	1.0	Clear
	1131	9.89	1825	7.94	0.22	48.16	0.26	18.89	200.0	1.0	Clear
	1136	9.81	1844	7.94	0.18	40.9	0.19	18.90	200.0	1.0	Clear
	1141	10.05	1852	7.93	0.15	31.4	0.41	18.90	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 50 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
23 June 25	1141	10.05	1852	7.93	0.15	31.4	0.41				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	213
Sampling Personal:	LM, BZ

Weather Conditions: Temp: 65 °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	15.73	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	15.50	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	~~YES~~	NO

Control Settings:	
Purge: 2	Sec.
Recover: 2e	Sec.
PSI: —	

Bottle List:		
1 Liter Raw	1 Gal Nitric	x2
500mL Nitric		
500mL Nitric (filtered)		

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
Dup 2022

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
23 June 25	1413	Start of Well Purge									
	1418	10.82	1509	7.64	0.25	-107.7	289.3	15.75	200.0	1.0	Slightly Turbid (ST)
	1423	10.69	1521	7.64	0.33	-106.1	355.9	15.77	200.0	1.0	ST
	1428	10.59	1505	7.64	0.20	-109.8	334.1	15.78	200.0	1.0	ST
	1433	10.49	1536	7.64	0.24	-103.5	260.2	15.85	200.0	1.0	ST
	1438	10.45	1522	7.64	0.11	-116.8	155.0	15.87	200.0	1.0	ST

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
23 June 25	1438	10.45	1522	7.64	0.11	-116.8	155.0				ST

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	214
Sampling Personal:	

Weather Conditions: Temp: 60 °F Wind: W @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	7.19	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	7.89	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
23 June 25	1232	Start of Well Purge									
	1237	10.34	2060	7.56	0.36	106.5	13.36	7.84	200.0	1.0	Clear
	1242	10.47	2075	7.54	0.17	102.6	14.35	7.92	200.0	1.0	Clear
	1247	10.48	2095	7.53	0.96	75.6	7.98	7.90	200.0	1.0	Clear
	1252	10.63	2106	7.52	0.95	69.2	7.72	7.89	200.0	1.0	Clear
	1257	10.60	2104	7.52	0.93	71.5	5.12	7.86	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 50 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
23 June 25	1257	10.60	2104	7.52	0.93	71.5	5.12				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

wsp

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Account #: 5109 **Client:** Great River Energy

February 2025 GL21509219.000

Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 24 Jun 25 Time: 1202 Analyst: PN

Work Order #: 90446

Containers Supplied by MVTL: ☒ Yes ☐ No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
8	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
8	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
8	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS 2022 Wells June 2025 (90422) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90422001 **Date Collected:** 06/23/2025 13:45 **Matrix:** Groundwater
Sample ID: MW-210 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:28	
Radium 228	See Attached			1		08/01/2025 13:29	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90422002 **Date Collected:** 06/23/2025 10:11 **Matrix:** Groundwater
Sample ID: MW-211 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:29	
Radium 228	See Attached			1		08/01/2025 13:29	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90422003 **Date Collected:** 06/23/2025 11:41 **Matrix:** Groundwater
Sample ID: MW-212 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:29	
Radium 228	See Attached			1		08/01/2025 13:29	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90422004 **Date Collected:** 06/23/2025 14:38 **Matrix:** Groundwater
Sample ID: MW-213 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:29	
Radium 228	See Attached			1		08/01/2025 13:29	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90422005 **Date Collected:** 06/23/2025 14:38 **Matrix:** Groundwater
Sample ID: DUP 2022 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:29	
Radium 228	See Attached			1		08/01/2025 13:29	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90422006 **Date Collected:** 06/23/2025 12:57 **Matrix:** Groundwater
Sample ID: MW-214 **Date Received:** 06/23/2025 17:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:29	
Radium 228	See Attached			1		08/01/2025 13:29	

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Account #: 5109 **Client:** Great River Energy

ANALYTICAL SUMMARY REPORT

July 30, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25060960 Quote ID: C15480
Project Name: 90422

Energy Laboratories, Inc. Casper WY received the following 6 samples for Minnesota Valley Testing Laboratories on 6/27/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25060960-001	90422001, MW-210	06/23/25 13:45	06/27/25	Groundwater	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25060960-002	90422002, MW-211	06/23/25 10:11	06/27/25	Groundwater	Same As Above
C25060960-003	90422003, MW-212	06/23/25 11:41	06/27/25	Groundwater	Same As Above
C25060960-004	90422004, MW-213	06/23/25 14:38	06/27/25	Groundwater	Same As Above
C25060960-005	90422005, DUP 2022	06/23/25 14:38	06/27/25	Groundwater	Same As Above
C25060960-006	90422006, MW-214	06/23/25 12:57	06/27/25	Groundwater	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90422
Lab ID: C25060960-001
Client Sample ID: 90422001, MW-210

Report Date: 07/30/25
Collection Date: 06/23/25 13:45
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	07/28/25 11:21 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 228	0.5	pCi/L	U			RA-05	07/22/25 15:39 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 228 MDC	0.9	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90422
Lab ID: C25060960-002
Client Sample ID: 90422002, MW-211

Report Date: 07/30/25
Collection Date: 06/23/25 10:11
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.05	pCi/L	U			E903.0	07/28/25 11:21 / dmr
Radium 226 precision (±)	0.2	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 226 MDC	0.3	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 228	0.2	pCi/L	U			RA-05	07/22/25 15:39 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 228 MDC	1.1	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

Page 3 of 13

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Account #: 5109 **Client:** Great River Energy

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90422
Lab ID: C25060960-003
Client Sample ID: 90422003, MW-212

Report Date: 07/30/25
Collection Date: 06/23/25 11:41
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.02	pCi/L	U			E903.0	07/28/25 11:21 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 228	-0.09	pCi/L	U			RA-05	07/22/25 15:39 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 228 MDC	1.1	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	07/29/25 13:32 / meh

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Account #: 5109 **Client:** Great River Energy

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90422
Lab ID: C25060960-004
Client Sample ID: 90422004, MW-213

Report Date: 07/30/25
Collection Date: 06/23/25 14:38
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.005	pCi/L	U			E903.0	07/28/25 11:21 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 228	0.8	pCi/L	U			RA-05	07/22/25 15:39 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 228 MDC	0.9	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90422
Lab ID: C25060960-005
Client Sample ID: 90422005, DUP 2022

Report Date: 07/30/25
Collection Date: 06/23/25 14:38
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L	U			E903.0	07/28/25 11:21 / dmr
Radium 226 precision (±)	0.2	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 228	0.4	pCi/L	U			RA-05	07/22/25 15:39 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 228 MDC	0.9	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90422
Lab ID: C25060960-006
Client Sample ID: 90422006, MW-214

Report Date: 07/30/25
Collection Date: 06/23/25 12:57
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.07	pCi/L	U			E903.0	07/28/25 11:21 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 228	0.2	pCi/L	U			RA-05	07/22/25 15:39 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 228 MDC	0.9	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
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QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25060960 **Report Date:** 07/29/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11742
Lab ID: LCS-RA226-11742	3	Laboratory Control Sample				Run: TENNELEC-4_250715I				07/28/25 11:21
Radium 226		11	pCi/L		111	70	130			
Radium 226 precision (±)		1.8	pCi/L							
Radium 226 MDC		0.24	pCi/L							
Lab ID: MB-RA226-11742	3	Method Blank				Run: TENNELEC-4_250715I				07/28/25 11:21
Radium 226		-0.2	pCi/L							U
Radium 226 precision (±)		0.2	pCi/L							
Radium 226 MDC		0.3	pCi/L							
Lab ID: C25060960-002AMS	3	Sample Matrix Spike				Run: TENNELEC-4_250715I				07/28/25 11:21
Radium 226		11	pCi/L		105	70	130			
Radium 226 precision (±)		1.7	pCi/L							
Radium 226 MDC		0.19	pCi/L							
Lab ID: C25060960-002AMSD	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_250715I				07/28/25 11:21
Radium 226		9.8	pCi/L		98	70	130	6.8	30	
Radium 226 precision (±)		1.6	pCi/L							
Radium 226 MDC		0.24	pCi/L							

- The RER result is 0.30.

Qualifiers:

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ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Account #: 5109 **Client:** Great River Energy

QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25060960 **Report Date:** 07/29/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7709
Lab ID: LCS-228-RA226-11742	3	Laboratory Control Sample				Run: TENNELEC-4_250715G				07/22/25 15:39
Radium 228		9.6	pCi/L		105	70	130			
Radium 228 precision (±)		2.6	pCi/L							
Radium 228 MDC		0.98	pCi/L							
Lab ID: MB-RA226-11742	3	Method Blank				Run: TENNELEC-4_250715G				07/22/25 15:39
Radium 228		0.2	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C25060960-002AMS4	3	Sample Matrix Spike				Run: TENNELEC-4_250715G				07/22/25 15:39
Radium 228		8.8	pCi/L		93	70	130			
Radium 228 precision (±)		2.3	pCi/L							
Radium 228 MDC		0.95	pCi/L							
Lab ID: C25060960-002AMSD4	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_250715G				07/22/25 15:39
Radium 228		8.2	pCi/L		87	70	130	6.5	30	
Radium 228 precision (±)		2.2	pCi/L							
Radium 228 MDC		0.92	pCi/L							

- The RER result is 0.17.

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25060960

Login completed by: Lisa X. Quezada
Reviewed by: gmccartney
Reviewed Date: 7/9/2025
Date Received: 6/27/2025
Received by: LDS
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	22.2°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature blank temperature in shipping container 1 was 21.7°C, shipping container 2 was 22.2°C, shipping container 3 was 21.9°C, shipping container 4 was 22.0°C, shipping container 5 was 22.0°C. shipping container 6 was

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Work Order Receipt Checklist - Continued

Minnesota Valley Testing Laboratories C25060960

22.2°C and shipping container 7 was 21.6°C.

The chain of custody indicates to analyze an MS/MSD on sample 81123006 and sample 90422002. Sample 81123006 is not listed on the chain of custody. Analyze an MS/MSD on sample 90422002 only, per email from Tera Olson on 06/27/25. LXQ 06/27/25

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Laboratory Certifications and Accreditations

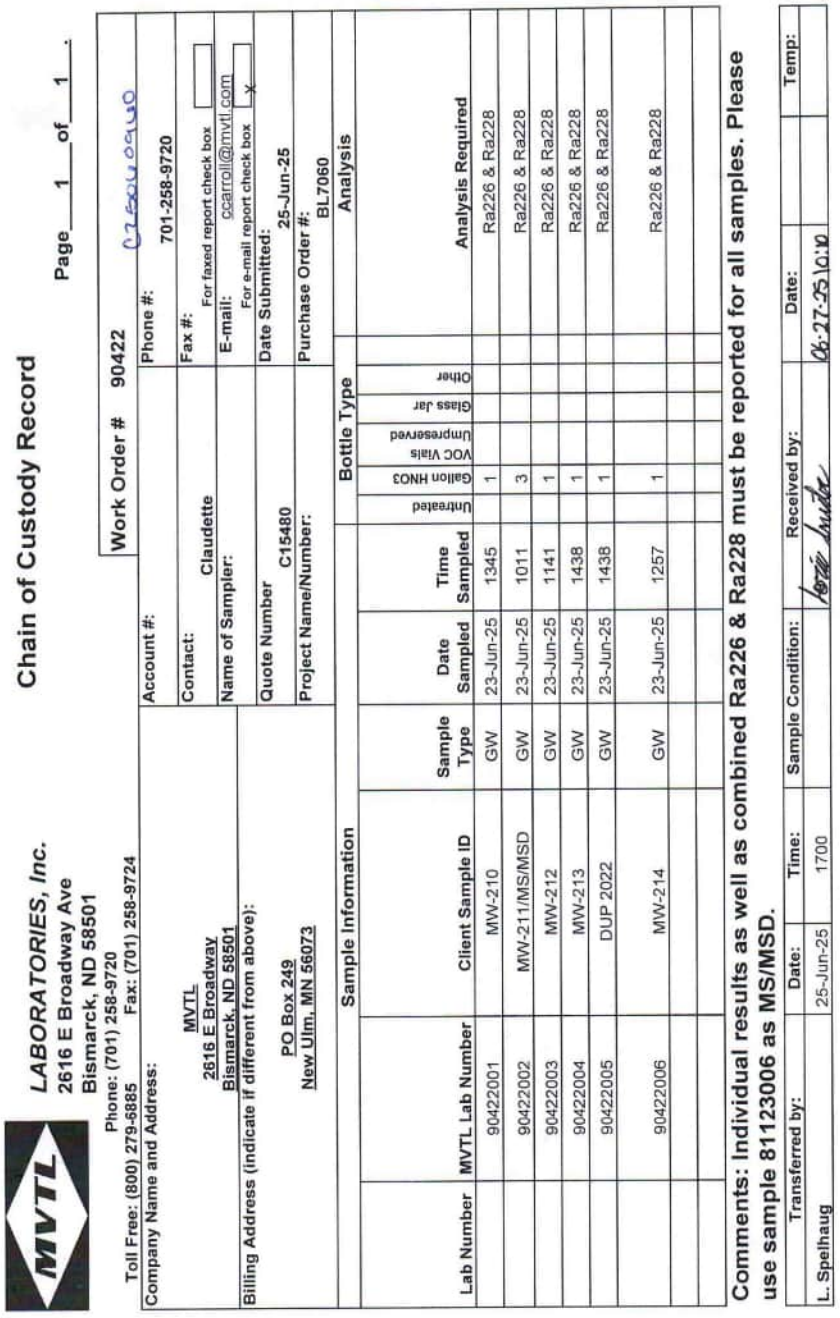
Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Chain of Custody Record

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Work Order # 90422 C1500 05410

Company Name and Address: MVTL 2616 E Broadway Bismarck, ND 58501
Billing Address (indicate if different from above): PO Box 249 New Ulm, MN 56073

Account #:
Contact: Claudette
Name of Sampler:
Quote Number C15480
Project Name/Number:

Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box x
Date Submitted: 25-Jun-25
Purchase Order #: BL7060

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Untreated	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	90422001	MW-210	GW	23-Jun-25	1345	1					Ra226 & Ra228
	90422002	MW-211/MS/MSD	GW	23-Jun-25	1011		3				Ra226 & Ra228
	90422003	MW-212	GW	23-Jun-25	1141	1					Ra226 & Ra228
	90422004	MW-213	GW	23-Jun-25	1438	1					Ra226 & Ra228
	90422005	DUP 2022	GW	23-Jun-25	1438	1					Ra226 & Ra228
	90422006	MW-214	GW	23-Jun-25	1257	1					Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples. Please use sample 81123006 as MS/MSD.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
L. Spelhaug	25-Jun-25	1700		Jorie Auster	6-27-25 10:10	

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Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
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Great River Energy
WO: 90422

Chain of Custody Record

Report To: Great River Energy
Attn: Cassie Johnston
Address:
Phone:
Email: CJohnston@GREnergy.com

CC: WSP
44 Union Blvd, Suite 300
Lakewood, CO 80228

Project Name: SS 2022 Wells
Event: June 2025
Sampled By:

Sample Information					Sample Containers										Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric											Analysis Required
001	MW- 210	23 Jun 25	1345	GW				X											Radium 226 and 228 Combined
002	MW- 211/MS/MSD	23 Jun 25	1011	GW				3											
003	MW- 212	23 Jun 25	1141	GW				X											
004	MW- 213	23 Jun 25	1438	GW				X											
005	DUP 2022	23 Jun 25	1438	GW				X											
006	MW- 214	23 Jun 25	1257	GW				X											

Comments:

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	23 Jun 25 1745	Log In Walk In #2	Ambient		24 Jun 25 0800
2					

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Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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Account #: 5109 **Client:** Great River Energy

February 2025 GL21509219.000

Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

WSP

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Account #: 5109 **Client:** Great River Energy

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-108-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	–	–	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.
* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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Member ACIL

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	210
Sampling Personal:	JMH

Weather Conditions: Temp: 60 °F Wind: W @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.60	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.60	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	2	Sec.
Recover:	2e	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
23 June 25	1320	Start of Well Purge									
	1325	10.86	1581	7.69	0.34	-91.5	220.6	12.62	200.0	1.0	Slightly Turbid ST
	1330	10.75	1581	7.67	0.23	-100.7	435.6	12.60	200.0	1.0	ST
	1335	10.69	1591	7.66	0.14	-109.3	343.1	12.60	200.0	1.0	ST
	1340	10.50	1587	7.67	0.12	-115.6	46.02	12.60	200.0	1.0	Clear
	1345	10.63	1593	7.67	0.11	-118.4	23.87	12.60	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
23 June 25	1345	10.63	1593	7.67	0.11	-118.4	23.87				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company: GRE Stanton Station
Event: June 2025
Sample ID: 24
Sampling Personal:

Weather Conditions: Temp: 55 °F Wind: N @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	18.01	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	18.09	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:		
1 Liter Raw	1 Gal Nitric	×3
500mL Nitric		
500mL Nitric (filtered)		

Duplicate Sample?
YES / NO
Duplicate Sample ID:
MS/MSD

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
23 Jun 25	0946	Start of Well Purge									
	0951	~~0946~~ 9.26	2482	7.96	0.58	18.8	21.80	18.09	200.0	1.0	Clear
	0956	9.36	2461	7.96	0.39	6.4	7.20	18.12	200.0	1.0	Clear
	1000	9.56	2443	7.96	0.26	-7.3	3.23	18.10	200.0	1.0	Clear
	1006	9.33	2472	7.96	0.19	-18.8	1.48	18.08	200.0	1.0	Clear
	1011	9.29	2476	7.97	0.13	-26.2	1.12	18.07	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
23 Jun 25	1011	9.29	2476	7.97	0.13	-26.2	1.12				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	212
Sampling Personal:	JM

Weather Conditions: Temp: 60 °F Wind: W @10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	18.83	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	18.90	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge:	Sec.
Recover:	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
23 June 25	1116	Start of Well Purge									
	1121	10.07	1829	7.84	0.71	107.4	0.63	19.05	200.0	1.0	Clear
	1126	9.84	1834	7.92	0.29	62.8	0.44	18.92	200.0	1.0	Clear
	1131	9.89	1825	7.94	0.22	48.6	0.26	18.89	200.0	1.0	Clear
	1136	9.81	1844	7.94	0.18	40.9	0.19	18.90	200.0	1.0	Clear
	1141	10.05	1852	7.93	0.15	31.4	0.41	18.90	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 50 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
23 June 25	1141	10.05	1852	7.93	0.15	31.4	0.41				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	213
Sampling Personal:	LM

Weather Conditions: Temp: 65 °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	15.73	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	15.90	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 2e	Sec.
PSI: —	

Bottle List:		
1 Liter Raw	1 Gal Nitric	x2
500mL Nitric		
500mL Nitric (filtered)		

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
Dup 2022

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
23 June 25	1413	Start of Well Purge									
	1418	10.82	1509	7.64	0.25	-107.7	289.3	15.75	200	1.0	Slightly Turbid (ST)
	1423	10.69	1521	7.64	0.33	-106.1	355.9	15.77	200	1.0	ST
	1428	10.59	1505	7.64	0.20	-109.8	334.1	15.78	200	1.0	ST
	1433	10.49	1536	7.64	0.24	-103.5	260.2	15.85	200	1.0	ST
	1438	10.45	1522	7.64	0.11	-116.8	155.0	15.87	200	1.0	ST

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
23 June 25	1438	10.45	1522	7.64	0.11	-116.8	155.0				ST

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	214
Sampling Personal:	

Weather Conditions: Temp: 60 °F Wind: W @ 10-15 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	7.19	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	7.89	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
23 June 25	1232	Start of Well Purge									
	1237	10.34	2060	7.56	0.36	106.5	13.36	7.84	200.0	1.0	Clear
	1242	10.47	2075	7.54	0.17	102.6	14.35	7.92	200.0	1.0	Clear
	1247	10.48	2095	7.53	0.96	75.6	7.98	7.90	200.0	1.0	Clear
	1252	10.63	2106	7.52	0.95	69.2	7.72	7.89	200.0	1.0	Clear
	1257	10.60	2104	7.52	0.93	71.5	5.12	7.86	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 50 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
23 June 25	1257	10.60	2104	7.52	0.93	71.5	5.12				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS 2023 Wells June 2025 (90774) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90774001 **Date Collected:** 06/25/2025 11:23 **Matrix:** Groundwater
Sample ID: MW-215 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2464**	umhos/cm	1	1		06/25/2025 11:23	
Method: 150.2							
pH - Field	**7.69**	units	0.01	1		06/25/2025 11:23	
Method: 170.1							
Temperature - Field C	**11.3**	degrees C		1		06/25/2025 11:23	
Method: ASTM D516-16							
Sulfate	**680**	mg/L	25	5		06/27/2025 10:55	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	07/09/2025 08:20	07/09/2025 10:42	
Method: EPA 6010D							
Boron	**0.83**	mg/L	0.1	1	06/26/2025 15:30	07/07/2025 10:18	
Calcium	**90.7**	mg/L	1	1	06/26/2025 15:30	07/01/2025 12:17	
Lithium	**0.0416**	mg/L	0.02	1	06/26/2025 15:30	07/03/2025 09:47	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/26/2025 15:30	07/09/2025 12:01	
Arsenic	**0.0032**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:01	
Barium	**0.0424**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:01	
Beryllium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:01	
Cadmium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:01	
Chromium	<0.002	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:01	
Cobalt	<0.002	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:01	
Lead	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:01	
Molybdenum	**0.0148**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:01	
Selenium	<0.005	mg/L	0.005	5	06/26/2025 15:30	07/09/2025 12:01	
Thallium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:01	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90774001 **Date Collected:** 06/25/2025 11:23 **Matrix:** Groundwater
Sample ID: MW-215 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		06/26/2025 17:01	*
Method: SM4500-F-C-2021							
Fluoride	**0.44**	mg/L	0.1	1		06/26/2025 17:01	
Method: USGS I-1750-85							
Total Dissolved Solids	**1710**	mg/L	10	1		06/27/2025 14:09	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90774002 **Date Collected:** 06/25/2025 12:27 **Matrix:** Groundwater
Sample ID: MW-216 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2120**	umhos/cm	1	1		06/25/2025 12:27	
Method: 150.2							
pH - Field	**7.72**	units	0.01	1		06/25/2025 12:27	
Method: 170.1							
Temperature - Field C	**11.61**	degrees C		1		06/25/2025 12:27	
Method: ASTM D516-16							
Sulfate	**549**	mg/L	25	5		06/27/2025 10:56	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	07/09/2025 08:20	07/09/2025 10:42	
Method: EPA 6010D							
Boron	**0.72**	mg/L	0.1	1	06/26/2025 15:30	07/07/2025 10:19	
Calcium	**84.0**	mg/L	1	1	06/26/2025 15:30	07/01/2025 12:18	
Lithium	**0.0464**	mg/L	0.02	1	06/26/2025 15:30	07/03/2025 09:47	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/26/2025 15:30	07/09/2025 12:07	
Arsenic	**0.0055**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:07	
Barium	**0.0509**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:07	
Beryllium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:07	
Cadmium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:07	
Chromium	**0.0022**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:07	
Cobalt	<0.002	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:07	
Lead	**0.0005**	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:07	
Molybdenum	**0.0109**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:07	
Selenium	<0.005	mg/L	0.005	5	06/26/2025 15:30	07/09/2025 12:07	
Thallium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:07	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90774002 **Date Collected:** 06/25/2025 12:27 **Matrix:** Groundwater
Sample ID: MW-216 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		06/26/2025 17:12	*
Method: SM4500-F-C-2021							
Fluoride	**0.48**	mg/L	0.1	1		06/26/2025 17:12	
Method: USGS I-1750-85							
Total Dissolved Solids	**1420**	mg/L	10	1		06/27/2025 14:09	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90774003 **Date Collected:** 06/25/2025 10:07 **Matrix:** Groundwater
Sample ID: MW-217 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2446**	umhos/cm	1	1		06/25/2025 10:07	
Method: 150.2							
pH - Field	**7.91**	units	0.01	1		06/25/2025 10:07	
Method: 170.1							
Temperature - Field C	**15.58**	degrees C		1		06/25/2025 10:07	
Method: ASTM D516-16							
Sulfate	**726**	mg/L	25	5		07/02/2025 08:33	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	07/09/2025 08:20	07/09/2025 10:42	
Method: EPA 6010D							
Boron	**0.87**	mg/L	0.1	1	06/26/2025 15:30	07/07/2025 10:19	
Calcium	**120**	mg/L	1	1	06/26/2025 15:30	07/01/2025 12:21	
Lithium	**0.0480**	mg/L	0.02	1	06/26/2025 15:30	07/03/2025 09:48	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/26/2025 15:30	07/09/2025 12:12	
Arsenic	**0.0366**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:12	
Barium	**0.2147**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:12	
Beryllium	**0.0005**	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:12	
Cadmium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:12	
Chromium	**0.0075**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:12	
Cobalt	**0.0038**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:12	
Lead	**0.0045**	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:12	
Molybdenum	**0.0144**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:12	
Selenium	<0.005	mg/L	0.005	5	06/26/2025 15:30	07/09/2025 12:12	
Thallium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:12	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90774003 **Date Collected:** 06/25/2025 10:07 **Matrix:** Groundwater
Sample ID: MW-217 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		06/26/2025 17:22	*
Method: SM4500-F-C-2021							
Fluoride	**0.60**	mg/L	0.1	1		06/26/2025 17:22	
Method: USGS I-1750-85							
Total Dissolved Solids	**1730**	mg/L	10	1		06/27/2025 14:09	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90774004 **Date Collected:** 06/25/2025 09:48 **Matrix:** Groundwater
Sample ID: FB 2023 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	<5	mg/L	5	1		07/02/2025 08:46	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	07/09/2025 08:20	07/09/2025 10:42	
Method: EPA 6010D							
Boron	<0.1	mg/L	0.1	1	06/26/2025 15:30	07/07/2025 10:20	
Calcium	<1	mg/L	1	1	06/26/2025 15:30	07/01/2025 12:22	
Lithium	<0.02	mg/L	0.02	1	06/26/2025 15:30	07/03/2025 09:49	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/26/2025 15:30	07/09/2025 12:17	
Arsenic	<0.002	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:17	
Barium	<0.002	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:17	
Beryllium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:17	
Cadmium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:17	
Chromium	<0.002	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:17	
Cobalt	<0.002	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:17	
Lead	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:17	
Molybdenum	<0.002	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:17	
Selenium	<0.005	mg/L	0.005	5	06/26/2025 15:30	07/09/2025 12:17	
Thallium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:17	
Method: SM4500 H+ B-2021							
pH	**6.5**	units	0.1	1		06/26/2025 17:33	*
Method: SM4500-F-C-2021							
Fluoride	<0.1	mg/L	0.1	1		06/26/2025 17:33	
Method: USGS I-1750-85							
Total Dissolved Solids	<10	mg/L	10	1		06/27/2025 14:09	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90774005 **Date Collected:** 06/25/2025 08:16 **Matrix:** Groundwater
Sample ID: MW-218 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2100**	umhos/cm	1	1		06/25/2025 08:16	
Method: 150.2							
pH - Field	**7.74**	units	0.01	1		06/25/2025 08:16	
Method: 170.1							
Temperature - Field C	**10.42**	degrees C		1		06/25/2025 08:16	
Method: ASTM D516-16							
Sulfate	**620**	mg/L	25	5		07/02/2025 08:35	*
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	07/09/2025 08:20	07/09/2025 10:42	
Method: EPA 6010D							
Boron	**0.81**	mg/L	0.1	1	06/26/2025 15:30	07/07/2025 10:21	
Calcium	**87.6**	mg/L	1	1	06/26/2025 15:30	07/01/2025 12:23	
Lithium	**0.0494**	mg/L	0.02	1	06/26/2025 15:30	07/03/2025 09:49	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/26/2025 15:30	07/09/2025 12:22	
Arsenic	<0.002	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:22	
Barium	**0.0446**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:22	
Beryllium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:22	
Cadmium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:22	
Chromium	<0.002	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:22	
Cobalt	<0.002	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:22	
Lead	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:22	
Molybdenum	**0.0116**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:22	
Selenium	<0.005	mg/L	0.005	5	06/26/2025 15:30	07/09/2025 12:22	
Thallium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:22	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90774005 **Date Collected:** 06/25/2025 08:16 **Matrix:** Groundwater
Sample ID: MW-218 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		06/26/2025 17:43	*
Method: SM4500-F-C-2021							
Fluoride	**0.55**	mg/L	0.1	1		06/26/2025 17:43	
Method: USGS I-1750-85							
Total Dissolved Solids	**1440**	mg/L	10	1		06/27/2025 14:09	

Task Comments

4422197 - METb/3741

Post digestion spike and post digestion spike duplicate recovery for sodium was low; the associated laboratory control sample recovery was acceptable.

Analysis Results Comments

Barium, Dissolved

Matrix spike and/or matrix spike duplicate recovery was high; the associated laboratory fortified blank recovery was acceptable.

Molybdenum, Dissolved

Matrix spike and/or matrix spike duplicate recovery was high; the associated laboratory fortified blank recovery was acceptable.

Sulfate

Matrix spike and/or matrix spike duplicate recovery was low; the associated laboratory control sample recovery was acceptable.

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90774006 **Date Collected:** 06/25/2025 17:08 **Matrix:** Groundwater
Sample ID: MW-219 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**3328**	umhos/cm	1	1		06/25/2025 17:08	
Method: 150.2							
pH - Field	**7.16**	units	0.01	1		06/25/2025 17:08	
Method: 170.1							
Temperature - Field C	**10.15**	degrees C		1		06/25/2025 17:08	
Method: ASTM D516-16							
Sulfate	**1350**	mg/L	25	5		07/02/2025 08:36	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	07/09/2025 08:20	07/09/2025 10:42	
Method: EPA 6010D							
Boron	**0.98**	mg/L	0.1	1	06/26/2025 15:30	07/07/2025 10:23	
Calcium	**273**	mg/L	1	1	06/26/2025 15:30	07/01/2025 12:27	
Lithium	**0.0391**	mg/L	0.02	1	06/26/2025 15:30	07/03/2025 09:51	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/26/2025 15:30	07/09/2025 12:41	
Arsenic	**0.0130**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:41	
Barium	**0.1164**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:41	
Beryllium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:41	
Cadmium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:41	
Chromium	**0.0063**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:41	
Cobalt	**0.0046**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:41	
Lead	**0.0032**	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:41	
Molybdenum	**0.0087**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:41	
Selenium	<0.005	mg/L	0.005	5	06/26/2025 15:30	07/09/2025 12:41	
Thallium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:41	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90774006 **Date Collected:** 06/25/2025 17:08 **Matrix:** Groundwater
Sample ID: MW-219 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.5**	units	0.1	1		06/26/2025 17:54	*
Method: SM4500-F-C-2021							
Fluoride	**0.19**	mg/L	0.1	1		06/26/2025 17:54	
Method: USGS I-1750-85							
Total Dissolved Solids	**2540**	mg/L	10	1		06/27/2025 14:09	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90774007 **Date Collected:** 06/25/2025 13:28 **Matrix:** Groundwater
Sample ID: MW-220 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2088**	umhos/cm	1	1		06/25/2025 13:28	
Method: 150.2							
pH - Field	**7.69**	units	0.01	1		06/25/2025 13:28	
Method: 170.1							
Temperature - Field C	**11.93**	degrees C		1		06/25/2025 13:28	
Method: ASTM D516-16							
Sulfate	**628**	mg/L	25	5		07/02/2025 08:37	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	07/09/2025 08:20	07/09/2025 10:42	
Method: EPA 6010D							
Boron	**0.78**	mg/L	0.1	1	06/26/2025 15:30	07/07/2025 10:24	
Calcium	**83.6**	mg/L	1	1	06/26/2025 15:30	07/01/2025 12:28	
Lithium	**0.0462**	mg/L	0.02	1	06/26/2025 15:30	07/03/2025 09:53	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/26/2025 15:30	07/09/2025 12:46	
Arsenic	<0.002	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:46	
Barium	**0.0469**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:46	
Beryllium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:46	
Cadmium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:46	
Chromium	<0.002	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:46	
Cobalt	<0.002	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:46	
Lead	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:46	
Molybdenum	**0.0115**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:46	
Selenium	<0.005	mg/L	0.005	5	06/26/2025 15:30	07/09/2025 12:46	
Thallium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:46	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90774007 **Date Collected:** 06/25/2025 13:28 **Matrix:** Groundwater
Sample ID: MW-220 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		06/26/2025 18:05	*
Method: SM4500-F-C-2021							
Fluoride	**0.52**	mg/L	0.1	1		06/26/2025 18:05	
Method: USGS I-1750-85							
Total Dissolved Solids	**1400**	mg/L	10	1		06/27/2025 14:09	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90774008 **Date Collected:** 06/25/2025 14:27 **Matrix:** Groundwater
Sample ID: MW-221 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2227**	umhos/cm	1	1		06/25/2025 14:27	
Method: 150.2							
pH - Field	**7.64**	units	0.01	1		06/25/2025 14:27	
Method: 170.1							
Temperature - Field C	**10.97**	degrees C		1		06/25/2025 14:27	
Method: ASTM D516-16							
Sulfate	**642**	mg/L	25	5		07/02/2025 08:38	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	07/09/2025 08:20	07/09/2025 10:42	
Method: EPA 6010D							
Boron	**0.78**	mg/L	0.1	1	06/26/2025 15:30	07/07/2025 10:25	
Calcium	**69.2**	mg/L	1	1	06/26/2025 15:30	07/01/2025 12:29	
Lithium	**0.0408**	mg/L	0.02	1	06/26/2025 15:30	07/03/2025 09:54	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/26/2025 15:30	07/09/2025 12:51	
Arsenic	**0.0094**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:51	
Barium	**0.0371**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:51	
Beryllium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:51	
Cadmium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:51	
Chromium	<0.002	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:51	
Cobalt	<0.002	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:51	
Lead	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:51	
Molybdenum	**0.0268**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 12:51	
Selenium	<0.005	mg/L	0.005	5	06/26/2025 15:30	07/09/2025 12:51	
Thallium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 12:51	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90774008 **Date Collected:** 06/25/2025 14:27 **Matrix:** Groundwater
Sample ID: MW-221 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		06/26/2025 18:16	*
Method: SM4500-F-C-2021							
Fluoride	**0.46**	mg/L	0.1	1		06/26/2025 18:16	
Method: USGS I-1750-85							
Total Dissolved Solids	**1530**	mg/L	10	1		06/27/2025 14:09	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90774009 **Date Collected:** 06/25/2025 15:24 **Matrix:** Groundwater
Sample ID: MW-222 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2647**	umhos/cm	1	1		06/25/2025 15:24	
Method: 150.2							
pH - Field	**7.7**	units	0.01	1		06/25/2025 15:24	
Method: 170.1							
Temperature - Field C	**16.8**	degrees C		1		06/25/2025 15:24	
Method: ASTM D516-16							
Sulfate	**746**	mg/L	25	5		07/02/2025 08:40	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	07/09/2025 08:20	07/09/2025 10:42	
Method: EPA 6010D							
Boron	**2.08**	mg/L	0.1	1	06/26/2025 15:30	07/07/2025 10:25	
Calcium	**44.6**	mg/L	1	1	06/26/2025 15:30	07/01/2025 12:29	
Lithium	<0.02	mg/L	0.02	1	06/26/2025 15:30	07/03/2025 09:54	
Method: EPA 6020B							
Antimony	**0.0014**	mg/L	0.001	5	06/26/2025 15:30	07/09/2025 13:14	
Arsenic	**0.0147**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 13:14	
Barium	**0.0813**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 13:14	
Beryllium	**0.0006**	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 13:14	
Cadmium	**0.0006**	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 13:14	
Chromium	**0.0071**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 13:14	
Cobalt	**0.0094**	mg/L	0.002	5	06/26/2025 15:30	07/09/2025 13:14	
Lead	**0.0074**	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 13:14	
Molybdenum	**0.4661**	mg/L	0.004	10	06/26/2025 15:30	07/09/2025 13:45	
Selenium	**0.0079**	mg/L	0.005	5	06/26/2025 15:30	07/09/2025 13:14	
Thallium	<0.0005	mg/L	0.0005	5	06/26/2025 15:30	07/09/2025 13:14	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90774009 **Date Collected:** 06/25/2025 15:24 **Matrix:** Groundwater
Sample ID: MW-222 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		06/26/2025 18:27	*
Method: SM4500-F-C-2021							
Fluoride	**1.41**	mg/L	0.1	1		06/26/2025 18:27	
Method: USGS I-1750-85							
Total Dissolved Solids	**2020**	mg/L	10	1		06/27/2025 14:09	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary WO #: 90774

Sulfate Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			100	101.0		85	115		
LFB			100	93.2		85	115		
LFB			100	97.1		85	115		
LFB			100	94.2		85	115		
LFB			100	92.7		85	115		
LFB			100	103.0		85	115		
LFB			100	108.0		85	115		
LFB			100	101.0		85	115		
LFB			100	103.0		85	115		
LFB			100	93.6		85	115		
LFB			100	102.0		85	115		
LFB			100	99.4		85	115		
LFB			100	95.3		85	115		
LFB			100	95.3		85	115		
LFB			100	96.6		85	115		
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							

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Account #: 5109 **Client:** Great River Energy

Sulfate Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<5							
MB		<5							
MS/MSD	90589004		100	85.3	85.7	85	115	0.4	20
MS/MSD	90604001		1000	77.9	80.3	85	115	1.1	20
MS/MSD	90613001		500	91.5	90.2	85	115	0.8	20
MS/MSD	90766001		100	95.6	96.3	85	115	0.7	20
MS/MSD	90774005		500	72.4	72.5	85	115	0.1	20
MS/MSD	90776013		2000	89.8	85.7	85	115	1.6	20
MS/MSD	90818003		500	79.6	79.3	85	115	0.3	20
MS/MSD	91085001		100	88.6	88.9	85	115	0.0	20
MS/MSD	91097002		500	74.6	76.6	85	115	0.9	20
MS/MSD	91098004		500	81.1	81.9	85	115	0.0	20
MS/MSD	91099008		100	98.5	97.9	85	115	0.9	20
MS/MSD	91103001		100	94.3	94.4	85	115	0.0	20
MS/MSD	91106005		1000	83.2	81.8	85	115	0.5	20

Aluminum Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	101.0		85	115		
LFB-OE			0.4	106.0		85	115		
MB		<0.1							
MB		<0.1							
PDS/PDSD	90589005		2	95.3	95.0	75	125	0.3	20
PDS/PDSD	90607001		2	92.6	92.9	75	125	0.3	20
PDS/PDSD	90607002		5	96.0	97.2	75	125	0.5	20
PDS/PDSD	90613001		2	93.0	92.7	75	125	0.3	20
PDS/PDSD	90763004		5	103.0	104.0	75	125	0.4	20
MS/MSD	90774005		0.4	102.0	109.0	70	130	5.4	20
PDS/PDSD	90774005		2	91.4	91.2	75	125	0.2	20
PDS/PDSD	90776007		0.4	84.0	86.1	75	125	1.3	20
MS/MSD	90797001		0.4	119.0	122.0	70	130	2.0	20

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Account #: 5109 **Client:** Great River Energy

Aluminum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
FB		<0.1							
LFB-OE			0.4	101.0		85	115		
LFB-OE			0.4	106.0		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	90774005		0.4	107.0	107.0	75	125	0.2	20
SPK/SPKD	90774005		0.4	116.0	113.0	75	125	2.3	20
SPK/SPKD	90774005		2	94.4	95.8	75	125	1.5	20
PDS/PDSD	90774009		1	93.3	94.2	75	125	0.8	20
SPK/SPKD	90776013		10	106.0	104.0	75	125	2.7	20
SPK/SPKD	91097005		0.4	91.3	92.3	75	125	1.1	20

Boron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	100.0		85	115		
LFB-OE			0.4	104.0		85	115		
MB		<0.1							
MB		<0.1							
PDS/PDSD	89556001		2	88.8	91.3	75	125	1.8	20
MS/MSD	90774005		0.4	96.3	95.3	70	130	0.3	20

Boron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	100.0		85	115		
LFB-OE			0.4	104.0		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	90443004		0.4	87.0	88.7	75	125	1.1	20
SPK/SPKD	90446002		1	92.3	92.5	75	125	0.1	20
SPK/SPKD	90774005		0.4	85.2	84.5	75	125	0.3	20

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Account #: 5109 **Client:** Great River Energy

Calcium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	108.0		85	115		
LFB-MI			100	112.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	90443005		100	102.0	101.0	75	125	0.1	20
PDS/PDSD	90446002		100	101.0	99.6	75	125	0.9	20
PDS/PDSD	90446002		500	105.0	104.0	75	125	0.3	20
PDS/PDSD	90589002		100	104.0	102.0	75	125	0.8	20
PDS/PDSD	90590005		100	104.0	103.0	75	125	0.7	20
DUP	90762001							2.3	20
PDS/PDSD	90762001		100	103.0	104.0	75	125	0.7	20
PDS/PDSD	90762002		100	102.0	102.0	75	125	0.2	20
DUP	90774005							1.2	20
PDS/PDSD	90774005		100	98.3	98.7	75	125	0.2	20
PDS/PDSD	90776006		100	96.0	95.8	75	125	0.1	20
DUP	90776012							0.4	20
PDS/PDSD	90856001		100	100.0	101.0	75	125	0.4	20
PDS/PDSD	90916004		100	100.0	101.0	75	125	0.4	20

Calcium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	108.0		85	115		
LFB-MI			100	112.0		85	115		
MB		<1							
MB		<1							
SPK/SPKD	90443004		100	100.0	101.0	75	125	0.5	20
SPK/SPKD	90446002		100	104.0	104.0	75	125	0.4	20
SPK/SPKD	90613001		100	100.0	99.7	75	125	0.2	20
SPK/SPKD	90774005		100	102.0	100.0	75	125	0.8	20

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	108.0		85	115		

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Account #: 5109 **Client:** Great River Energy

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	112.0		85	115		
MB		<0.1							
MB		<0.1							
PDS/PDSD	90589005		2	95.2	94.1	75	125	0.6	20
PDS/PDSD	90607001		2	85.5	82.8	75	125	1.0	20
PDS/PDSD	90607002		5	94.0	93.6	75	125	0.2	20
PDS/PDSD	90613001		2	84.6	85.2	75	125	0.2	20
PDS/PDSD	90763004		5	98.5	98.4	75	125	0.1	20
PDS/PDSD	90774005		2	81.7	82.1	75	125	0.1	20
MS/MSD	90797001		0.4	103.0	105.0	70	130	1.1	20

Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
FB		<0.1							
LFB-OE			0.4	108.0		85	115		
LFB-OE			0.4	112.0		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	90774005		0.4	67.7	68.9	75	125	0.3	20
SPK/SPKD	90774005		2	92.6	91.5	75	125	0.6	20
PDS/PDSD	90774009		1	84.1	82.7	75	125	0.7	20
SPK/SPKD	90776013		10	88.7	89.0	75	125	0.8	20
SPK/SPKD	91097005		0.4	87.7	89.8	75	125	2.9	20

Lithium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	109.0		85	115		
LFB-OE			0.4	113.0		85	115		
MB		<0.04							
MB		<0.04							
MS/MSD	90774005		0.4	99.4	103.0	70	130	3.4	20

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Account #: 5109 **Client:** Great River Energy

Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	109.0		85	115		
LFB-OE			0.4	113.0		85	115		
MB		<0.04							
MB		<0.04							
SPK/SPKD	90443004		0.4	89.3	88.2	75	125	1.0	20
SPK/SPKD	90446002		0.4	90.6	88.7	75	125	2.0	20
SPK/SPKD	90613003		0.4	90.8	91.1	75	125	0.3	20
SPK/SPKD	90774005		0.4	91.7	90.9	75	125	0.8	20

Magnesium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	109.0		85	115		
LFB-MI			100	113.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	90443005		100	103.0	103.0	75	125	0.1	20
PDS/PDSD	90446002		100	102.0	101.0	75	125	0.5	20
PDS/PDSD	90446002		500	106.0	105.0	75	125	0.7	20
PDS/PDSD	90589002		100	108.0	106.0	75	125	0.8	20
PDS/PDSD	90590005		100	108.0	107.0	75	125	0.8	20
DUP	90762001							3.6	20
PDS/PDSD	90762001		100	107.0	108.0	75	125	1.2	20
PDS/PDSD	90762002		100	106.0	106.0	75	125	0.2	20
DUP	90774005							0.7	20
PDS/PDSD	90774005		100	102.0	102.0	75	125	0.3	20
PDS/PDSD	90776006		100	101.0	100.0	75	125	0.5	20
DUP	90776012							0.7	20
PDS/PDSD	90856001		100	104.0	105.0	75	125	0.6	20
PDS/PDSD	90916004		100	104.0	105.0	75	125	0.7	20

Magnesium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	109.0		85	115		

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Account #: 5109 **Client:** Great River Energy

Magnesium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	113.0		85	115		
MB		<1							
MB		<1							
SPK/SPKD	90443004		100	102.0	103.0	75	125	0.6	20
SPK/SPKD	90446002		100	105.0	103.0	75	125	0.9	20
SPK/SPKD	90613001		100	106.0	106.0	75	125	0.2	20
SPK/SPKD	90774005		100	106.0	105.0	75	125	0.4	20

Manganese — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	109.0		85	115		
LFB-OE			0.4	114.0		85	115		
MB		<0.05							
MB		<0.05							
PDS/PDSD	90589005		2	93.2	92.2	75	125	0.6	20
PDS/PDSD	90607001		2	79.4	79.0	75	125	0.2	20
PDS/PDSD	90607002		5	98.5	98.3	75	125	0.2	20
PDS/PDSD	90613001		2	85.1	85.9	75	125	0.8	20
MS/MSD	90763004		0.4	91.7	71.7	70	130	2.7	20
PDS/PDSD	90763004		5	95.2	94.0	75	125	0.8	20
MS/MSD	90774005		0.4	96.8	98.6	70	130	1.4	20
PDS/PDSD	90774005		2	83.5	83.9	75	125	0.4	20
PDS/PDSD	90776007		0.4	82.4	83.0	75	125	0.5	20
MS/MSD	90797001		0.4	106.0	107.0	70	130	1.1	20

Manganese, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.05							
FB		<0.05							
LFB-OE			0.4	109.0		85	115		
LFB-OE			0.4	114.0		85	115		
MB		<0.05							
MB		<0.05							

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Manganese, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	90774005		0.4	82.0	82.1	75	125	0.1	20
SPK/SPKD	90774005		0.4	90.6	89.8	75	125	1.0	20
SPK/SPKD	90774005		2	100.0	99.8	75	125	0.2	20
PDS/PDSD	90774009		1	87.7	84.8	75	125	2.5	20
SPK/SPKD	90776013		10	93.2	93.1	75	125	0.2	20
SPK/SPKD	91097005		0.4	87.4	89.8	75	125	2.6	20

Potassium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	110.0		85	115		
LFB-MI			100	113.0		85	115		
MB		<1							
MR		<1							
PDS/PDSD	90443005		100	107.0	108.0	75	125	1.0	20
PDS/PDSD	90446002		100	105.0	106.0	75	125	0.9	20
PDS/PDSD	90446002		500	106.0	104.0	75	125	1.7	20
PDS/PDSD	90589002		100	108.0	107.0	75	125	1.4	20
PDS/PDSD	90590005		100	106.0	106.0	75	125	0.4	20
DUP	90762001							2.0	20
PDS/PDSD	90762001		100	106.0	108.0	75	125	1.6	20
PDS/PDSD	90762002		100	104.0	105.0	75	125	0.5	20
DUP	90774005							2.0	20
PDS/PDSD	90774005		100	104.0	104.0	75	125	0.1	20
PDS/PDSD	90776006		100	109.0	106.0	75	125	2.0	20
DUP	90776012							0.1	20
PDS/PDSD	90856001		100	108.0	108.0	75	125	0.4	20
PDS/PDSD	90916004		100	105.0	106.0	75	125	1.1	20

Potassium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	110.0		85	115		
LFB-MI			100	113.0		85	115		
MB		<1							

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Potassium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<1							
SPK/SPKD	90443004		100	105.0	106.0	75	125	1.6	20
SPK/SPKD	90446002		100	107.0	104.0	75	125	2.4	20
SPK/SPKD	90613001		100	107.0	107.0	75	125	0.1	20
SPK/SPKD	90774005		100	106.0	106.0	75	125	0.0	20

Sodium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	113.0		85	115		
LFB-MI			100	115.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	90443005		100	97.5	97.0	75	125	0.4	20
PDS/PDSD	90446002		500	95.7	97.5	75	125	0.9	20
PDS/PDSD	90589002		100	111.0	110.0	75	125	1.0	20
PDS/PDSD	90590005		100	112.0	109.0	75	125	2.5	20
DUP	90762001							2.8	20
PDS/PDSD	90762001		100	110.0	112.0	75	125	1.3	20
PDS/PDSD	90762002		100	108.0	108.0	75	125	0.0	20
DUP	90774005							1.1	20
PDS/PDSD	90774005		100	73.4	71.9	75	125	0.3	20
PDS/PDSD	90776006		100	95.1	95.6	75	125	0.2	20
DUP	90776012							1.4	20
PDS/PDSD	90856001		100	103.0	104.0	75	125	0.2	20
PDS/PDSD	90916004		100	102.0	102.0	75	125	0.2	20

Sodium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	113.0		85	115		
LFB-MI			100	115.0		85	115		
MB		<1							
MB		<1							
SPK/SPKD	90443004		100	94.6	96.4	75	125	0.8	20

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Sodium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	90446002		500	101.0	99.4	75	125	0.8	20
SPK/SPKD	90613001		100	85.5	88.7	75	125	0.9	20
SPK/SPKD	90774005		100	78.6	78.8	75	125	0.0	20

Antimony — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	94.1		80	120		
LFB-MS			0.1	94.2		80	120		
MB		<0.001							
MB		<0.001							
MS/MSD	90763004		0.4	109.0	108.0	75	125	0.2	20
MS/MSD	90774005		0.4	109.0	109.0	75	125	0.2	20
MS/MSD	90797001		0.4	107.0	109.0	70	130	1.4	20
SPK	90797001		0.1	104.0		75	125		

Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.0002							
LFB-MS			0.1	94.1		80	120		
LFB-MS			0.1	94.2		80	120		
MB		<0.001							
MB		<0.001							
MS/MSD	90763004		0.4	109.0	108.0	75	125	0.2	20
MS/MSD	90774005		0.4	109.0	109.0	75	125	0.2	20
SPK/SPKD	90774005		0.1	97.3	98.9	75	125	1.6	20
MS/MSD	90797001		0.4	107.0	109.0	70	130	1.4	20
SPK	90797001		0.1	104.0		75	125		
SPK/SPKD	90861001		0.1	100.0	103.0	75	125	2.9	20

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	105.0		80	120		
MB		<0.002							

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Account #: 5109 **Client:** Great River Energy

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.002							
MS/MSD	90763004		0.4	107.0	108.0	75	125	0.7	20
MS/MSD	90774005		0.4	109.0	109.0	75	125	0.0	20
MS/MSD	90797001		0.4	107.0	108.0	70	130	0.5	20
SPK	90797001		0.1	104.0		75	125		

Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.0004							
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	105.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	90763004		0.4	107.0	108.0	75	125	0.7	20
MS/MSD	90774005		0.4	109.0	109.0	75	125	0.0	20
SPK/SPKD	90774005		0.1	111.0	111.0	75	125	0.1	20
MS/MSD	90797001		0.4	107.0	108.0	70	130	0.5	20
SPK	90797001		0.1	104.0		75	125		
SPK/SPKD	90861001		0.1	104.0	106.0	75	125	1.6	20

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	90763004		0.4	114.0	114.0	75	125	0.2	20
MS/MSD	90774005		0.4	111.0	114.0	75	125	2.4	20
MS/MSD	90797001		0.4	112.0	113.0	70	130	0.8	20
SPK	90797001		0.1	110.0		75	125		

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.002							

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Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	90763004		0.4	114.0	114.0	75	125	0.2	20
MS/MSD	90774005		0.4	111.0	114.0	75	125	2.4	20
SPK/SPKD	90774005		0.1	241.0	240.0	75	125	0.4	20
MS/MSD	90797001		0.4	112.0	113.0	70	130	0.8	20
SPK	90797001		0.1	110.0		75	125		
SPK/SPKD	90861001		0.1	101.0	106.0	75	125	4.3	20

Beryllium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	105.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	90763004		0.4	104.0	104.0	75	125	0.0	20
MS/MSD	90774005		0.4	104.0	105.0	75	125	1.2	20
MS/MSD	90797001		0.4	107.0	109.0	70	130	1.9	20
SPK	90797001		0.1	101.0		75	125		

Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.0004							
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	105.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	90763004		0.4	104.0	104.0	75	125	0.0	20
MS/MSD	90774005		0.4	104.0	105.0	75	125	1.2	20
SPK/SPKD	90774005		0.1	75.9	75.7	75	125	0.3	20
MS/MSD	90797001		0.4	107.0	109.0	70	130	1.9	20

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Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	90797001		0.1	101.0		75	125		
SPK/SPKD	90861001		0.1	92.7	95.5	75	125	3.0	20

Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	95.4		80	120		
LFB-MS			0.1	97.1		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	90763004		0.4	109.0	109.0	75	125	0.2	20
MS/MSD	90774005		0.4	111.0	110.0	75	125	0.7	20
MS/MSD	90797001		0.4	109.0	111.0	70	130	1.6	20
SPK	90797001		0.1	102.0		75	125		

Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.0001							
LFB-MS			0.1	95.4		80	120		
LFB-MS			0.1	97.1		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	90763004		0.4	109.0	109.0	75	125	0.2	20
MS/MSD	90774005		0.4	111.0	110.0	75	125	0.7	20
SPK/SPKD	90774005		0.1	85.2	86.7	75	125	1.8	20
MS/MSD	90797001		0.4	109.0	111.0	70	130	1.6	20
SPK	90797001		0.1	102.0		75	125		
SPK/SPKD	90861001		0.1	89.7	92.8	75	125	3.4	20

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	115.0		80	120		
LFB-MS			0.1	118.0		80	120		
MB		<0.002							
MB		<0.002							

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Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	90763004		0.4	104.0	104.0	75	125	0.5	20
MS/MSD	90774005		0.4	106.0	108.0	75	125	2.8	20
MS/MSD	90797001		0.4	107.0	108.0	70	130	0.5	20
SPK	90797001		0.1	108.0		75	125		

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.0004							
LFB-MS			0.1	115.0		80	120		
LFB-MS			0.1	118.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	90763004		0.4	104.0	104.0	75	125	0.5	20
MS/MSD	90774005		0.4	106.0	108.0	75	125	2.8	20
SPK/SPKD	90774005		0.1	115.0	113.0	75	125	1.7	20
MS/MSD	90797001		0.4	107.0	108.0	70	130	0.5	20
SPK	90797001		0.1	108.0		75	125		
SPK/SPKD	90861001		0.1	110.0	112.0	75	125	1.7	20

Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	114.0		80	120		
LFB-MS			0.1	116.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	90763004		0.4	104.0	104.0	75	125	0.7	20
MS/MSD	90774005		0.4	105.0	108.0	75	125	2.4	20
MS/MSD	90797001		0.4	107.0	107.0	70	130	0.2	20
SPK	90797001		0.1	108.0		75	125		

Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.0004							
LFB-MS			0.1	114.0		80	120		

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Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	116.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	90763004		0.4	104.0	104.0	75	125	0.7	20
MS/MSD	90774005		0.4	105.0	108.0	75	125	2.4	20
SPK/SPKD	90774005		0.1	110.0	108.0	75	125	1.0	20
MS/MSD	90797001		0.4	107.0	107.0	70	130	0.2	20
SPK	90797001		0.1	108.0		75	125		
SPK/SPKD	90861001		0.1	107.0	109.0	75	125	1.3	20

Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	103.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	90763004		0.4	108.0	108.0	75	125	0.0	20
MS/MSD	90774005		0.4	109.0	108.0	75	125	0.9	20
MS/MSD	90797001		0.4	93.5	93.9	70	130	0.5	20

Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.0001							
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	103.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	90763004		0.4	108.0	108.0	75	125	0.0	20
MS/MSD	90774005		0.4	109.0	108.0	75	125	0.9	20
SPK/SPKD	90774005		0.1	108.0	110.0	75	125	2.3	20
MS/MSD	90797001		0.4	93.5	93.9	70	130	0.5	20
SPK/SPKD	90861001		0.1	108.0	113.0	75	125	4.4	20

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Account #: 5109 **Client:** Great River Energy

Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	107.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	90763004		0.4	105.0	104.0	75	125	0.7	20
MS/MSD	90774005		0.4	109.0	111.0	75	125	1.6	20
MS/MSD	90797001		0.4	106.0	108.0	70	130	1.4	20

Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.0004							
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	107.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	90763004		0.4	105.0	104.0	75	125	0.7	20
MS/MSD	90774005		0.4	109.0	111.0	75	125	1.6	20
SPK	90774005		0.1	156.0		75	125		
SPK/SPKD	90774005		0.1	112.0	156.0	75	125	0.1	20
MS/MSD	90797001		0.4	106.0	108.0	70	130	1.4	20
SPK	90797001		0.1	112.0		75	125		
SPK/SPKD	90861001		0.1	102.0	119.0	75	125	3.0	20

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	106.0		80	120		
MB		<0.005							
MB		<0.005							
MS/MSD	90763004		0.4	111.0	111.0	75	125	0.5	20
MS/MSD	90774005		0.4	109.0	110.0	75	125	0.7	20
MS/MSD	90797001		0.4	108.0	114.0	70	130	5.4	20
SPK	90797001		0.1	101.0		75	125		

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Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.001							
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	106.0		80	120		
MB		<0.005							
MB		<0.005							
MS/MSD	90763004		0.4	111.0	111.0	75	125	0.5	20
MS/MSD	90774005		0.4	109.0	110.0	75	125	0.7	20
SPK/SPKD	90774005		0.1	104.0	104.0	75	125	0.1	20
MS/MSD	90797001		0.4	108.0	114.0	70	130	5.4	20
SPK	90797001		0.1	101.0		75	125		
SPK/SPKD	90861001		0.1	115.0	114.0	75	125	1.0	20

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	103.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	90763004		0.4	103.0	106.0	75	125	2.9	20
MS/MSD	90774005		0.4	107.0	108.0	75	125	1.4	20
MS/MSD	90797001		0.4	91.9	91.3	70	130	0.8	20

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.0001							
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	103.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	90763004		0.4	103.0	106.0	75	125	2.9	20
MS/MSD	90774005		0.4	107.0	108.0	75	125	1.4	20
SPK/SPKD	90774005		0.1	107.0	110.0	75	125	3.3	20
MS/MSD	90797001		0.4	91.9	91.3	70	130	0.8	20

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Account #: 5109 **Client:** Great River Energy

Thallium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	90861001		0.1	107.0	113.0	75	125	5.0	20

Mercury				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	95.5		85	115		
LRB		<0.0002							
MS/MSD	90774005		0.002	97.7	87.8	70	130	10.5	20
MS/MSD	91332003		0.002	91.0	96.3	70	130	5.4	20

Alkalinity, Total				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			501	91.8		80	120		
LFB			410	96.5		90	110		
LFB			410	94.1		90	110		
LFB			410	94.3		90	110		
LFB			410	91.6		90	110		
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MS/MSD	90767002		410	90.4	95.5	80	120	1.9	20
MS/MSD	90774005		410	81.4	82.9	80	120	0.7	20
MS/MSD	90776006		410	76.0	76.1	80	120	0.2	20

pH				Units: units					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	100.3					
CRM-PH			6	100.0					
CRM-PH			6	99.8					
DUP	90762002							1.2	20
DUP	90774005							1.6	20

Fluoride				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			0.6	106.0		88.99	111.11		
LFB-F			0.5	100.0		90	110		

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Account #: 5109 **Client:** Great River Energy

Fluoride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-F			0.5	92.0		90	110		
LFB-F			0.5	102.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	90766001		0.5	116.0	108.0	80	120	7.1	20
MS/MSD-F	90774005		0.5	112.0	110.0	80	120	0.9	20

Total Dissolved Solids — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	97.0		90.35	110.33		
CRM			736	100.0		90.35	110.33		
MB		<10							
MB		<10							
DUP	90598001							10.5	20
DUP	90610003							1.2	20
DUP	90774005							1.4	20
DUP	90774009							0.0	20

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Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 90774

Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS 2023 Wells
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: June 2025
Address:		Lakewood, CO 80228	Sampled By: Ethan Gress
Phone:			
Email:	CJohnston@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric						Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 215	25June25	1123	GW	X	X	X							11.30	2464	7.69	38.71	~~App IV, Iron, Aluminum, Mangangese~~ (Total Only for Mercury and Radio Chem, Dissolved and Total for Remainder of Metals.) (See Attachments)
002	MW- 216	25June25	1227	GW	X	X	X							11.61	2120	7.72	34.84	
003	MW- 217	25June25	1007	GW	X	X	X							15.58	2416	7.91	10.82	
004	FB 2023	25June25	0948	GW	X	X	X							NA	NA	NA	NA	
005	MW- 218/MS/MSD	25June25	0816	GW	3	3	3							10.42	2100	7.74	50.43	
006	MW- 219	25June25	1708	GW	X	X	X							10.15	3328	7.16	53.00	
007	MW- 220	25June25	1328	GW	X	X	X							11.93	2088	7.69	36.64	
008	MW- 221	25June25	1427	GW	X	X	X							10.97	2227	7.64	8.59	
009	MW- 222	25June25	1524	GW	X	X	X							16.80	2647	7.70	1454	

Comments: lled in 2023 * App III, App IV + additional parameters per email from Erin Hunter @ WSP LS 26Jun25

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		25June25 1910	Log In Walk In #2	4.5 °C/TM 805 ROWN		26 Jun 25 0800
2						

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Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

wsp

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Account #: 5109 **Client:** Great River Energy

February 2025 GL21509219.000

Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy

February 2025 GL21509219.000

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	215
Sampling Personal:	Ethan Crosse

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.75	ft
Depth to Top of Pump:	–	ft
Water Level After Sample:	11.85	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
–

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
	1058	Start of Well Purge									clear, slightly turbid, turbid
	1108	11.50	2465	7.68	0.10	-95.5	1034	11.85	200.0	2.0	~~Clear~~ Turbid
25 June 25	1113	11.34	2465	7.69	0.09	-103.8	100.5	11.90	200.0	1.0	Clear
	1118	11.33	2464	7.69	0.04	-107.3	47.06	11.85	200.0	1.0	Clear
	1123	11.30	2464	7.69	0.03	-108.6	38.71	11.80	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 June 25	1123	11.30	2464	7.69	0.03	-108.6	38.71				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	216
Sampling Personal:	Ethan Corey

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.45	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.52	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25Jun25	1202	Start of Well Purge									
	1212	11.71	2128	7.70	0.33	-83.8	31.95	12.75	200.0	2.0	Clear
	1217	11.47	2115	7.71	0.35	-87.1	29.95	12.60	200.0	1.0	Clear
	1222	11.73	2113	7.72	0.18	-99.3	26.37	12.57	200.0	1.0	Clear
	1227	11.61	2120	7.72	0.16	-101.6	34.84	12.65	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
25Jun25	1227	11.61	2120	7.72	0.16	-101.6	34.84				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	217
Sampling Personal:	Ethan. Cress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	10.05	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	10.05	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28	Sec.
PSI:		

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25June25	0942	Start of Well Purge									
	0952	15.05	2451	7.92	5.21	162.8	13.45	10.05	200.0	2.0	Clear
	~~1002~~	15.35	2449	7.92	5.23	173.6	11.49	10.05	200.0	1.0	Clear
	1002	15.50	2451	7.92	5.21	177.0	11.66	10.06	200.0	1.0	Clear
	1007	15.58	2446	7.91	5.18	184.8	10.82	10.05	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
25June25	1007	15.58	2446	7.91	5.18	184.8	10.82				Clear

Comments: * 2nd reading taken at 0957 FB 2023 collected here @ 0948
Issue with pump mid sample and had to pull it up and disassemble/clean

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2616 East Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724
1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	218
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	10.90	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	11.00	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	32	Sec.
Recover:	28	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
MS/MSD

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25 June 25	0751	Start of Well Purge									
	0801	10.28	2115	7.73	0.18	-98.8	432.80	11.00	200.0	2.0	Slightly Turbid
	0806	10.49	2103	7.73	0.21	-99.9	70.54	11.01	200.0	1.0	Clear
	0811	10.57	2110	7.73	0.23	-100.0	69.99	11.00	200.0	1.0	Clear
	0816	10.42	2100	7.74	0.23	-102.2	50.43	11.01	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
25 June 25	0816	10.42	2100	7.74	0.23	-102.2	50.43				Clear

Comments:

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	219
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	14.00	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	14.25	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 5	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25June25	1643	Start of Well Purge									
	1653	10.12	3432	7.13	0.05	19.4	67.67	14.20	200.0	2.0	Clear
	1658	9.99	3419	7.14	0.09	18.7	61.99	14.21	200.0	1.0	Clear
	1703	10.21	3396	7.15	0.00	8.4	50.60	14.20	200.0	1.0	Clear
	1708	10.15	3328	7.16	0.00	3.3	53.00	14.21	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
25June25	1708	10.15	3328	7.16	0.00	3.3	53.00				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	220
Sampling Personal:	Ethan Grass

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.95	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.00	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
	1303	Start of Well Purge									clear, slightly turbid, turbid
	1313	11.87	2074	7.66	0.31	38.6	34.34	~~12.10~~ 12.10	200.0	2.0	Clear
25 June 25	1318	11.82	2084	7.67	0.28	2.5	34.79	12.02	200.0	1.0	Clear
	1323	11.93	2069	7.68	0.28	-30.6	37.40	12.00	200.0	1.0	Clear
	1328	11.93	2088	7.69	0.09	-68.1	36.64	12.02	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 June 25	1328	11.93	2088	7.69	0.09	-68.1	36.64				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	221
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	14.47	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	14.47	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	1402	Start of Well Purge									
	1412	11.22	2243	7.63	0.31	-105.0	53.20	14.47	200.0	2.0	Clear
25 June 25	1417	11.06	2223	7.64	0.26	-106.2	13.74	14.48	200.0	3.0	Clear
	1422	10.96	2218	7.64	0.23	-109.7	11.40	14.47	200.0	1.0	Clear
	1427	10.97	2227	7.64	0.18	-110.8	8.59	14.47	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
25 June 25	1427	10.97	2227	7.64	0.18	-110.8	8.59				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	222
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	30.85	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	33.30	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: 57	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
25 Jun 25	1459	Start of Well Purge									
	1509	17.14	2639	7.71	3.50	146.2	14.49	31.35	100.0	1.0	Clear Brown
	1514	16.64	2655	7.71	2.30	154.5	11.39	31.50	100.0	0.5	Clear Brown
	1519	16.84	2657	7.70	2.03	158.9	16.56	31.65	100.0	0.5	Clear Brown
	1524	16.80	2647	7.70	2.00	155.3	14.54	31.80	100.0	0.5	Clear Brown

Well Stabilized? YES NO Total Volume Purged: 25 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 Jun 25	1524	16.80	2647	7.70	2.00	155.3	14.54				Clear Brown

Comments:

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 26 JUN 25 Time: 0955 Analyst: CC

Work Order #: 90774

Containers Supplied by MVTL: ☒ Yes ☐ No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
1	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
1	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
1	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS 2023 Wells June 2025 (90775) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90775001 **Date Collected:** 06/25/2025 11:23 **Matrix:** Groundwater
Sample ID: MW-215 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:37	
Radium 228	See Attached			1		08/01/2025 13:37	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90775002 **Date Collected:** 06/25/2025 12:27 **Matrix:** Groundwater
Sample ID: MW-216 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:37	
Radium 228	See Attached			1		08/01/2025 13:37	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90775003 **Date Collected:** 06/25/2025 10:07 **Matrix:** Groundwater
Sample ID: MW-217 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:37	
Radium 228	See Attached			1		08/01/2025 13:37	

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90775004 **Date Collected:** 06/25/2025 09:48 **Matrix:** Groundwater
Sample ID: FB 2023 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:37	
Radium 228	See Attached			1		08/01/2025 13:37	

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90775005 **Date Collected:** 06/25/2025 08:16 **Matrix:** Groundwater
Sample ID: MW-218 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:37	
Radium 228	See Attached			1		08/01/2025 13:37	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90775006 **Date Collected:** 06/25/2025 17:08 **Matrix:** Groundwater
Sample ID: MW-219 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:37	
Radium 228	See Attached			1		08/01/2025 13:37	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90775007 **Date Collected:** 06/25/2025 13:28 **Matrix:** Groundwater
Sample ID: MW-220 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:37	
Radium 228	See Attached			1		08/01/2025 13:37	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90775008 **Date Collected:** 06/25/2025 14:27 **Matrix:** Groundwater
Sample ID: MW-221 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:37	
Radium 228	See Attached			1		08/01/2025 13:37	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90775009 **Date Collected:** 06/25/2025 15:24 **Matrix:** Groundwater
Sample ID: MW-222 **Date Received:** 06/25/2025 19:40 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:37	
Radium 228	See Attached			1		08/01/2025 13:37	

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Account #: 5109 **Client:** Great River Energy

ANALYTICAL SUMMARY REPORT

July 30, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25060994 Quote ID: C15480
Project Name: 90775

Energy Laboratories, Inc. Casper WY received the following 9 samples for Minnesota Valley Testing Laboratories on 6/30/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25060994-001	90775001, MW-215	06/25/25 11:23	06/30/25	Groundwater	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25060994-002	90775002, MW-216	06/25/25 11:27	06/30/25	Groundwater	Same As Above
C25060994-003	90775003, MW-217	06/25/25 10:07	06/30/25	Groundwater	Same As Above
C25060994-004	90775004, FB 2023	06/25/25 09:48	06/30/25	Groundwater	Same As Above
C25060994-005	90775005, MW-218	06/25/25 08:16	06/30/25	Groundwater	Same As Above
C25060994-006	90775006, MW-219	06/25/25 17:08	06/30/25	Groundwater	Same As Above
C25060994-007	90775007, MW-220	06/25/25 13:28	06/30/25	Groundwater	Same As Above
C25060994-008	90775008, MW-221	06/25/25 14:27	06/30/25	Groundwater	Same As Above
C25060994-009	90775009, MW-222	06/25/25 15:24	06/30/25	Groundwater	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90775
Lab ID: C25060994-001
Client Sample ID: 90775001, MW-215

Report Date: 07/30/25
Collection Date: 06/25/25 11:23
DateReceived: 06/30/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.05	pCi/L	U			E903.0	07/28/25 15:09 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/28/25 15:09 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/28/25 15:09 / dmr
Radium 228	0.6	pCi/L	U			RA-05	07/23/25 15:49 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/23/25 15:49 / trs
Radium 228 MDC	1	pCi/L				RA-05	07/23/25 15:49 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

Page 2 of 15

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90775
Lab ID: C25060994-002
Client Sample ID: 90775002, MW-216

Report Date: 07/30/25
Collection Date: 06/25/25 11:27
DateReceived: 06/30/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	07/28/25 15:09 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/28/25 15:09 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/28/25 15:09 / dmr
Radium 228	-0.03	pCi/L	U			RA-05	07/23/25 17:25 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	07/23/25 17:25 / trs
Radium 228 MDC	1.2	pCi/L				RA-05	07/23/25 17:25 / trs
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
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U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90775
Lab ID: C25060994-003
Client Sample ID: 90775003, MW-217

Report Date: 07/30/25
Collection Date: 06/25/25 10:07
DateReceived: 06/30/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.4	pCi/L				E903.0	07/28/25 15:09 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/28/25 15:09 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/28/25 15:09 / dmr
Radium 228	0.5	pCi/L	U			RA-05	07/23/25 17:25 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	07/23/25 17:25 / trs
Radium 228 MDC	1.1	pCi/L				RA-05	07/23/25 17:25 / trs
Radium 226 + Radium 228	1	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90775
Lab ID: C25060994-004
Client Sample ID: 90775004, FB 2023

Report Date: 07/30/25
Collection Date: 06/25/25 09:48
DateReceived: 06/30/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.02	pCi/L	U			E903.0	07/28/25 15:09 / dmr
Radium 226 precision (±)	0.2	pCi/L				E903.0	07/28/25 15:09 / dmr
Radium 226 MDC	0.3	pCi/L				E903.0	07/28/25 15:09 / dmr
Radium 228	-0.3	pCi/L	U			RA-05	07/23/25 17:25 / trs
Radium 228 precision (±)	1.2	pCi/L				RA-05	07/23/25 17:25 / trs
Radium 228 MDC	2.0	pCi/L				RA-05	07/23/25 17:25 / trs
Radium 226 + Radium 228	1.2	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	1.2	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	2.0	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90775
Lab ID: C25060994-005
Client Sample ID: 90775005, MW-218

Report Date: 07/30/25
Collection Date: 06/25/25 08:16
DateReceived: 06/30/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	07/28/25 15:09 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/28/25 15:09 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/28/25 15:09 / dmr
Radium 228	1.1	pCi/L				RA-05	07/23/25 15:49 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	07/23/25 15:49 / trs
Radium 228 MDC	1.0	pCi/L				RA-05	07/23/25 15:49 / trs
Radium 226 + Radium 228	1.2	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1.0	pCi/L				A7500-RA	07/29/25 13:32 / meh

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QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90775
Lab ID: C25060994-006
Client Sample ID: 90775006, MW-219

Report Date: 07/30/25
Collection Date: 06/25/25 17:08
DateReceived: 06/30/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.01	pCi/L	U			E903.0	07/28/25 16:20 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/28/25 16:20 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/28/25 16:20 / dmr
Radium 228	-0.2	pCi/L	U			RA-05	07/23/25 17:25 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	07/23/25 17:25 / trs
Radium 228 MDC	1.2	pCi/L				RA-05	07/23/25 17:25 / trs
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	07/29/25 13:32 / meh

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QCL - Quality Control Limit
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90775
Lab ID: C25060994-007
Client Sample ID: 90775007, MW-220

Report Date: 07/30/25
Collection Date: 06/25/25 13:28
DateReceived: 06/30/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L				E903.0	07/28/25 16:20 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/28/25 16:20 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/28/25 16:20 / dmr
Radium 228	1.1	pCi/L	U			RA-05	07/23/25 17:25 / trs
Radium 228 precision (±)	0.8	pCi/L				RA-05	07/23/25 17:25 / trs
Radium 228 MDC	1.2	pCi/L				RA-05	07/23/25 17:25 / trs
Radium 226 + Radium 228	0.8	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.8	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
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Account #: 5109 **Client:** Great River Energy

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90775
Lab ID: C25060994-008
Client Sample ID: 90775008, MW-221

Report Date: 07/30/25
Collection Date: 06/25/25 14:27
DateReceived: 06/30/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.04	pCi/L	U			E903.0	07/28/25 16:20 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/28/25 16:20 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/28/25 16:20 / dmr
Radium 228	0.1	pCi/L	U			RA-05	07/23/25 17:25 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	07/23/25 17:25 / trs
Radium 228 MDC	1.2	pCi/L				RA-05	07/23/25 17:25 / trs
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90775
Lab ID: C25060994-009
Client Sample ID: 90775009, MW-222

Report Date: 07/30/25
Collection Date: 06/25/25 15:24
DateReceived: 06/30/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.8	pCi/L	U			E903.0	07/28/25 16:20 / dmr
Radium 226 precision (±)	2.1	pCi/L				E903.0	07/28/25 16:20 / dmr
Radium 226 MDC	3.7	pCi/L				E903.0	07/28/25 16:20 / dmr
Radium 228	15.5	pCi/L	U			RA-05	07/23/25 17:25 / trs
Radium 228 precision (±)	14.6	pCi/L				RA-05	07/23/25 17:25 / trs
Radium 228 MDC	20.7	pCi/L				RA-05	07/23/25 17:25 / trs
Radium 226 + Radium 228	12.2	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	14.8	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	21.1	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25060994 **Report Date:** 07/30/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0									Batch: RA226-11744	
Lab ID: LCS-RA226-11744	3	Laboratory Control Sample				Run: TENNELEC-4_250716E			07/28/25 15:07	
Radium 226		9.7	pCi/L		97	70	130			
Radium 226 precision (±)		1.6	pCi/L							
Radium 226 MDC		0.20	pCi/L							
Lab ID: MB-RA226-11744	3	Method Blank				Run: TENNELEC-4_250716E			07/28/25 15:07	
Radium 226		-0.04	pCi/L							U
Radium 226 precision (±)		0.09	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C25060889-013DDUP	3	Sample Duplicate				Run: TENNELEC-4_250716E			07/28/25 15:09	
Radium 226		590	pCi/L					7.8	30	
Radium 226 precision (±)		90	pCi/L							
Radium 226 MDC		0.21	pCi/L							
- The RER result is 0.36.										
Lab ID: C25060994-005AMS	3	Sample Matrix Spike				Run: TENNELEC-4_250716E			07/28/25 15:09	
Radium 226		9.6	pCi/L		95	70	130			
Radium 226 precision (±)		1.6	pCi/L							
Radium 226 MDC		0.19	pCi/L							
Lab ID: C25060994-005AMSD	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_250716E			07/28/25 16:20	
Radium 226		9.0	pCi/L		89	70	130	6.3	30	
Radium 226 precision (±)		1.5	pCi/L							
Radium 226 MDC		0.21	pCi/L							
- The RER result is 0.27.										

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25060994 **Report Date:** 07/30/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05									Batch: RA228-7710	
Lab ID: LCS-228-RA226-11744	3	Laboratory Control Sample				Run: TENNELEC-4_250716C			07/23/25 15:49	
Radium 228		8.7	pCi/L		95	70	130			
Radium 228 precision (±)		2.3	pCi/L							
Radium 228 MDC		1.0	pCi/L							
Lab ID: MB-RA226-11744	3	Method Blank				Run: TENNELEC-4_250716C			07/23/25 15:49	
Radium 228		0.4	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C25060889-013DDUP	3	Sample Duplicate				Run: TENNELEC-4_250716C			07/23/25 15:49	
Radium 228		14	pCi/L					26	30	
Radium 228 precision (±)		3.5	pCi/L							
Radium 228 MDC		1.2	pCi/L							
- The RER result is 0.70.										
Lab ID: C25060994-005AMS4	3	Sample Matrix Spike				Run: TENNELEC-4_250716C			07/23/25 15:49	
Radium 228		9.8	pCi/L		95	70	130			
Radium 228 precision (±)		2.6	pCi/L							
Radium 228 MDC		0.98	pCi/L							
Lab ID: C25060994-005AMSD4	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_250716C			07/23/25 15:49	
Radium 228		8.7	pCi/L		84	70	130	11	30	
Radium 228 precision (±)		2.3	pCi/L							
Radium 228 MDC		1.0	pCi/L							
- The RER result is 0.30.										

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25060994

Login completed by: Shelby L. Richins
Reviewed by: wjohnson
Reviewed Date: 7/10/2025
Date Received: 6/30/2025
Received by: DRS
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	24.1°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature of the sample(s) in shipping container 1 was 23.2°C, shipping container 2 was 24.1°C, shipping container 3 was 23.7°C, shipping container 4 was 24.0°C. SLR 06/30/25

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Laboratory Certifications and Accreditations

Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Bismarck, ND 58501
Phone: (701) 258-9720
Toll Free: (800) 279-6885 Fax: (701) 258-9724

Chain of Custody Record

Page 1 of 1

Work Order # 90775

Company Name and Address: MVTL, 2616 E Broadway, Bismarck, ND 58501
Account #:
Phone #: 701-258-9720
Contact: Claudette
Fax #: For faxed report check box
Name of Sampler:
E-mail: ccarroll@mvtl.com For e-mail report check box x
Billing Address (indicate if different from above): PO Box 249, New Ulm, MN 56073
Quote Number C15480
Date Submitted: 26-Jun-25
Project Name/Number:
Purchase Order #: BL7067

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Untreated	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	90775001	MW- 215	GW	25-Jun-25	1123		1				Ra226 & Ra228
	90775002	MW-216	GW	25-Jun-25	1227		1				Ra226 & Ra228
	90775003	MW-217	GW	25-Jun-25	1007		1				Ra226 & Ra228
	90775004	FB 2023	GW	25-Jun-25	0948		1				Ra226 & Ra228
	90775005	MW-218	GW	25-Jun-25	0816		3				Ra226 & Ra228
	90775006	MW-219	GW	25-Jun-25	1708		1				Ra226 & Ra228
	90775007	MW-220	GW	25-Jun-25	1328		1				Ra226 & Ra228
	90775008	MW-221	GW	25-Jun-25	1427		1				Ra226 & Ra228
	90775009	MW-222	GW	25-Jun-25	1524		1				Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples. Please use sample 90775005 as MS and MSD.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
L. Spelhaug	26-Jun-25	1700		Dakota Sawyer	06/30/25 0950	

Page 15 of 15

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Minnesota Valley Testing Laboratories
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Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 90775

Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS 2023 Wells
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: June 2025
Address:		Lakewood, CO 80228	Sampled By: Ethan Gress
Phone:			
Email:	CJohnston@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric										Analysis Required
001	MW- 215	25 June 25	1123	GW				X										
002	MW- 216	25 June 25	1227	GW				X										
003	MW- 217	25 June 25	1007	GW				X										
004	FB 2023	25 June 25	0945	GW				X										
005	MW- 218/MS/MSD	25 June 25	0816	GW				X										Radium 226 and 228 Combined
006	MW- 219	25 June 25	1708	GW				X										
007	MW- 220	25 June 25	1328	GW				X										
008	MW- 221	25 June 25	1427	GW				X										
009	MW- 222	25 June 25	1524	GW				X										

Comments:

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	25 June 25 1940	Log In Walk In #2	Ambient	Lyndsey Jellum	26 Jun 25 0800
2					

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Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy

February 2025 GL21509219.000

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.
* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	215
Sampling Personal:	Ethan C Ness

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.75	ft
Depth to Top of Pump:	–	ft
Water Level After Sample:	11.85	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
–

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
25 June 25	1058	Start of Well Purge									
	1108	11.50	2465	7.68	0.10	-95.5	1034	11.85	200.0	2.0	~~Clear~~ Turbid
	1113	11.34	2465	7.69	0.09	-103.8	100.5	11.90	200.0	1.0	Clear
	1118	11.33	2464	7.69	0.04	-107.3	47.06	11.85	200.0	1.0	Clear
	1123	11.30	2464	7.69	0.03	-108.6	38.71	11.80	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 June 25	1123	11.30	2464	7.69	0.03	-108.6	38.71				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	216
Sampling Personal:	Ethan Gretz

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.45	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.52	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
25Jun25	1202	Start of Well Purge									
	1212	11.71	2128	7.70	0.33	-83.8	34.95	12.75	200.0	2.0	Clear
	1217	11.47	2115	7.71	0.35	-87.1	29.95	12.60	200.0	1.0	Clear
	1222	11.73	2113	7.72	0.18	-99.3	36.37	12.57	200.0	1.0	Clear
	1227	11.61	2120	7.72	0.16	-101.6	34.84	12.65	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25Jun25	1227	11.61	2120	7.72	0.16	-101.6	34.84				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	217
Sampling Personal:	Ethan. Cross

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	10.05	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	10.05	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
25 June 25	0942	Start of Well Purge									
	0952	15.05	2451	7.92	5.21	182.8	13.45	10.05	200.0	2.0	Clear
	~~1002~~	15.35	2449	7.92	5.23	173.6	11.49	10.05	200.0	1.0	Clear
	1002	15.50	2451	7.92	5.21	177.0	11.86	10.06	200.0	1.0	Clear
	1007	15.58	2446	7.91	5.18	184.8	10.82	10.05	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 June 25	1007	15.58	2446	7.91	5.18	184.8	10.82				Clear

Comments: * 2nd reading taken at 0957 FB 2023 collected here @ 0948
Issue with pump mid sample and had to pull it up and disassemble/clean

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	218
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	10.90	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	11.00	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
MS/MSD

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
25 June 25	0751	Start of Well Purge									
	0801	10.28	2115	7.73	0.18	-98.8	432.80	11.00	200.0	2.0	Slightly Turbid
	0806	10.49	2103	7.73	0.21	-99.9	70.54	11.01	200.0	1.0	Clear
	0811	10.57	2110	7.73	0.23	-100.0	69.99	11.00	200.0	1.0	Clear
	0816	10.42	2100	7.74	0.23	-102.2	50.43	11.01	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 June 25	0816	10.42	2100	7.74	0.23	-102.2	50.43				Clear

Comments:

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	219
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	14.00	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	14.25	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 5	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
25June25	1643	Start of Well Purge									
	1653	10.12	3432	7.13	0.05	19.4	67.67	14.20	200.0	2.0	Clear
	1658	9.99	3419	7.14	0.09	18.7	61.99	14.21	200.0	1.0	Clear
	1703	10.21	3386	7.15	0.00	6.4	50.60	14.20	200.0	1.0	Clear
	1708	10.15	3328	7.16	0.00	3.3	53.00	14.21	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25June25	1708	10.15	3328	7.16	0.00	3.3	53.00				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	220
Sampling Personal:	Ethan Gross

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.95	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.00	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
25 June 25	1303	Start of Well Purge									
	1313	11.87	2074	7.66	0.31	38.6	34.34	~~12.00~~ 12.02	200.0	2.0	Clear
	1318	11.87	2084	7.67	0.28	2.5	31.79	12.02	200.0	1.0	Clear
	1323	11.93	2069	7.68	0.28	-30.6	37.40	12.00	200.0	1.0	Clear
	1328	11.93	2088	7.69	0.09	-68.1	36.64	12.02	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 June 25	1328	11.93	2088	7.69	0.09	-68.1	36.64				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	221
Sampling Personal:	Ethan Cress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	14.47	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	14.47	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
25 June 25	1407	Start of Well Purge									
	1412	11.22	2243	7.63	0.31	-105.0	53.20	14.47	200.0	2.0	Clear
	1417	11.06	2223	7.64	0.26	-106.2	13.74	14.48	200.0	3.0	Clear
	1422	10.96	2218	7.64	0.23	-109.7	11.40	14.47	200.0	1.0	Clear
	1427	10.97	2227	7.64	0.18	-110.8	8.59	14.47	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 June 25	1427	10.97	2227	7.64	0.18	-110.8	8.59				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	222
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	30.85	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	33.30	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: 57	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25 June 25	1459	Start of Well Purge									
	1509	17.14	2639	7.71	3.50	146.2	14.49	31.35	100.0	1.0	Clear Brown
	1514	16.64	2655	7.71	2.30	154.5	11.39	31.50	100.0	0.5	Clear Brown
	1519	16.84	2657	7.70	2.03	158.9	16.56	31.65	100.0	0.5	Clear Brown
	1524	16.80	2647	7.70	2.00	155.3	14.54	31.80	100.0	0.5	Clear Brown

Well Stabilized? YES NO Total Volume Purged: 25 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
25 June 25	1524	16.80	2647	7.70	2.00	155.3	14.54				Clear Brown

Comments:

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS 2023 Wells June 2025 (90607) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90607001 **Date Collected:** 06/24/2025 18:50 **Matrix:** Groundwater
Sample ID: MW-300 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2861**	umhos/cm	1	1		06/24/2025 18:50	
Method: 150.2							
pH - Field	**7.51**	units	0.01	1		06/24/2025 18:50	
Method: 170.1							
Temperature - Field C	**10.35**	degrees C		1		06/24/2025 18:50	
Method: ASTM D516-16							
Sulfate	**743**	mg/L	25	5		06/27/2025 10:26	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**0.87**	mg/L	0.1	1	06/25/2025 16:09	06/26/2025 12:12	
Calcium	**118**	mg/L	1	1	06/25/2025 16:09	07/01/2025 11:41	
Lithium	**0.0371**	mg/L	0.02	1	06/25/2025 16:09	07/03/2025 09:30	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/25/2025 16:09	07/07/2025 16:22	
Arsenic	**0.0057**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 16:22	
Barium	**0.0666**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 16:22	
Beryllium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 16:22	
Cadmium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 16:22	
Chromium	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 16:22	
Cobalt	**0.0041**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 16:22	
Lead	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 16:22	
Molybdenum	**0.0159**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 16:22	
Selenium	<0.005	mg/L	0.005	5	06/25/2025 16:09	07/07/2025 16:22	
Thallium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 16:22	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90607001 **Date Collected:** 06/24/2025 18:50 **Matrix:** Groundwater
Sample ID: MW-300 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.7**	units	0.1	1		06/25/2025 18:56	*
Method: SM4500-F-C-2021							
Fluoride	**0.63**	mg/L	0.1	1		06/25/2025 18:56	
Method: USGS I-1750-85							
Total Dissolved Solids	**1820**	mg/L	10	1		06/27/2025 14:09	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90607002 **Date Collected:** 06/24/2025 16:53 **Matrix:** Groundwater
Sample ID: MW-301 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1386**	umhos/cm	1	1		06/24/2025 16:53	
Method: 150.2							
pH - Field	**7.73**	units	0.01	1		06/24/2025 16:53	
Method: 170.1							
Temperature - Field C	**15.41**	degrees C		1		06/24/2025 16:53	
Method: ASTM D516-16							
Sulfate	**174**	mg/L	5	1		06/27/2025 10:27	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**0.36**	mg/L	0.1	1	06/25/2025 16:09	06/26/2025 12:15	
Calcium	**23.5**	mg/L	1	1	06/25/2025 16:09	07/01/2025 11:42	
Lithium	**0.0663**	mg/L	0.02	1	06/25/2025 16:09	07/03/2025 09:32	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/25/2025 16:09	07/07/2025 16:01	
Arsenic	**0.0038**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 16:01	
Barium	**0.1128**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 16:01	
Beryllium	**0.0011**	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 16:01	
Cadmium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 16:01	
Chromium	**0.0098**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 16:01	
Cobalt	**0.0057**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 16:01	
Lead	**0.0129**	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 16:01	
Molybdenum	**0.0027**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 16:01	
Selenium	<0.005	mg/L	0.005	5	06/25/2025 16:09	07/07/2025 16:01	
Thallium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 16:01	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90607002 **Date Collected:** 06/24/2025 16:53 **Matrix:** Groundwater
Sample ID: MW-301 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		06/25/2025 19:07	*
Method: SM4500-F-C-2021							
Fluoride	**0.30**	mg/L	0.1	1		06/25/2025 19:07	
Method: USGS I-1750-85							
Total Dissolved Solids	**908**	mg/L	10	1		06/27/2025 14:09	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90607003 **Date Collected:** 06/24/2025 16:53 **Matrix:** Groundwater
Sample ID: DUP 2023 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1386**	umhos/cm	1	1		06/24/2025 16:53	
Method: 150.2							
pH - Field	**7.73**	units	0.01	1		06/24/2025 16:53	
Method: 170.1							
Temperature - Field C	**15.41**	degrees C		1		06/24/2025 16:53	
Method: ASTM D516-16							
Sulfate	**172**	mg/L	5	1		06/27/2025 10:39	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**0.37**	mg/L	0.1	1	06/25/2025 16:09	06/26/2025 12:20	
Calcium	**24.9**	mg/L	1	1	06/25/2025 16:09	07/01/2025 11:43	
Lithium	**0.0679**	mg/L	0.02	1	06/25/2025 16:09	07/03/2025 09:33	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/25/2025 16:09	07/07/2025 16:06	
Arsenic	**0.0041**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 16:06	
Barium	**0.1225**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 16:06	
Beryllium	**0.0012**	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 16:06	
Cadmium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 16:06	
Chromium	**0.0116**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 16:06	
Cobalt	**0.0064**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 16:06	
Lead	**0.0133**	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 16:06	
Molybdenum	**0.0026**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 16:06	
Selenium	<0.005	mg/L	0.005	5	06/25/2025 16:09	07/07/2025 16:06	
Thallium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 16:06	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90607003 **Date Collected:** 06/24/2025 16:53 **Matrix:** Groundwater
Sample ID: DUP 2023 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.1**	units	0.1	1		06/25/2025 19:18	*
Method: SM4500-F-C-2021							
Fluoride	**0.31**	mg/L	0.1	1		06/25/2025 19:18	
Method: USGS I-1750-85							
Total Dissolved Solids	**897**	mg/L	10	1		06/27/2025 14:09	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90607004 **Date Collected:** 06/24/2025 15:22 **Matrix:** Groundwater
Sample ID: MW-PB3 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2439**	umhos/cm	1	1		06/24/2025 15:22	
Method: 150.2							
pH - Field	**7.32**	units	0.01	1		06/24/2025 15:22	
Method: 170.1							
Temperature - Field C	**15.71**	degrees C		1		06/24/2025 15:22	
Method: ASTM D516-16							
Sulfate	**588**	mg/L	25	5		06/27/2025 10:30	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	06/26/2025 08:30	06/26/2025 10:37	
Method: EPA 6010D							
Boron	**0.89**	mg/L	0.1	1	06/25/2025 16:09	06/26/2025 12:23	
Calcium	**121**	mg/L	1	1	06/25/2025 16:09	07/01/2025 11:47	
Lithium	**0.0334**	mg/L	0.02	1	06/25/2025 16:09	07/03/2025 09:35	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/25/2025 16:09	07/07/2025 17:18	
Arsenic	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:18	
Barium	**0.0454**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:18	
Beryllium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:18	
Cadmium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:18	
Chromium	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:18	
Cobalt	<0.002	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:18	
Lead	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:18	
Molybdenum	**0.0298**	mg/L	0.002	5	06/25/2025 16:09	07/07/2025 17:18	
Selenium	<0.005	mg/L	0.005	5	06/25/2025 16:09	07/07/2025 17:18	
Thallium	<0.0005	mg/L	0.0005	5	06/25/2025 16:09	07/07/2025 17:18	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90607004 **Date Collected:** 06/24/2025 15:22 **Matrix:** Groundwater
Sample ID: MW-PB3 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): 4.0 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		06/25/2025 19:29	*
Method: SM4500-F-C-2021							
Fluoride	**0.62**	mg/L	0.1	1		06/25/2025 19:29	
Method: USGS I-1750-85							
Total Dissolved Solids	**1550**	mg/L	10	1		06/27/2025 14:09	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 90607

Sulfate — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			100	101.0		85	115		
LFB			100	93.2		85	115		
LFB			100	97.1		85	115		
LFB			100	94.2		85	115		
LFB			100	92.7		85	115		
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MS/MSD	90589004		100	85.3	85.7	85	115	0.4	20
MS/MSD	90604001		1000	77.9	80.3	85	115	1.1	20
MS/MSD	90613001		500	91.5	90.2	85	115	0.8	20
MS/MSD	90766001		100	95.6	96.3	85	115	0.7	20

Aluminum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-DF			0.5	103.0		85	115		
LFB-OE			0.5	103.0		85	115		
MB		<0.1							
MB		<0.1							
PDS/PDSD	90589005		2	95.3	95.0	75	125	0.3	20
PDS/PDSD	90607001		2	92.6	92.9	75	125	0.3	20
PDS/PDSD	90607003		5	96.0	97.2	75	125	0.5	20
PDS/PDSD	90613001		2	93.0	92.7	75	125	0.3	20
PDS/PDSD	90763004		5	103.0	104.0	75	125	0.4	20
PDS/PDSD	90774005		2	91.4	91.2	75	125	0.2	20
PDS/PDSD	90776007		0.4	84.0	86.1	75	125	1.3	20

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Account #: 5109 **Client:** Great River Energy

Aluminum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.5	103.0		85	115		
LFB-OE			0.5	103.0		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	90443004		0.4	112.0	111.0	75	125	0.7	20
SPK/SPKD	90446002		0.4	99.8	101.0	75	125	1.0	20
SPK/SPKD	90613001		0.4	105.0	105.0	75	125	0.1	20
PDS/PDSD	90774009		1	93.3	94.3	75	125	0.8	20

Boron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.5	105.0		85	115		
LFB-OE			0.5	103.0		85	115		
MB		<0.1							
MB		<0.1							
PDS/PDSD	89556001		8	95.4	108.0	75	125	0.8	20
PDS/PDSD	90443002		2	82.3	83.0	75	125	0.6	20
MS/MSD	90607001		0.4	94.8	98.0	70	130	1.0	20
MS/MSD	90607002		0.4	93.7	97.1	70	130	1.8	20

Boron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.5	105.0		85	115		
LFB-OE			0.5	103.0		85	115		
MB		<0.1							
MB		<0.1							
PDS/PDSD	90300001		40	87.8	82.0	75	125	1.4	20
SPK/SPKD	90304006		0.4	87.0	90.1	75	125	1.8	20
SPK/SPKD	90604001		0.4	86.7	85.6	75	125	0.8	20

Calcium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	111.0		85	115		
LFB-MI			100	112.0		85	115		

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Account #: 5109 **Client:** Great River Energy

Calcium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<1							
MB		<1							
PDS/PDSD	90443005		100	102.0	101.0	75	125	0.1	20
PDS/PDSD	90446002		100	101.0	99.6	75	125	0.9	20
PDS/PDSD	90446003		500	105.0	104.0	75	125	0.3	20
PDS/PDSD	90589002		100	104.0	102.0	75	125	0.8	20
PDS/PDSD	90590005		100	104.0	103.0	75	125	0.7	20
DUP	90593001							0.4	20
DUP	90610001							1.6	20
PDS/PDSD	90762001		100	103.0	104.0	75	125	0.7	20
PDS/PDSD	90762002		100	102.0	102.0	75	125	0.2	20
PDS/PDSD	90774005		100	98.3	98.7	75	125	0.2	20
PDS/PDSD	90776006		100	96.0	95.8	75	125	0.1	20
PDS/PDSD	90856001		100	100.0	101.0	75	125	0.4	20
PDS/PDSD	90916004		100	100.0	101.0	75	125	0.4	20

Calcium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	111.0		85	115		
LFB-MI			100	112.0		85	115		
MB		<1							
MB		<1							
SPK/SPKD	90443004		100	100.0	101.0	75	125	0.5	20
SPK/SPKD	90446007		100	104.0	104.0	75	125	0.4	20
DUP	90607003							2.2	20
SPK/SPKD	90613001		100	100.0	99.7	75	125	0.2	20
SPK/SPKD	90774005		100	102.0	100.0	75	125	0.8	20

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.5	110.0		85	115		
LFB-OE			0.5	108.0		85	115		
MB		<0.1							

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Account #: 5109 **Client:** Great River Energy

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.1							
PDS/PDSD	90589005		2	95.2	94.1	75	125	0.6	20
PDS/PDSD	90607001		2	85.5	82.8	75	125	1.0	20
PDS/PDSD	90607002		5	94.0	93.6	75	125	0.2	20
PDS/PDSD	90613001		2	84.6	85.2	75	125	0.2	20
PDS/PDSD	90763004		5	98.5	98.4	75	125	0.1	20
PDS/PDSD	90774005		2	81.7	82.1	75	125	0.1	20

Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-DE			0.5	110.0		85	115		
LFB-DE			0.5	108.0		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	90443004		0.4	100.0	102.0	75	125	1.8	20
SPK/SPKD	90446002		0.4	93.8	94.6	75	125	0.9	20
SPK/SPKD	90613001		0.4	79.9	79.8	75	125	0.0	20
PDS/PDSD	90774009		1	84.1	82.7	75	125	0.7	20

Lithium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-DE			0.4	107.0		85	115		
LFB-DE			0.5	108.0		85	115		
MB		<0.04							
MB		<0.04							
PDS/PDSD	90443002		2	87.7	88.0	75	125	0.3	20
MS/MSD	90607001		0.4	99.6	98.4	70	130	1.2	20
MS/MSD	90607002		0.4	96.4	99.2	70	130	2.5	20

Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-DE			0.4	107.0		85	115		
LFB-DE			0.5	108.0		85	115		
MB		<0.04							

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Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.04							
SPK/SPKD	90443004		0.4	89.3	88.2	75	125	1.0	20
SPK/SPKD	90446002		0.4	90.6	88.7	75	125	2.0	20
SPK/SPKD	90613003		0.4	90.8	91.1	75	125	0.3	20
SPK/SPKD	90774005		0.4	91.7	90.9	75	125	0.8	20

Magnesium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
LFB-MI			100	114.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	90443005		100	103.0	103.0	75	125	0.1	20
PDS/PDSD	90446002		100	102.0	101.0	75	125	0.5	20
PDS/PDSD	90446002		500	106.0	105.0	75	125	0.7	20
PDS/PDSD	90589002		100	108.0	106.0	75	125	0.8	20
PDS/PDSD	90590005		100	108.0	107.0	75	125	0.8	20
DUP	90593001							0.9	20
DUP	90610001							1.7	20
PDS/PDSD	90762001		100	107.0	108.0	75	125	1.2	20
PDS/PDSD	90762002		100	106.0	106.0	75	125	0.2	20
PDS/PDSD	90774005		100	102.0	102.0	75	125	0.5	20
PDS/PDSD	90776006		100	101.0	100.0	75	125	0.5	20
PDS/PDSD	90856001		100	104.0	105.0	75	125	0.6	20
PDS/PDSD	90916004		100	104.0	105.0	75	125	0.7	20

Magnesium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
LFB-MI			100	114.0		85	115		
MB		<1							
MB		<1							
SPK/SPKD	90443004		100	102.0	103.0	75	125	0.6	20

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Magnesium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	90446002		100	105.0	103.0	75	125	0.9	20
DUP	90607003							2.7	20
SPK/SPKD	90613001		100	106.0	106.0	75	125	0.2	20
SPK/SPKD	90774005		100	106.0	105.0	75	125	0.4	20

Manganese — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.5	111.0		85	115		
LFB-OE			0.5	110.0		85	115		
MB		<0.05							
MB		<0.05							
PDS/PDSD	90589005		2	93.2	92.2	75	125	0.6	20
MS/MSD	90607001		0.4	83.9	74.5	70	130	2.0	20
PDS/PDSD	90607001		2	79.4	79.0	75	125	0.2	20
PDS/PDSD	90607002		5	98.5	98.3	75	125	0.2	20
PDS/PDSD	90613001		2	85.1	85.9	75	125	0.8	20
PDS/PDSD	90763004		5	95.2	94.0	75	125	0.8	20
PDS/PDSD	90774005		2	83.5	83.9	75	125	0.4	20
PDS/PDSD	90776007		0.4	82.4	83.0	75	125	0.5	20

Manganese, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.5	111.0		85	115		
LFB-OE			0.5	110.0		85	115		
MB		<0.05							
MB		<0.05							
SPK/SPKD	90443004		0.4	85.8	87.6	75	125	1.4	20
SPK/SPKD	90446002		0.4	75.8	75.2	75	125	0.3	20
MS/MSD	90607002		0.4	99.0	101.0	70	130	1.9	20
SPK/SPKD	90613001		0.4	88.6	88.2	75	125	0.3	20
PDS/PDSD	90774009		1	87.7	84.8	75	125	2.5	20

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Potassium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	113.0		85	115		
LFB-MI			100	115.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	90443005		100	107.0	108.0	75	125	1.0	20
PDS/PDSD	90446002		100	105.0	106.0	75	125	0.9	20
PDS/PDSD	90446002		500	106.0	104.0	75	125	1.7	20
PDS/PDSD	90589002		100	108.0	107.0	75	125	1.4	20
PDS/PDSD	90590005		100	106.0	106.0	75	125	0.4	20
DUP	90593001							2.2	20
DUP	90610001							3.4	20
PDS/PDSD	90762001		100	106.0	108.0	75	125	1.6	20
PDS/PDSD	90762002		100	104.0	105.0	75	125	0.5	20
PDS/PDSD	90774005		100	104.0	104.0	75	125	0.1	20
PDS/PDSD	90776006		100	109.0	106.0	75	125	2.0	20
PDS/PDSD	90856001		100	108.0	108.0	75	125	0.4	20
PDS/PDSD	90916004		100	105.0	106.0	75	125	1.1	20

Potassium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	113.0		85	115		
LFB-MI			100	115.0		85	115		
MB		<1							
MB		<1							
SPK/SPKD	90443004		100	105.0	106.0	75	125	1.6	20
SPK/SPKD	90446002		100	107.0	104.0	75	125	2.4	20
DUP	90607003							3.0	20
SPK/SPKD	90613001		100	107.0	107.0	75	125	0.1	20
SPK/SPKD	90774005		100	106.0	106.0	75	125	0.0	20

Sodium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	113.0		85	115		

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Sodium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	114.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	90443005		100	97.9	97.0	75	125	0.4	20
PDS/PDSD	90446002		500	95.7	97.5	75	125	0.9	20
PDS/PDSD	90589002		100	111.0	110.0	75	125	1.0	20
PDS/PDSD	90590005		100	112.0	109.0	75	125	2.5	20
DUP	90593001							0.7	20
DUP	90610001							2.0	20
PDS/PDSD	90762001		100	110.0	112.0	75	125	1.3	20
PDS/PDSD	90762002		100	108.0	108.0	75	125	0.0	20
PDS/PDSD	90774005		100	73.4	71.9	75	125	0.3	20
PDS/PDSD	90776006		100	95.1	95.6	75	125	0.2	20
PDS/PDSD	90856001		100	103.0	104.0	75	125	0.2	20
PDS/PDSD	90916004		100	102.0	102.0	75	125	0.2	20

Sodium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	113.0		85	115		
LFB-MI			100	114.0		85	115		
MB		<1							
MB		<1							
SPK/SPKD	90443004		100	94.6	96.4	75	125	0.8	20
SPK/SPKD	90446003		500	101.0	99.4	75	125	0.8	20
DUP	90607003							2.1	20
SPK/SPKD	90613001		100	85.5	88.7	75	125	0.9	20
SPK/SPKD	90774005		100	78.6	78.8	75	125	0.0	20

Antimony — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	97.4		80	120		

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Account #: 5109 **Client:** Great River Energy

Antimony — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.001							
MB		<0.001							
MB		<0.001							
MS/MSD	90607001		0.4	110.0	107.0	75	125	2.8	20
SPK	90607001		0.1	106.0		75	125		
MS/MSD	90607002		0.4	97.3	101.0	75	125	3.8	20
MS/MSD	90607002		0.4	100.0	98.0	75	125	0.8	20
SPK	90607002		0.1	102.0		75	125		

Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	97.4		80	120		
MB		<0.001							
MB		<0.001							
MB		<0.001							
MS/MSD	90607001		0.4	110.0	107.0	75	125	2.8	20
SPK	90607001		0.1	106.0		75	125		
MS/MSD	90607002		0.4	97.3	101.0	75	125	3.8	20
MS/MSD	90607002		0.4	100.0	98.0	75	125	0.8	20
SPK	90607002		0.1	102.0		75	125		
SPK/SPKD	90610004		0.1	96.5	96.8	75	125	0.3	20

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	111.0	108.0	75	125	3.2	20

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Account #: 5109 **Client:** Great River Energy

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	90607001		0.1	108.0		75	125		
MS/MSD	90607002		0.4	107.0	109.0	75	125	1.4	20
MS/MSD	90607002		0.4	107.0	106.0	75	125	0.2	20
SPK	90607002		0.1	107.0		75	125		

Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	111.0	108.0	75	125	3.2	20
SPK	90607001		0.1	108.0		75	125		
MS/MSD	90607002		0.4	107.0	109.0	75	125	1.4	20
MS/MSD	90607002		0.4	107.0	106.0	75	125	0.2	20
SPK	90607002		0.1	107.0		75	125		
SPK/SPKD	90610004		0.1	96.7	97.8	75	125	1.1	20

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	113.0	114.0	75	125	0.8	20
SPK	90607001		0.1	114.0		75	125		
MS/MSD	90607002		0.4	99.1	99.7	75	125	0.6	20

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	114.0		80	120		

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Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	113.0	114.0	75	125	0.8	20
SPK	90607001		0.1	114.0		75	125		
MS/MSD	90607002		0.4	115.0	118.0	75	125	2.6	20
MS/MSD	90607002		0.4	99.1	99.7	75	125	0.6	20
SPK/SPKD	90610004		0.1	102.0	102.0	75	125	0.0	20

Beryllium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	108.0		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	90607001		0.4	109.0	108.0	75	125	1.6	20
SPK	90607001		0.1	94.8		75	125		
MS/MSD	90607002		0.4	103.0	104.0	75	125	1.0	20
MS/MSD	90607002		0.4	104.0	105.0	75	125	1.7	20
SPK	90607002		0.1	85.4		75	125		

Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	108.0		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	90607001		0.4	109.0	108.0	75	125	1.6	20

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Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	90607001		0.1	94.8		75	125		
MS/MSD	90607002		0.4	103.0	104.0	75	125	1.0	20
MS/MSD	90607002		0.4	104.0	105.0	75	125	1.7	20
SPK	90607002		0.1	85.4		75	125		
SPK/SPKD	90610004		0.1	98.2	98.1	75	125	0.1	20

Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	96.7		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	90607001		0.4	108.0	106.0	75	125	1.4	20
SPK	90607001		0.1	97.6		75	125		
MS/MSD	90607002		0.4	103.0	108.0	75	125	4.0	20
MS/MSD	90607002		0.4	105.0	104.0	75	125	0.7	20
SPK	90607002		0.1	97.5		75	125		

Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	96.7		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	90607001		0.4	108.0	106.0	75	125	1.4	20
SPK	90607001		0.1	97.6		75	125		
MS/MSD	90607002		0.4	103.0	108.0	75	125	4.0	20
MS/MSD	90607002		0.4	105.0	104.0	75	125	0.7	20
SPK	90607002		0.1	97.5		75	125		

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Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	90610004		0.1	92.8	92.2	75	125	0.7	20

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	110.0		80	120		
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	112.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	115.0	112.0	75	125	2.2	20
SPK	90607001		0.1	114.0		75	125		
MS/MSD	90607007		0.4	112.0	112.0	75	125	0.4	20
MS/MSD	90607002		0.4	108.0	110.0	75	125	2.0	20
SPK	90607002		0.1	112.0		75	125		

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	110.0		80	120		
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	112.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	115.0	112.0	75	125	2.2	20
SPK	90607001		0.1	114.0		75	125		
MS/MSD	90607007		0.4	112.0	112.0	75	125	0.4	20
MS/MSD	90607002		0.4	108.0	110.0	75	125	2.0	20
SPK	90607002		0.1	112.0		75	125		
SPK/SPKD	90610004		0.1	105.0	107.0	75	125	2.2	20

Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		

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Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	112.0	108.0	75	125	4.1	20
SPK	90607001		0.1	109.0		75	125		
MS/MSD	90607002		0.4	111.0	109.0	75	125	1.6	20
MS/MSD	90607007		0.4	106.0	107.0	75	125	0.9	20
SPK	90607002		0.1	109.0		75	125		

Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	109.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	112.0	108.0	75	125	4.1	20
SPK	90607001		0.1	109.0		75	125		
MS/MSD	90607002		0.4	111.0	109.0	75	125	1.6	20
MS/MSD	90607002		0.4	106.0	107.0	75	125	0.9	20
SPK	90607007		0.1	109.0		75	125		
SPK/SPKD	90610004		0.1	103.0	105.0	75	125	1.7	20

Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.0005							
MB		<0.0005							

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Lead				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0005							
MS/MSD	90607001		0.4	109.0	107.0	75	125	1.4	20
SPK	90607001		0.1	105.0		75	125		
MS/MSD	90607002		0.4	106.0	106.0	75	125	0.0	20
MS/MSD	90607002		0.4	106.0	105.0	75	125	1.4	20
SPK	90607002		0.1	103.0		75	125		

Lead, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	90607001		0.4	109.0	107.0	75	125	1.4	20
SPK	90607001		0.1	105.0		75	125		
MS/MSD	90607002		0.4	106.0	106.0	75	125	0.0	20
MS/MSD	90607002		0.4	106.0	105.0	75	125	1.4	20
SPK	90607002		0.1	103.0		75	125		
SPK/SPKD	90610004		0.1	99.0	102.0	75	125	2.8	20

Molybdenum				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	99.1		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	111.0	106.0	75	125	4.0	20
SPK	90607001		0.1	113.0		75	125		
MS/MSD	90607002		0.4	104.0	105.0	75	125	1.4	20

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Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	90607002		0.4	102.0	101.0	75	125	0.7	20
SPK	90607002		0.1	108.0		75	125		

Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	99.1		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	90607001		0.4	111.0	106.0	75	125	4.0	20
SPK	90607001		0.1	113.0		75	125		
MS/MSD	90607002		0.4	104.0	105.0	75	125	1.4	20
MS/MSD	90607002		0.4	102.0	101.0	75	125	0.7	20
SPK	90607002		0.1	108.0		75	125		
SPK/SPKD	90610004		0.1	99.3	100.0	75	125	1.1	20

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	101.0		80	120		
MB		<0.005							
MB		<0.005							
MB		<0.005							
MS/MSD	90607001		0.4	108.0	106.0	75	125	1.6	20
SPK	90607001		0.1	102.0		75	125		
MS/MSD	90607002		0.4	105.0	107.0	75	125	1.7	20
MS/MSD	90607002		0.4	107.0	107.0	75	125	2.1	20
SPK	90607002		0.1	96.0		75	125		

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Account #: 5109 **Client:** Great River Energy

Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	101.0		80	120		
MB		<0.005							
MB		<0.005							
MB		<0.005							
MS/MSD	90607001		0.4	108.0	106.0	75	125	1.6	20
SPK	90607001		0.1	102.0		75	125		
MS/MSD	90607003		0.4	105.0	107.0	75	125	1.7	20
MS/MSD	90607002		0.4	107.0	107.0	75	125	2.1	20
SPK	90607002		0.1	96.0		75	125		
SPK/SPKD	90610004		0.1	90.5	92.2	75	125	1.9	20

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	99.6		80	120		
LFB-MS			0.1	99.2		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	90607001		0.4	108.0	106.0	75	125	1.4	20
SPK	90607001		0.1	104.0		75	125		
MS/MSD	90607003		0.4	105.0	107.0	75	125	2.8	20
MS/MSD	90607002		0.4	106.0	108.0	75	125	3.3	20
SPK	90607002		0.1	103.0		75	125		

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	99.6		80	120		
LFB-MS			0.1	99.2		80	120		
MB		<0.0005							

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Account #: 5109 **Client:** Great River Energy

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0005							
MB		<0.0005							
MS/MSD	90607001		0.4	108.0	106.0	75	125	1.4	20
SPK	90607001		0.1	104.0		75	125		
MS/MSD	90607002		0.4	105.0	107.0	75	125	2.8	20
MS/MSD	90607002		0.4	106.0	108.0	75	125	3.3	20
SPK	90607002		0.1	103.0		75	125		
SPK/SPKD	90610004		0.1	97.0	100.0	75	125	3.4	20

Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	98.1		85	115		
LFB			0.002	100.0		85	115		
LRB		<0.0002							
MB		<0.0002							
MS/MSD	90446001		0.002	93.5	91.4	70	130	5.4	20
MS/MSD	90446002		0.002	85.2	90.8	70	130	5.7	20
MS/MSD	90610004		0.002	89.3	99.0	70	130	10.5	20
MS/MSD	90641001		0.002	95.0	87.4	70	130	11.1	20

Alkalinity, Total — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			501	93.1		80	120		
LFB			410	95.8		90	110		
LFB			410	92.7		90	110		
LFB			410	94.4		90	110		
LFB			410	94.9		90	110		
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MS/MSD	90589005		410	88.8	89.4	80	120	0.4	20
MS/MSD	90590002		410	61.1	69.6	80	120	4.6	20

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Account #: 5109 **Client:** Great River Energy

Alkalinity, Total Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	90610003		410	92.4	90.5	80	120	0.0	20

pH Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	100.5					
CRM-PH			6	100.3					
CRM-PH			6	100.0					
CRM-PH			6	100.0					
DUP	90590001							0.6	20
DUP	90590006							0.5	20
DUP	90610002							0.9	20

Fluoride Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			0.6	104.0		83.99	111.11		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	94.0		90	110		
LFB-F			0.5	100.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	90583001		0.5	100.0	100.0	80	120	0.0	20
MS/MSD-F	90607001		0.5	112.0	114.0	80	120	0.8	20
MS/MSD-F	90613003		0.5	114.0	104.0	80	120	3.6	20

Total Dissolved Solids Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	97.0		90.35	110.33		
CRM			736	100.0		90.35	110.33		
MB		<10							
MB		<10							
DUP	90598001							10.5	20

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Account #: 5109 **Client:** Great River Energy

Total Dissolved Solids Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
DUP	90610003							1.2	20
DUP	90774005							1.4	20
DUP	90774009							0.0	20

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Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 90607

Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS 2023 Wells
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: June 2025
Address:		Lakewood, CO 80228	Sampled By: Ethan Gress
Phone:			
Email:	CJohnston@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric						Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 300	24 Jun 25	1850	GW	X	X	X							10.35	2861	7.51	17.22	* App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radio Chem, Dissolved and Total for Remainder of Metals.) (See Attachments)
002	MW- 301	24 Jun 25	1653	GW	X	X	X							15.41	1386	7.73	246.21	
003	DUP 2023	24 Jun 25	1653	GW	X	X	X							15.41	1386	7.73	246.21	
004	MW- PB3	24 Jun 25	1522	GW	X	X	X							15.71	2439	7.32	8.27	

Comments: Wells installed in 2023 * App III, App IV + additional parameters per email from Erin Hunter @ WSP LS 25Jun25

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	24 Jun 25 2045	Log In Walk In #2	4.0 °C/TM 805 ROKYN		25 Jun 25 0800
2					

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	300
Sampling Personal:	Ethan Goss

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.00	ft
Depth to Top of Pump:		ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 5	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
24 June 25	1825	Start of Well Purge									
	1835	10.51	2877	7.36	0.06	-50.9	172.10	11.20	200.0	2.0	Clear
	1840	10.41	2872	7.39	0.00	-64.5	26.37	11.21	200.0	1.0	Clear
	1845	10.42	2868	7.41	0.00	-71.7	24.15	11.22	200.0	1.0	Clear
	1850	10.35	2861	7.41	0.00	-77.7	17.22	11.21	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
24 June 25	1850	10.35	2861	7.51	0.00	-77.7	17.22				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	301
Sampling Personal:	Ethan Goess

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	15.95	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	23.96	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	5	Sec.
Recover:	57	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
Dup 2023

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	1628	Start of Well Purge									
24Jun25	1638	16.25	1392	7.71	1.02	187.8	621.5	17.50	100.0	1.0	~~Clear~~ Slightly turbid
	1643	15.54	1382	7.72	0.29	141.2	227.6	18.20	100.0	0.5	~~Clear~~ ST
	1648	15.38	1387	7.73	0.28	131.6	199.0	18.60	100.0	0.5	~~Clear~~ ST
	1653	15.41	1386	7.73	0.19	123.4	246.2	19.00	100.0	0.5	~~Clear~~ ST

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
24Jun25	1653	15.41	1386	7.73	0.19	123.4	246.2				Slightly Turbid

Comments:

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Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	PB3
Sampling Personal:	Ethan Greese

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	26.41	ft
Depth to Top of Pump:		ft
Water Level After Sample:	28.00	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 57	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
24June25	1457	Start of Well Purge									
	1507	15.97	2452	7.32	1.51	171.8	0.76	27.60	100.0	1.0	Clear
	1512	15.85	2446	7.32	1.04	171.6	0.15	27.80	100.0	0.5	Clear
	1517	15.82	2446	7.32	0.93	163.9	3.00	27.93	100.0	0.5	Clear
	1522	15.74	2439	7.32	0.92	166.9	0.27		100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24June25	1522	15.74	2439	7.32	0.92	166.9	0.27				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 25 Jun 25 Time: 1153 Analyst: PW

Work Order #: 90607

Containers Supplied by MVTL: [X] Yes [ ] No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS 2023 Wells June 2025 (90608) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90608001 **Date Collected:** 06/24/2025 18:50 **Matrix:** Groundwater
Sample ID: MW-300 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:29	
Radium 228	See Attached			1		08/01/2025 13:29	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90608002 **Date Collected:** 06/24/2025 16:53 **Matrix:** Groundwater
Sample ID: MW-301 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:29	
Radium 228	See Attached			1		08/01/2025 13:29	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90608003 **Date Collected:** 06/24/2025 16:53 **Matrix:** Groundwater
Sample ID: DUP 2023 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:29	
Radium 228	See Attached			1		08/01/2025 13:29	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 90608004 **Date Collected:** 06/24/2025 15:22 **Matrix:** Groundwater
Sample ID: MW-PB3 **Date Received:** 06/24/2025 20:45 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2025 13:29	
Radium 228	See Attached			1		08/01/2025 13:29	

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ANALYTICAL SUMMARY REPORT

July 29, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25060963 Quote ID: C15480
Project Name: 90608

Energy Laboratories, Inc. Casper WY received the following 4 samples for Minnesota Valley Testing Laboratories on 6/27/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25060963-001	90608001, MW-300	06/24/25 18:50	06/27/25	Groundwater	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25060963-002	90608002, MW-301	06/24/25 16:53	06/27/25	Groundwater	Same As Above
C25060963-003	90608003, DUP 2023	06/24/25 16:53	06/27/25	Groundwater	Same As Above
C25060963-004	90608004, MW-PB3	06/24/25 15:22	06/27/25	Groundwater	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90608
Lab ID: C25060963-001
Client Sample ID: 90608001, MW-300

Report Date: 07/29/25
Collection Date: 06/24/25 18:50
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.04	pCi/L	U			E903.0	07/23/25 15:50 / dmr
Radium 226 precision (±)	0.09	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 226 MDC	0.1	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 228	4.0	pCi/L				RA-05	07/17/25 16:50 / trs
Radium 228 precision (±)	1.3	pCi/L				RA-05	07/17/25 16:50 / trs
Radium 228 MDC	0.9	pCi/L				RA-05	07/17/25 16:50 / trs
Radium 226 + Radium 228	4.0	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	1.3	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90608
Lab ID: C25060963-002
Client Sample ID: 90608002, MW-301

Report Date: 07/29/25
Collection Date: 06/24/25 16:53
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	2.2	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 226 precision (±)	0.6	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 226 MDC	0.5	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 228	1.5	pCi/L	U			RA-05	07/22/25 15:39 / trs
Radium 228 precision (±)	1.5	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 228 MDC	2.2	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 226 + Radium 228	3.3	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	1.6	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	2.3	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90608
Lab ID: C25060963-003
Client Sample ID: 90608003, DUP 2023

Report Date: 07/29/25
Collection Date: 06/24/25 16:53
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	1.3	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 226 precision (±)	0.5	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 226 MDC	0.5	pCi/L				E903.0	07/28/25 11:21 / dmr
Radium 228	1.7	pCi/L	U			RA-05	07/22/25 15:39 / trs
Radium 228 precision (±)	1.6	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 228 MDC	2.4	pCi/L				RA-05	07/22/25 15:39 / trs
Radium 226 + Radium 228	2.4	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	1.7	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	2.4	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 90608
Lab ID: C25060963-004
Client Sample ID: 90608004, MW-PB3

Report Date: 07/29/25
Collection Date: 06/24/25 15:22
DateReceived: 06/27/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.03	pCi/L	U			E903.0	07/23/25 15:50 / dmr
Radium 226 precision (±)	0.09	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	07/23/25 15:50 / dmr
Radium 228	0.6	pCi/L	U			RA-05	07/17/25 16:50 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/17/25 16:50 / trs
Radium 228 MDC	0.9	pCi/L				RA-05	07/17/25 16:50 / trs
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	07/29/25 13:32 / meh
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	07/29/25 13:32 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

Page 5 of 11

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25060963 **Report Date:** 07/29/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11739
Lab ID: LCS-RA226-11739	3	Laboratory Control Sample				Run: TENNELEC-4_250714D				07/23/25 15:50
Radium 226		10	pCi/L		100	70	130			
Radium 226 precision (±)		1.6	pCi/L							
Radium 226 MDC		0.18	pCi/L							
Lab ID: MB-RA226-11739	3	Method Blank				Run: TENNELEC-4_250714D				07/23/25 15:50
Radium 226		-0.03	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C25060962-004ADUP	3	Sample Duplicate				Run: TENNELEC-4_250714D				07/23/25 15:50
Radium 226		0.046	pCi/L					74	30	UR
Radium 226 precision (±)		0.14	pCi/L							
Radium 226 MDC		0.23	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.25.										
Method: E903.0										Batch: RA226-11742
Lab ID: LCS-RA226-11742	3	Laboratory Control Sample				Run: TENNELEC-4_250715I				07/28/25 11:21
Radium 226		11	pCi/L		111	70	130			
Radium 226 precision (±)		1.8	pCi/L							
Radium 226 MDC		0.24	pCi/L							
Lab ID: MB-RA226-11742	3	Method Blank				Run: TENNELEC-4_250715I				07/28/25 11:21
Radium 226		-0.2	pCi/L							U
Radium 226 precision (±)		0.2	pCi/L							
Radium 226 MDC		0.3	pCi/L							
Lab ID: C25060960-002AMS	3	Sample Matrix Spike				Run: TENNELEC-4_250715I				07/28/25 11:21
Radium 226		11	pCi/L		105	70	130			
Radium 226 precision (±)		1.7	pCi/L							
Radium 226 MDC		0.19	pCi/L							
Lab ID: C25060960-002AMSD	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_250715I				07/28/25 11:21
Radium 226		9.8	pCi/L		98	70	130	6.8	30	
Radium 226 precision (±)		1.6	pCi/L							
Radium 226 MDC		0.24	pCi/L							
- The RER result is 0.30.										

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Account #: 5109 **Client:** Great River Energy

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25060963 **Report Date:** 07/29/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7707
Lab ID: LCS-228-RA226-11739	3	Laboratory Control Sample				Run: TENNELEC-4_250714B				07/17/25 16:44
Radium 228		10	pCi/L		111	70	130			
Radium 228 precision (±)		2.7	pCi/L							
Radium 228 MDC		1.2	pCi/L							
Lab ID: MB-RA226-11739	3	Method Blank				Run: TENNELEC-4_250714B				07/17/25 16:44
Radium 228		0.6	pCi/L							U
Radium 228 precision (±)		0.7	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C25060962-004ADUP	3	Sample Duplicate				Run: TENNELEC-4_250714B				07/17/25 16:44
Radium 228		1.0	pCi/L					38	30	UR
Radium 228 precision (±)		0.73	pCi/L							
Radium 228 MDC		1.0	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.32.										
Method: RA-05										Batch: RA228-7709
Lab ID: LCS-228-RA226-11742	3	Laboratory Control Sample				Run: TENNELEC-4_250715G				07/22/25 15:39
Radium 228		9.6	pCi/L		105	70	130			
Radium 228 precision (±)		2.6	pCi/L							
Radium 228 MDC		0.98	pCi/L							
Lab ID: MB-RA226-11742	3	Method Blank				Run: TENNELEC-4_250715G				07/22/25 15:39
Radium 228		0.2	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C25060960-002AMS4	3	Sample Matrix Spike				Run: TENNELEC-4_250715G				07/22/25 15:39
Radium 228		8.8	pCi/L		93	70	130			
Radium 228 precision (±)		2.3	pCi/L							
Radium 228 MDC		0.95	pCi/L							
Lab ID: C25060960-002AMSD4	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_250715G				07/22/25 15:39
Radium 228		8.2	pCi/L		87	70	130	6.5	30	
Radium 228 precision (±)		2.2	pCi/L							
Radium 228 MDC		0.92	pCi/L							
- The RER result is 0.17.										

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Account #: 5109 **Client:** Great River Energy

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25060963

Login completed by: Lisa X. Quezada
Reviewed by: darcy
Reviewed Date: 7/9/2025
Date Received: 6/27/2025
Received by: LDS
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	22.2°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature blank temperature in shipping container 1 was 21.7°C, shipping container 2 was 22.2°C, shipping container 3 was 21.9°C, shipping container 4 was 22.0°C, shipping container 5 was 22.0°C. shipping container 6 was

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Work Order Receipt Checklist - Continued

Minnesota Valley Testing Laboratories C25060963

22.2°C and shipping container 7 was 21.6°C.

The chain of custody indicates to analyze for MS/MSD on sample 80950001. This samples is not indicated on the chain of custody and was not received. MS/MSD is not needed on this report per email from Tera on 06/27/25. LXQ 06/27/25

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Laboratory Certifications and Accreditations

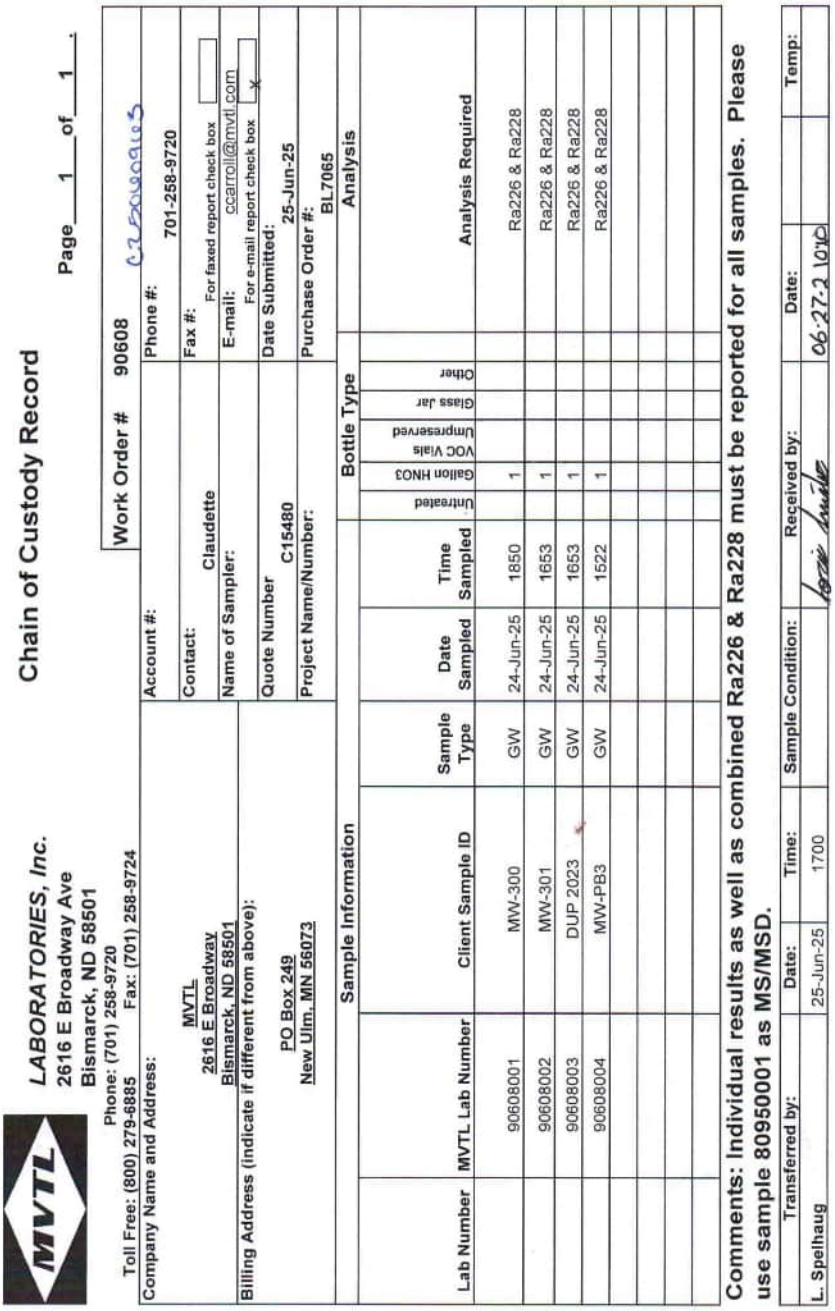
Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Toll Free: (800) 279-6885 Fax: (701) 258-9724

Chain of Custody Record

Page 1 of 1

Work Order # 90608

Company Name and Address: MVTL 2616 E Broadway Bismarck, ND 58501

Billing Address (indicate if different from above): PO Box 249 New Ulm, MN 56073

Account #:
Contact: Claudette
Name of Sampler:
Quote Number C15480
Project Name/Number:

Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box
Date Submitted: 25-Jun-25
Purchase Order #: BL7065

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Unpreserved	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	90608001	MW-300	GW	24-Jun-25	1850		1				Ra226 & Ra228
	90608002	MW-301	GW	24-Jun-25	1653		1				Ra226 & Ra228
	90608003	DUP 2023	GW	24-Jun-25	1653		1				Ra226 & Ra228
	90608004	MW-PB3	GW	24-Jun-25	1522		1				Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples. Please use sample 80950001 as MS/MSD.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
L. Spelhaug	25-Jun-25	1700			06-27-25 1010	

Page 11 of 11

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Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
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(701) 258-9720

Great River Energy
WO: 90608

Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS 2023 Wells
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: June 2025
Address:		Lakewood, CO 80228	Sampled By: Ethan Gress
Phone:			
Email:	CJohnston@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric										Analysis Required
001	MW- 300	24 June 25	1850	GW				X										Radium 226 and 228 Combined
002	MW- 301	24 June 25	1653	GW				X										
003	DUP 2023	24 June 25	1653	GW				X										
004	MW- PB3	24 June 25	1522	GW				X										

Comments:

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	24 June 25 2045	Log In Walk In #2	Ambient		25 Jun 25 0800
2					

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	300
Sampling Personal:	Ethan Geesy

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.00	ft
Depth to Top of Pump:		ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
24 June 25	1825	Start of Well Purge									
	1835	10.51	2872	7.36	0.06	-50.9	132.10	11.20	200.0	2.0	Clear
	1840	10.41	2872	7.39	0.00	-64.5	26.37	11.21	200.0	1.0	Clear
	1845	10.42	2868	7.41	0.00	-71.7	24.15	11.22	200.0	1.0	Clear
	1850	10.35	2861	7.41	0.00	-77.7	17.22	11.21	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24 June 25	1850	10.35	2861	7.51	0.00	-77.7	17.22				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	301
Sampling Personal:	Ethan Goress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	15.95	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	23.96	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	5	Sec.
Recover:	57	Sec.
PSI:	—	

Bottle List:
1 Liter Raw
1 Gal Nitric
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample? (YES) / NO
Duplicate Sample ID: Dup 2023

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
24Jun25	1626	Start of Well Purge									
	1638	16.25	1392	7.71	1.02	167.8	626.5	17.50	100.0	1.0	~~Clear~~ Slightly turbid
	1643	15.54	1382	7.72	0.29	141.2	227.8	18.20	100.0	0.5	~~Clear~~ ST
	1648	15.38	1387	7.73	0.28	131.6	199.0	18.60	100.0	0.5	~~Clear~~ ST
	1653	15.41	1386	7.73	0.19	123.4	246.2	19.00	100.0	0.5	~~Clear~~ ST

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
24Jun25	1653	15.41	1386	7.73	0.19	123.4	246.21				Slightly Turbid

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	June 2025
Sample ID:	PB3
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 60 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	26.41	ft
Depth to Top of Pump:		ft
Water Level After Sample:	28.00	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 57	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
	1457	Start of Well Purge									clear, slightly turbid, turbid
24 June 25	1507	15.92	2452	7.32	1.51	171.8	0.76	27.60	100.0	1.0	Clear
	1512	15.85	2441	7.32	1.04	171.8	0.15	27.80	100.0	~~0.5~~ 0.5	Clear
	1517	15.82	2446	7.32	0.93	163.9	3.00	27.93	100.0	~~0.5~~ 0.5	Clear
	1522	15.94	2439	7.32	0.92	166.9	0.27		100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24 June 25	1522	15.94	2439	7.32	0.92	166.9	0.27				Clear

Comments:

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APPENDIX B-5

Q3 2025

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Account #: 5109 **Client:** Great River Energy
Workorder: SS 2025 Wells Sept 2025 (102344) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102344001 **Date Collected:** 09/30/2025 07:40 **Matrix:** Groundwater
Sample ID: MW-201 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**3077**	umhos/cm	1	1		09/30/2025 07:40	
Method: 150.2							
pH - Field	**7.46**	units	0.01	1		09/30/2025 07:40	
Method: 170.1							
Temperature - Field C	**15.51**	degrees C		1		09/30/2025 07:40	
Method: USGS I-1750-85							
Total Dissolved Solids	**2250**	mg/L	10	1		10/02/2025 13:42	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102344002 **Date Collected:** 09/29/2025 15:43 **Matrix:** Groundwater
Sample ID: MW-8B **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1629**	umhos/cm	1	1		09/29/2025 15:43	
Method: 150.2							
pH - Field	**7.2**	units	0.01	1		09/29/2025 15:43	
Method: 170.1							
Temperature - Field C	**18.7**	degrees C		1		09/29/2025 15:43	
Method: USGS I-1750-85							
Total Dissolved Solids	**1040**	mg/L	10	1		10/02/2025 13:42	

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Account #: 5109 **Client:** Great River Energy

QC Results Summary WO #: 102344

Total Dissolved Solids Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	96.0		90.35	110.33		
CRM			736	99.0		90.35	110.33		
MB		<10							
MB		<10							
DUP	102331002							6.7	20
DUP	102347006							2.5	20
DUP	102560001							3.5	20

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 102344

Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS 2025 Wells
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: Sept 2025
Address:		Lakewood, CO 80228	Sampled By:
Phone:			
Email:	CJohnston@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric						Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 201	30Sept25	0740	GW	X									15.51	3077	7.46	027	TDS
002	MW- 8B	29Sept25	1543	GW	X									18.70	1629	7.20	090	

Comments:

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	30 Sept 25 1804	Log In Walk In #2	5.8 °C/TM 805 ROI Y/N		10ct25 0800
2					

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	201
Sampling Personal:	JMH

Weather Conditions: Temp: 60 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	10.56	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	10.95	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 62	Sec.
Recover: 58	Sec.
PSI:	

Bottle List:
1 Liter Raw — ~~1 Gal Nitric~~
~~500mL Nitric~~
500mL Nitric (filtered) TDS only

Duplicate Sample?
YES / NO
Duplicate Sample ID:

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
30 Sept 25	0715	Start of Well Purge									
	0720	16.30	3086	7.48	1.84	114.7	18.51	10.93	100.0	0.5	Clear
	0725	15.80	3072	7.46	1.09	106.4	86.53	10.94	100.0	0.5	Clear
	0730	15.60	3050	7.46	0.75	100.0	18.48	10.94	100.0	0.5	Clear
	0735	15.61	3071	7.46	0.48	93.1	2.66	10.95	100.0	0.5	Clear
	0740	15.51	3077	7.46	0.42	87.2	0.27	10.95	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
30 Sept 25	0740	15.51	3077	7.46	0.42	87.2	0.27				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	BB
Sampling Personal:	

Weather Conditions: Temp: 75 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	43.64	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	43.90	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	1"
Sampling Method:	Bladder	1"
Dedicated Equipment?	YES	NO

Control Settings:
Purge: 6 Sec.
Recover: 9 Sec.
PSI: —

Bottle List:
1 Liter Raw ~~1 Gal Nitric~~
~~500mL Nitric~~
~~500mL Nitric (filtered)~~ TDS on 4

Duplicate Sample? YES / NO
Duplicate Sample ID:

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
29 Sept 25	1510	Start of Well Purge									
	1523	18.63	1590	7.18	0.52	84.9	0.00	43.85	100.0	500.0	Clear
	1526	18.25	1631	7.18	0.26	73.0	0.00	43.87	100.0	500.0	Clear
	1533	18.09	1646	7.19	0.15	51.5	0.17	43.87	100.0	500.0	Clear
	1538	18.72	1633	7.19	0.11	49.7	0.00	43.88	100.0	500.0	Clear
	1543	18.70	1629	7.20	0.10	40.0	0.00	43.90	100.0	500.0	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
29 Sept 25	1543	18.70	1629	7.20	0.10	40.0	0.00				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 10 Oct 25 Time: 1100 Analyst: PN

Work Order #: 1023444

Containers Supplied by MVTL: ☒ Yes ☐ No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
2	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: SS 2025 Well Sept 2025 (102347) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347001 **Date Collected:** 09/30/2025 09:51 **Matrix:** Groundwater
Sample ID: MW-223 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**4224**	umhos/cm	1	1		09/30/2025 09:51	
Method: 150.2							
pH - Field	**9.95**	units	0.01	1		09/30/2025 09:51	
Method: 170.1							
Temperature - Field C	**17.71**	degrees C		1		09/30/2025 09:51	
Method: ASTM D516-16							
Sulfate	**788**	mg/L	25	5		10/07/2025 12:02	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/06/2025 09:40	10/06/2025 12:07	
Method: EPA 6010D							
Boron	**1.06**	mg/L	0.1	1	10/01/2025 16:53	10/13/2025 14:06	
Calcium	<5	mg/L	5	5	10/01/2025 16:53	10/02/2025 14:15	
Lithium	<0.02	mg/L	0.02	1	10/01/2025 16:53	10/16/2025 10:46	
Method: EPA 6020B							
Antimony	**0.0020**	mg/L	0.001	5	10/01/2025 16:53	10/09/2025 16:25	
Arsenic	**0.0124**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:25	
Barium	**0.0270**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:25	
Beryllium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:25	
Cadmium	**0.0011**	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:25	
Chromium	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:25	
Cobalt	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:25	
Lead	**0.0068**	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:25	
Molybdenum	**0.1519**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:25	
Selenium	<0.005	mg/L	0.005	5	10/01/2025 16:53	10/09/2025 16:25	
Thallium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:25	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347001 **Date Collected:** 09/30/2025 09:51 **Matrix:** Groundwater
Sample ID: MW-223 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**9.9**	units	0.1	1		10/01/2025 14:05	*
Method: SM4500-Cl-E 2021							
Chloride	**18.4**	mg/L	2.0	1		10/06/2025 12:12	
Method: SM4500-F-C-2021							
Fluoride	<0.1	mg/L	0.1	1		10/01/2025 14:05	
Method: USGS I-1750-85							
Total Dissolved Solids	**2840**	mg/L	10	1		10/02/2025 13:42	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347002 **Date Collected:** 09/30/2025 13:08 **Matrix:** Groundwater
Sample ID: MW-224 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2689**	umhos/cm	1	1		09/30/2025 13:08	
Method: 150.2							
pH - Field	**8.58**	units	0.01	1		09/30/2025 13:08	
Method: 170.1							
Temperature - Field C	**22.9**	degrees C		1		09/30/2025 13:08	
Method: ASTM D516-16							
Sulfate	**851**	mg/L	25	5		10/07/2025 11:56	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/06/2025 09:40	10/06/2025 12:07	
Method: EPA 6010D							
Boron	**2.04**	mg/L	0.1	1	10/01/2025 16:53	10/13/2025 14:07	
Calcium	**24.0**	mg/L	1	1	10/01/2025 16:53	10/02/2025 14:16	
Lithium	<0.02	mg/L	0.02	1	10/01/2025 16:53	10/16/2025 10:46	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	10/01/2025 16:53	10/09/2025 16:30	
Arsenic	**0.0081**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:30	
Barium	**0.0490**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:30	
Beryllium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:30	
Cadmium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:30	
Chromium	**0.0021**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:30	
Cobalt	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:30	
Lead	**0.0005**	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:30	
Molybdenum	**0.0858**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:30	
Selenium	<0.005	mg/L	0.005	5	10/01/2025 16:53	10/09/2025 16:30	
Thallium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:30	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347002 **Date Collected:** 09/30/2025 13:08 **Matrix:** Groundwater
Sample ID: MW-224 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.6**	units	0.1	1		10/01/2025 14:20	*
Method: SM4500-Cl-E 2021							
Chloride	**20.5**	mg/L	2.0	1		10/06/2025 12:13	
Method: SM4500-F-C-2021							
Fluoride	**0.56**	mg/L	0.1	1		10/01/2025 14:20	
Method: USGS I-1750-85							
Total Dissolved Solids	**1810**	mg/L	10	1		10/02/2025 13:42	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347003 **Date Collected:** 09/30/2025 12:06 **Matrix:** Groundwater
Sample ID: MW-225 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**4337**	umhos/cm	1	1		09/30/2025 12:06	
Method: 150.2							
pH - Field	**8.75**	units	0.01	1		09/30/2025 12:06	
Method: 170.1							
Temperature - Field C	**21.47**	degrees C		1		09/30/2025 12:06	
Method: ASTM D516-16							
Sulfate	**1990**	mg/L	100	20		10/07/2025 12:08	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/06/2025 09:40	10/06/2025 12:07	
Method: EPA 6010D							
Boron	**2.42**	mg/L	0.1	1	10/01/2025 16:53	10/13/2025 14:08	
Calcium	**81.7**	mg/L	5	5	10/01/2025 16:53	10/02/2025 14:18	
Lithium	<0.02	mg/L	0.02	1	10/01/2025 16:53	10/16/2025 10:47	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	10/01/2025 16:53	10/09/2025 16:35	
Arsenic	**0.0091**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:35	
Barium	**0.1406**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:35	
Beryllium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:35	
Cadmium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:35	
Chromium	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:35	
Cobalt	**0.0032**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:35	
Lead	**0.0008**	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:35	
Molybdenum	**0.2122**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:35	
Selenium	<0.005	mg/L	0.005	5	10/01/2025 16:53	10/09/2025 16:35	
Thallium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:35	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347003 **Date Collected:** 09/30/2025 12:06 **Matrix:** Groundwater
Sample ID: MW-225 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.4**	units	0.1	1		10/01/2025 14:33	*
Method: SM4500-Cl-E 2021							
Chloride	**25.0**	mg/L	2.0	1		10/06/2025 12:21	
Method: SM4500-F-C-2021							
Fluoride	**1.09**	mg/L	0.1	1		10/01/2025 14:33	
Method: USGS I-1750-85							
Total Dissolved Solids	**3170**	mg/L	10	1		10/02/2025 13:42	

Sample Comments

Total and dissolved manganese results have been rechecked, resulting in minimal change. CC 29Oct25

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347004 **Date Collected:** 09/29/2025 14:07 **Matrix:** Groundwater
Sample ID: MW-226 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**3188**	umhos/cm	1	1		09/29/2025 14:07	
Method: 150.2							
pH - Field	**6.8**	units	0.01	1		09/29/2025 14:07	
Method: 170.1							
Temperature - Field C	**19.19**	degrees C		1		09/29/2025 14:07	
Method: ASTM D516-16							
Sulfate	**1080**	mg/L	50	10		10/07/2025 12:09	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/06/2025 09:40	10/06/2025 12:07	
Method: EPA 6010D							
Boron	**3.55**	mg/L	0.1	1	10/01/2025 16:53	10/13/2025 14:08	
Calcium	**210**	mg/L	1	1	10/01/2025 16:53	10/02/2025 14:19	
Lithium	**0.0543**	mg/L	0.02	1	10/01/2025 16:53	10/16/2025 10:47	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	10/01/2025 16:53	10/09/2025 16:40	
Arsenic	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:40	
Barium	**0.0746**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:40	
Beryllium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:40	
Cadmium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:40	
Chromium	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:40	
Cobalt	**0.0062**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:40	
Lead	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:40	
Molybdenum	**0.0244**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:40	
Selenium	<0.005	mg/L	0.005	5	10/01/2025 16:53	10/09/2025 16:40	
Thallium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:40	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347004 **Date Collected:** 09/29/2025 14:07 **Matrix:** Groundwater
Sample ID: MW-226 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.5**	units	0.1	1		10/01/2025 16:51	*
Method: SM4500-Cl-E 2021							
Chloride	**14.1**	mg/L	2.0	1		10/06/2025 12:22	
Method: SM4500-F-C-2021							
Fluoride	**0.56**	mg/L	0.1	1		10/01/2025 16:51	
Method: USGS I-1750-85							
Total Dissolved Solids	**2390**	mg/L	10	1		10/02/2025 13:42	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347005 **Date Collected:** 09/30/2025 08:39 **Matrix:** Groundwater
Sample ID: MW-227 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2897**	umhos/cm	1	1		09/30/2025 08:39	
Method: 150.2							
pH - Field	**7.46**	units	0.01	1		09/30/2025 08:39	
Method: 170.1							
Temperature - Field C	**15.89**	degrees C		1		09/30/2025 08:39	
Method: ASTM D516-16							
Sulfate	**485**	mg/L	50	10		10/07/2025 12:10	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/06/2025 09:40	10/06/2025 12:07	
Method: EPA 6010D							
Boron	**1.48**	mg/L	0.1	1	10/01/2025 16:53	10/13/2025 14:09	
Calcium	**126**	mg/L	1	1	10/01/2025 16:53	10/02/2025 14:20	
Lithium	**0.0545**	mg/L	0.02	1	10/01/2025 16:53	10/16/2025 10:48	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	10/01/2025 16:53	10/09/2025 16:45	
Arsenic	**0.0030**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:45	
Barium	**0.0532**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:45	
Beryllium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:45	
Cadmium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:45	
Chromium	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:45	
Cobalt	**0.0025**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:45	
Lead	**0.0006**	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:45	
Molybdenum	**0.0292**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:45	
Selenium	<0.005	mg/L	0.005	5	10/01/2025 16:53	10/09/2025 16:45	
Thallium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:45	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347005 **Date Collected:** 09/30/2025 08:39 **Matrix:** Groundwater
Sample ID: MW-227 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		10/01/2025 17:02	*
Method: SM4500-Cl-E 2021							
Chloride	**17.2**	mg/L	2.0	1		10/06/2025 12:23	
Method: SM4500-F-C-2021							
Fluoride	**0.28**	mg/L	0.1	1		10/01/2025 17:02	
Method: USGS I-1750-85							
Total Dissolved Solids	**1420**	mg/L	10	1		10/02/2025 13:42	

Sample Comments

Dissolved metals results are higher than total metals results for several metals. It was determined that the dissolved metals bottle varies significantly in color from the remainder of bottles for MW-227 which may indicate that the well changed as sampling occured. Client was contacted prior to release of results. CC 29Oct25

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347006 **Date Collected:** 09/30/2025 11:30 **Matrix:** Groundwater
Sample ID: MW-228 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**3181**	umhos/cm	1	1		09/30/2025 11:30	
Method: 150.2							
pH - Field	**9.42**	units	0.01	1		09/30/2025 11:30	
Method: 170.1							
Temperature - Field C	**19.17**	degrees C		1		09/30/2025 11:30	
Method: ASTM D516-16							
Sulfate	**476**	mg/L	50	10		10/07/2025 12:11	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/06/2025 09:40	10/06/2025 12:07	
Method: EPA 6010D							
Boron	**0.48**	mg/L	0.1	1	10/01/2025 16:53	10/13/2025 14:10	
Calcium	**5.01**	mg/L	1	1	10/01/2025 16:53	10/02/2025 14:22	
Lithium	<0.02	mg/L	0.02	1	10/01/2025 16:53	10/16/2025 10:48	
Method: EPA 6020B							
Antimony	**0.0024**	mg/L	0.001	5	10/01/2025 16:53	10/09/2025 16:50	
Arsenic	**0.0236**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:50	
Barium	**0.0731**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:50	
Beryllium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:50	
Cadmium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:50	
Chromium	**0.0058**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:50	
Cobalt	**0.0038**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:50	
Lead	**0.0026**	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:50	
Molybdenum	**0.0434**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 16:50	
Selenium	**0.0055**	mg/L	0.005	5	10/01/2025 16:53	10/09/2025 16:50	
Thallium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 16:50	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347006 **Date Collected:** 09/30/2025 11:30 **Matrix:** Groundwater
Sample ID: MW-228 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**9.6**	units	0.1	1		10/01/2025 17:13	*
Method: SM4500-Cl-E 2021							
Chloride	**16.5**	mg/L	2.0	1		10/06/2025 12:24	
Method: SM4500-F-C-2021							
Fluoride	**0.31**	mg/L	0.1	1		10/01/2025 17:13	
Method: USGS I-1750-85							
Total Dissolved Solids	**1990**	mg/L	10	1		10/02/2025 13:42	

Sample Comments

Total and dissolved results have been rechecked, resulting in minimal change. CC 29Oct25

Analysis Results Comments

Alkalinity, Total

Matrix spike and/or matrix spike duplicate recovery was low; the associated laboratory control sample recovery was acceptable.

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347007 **Date Collected:** 09/30/2025 16:15 **Matrix:** Groundwater
Sample ID: MW-229 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**5897**	umhos/cm	1	1		09/30/2025 16:15	
Method: 150.2							
pH - Field	**8.88**	units	0.01	1		09/30/2025 16:15	
Method: 170.1							
Temperature - Field C	**24.37**	degrees C		1		09/30/2025 16:15	
Method: ASTM D516-16							
Sulfate	**2780**	mg/L	200	40		10/07/2025 12:12	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/06/2025 09:40	10/06/2025 12:07	
Method: EPA 6010D							
Boron	**1.53**	mg/L	0.5	5	10/01/2025 16:53	10/13/2025 14:12	
Calcium	**74.8**	mg/L	5	5	10/01/2025 16:53	10/02/2025 14:34	
Lithium	<0.1	mg/L	0.1	5	10/01/2025 16:53	10/16/2025 10:50	
Method: EPA 6020B							
Antimony	**0.0017**	mg/L	0.001	5	10/01/2025 16:53	10/09/2025 17:10	
Arsenic	**0.0324**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:10	
Barium	**0.0410**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:10	
Beryllium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 17:10	
Cadmium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 17:10	
Chromium	**0.0021**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:10	
Cobalt	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:10	
Lead	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 17:10	
Molybdenum	**0.3057**	mg/L	0.004	10	10/01/2025 16:53	10/10/2025 09:58	
Selenium	<0.005	mg/L	0.005	5	10/01/2025 16:53	10/09/2025 17:10	
Thallium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 17:10	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347007 **Date Collected:** 09/30/2025 16:15 **Matrix:** Groundwater
Sample ID: MW-229 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.5**	units	0.1	1		10/01/2025 17:27	*
Method: SM4500-Cl-E 2021							
Chloride	**20.9**	mg/L	2.0	1		10/06/2025 12:26	
Method: SM4500-F-C-2021							
Fluoride	**1.02**	mg/L	0.1	1		10/01/2025 17:27	
Method: USGS I-1750-85							
Total Dissolved Solids	**4010**	mg/L	10	1		10/02/2025 13:42	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347008 **Date Collected:** 09/30/2025 08:35 **Matrix:** Groundwater
Sample ID: MW-230 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1492**	umhos/cm	1	1		09/30/2025 08:35	
Method: 150.2							
pH - Field	**7.56**	units	0.01	1		09/30/2025 08:35	
Method: 170.1							
Temperature - Field C	**13.05**	degrees C		1		09/30/2025 08:35	
Method: ASTM D516-16							
Sulfate	**251**	mg/L	25	5		10/07/2025 12:13	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/06/2025 09:40	10/06/2025 12:07	
Method: EPA 6010D							
Boron	**0.34**	mg/L	0.1	1	10/01/2025 16:53	10/13/2025 14:13	
Calcium	**60.7**	mg/L	1	1	10/01/2025 16:53	10/02/2025 14:35	
Lithium	**0.0461**	mg/L	0.02	1	10/01/2025 16:53	10/16/2025 10:51	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	10/01/2025 16:53	10/09/2025 17:15	
Arsenic	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:15	
Barium	**0.0817**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:15	
Beryllium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 17:15	
Cadmium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 17:15	
Chromium	**0.0027**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:15	
Cobalt	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:15	
Lead	**0.0012**	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 17:15	
Molybdenum	**0.0094**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:15	
Selenium	<0.005	mg/L	0.005	5	10/01/2025 16:53	10/09/2025 17:15	
Thallium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 17:15	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347008 **Date Collected:** 09/30/2025 08:35 **Matrix:** Groundwater
Sample ID: MW-230 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		10/01/2025 17:39	*
Method: SM4500-Cl-E 2021							
Chloride	**19.8**	mg/L	2.0	1		10/06/2025 12:27	
Method: SM4500-F-C-2021							
Fluoride	**0.42**	mg/L	0.1	1		10/01/2025 17:39	
Method: USGS I-1750-85							
Total Dissolved Solids	**976**	mg/L	10	1		10/02/2025 13:42	

Task Comments

4908261 - METb/4044

Spike recovery for sodium was low; the relative percent difference between the spike recovery and the spike duplicate recovery was acceptable.

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347009 **Date Collected:** 09/30/2025 09:51 **Matrix:** Groundwater
Sample ID: DUP-2025-1 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**4224**	umhos/cm	1	1		09/30/2025 09:51	
Method: 150.2							
pH - Field	**9.95**	units	0.01	1		09/30/2025 09:51	
Method: 170.1							
Temperature - Field C	**17.71**	degrees C		1		09/30/2025 09:51	
Method: ASTM D516-16							
Sulfate	**779**	mg/L	25	5		10/07/2025 12:21	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/06/2025 09:40	10/06/2025 12:07	
Method: EPA 6010D							
Boron	**1.05**	mg/L	0.1	1	10/01/2025 16:53	10/13/2025 14:13	
Calcium	<5	mg/L	5	5	10/01/2025 16:53	10/02/2025 14:37	
Lithium	<0.02	mg/L	0.02	1	10/01/2025 16:53	10/16/2025 10:52	
Method: EPA 6020B							
Antimony	**0.0019**	mg/L	0.001	5	10/01/2025 16:53	10/09/2025 17:20	
Arsenic	**0.0119**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:20	
Barium	**0.0284**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:20	
Beryllium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 17:20	
Cadmium	**0.0012**	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 17:20	
Chromium	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:20	
Cobalt	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:20	
Lead	**0.0065**	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 17:20	
Molybdenum	**0.1480**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:20	
Selenium	<0.005	mg/L	0.005	5	10/01/2025 16:53	10/09/2025 17:20	
Thallium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 17:20	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347009 **Date Collected:** 09/30/2025 09:51 **Matrix:** Groundwater
Sample ID: DUP-2025-1 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**9.9**	units	0.1	1		10/01/2025 17:50	*
Method: SM4500-Cl-E 2021							
Chloride	**18.5**	mg/L	2.0	1		10/06/2025 12:28	
Method: SM4500-F-C-2021							
Fluoride	<0.1	mg/L	0.1	1		10/01/2025 17:50	
Method: USGS I-1750-85							
Total Dissolved Solids	**2820**	mg/L	10	1		10/02/2025 13:42	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347010 **Date Collected:** 09/30/2025 15:10 **Matrix:** Groundwater
Sample ID: MW-206 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2621**	umhos/cm	1	1		09/30/2025 15:10	
Method: 150.2							
pH - Field	**7.44**	units	0.01	1		09/30/2025 15:10	
Method: 170.1							
Temperature - Field C	**20.88**	degrees C		1		09/30/2025 15:10	
Method: ASTM D516-16							
Sulfate	**579**	mg/L	25	5		10/07/2025 12:16	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/06/2025 09:40	10/06/2025 12:07	
Method: EPA 6010D							
Boron	**0.74**	mg/L	0.1	1	10/01/2025 16:53	10/13/2025 14:16	
Calcium	**104**	mg/L	1	1	10/01/2025 16:53	10/02/2025 14:40	
Lithium	**0.0349**	mg/L	0.02	1	10/01/2025 16:53	10/16/2025 10:54	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	10/01/2025 16:53	10/09/2025 17:44	
Arsenic	**0.0079**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:44	
Barium	**0.1215**	mg/L	0.002	5	10/01/2025 16:53	10/10/2025 10:02	
Beryllium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 17:44	
Cadmium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 17:44	
Chromium	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:44	
Cobalt	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:44	
Lead	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 17:44	
Molybdenum	**0.0394**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 17:44	
Selenium	<0.005	mg/L	0.005	5	10/01/2025 16:53	10/09/2025 17:44	
Thallium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 17:44	

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Additional data collected from non-program locations - not required by program.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347010 **Date Collected:** 09/30/2025 15:10 **Matrix:** Groundwater
Sample ID: MW-206 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		10/01/2025 18:05	*
Method: SM4500-Cl-E 2021							
Chloride	**63.1**	mg/L	2.0	1		10/06/2025 12:29	
Method: SM4500-F-C-2021							
Fluoride	**0.25**	mg/L	0.1	1		10/01/2025 18:05	
Method: USGS I-1750-85							
Total Dissolved Solids	**1700**	mg/L	10	1		10/02/2025 13:42	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347011 **Date Collected:** 09/29/2025 08:46 **Matrix:** Groundwater
Sample ID: MW-207 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2160**	umhos/cm	1	1		09/29/2025 08:46	
Method: 150.2							
pH - Field	**7.11**	units	0.01	1		09/29/2025 08:46	
Method: 170.1							
Temperature - Field C	**15.38**	degrees C		1		09/29/2025 08:46	
Method: ASTM D516-16							
Sulfate	**526**	mg/L	25	5		10/07/2025 12:17	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/06/2025 09:40	10/06/2025 12:07	
Method: EPA 6010D							
Boron	**0.12**	mg/L	0.1	1	10/01/2025 16:53	10/13/2025 14:14	
Calcium	**129**	mg/L	1	1	10/01/2025 16:53	10/02/2025 14:45	
Lithium	**0.0394**	mg/L	0.02	1	10/01/2025 16:53	10/16/2025 10:52	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	10/01/2025 16:53	10/09/2025 18:04	
Arsenic	**0.0065**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:04	
Barium	**0.1836**	mg/L	0.002	5	10/01/2025 16:53	10/10/2025 10:17	
Beryllium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:04	
Cadmium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:04	
Chromium	**0.0071**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:04	
Cobalt	**0.0062**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:04	
Lead	**0.0031**	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:04	
Molybdenum	**0.0235**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:04	
Selenium	<0.005	mg/L	0.005	5	10/01/2025 16:53	10/09/2025 18:04	
Thallium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:04	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347011 **Date Collected:** 09/29/2025 08:46 **Matrix:** Groundwater
Sample ID: MW-207 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.6**	units	0.1	1		10/01/2025 18:16	*
Method: SM4500-Cl-E 2021							
Chloride	**34.7**	mg/L	2.0	1		10/06/2025 12:30	
Method: SM4500-F-C-2021							
Fluoride	**0.35**	mg/L	0.1	1		10/01/2025 18:16	
Method: USGS I-1750-85							
Total Dissolved Solids	**1540**	mg/L	10	1		10/02/2025 13:42	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347012 **Date Collected:** 09/29/2025 11:17 **Matrix:** Groundwater
Sample ID: MW-208 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1304**	umhos/cm	1	1		09/29/2025 11:17	
Method: 150.2							
pH - Field	**8.4**	units	0.01	1		09/29/2025 11:17	
Method: 170.1							
Temperature - Field C	**17.31**	degrees C		1		09/29/2025 11:17	
Method: ASTM D516-16							
Sulfate	**415**	mg/L	25	5		10/07/2025 12:18	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/06/2025 09:40	10/06/2025 12:07	
Method: EPA 6010D							
Boron	**1.27**	mg/L	0.1	1	10/01/2025 16:53	10/13/2025 14:19	
Calcium	**47.3**	mg/L	1	1	10/01/2025 16:53	10/02/2025 14:46	
Lithium	**0.0337**	mg/L	0.02	1	10/01/2025 16:53	10/16/2025 10:56	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	10/01/2025 16:53	10/09/2025 18:09	
Arsenic	**0.0257**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:09	
Barium	**0.0681**	mg/L	0.002	5	10/01/2025 16:53	10/10/2025 10:21	
Beryllium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:09	
Cadmium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:09	
Chromium	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:09	
Cobalt	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:09	
Lead	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:09	
Molybdenum	**0.0346**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:09	
Selenium	**0.0125**	mg/L	0.005	5	10/01/2025 16:53	10/09/2025 18:09	
Thallium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:09	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347012 **Date Collected:** 09/29/2025 11:17 **Matrix:** Groundwater
Sample ID: MW-208 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.4**	units	0.1	1		10/01/2025 18:28	*
Method: SM4500-Cl-E 2021							
Chloride	**19.1**	mg/L	2.0	1		10/06/2025 12:32	
Method: SM4500-F-C-2021							
Fluoride	**0.48**	mg/L	0.1	1		10/01/2025 18:28	
Method: USGS I-1750-85							
Total Dissolved Solids	**920**	mg/L	10	1		10/02/2025 13:42	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347013 **Date Collected:** 09/29/2025 13:07 **Matrix:** Groundwater
Sample ID: MW-PB1R **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1670**	umhos/cm	1	1		09/29/2025 13:07	
Method: 150.2							
pH - Field	**7.3**	units	0.01	1		09/29/2025 13:07	
Method: 170.1							
Temperature - Field C	**14.91**	degrees C		1		09/29/2025 13:07	
Method: ASTM D516-16							
Sulfate	**454**	mg/L	25	5		10/07/2025 12:40	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/06/2025 09:40	10/06/2025 12:07	
Method: EPA 6010D							
Boron	**1.25**	mg/L	0.1	1	10/01/2025 16:53	10/13/2025 14:19	
Calcium	**91.9**	mg/L	1	1	10/01/2025 16:53	10/02/2025 14:47	
Lithium	**0.0324**	mg/L	0.02	1	10/01/2025 16:53	10/16/2025 10:56	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	10/01/2025 16:53	10/09/2025 18:14	
Arsenic	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:14	
Barium	**0.0525**	mg/L	0.002	5	10/01/2025 16:53	10/10/2025 10:24	
Beryllium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:14	
Cadmium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:14	
Chromium	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:14	
Cobalt	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:14	
Lead	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:14	
Molybdenum	**0.0205**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:14	
Selenium	<0.005	mg/L	0.005	5	10/01/2025 16:53	10/09/2025 18:14	
Thallium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:14	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347013 **Date Collected:** 09/29/2025 13:07 **Matrix:** Groundwater
Sample ID: MW-PB1R **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		10/01/2025 18:40	*
Method: SM4500-Cl-E 2021							
Chloride	**17.7**	mg/L	2.0	1		10/06/2025 13:50	
Method: SM4500-F-C-2021							
Fluoride	**0.51**	mg/L	0.1	1		10/01/2025 18:40	
Method: USGS I-1750-85							
Total Dissolved Solids	**1160**	mg/L	10	1		10/02/2025 13:42	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347014 **Date Collected:** 09/29/2025 10:03 **Matrix:** Groundwater
Sample ID: MW-302 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1403**	umhos/cm	1	1		09/29/2025 10:03	
Method: 150.2							
pH - Field	**7.74**	units	0.01	1		09/29/2025 10:03	
Method: 170.1							
Temperature - Field C	**15.11**	degrees C		1		09/29/2025 10:03	
Method: ASTM D516-16							
Sulfate	**470**	mg/L	25	5		10/07/2025 12:28	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/06/2025 09:40	10/06/2025 12:07	
Method: EPA 6010D							
Boron	**1.30**	mg/L	0.1	1	10/01/2025 16:53	10/13/2025 14:20	
Calcium	**72.9**	mg/L	1	1	10/01/2025 16:53	10/02/2025 14:48	
Lithium	**0.0280**	mg/L	0.02	1	10/01/2025 16:53	10/16/2025 10:57	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	10/01/2025 16:53	10/09/2025 18:19	
Arsenic	**0.0034**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:19	
Barium	**0.1501**	mg/L	0.002	5	10/01/2025 16:53	10/10/2025 10:28	
Beryllium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:19	
Cadmium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:19	
Chromium	**0.0041**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:19	
Cobalt	**0.0029**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:19	
Lead	**0.0021**	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:19	
Molybdenum	**0.0469**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:19	
Selenium	<0.005	mg/L	0.005	5	10/01/2025 16:53	10/09/2025 18:19	
Thallium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:19	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347014 **Date Collected:** 09/29/2025 10:03 **Matrix:** Groundwater
Sample ID: MW-302 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.1**	units	0.1	1		10/01/2025 20:29	*
Method: SM4500-Cl-E 2021							
Chloride	**14.6**	mg/L	2.0	1		10/06/2025 13:51	
Method: SM4500-F-C-2021							
Fluoride	**0.64**	mg/L	0.1	1		10/01/2025 20:29	
Method: USGS I-1750-85							
Total Dissolved Solids	**975**	mg/L	10	1		10/02/2025 13:42	

Analysis Results Comments

Alkalinity, Total

Matrix spike and/or matrix spike duplicate recovery was low; the associated laboratory control sample recovery was acceptable.

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347015 **Date Collected:** 09/29/2025 11:17 **Matrix:** Groundwater
Sample ID: DUP-2025-2 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1304**	umhos/cm	1	1		09/29/2025 11:17	
Method: 150.2							
pH - Field	**8.4**	units	0.01	1		09/29/2025 11:17	
Method: 170.1							
Temperature - Field C	**17.31**	degrees C		1		09/29/2025 11:17	
Method: ASTM D516-16							
Sulfate	**422**	mg/L	25	5		10/07/2025 12:29	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/06/2025 09:40	10/06/2025 12:07	
Method: EPA 6010D							
Boron	**1.22**	mg/L	0.1	1	10/01/2025 16:53	10/13/2025 14:21	
Calcium	**47.2**	mg/L	1	1	10/01/2025 16:53	10/02/2025 14:49	
Lithium	**0.0332**	mg/L	0.02	1	10/01/2025 16:53	10/16/2025 10:57	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	10/01/2025 16:53	10/09/2025 18:24	
Arsenic	**0.0250**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:24	
Barium	**0.0676**	mg/L	0.002	5	10/01/2025 16:53	10/10/2025 10:32	
Beryllium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:24	
Cadmium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:24	
Chromium	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:24	
Cobalt	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:24	
Lead	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:24	
Molybdenum	**0.0335**	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:24	
Selenium	**0.0116**	mg/L	0.005	5	10/01/2025 16:53	10/23/2025 15:20	
Thallium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347015 **Date Collected:** 09/29/2025 11:17 **Matrix:** Groundwater
Sample ID: DUP-2025-2 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.4**	units	0.1	1		10/01/2025 20:40	*
Method: SM4500-Cl-E 2021							
Chloride	**19.1**	mg/L	2.0	1		10/06/2025 13:53	
Method: SM4500-F-C-2021							
Fluoride	**0.46**	mg/L	0.1	1		10/01/2025 20:40	
Method: USGS I-1750-85							
Total Dissolved Solids	**919**	mg/L	10	1		10/02/2025 13:42	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347016 **Date Collected:** 09/30/2025 11:08 **Matrix:** Groundwater
Sample ID: FB-2025 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	<5	mg/L	5	1		10/07/2025 12:30	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/06/2025 09:40	10/06/2025 12:07	
Method: EPA 6010D							
Boron	<0.1	mg/L	0.1	1	10/01/2025 16:53	10/13/2025 14:22	
Calcium	<1	mg/L	1	1	10/01/2025 16:53	10/02/2025 14:50	
Lithium	<0.02	mg/L	0.02	1	10/01/2025 16:53	10/16/2025 10:58	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	10/01/2025 16:53	10/09/2025 18:29	
Arsenic	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:29	
Barium	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:29	
Beryllium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:29	
Cadmium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:29	
Chromium	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:29	
Cobalt	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:29	
Lead	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:29	
Molybdenum	<0.002	mg/L	0.002	5	10/01/2025 16:53	10/09/2025 18:29	
Selenium	<0.005	mg/L	0.005	5	10/01/2025 16:53	10/09/2025 18:29	
Thallium	<0.0005	mg/L	0.0005	5	10/01/2025 16:53	10/09/2025 18:29	
Method: SM4500 H+ B-2021							
pH	**7.0**	units	0.1	1		10/01/2025 20:52	*
Method: SM4500-Cl-E 2021							
Chloride	<2.0	mg/L	2.0	1		10/06/2025 13:54	
Method: SM4500-F-C-2021							
Fluoride	<0.1	mg/L	0.1	1		10/01/2025 20:52	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102347016 **Date Collected:** 09/30/2025 11:08 **Matrix:** Groundwater
Sample ID: FB-2025 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.6 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: USGS I-1750-85							
Total Dissolved Solids	<10	mg/L	10	1		10/02/2025 13:42	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 102347

Sulfate — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			100	106.0		85	115		
LFB			100	103.0		85	115		
LFB			100	106.0		85	115		
LFB			100	104.0		85	115		
LFB			100	101.0		85	115		
LFB			100	105.0		85	115		
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MS/MSD	102319002		100	97.5	98.6	85	115	0.9	20
MS/MSD	102319012		1000	99.5	98.3	85	115	1.3	20
MS/MSD	102333001		100	106.2	107.0	85	115	0.9	20
MS/MSD	102347006		1000	91.6	92.0	85	115	0.7	20
MS/MSD	102461001		100	103.2	110.7	85	115	7.5	20

Chloride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			30	99.5		90	110		
LFB			30	99.0		90	110		
LFB			30	99.7		90	110		
LFB			30	99.5		90	110		
LFB			30	99.5		90	110		
LFB			30	100.0		90	110		
LFB			30	100.0		90	110		
LFB			30	100.0		90	110		
LFB			30	100.0		90	110		
MB		<2.0							

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Chloride				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MS/MSD	102319003		30	96.5	99.9	80	120	1.8	20
MS/MSD	102347002		30	97.8	97.5	80	120	0.2	20
MS/MSD	102347006		30	97.6	102.3	80	120	3.0	20
MS/MSD	102682004		30	96.1	101.9	80	120	4.5	20

Aluminum				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	96.0		85	115		
LFB-OE			0.4	97.1		85	115		
MB		<0.1							
MB		<0.1							
PDS/PDSD	101926002		2	94.1	91.6	75	125	2.1	20
PDS/PDSD	101926009		2	87.6	87.2	75	125	0.3	20
PDS/PDSD	101995018		2	103.0	105.0	75	125	1.8	20
PDS/PDSD	102347006		4	97.7	101.0	75	125	1.5	20
PDS/PDSD	102347010		0.4	84.0	83.3	75	125	0.4	20
MS/MSD	102366005		0.4	120.0	117.0	70	130	0.1	20

Aluminum, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
FB		<0.1							
FB		<0.1							
LFB-OE			0.4	96.0		85	115		
LFB-OE			0.4	97.1		85	115		

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Aluminum, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.1							
MB		<0.1							
PDS/PDSD	101922005		2	91.3	105.0	75	125	1.0	20
SPK/SPKD	102340003		0.4	91.0	90.5	75	125	0.2	20
SPK/SPKD	103142003		0.4	91.7	81.4	75	125	4.5	20
SPK/SPKD	103571003		0.4	93.9	92.4	75	125	0.7	20

Boron				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	98.3		85	115		
LFB-OE			0.4	98.1		85	115		
MB		<0.1							
MB		<0.1							
MS/MSD	102347006		0.4	96.0	97.3	70	130	0.6	20
MS/MSD	102347010		0.4	97.4	95.2	70	130	0.8	20
PDS/PDSD	102682017		8	87.5	86.8	75	125	0.3	20
PDS/PDSD	103496001		4	87.4	88.9	75	125	1.0	20

Boron, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	98.3		85	115		
LFB-OE			0.4	98.1		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	101351001		2	80.8	82.6	75	125	0.7	20
SPK/SPKD	101929019		0.4	84.8	87.0	75	125	2.5	20
SPK/SPKD	102347007		2	84.5	82.6	75	125	1.3	20
SPK/SPKD	103185003		2	85.9	86.2	75	125	0.2	20
SPK/SPKD	103185005		4	78.6	81.3	75	125	2.0	20
PDS/PDSD	103207001		2	84.4	81.6	75	125	1.5	20

Calcium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	103.0		85	115		

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Calcium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	106.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	101921005		100	99.6	99.3	75	125	0.3	20
PDS/PDSD	101926001		500	87.7	93.6	75	125	2.9	20
PDS/PDSD	101926015		100	97.2	98.0	75	125	0.6	20
PDS/PDSD	102078001		100	92.1	93.7	75	125	0.8	20
PDS/PDSD	102313001		100	98.1	99.1	75	125	0.9	20
DUP	102347006							0.6	20
DUP	102347008							0.6	20

Calcium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	103.0		85	115		
LFB-MI			100	106.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	102347006		100	99.5	99.8	75	125	0.3	20
SPK/SPKD	102347008		100	93.3	93.5	75	125	0.1	20
PDS/PDSD	102347012		100	94.6	96.7	75	125	1.5	20

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	104.0		85	115		
LFB-OE			0.4	107.0		85	115		
MB		<0.1							
MB		<0.1							
PDS/PDSD	101926002		2	92.3	90.1	75	125	1.9	20
PDS/PDSD	101926009		2	86.4	81.6	75	125	2.9	20
PDS/PDSD	101995018		2	76.7	76.4	75	125	0.2	20
PDS/PDSD	102347006		4	96.9	96.6	75	125	0.1	20
MS/MSD	102347010		0.4	98.5	91.4	70	130	2.0	20

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Iron, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
FB		<0.1							
FB		<0.1							
LFB-OE			0.4	104.0		85	115		
LFB-OE			0.4	107.0		85	115		
MB		<0.1							
MB		<0.1							
PDS/PDSD	101922005		2	80.7	80.4	75	125	0.3	20
SPK/SPKD	102340003		0.4	83.6	83.9	75	125	0.4	20
SPK/SPKD	103142003		0.4	83.3	82.2	75	125	1.4	20
SPK/SPKD	103571003		0.4	83.7	82.8	75	125	1.1	20

Lithium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	104.0		85	115		
LFB-OE			0.4	106.0		85	115		
MB		<0.04							
MB		<0.04							
MS/MSD	102347006		0.4	101.0	102.0	70	130	0.7	20
MS/MSD	102347010		0.4	97.5	95.6	70	130	1.8	20

Lithium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	104.0		85	115		
LFB-OE			0.4	106.0		85	115		
MB		<0.04							
MB		<0.04							
SPK/SPKD	102347008		0.4	88.3	83.0	75	125	5.5	20

Magnesium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	103.0		85	115		
LFB-MI			100	106.0		85	115		
MB		<1							

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Magnesium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<1							
PDS/PDSD	101921005		100	97.2	96.7	75	125	0.5	20
PDS/PDSD	101926001		500	90.9	95.4	75	125	2.7	20
PDS/PDSD	101926015		100	99.5	100.0	75	125	0.6	20
PDS/PDSD	102078001		100	95.5	96.6	75	125	0.7	20
PDS/PDSD	102313001		100	98.1	99.4	75	125	1.2	20
DUP	102347006							1.9	20
DUP	102347008							0.6	20

Magnesium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	103.0		85	115		
LFB-MI			100	106.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	102347006		100	96.6	97.3	75	125	0.7	20
SPK/SPKD	102347008		100	96.6	96.2	75	125	0.3	20
PDS/PDSD	102347012		100	97.6	99.4	75	125	1.7	20

Manganese				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	109.0		85	115		
LFB-OE			0.4	112.0		85	115		
MB		<0.05							
MB		<0.05							
PDS/PDSD	101926002		2	90.0	90.4	75	125	0.3	20
PDS/PDSD	101926009		2	87.7	88.5	75	125	0.9	20
PDS/PDSD	101995018		2	85.8	85.7	75	125	0.1	20
MS/MSD	102347006		0.4	92.8	94.9	70	130		
MS/MSD	102347010		0.4	83.4	79.4	70	130	1.7	20
MS/MSD	102366005		0.4	83.7	81.6	70	130	1.1	20

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Manganese, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.05							
FB		<0.05							
FB		<0.05							
LFB-OE			0.4	109.0		85	115		
LFB-OE			0.4	112.0		85	115		
MB		<0.05							
MB		<0.05							
PDS/PDSD	101922005		2	83.8	84.4	75	125	0.4	20
SPK/SPKD	102340003		0.4	87.7	86.3	75	125	1.6	20
PDS/PDSD	102347006		0.4	83.5	85.8	75	125	1.9	20
SPK/SPKD	103142003		0.4	87.5	84.9	75	125	3.1	20
SPK/SPKD	103571003		0.4	88.5	87.1	75	125	1.6	20

Potassium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	99.3		85	115		
LFB-MI			100	103.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	101921005		100	98.9	98.0	75	125	0.9	20
PDS/PDSD	101926001		500	95.0	97.5	75	125	2.5	20
PDS/PDSD	101926015		100	97.8	98.8	75	125	0.8	20
PDS/PDSD	102078001		100	97.0	98.0	75	125	0.9	20
PDS/PDSD	102313001		100	95.4	96.7	75	125	1.4	20
DUP	102347006							0.1	20
DUP	102347008							0.3	20

Potassium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	99.3		85	115		
LFB-MI			100	103.0		85	115		
MB		<1							
MB		<1							

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Potassium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	102347006		100	93.8	95.2	75	125	1.2	20
SPK/SPKD	102347008		100	96.5	94.8	75	125	1.7	20
PDS/PDSD	102347012		100	95.7	98.2	75	125	2.4	20

Sodium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	101.0		85	115		
LFB-MI			100	105.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	101921005		500	85.4	89.4	75	125	1.7	20
PDS/PDSD	101926001		500	85.6	90.3	75	125	2.4	20
PDS/PDSD	101926015		100	98.7	100.0	75	125	1.3	20
PDS/PDSD	102078001		100	94.9	96.6	75	125	1.1	20
PDS/PDSD	102313001		100	92.2	93.4	75	125	0.8	20
DUP	102347006							0.2	20
PDS/PDSD	102347006		500	90.8	86.6	75	125	1.8	20
DUP	102347008							1.4	20

Sodium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	101.0		85	115		
LFB-MI			100	105.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	102347006		500	89.3	86.9	75	125	1.0	20
SPK/SPKD	102347008		100	73.1	77.1	75	125	1.2	20
PDS/PDSD	102347012		500	93.0	95.9	75	125	2.0	20

Antimony Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	97.3		80	120		
LFB-MS			0.1	91.0		80	120		
MB		<0.001							

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Antimony — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.001							
MB		<0.001							
MS/MSD	102347006		0.4	103.0	108.0	75	125	4.7	20
MS/MSD	102347010		0.4	107.0	90.0	75	125	17.0	20
MS/MSD	102366005		0.4	108.0	108.0	70	130	0.5	20
SPK	102366005		0.1	101.0		75	125		

Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	97.3		80	120		
LFB-MS			0.1	91.0		80	120		
MB		<0.001							
MB		<0.001							
MB		<0.001							
MS/MSD	102347006		0.4	103.0	108.0	75	125	4.7	20
MS/MSD	102347010		0.4	107.0	90.0	75	125	17.0	20
MS/MSD	102366005		0.4	108.0	108.0	70	130	0.5	20
SPK	102366005		0.1	101.0		75	125		
SPK/SPKD	102461001		0.1	105.0	108.0	75	125	2.5	20

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	97.5		80	120		
LFB-MS			0.1	104.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	102347006		0.4	97.2	101.0	75	125	4.0	20
MS/MSD	102347010		0.4	101.0	99.4	75	125	1.5	20
MS/MSD	102366005		0.4	108.0	105.0	70	130	3.2	20
SPK	102366005		0.1	100.0		75	125		

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Account #: 5109 **Client:** Great River Energy

Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	97.5		80	120		
LFB-MS			0.1	104.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	102347006		0.4	97.2	101.0	75	125	4.0	20
MS/MSD	102347010		0.4	101.0	99.4	75	125	1.5	20
MS/MSD	102366005		0.4	108.0	105.0	70	130	3.2	20
SPK	102366005		0.1	100.0		75	125		
SPK/SPKD	102461001		0.1	96.8	101.0	75	125	4.4	20

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	110.0		80	120		
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	97.4		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	102347006		0.4	115.0	118.0	75	125	2.4	20
MS/MSD	102347010		0.4	106.0	101.0	75	125	3.5	20
MS/MSD	102366005		0.4	106.0	106.0	70	130	0.3	20
SPK	102366005		0.1	119.0		75	125		

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	110.0		80	120		
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	97.4		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							

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Account #: 5109 **Client:** Great River Energy

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.002							
MS/MSD	102347006		0.4	115.0	118.0	75	125	2.4	20
MS/MSD	102347010		0.4	120.0	116.0	75	125	2.0	20
MS/MSD	102347010		0.4	106.0	101.0	75	125	3.5	20
MS/MSD	102366005		0.4	106.0	106.0	70	130	0.3	20
SPK	102366005		0.1	119.0		75	125		
SPK/SPKD	102461001		0.1	104.0	109.0	75	125	4.6	20

Beryllium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	96.0		80	120		
LFB-MS			0.1	104.0		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	102347006		0.4	101.0	102.0	75	125	1.7	20
MS/MSD	102347010		0.4	104.0	104.0	75	125	0.2	20
MS/MSD	102366005		0.4	103.0	102.0	70	130	0.5	20
SPK	102366005		0.1	93.5		75	125		

Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	96.0		80	120		
LFB-MS			0.1	104.0		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	102347006		0.4	101.0	102.0	75	125	1.7	20
MS/MSD	102347010		0.4	104.0	104.0	75	125	0.2	20
MS/MSD	102366005		0.4	103.0	102.0	70	130	0.5	20
SPK	102366005		0.1	93.5		75	125		
SPK/SPKD	102461001		0.1	108.0	108.0	75	125	0.1	20

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Account #: 5109 **Client:** Great River Energy

Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	96.8		80	120		
LFB-MS			0.1	90.0		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	102347006		0.4	100.0	104.0	75	125	3.9	20
MS/MSD	102347010		0.4	105.0	94.6	75	125	10.3	20
MS/MSD	102366005		0.4	102.0	102.0	70	130	0.0	20
SPK	102366005		0.1	93.3		75	125		

Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	96.8		80	120		
LFB-MS			0.1	90.0		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	102347006		0.4	100.0	104.0	75	125	3.9	20
MS/MSD	102347010		0.4	105.0	94.6	75	125	10.3	20
MS/MSD	102366005		0.4	102.0	102.0	70	130	0.0	20
SPK	102366005		0.1	93.3		75	125		
SPK/SPKD	102461001		0.1	109.0	110.0	75	125	1.7	20

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	114.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	102347006		0.4	97.0	94.9	75	125	2.3	20
MS/MSD	102347010		0.4	97.4	107.0	75	125	9.5	20
MS/MSD	102366005		0.4	104.0	104.0	70	130	0.2	20

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Account #: 5109 **Client:** Great River Energy

Chromium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	102366005		0.1	100.0		75	125		

Chromium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	114.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	102347006		0.4	97.0	94.9	75	125	2.3	20
MS/MSD	102347010		0.4	97.4	107.0	75	125	9.5	20
MS/MSD	102366005		0.4	104.0	104.0	70	130	0.2	20
SPK	102366005		0.1	100.0		75	125		
SPK/SPKD	102461001		0.1	96.3	98.4	75	125	2.2	20

Cobalt Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	114.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	102347006		0.4	98.4	97.9	75	125	0.5	20
MS/MSD	102347010		0.4	101.0	110.0	75	125	8.8	20
MS/MSD	102366005		0.4	107.0	103.0	70	130	3.5	20
SPK	102366005		0.1	103.0		75	125		

Cobalt, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	114.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							

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Account #: 5109 **Client:** Great River Energy

Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	102347006		0.4	98.4	97.9	75	125	0.5	20
MS/MSD	102347010		0.4	101.0	110.0	75	125	8.8	20
MS/MSD	102366005		0.4	107.0	103.0	70	130	3.5	20
SPK	102366005		0.1	103.0		75	125		
SPK/SPKD	102461001		0.1	95.0	98.2	75	125	3.3	20

Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	102347006		0.4	108.0	107.0	75	125	0.5	20
MS/MSD	102347010		0.4	110.0	105.0	75	125	4.6	20
MS/MSD	102366005		0.4	102.0	104.0	70	130	1.5	20
SPK	102366005		0.1	97.8		75	125		

Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	102347006		0.4	108.0	107.0	75	125	0.5	20
MS/MSD	102347010		0.4	110.0	105.0	75	125	4.6	20
MS/MSD	102366005		0.4	102.0	104.0	70	130	1.5	20
SPK	102366005		0.1	97.8		75	125		
SPK/SPKD	102461001		0.1	100.0	108.0	75	125	7.0	20

Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		

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Account #: 5109 **Client:** Great River Energy

Molybdenum				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	98.8		80	120		
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	102347006		0.4	99.2	101.0	75	125	1.6	20
MS/MSD	102347010		0.4	102.0	101.0	75	125	1.1	20
MS/MSD	102366005		0.4	104.0	137.0	70	130	25.6	20
SPK	102366005		0.1	109.0		75	125		

Molybdenum, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	98.8		80	120		
LFB-MS			0.1	103.0		80	120		
MB		<0.002							
MB		<0.002							
MB		<0.002							
MS/MSD	102347006		0.4	99.2	101.0	75	125	1.6	20
MS/MSD	102347010		0.4	102.0	101.0	75	125	1.1	20
SPK/SPKD	102347014		0.1	106.0	111.0	75	125	3.8	20
MS/MSD	102366005		0.4	104.0	137.0	70	130	25.6	20
SPK	102366005		0.1	109.0		75	125		
SPK/SPKD	102461001		0.1	99.3	103.0	75	125	3.2	20

Selenium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	97.8		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.005							
MB		<0.005							
MB		<0.005							
MS/MSD	102347006		0.4	98.5	99.5	75	125	1.0	20

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Account #: 5109 **Client:** Great River Energy

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	102347010		0.4	98.6	93.1	75	125	5.7	20
MS/MSD	102366005		0.4	103.0	98.1	70	130	5.2	20
SPK	102366005		0.1	92.6		75	125		

Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	97.8		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.005							
MB		<0.005							
MB		<0.005							
MS/MSD	102347006		0.4	98.5	99.5	75	125	1.0	20
MS/MSD	102347010		0.4	98.6	93.1	75	125	5.7	20
MS/MSD	102366005		0.4	103.0	98.1	70	130	5.2	20
SPK	102366005		0.1	92.6		75	125		
SPK/SPKD	102461001		0.1	97.9	99.7	75	125	1.8	20

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							
MB		<0.0005							
MB		<0.0005							
MS/MSD	102347006		0.4	110.0	110.0	75	125	0.5	20
MS/MSD	102347010		0.4	109.0	105.0	75	125	4.0	20
MS/MSD	102366005		0.4	100.0	103.0	70	130	2.5	20
SPK	102366005		0.1	99.6		75	125		

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							

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Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0005							
MB		<0.0005							
MS/MSD	102347006		0.4	110.0	110.0	75	125	0.5	20
MS/MSD	102347010		0.4	109.0	105.0	75	125	4.0	20
MS/MSD	102366005		0.4	100.0	103.0	70	130	2.5	20
SPK	102366005		0.1	99.6		75	125		
SPK/SPKD	102461001		0.1	103.0	110.0	75	125	7.1	20

Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	99.4		85	115		
LFB			0.002	104.0		85	115		
LRB		<0.0002							
MB		<0.0002							
MS/MSD	102347006		0.002	108.0	103.0	70	130	4.7	20
MS/MSD	102347016		0.002	97.8	113.0	70	130	14.0	20
MS/MSD	102735005		0.002	98.8	99.6	70	130	0.0	20
MS/MSD	102736008		0.002	107.0	108.0	70	130	4.7	20

Alkalinity, Total — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			501	93.8		80	120		
LFB			410	97.3		90	110		
LFB			410	96.1		90	110		
LFB			410	95.8		90	110		
LFB			410	95.9		90	110		
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MS/MSD	102347002		410	85.7	90.4	80	120	2.5	20
MS/MSD	102347006		410	71.6	90.7	80	120	6.3	20
MS/MSD	102347014		410	65.6	64.8	80	120	0.7	20

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pH Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	100.0					
CRM-PH			6	99.7					
CRM-PH			6	99.5					
CRM-PH			6	99.7					
DUP	102347003							1.6	20
DUP	102347006							0.2	20
DUP	102392001							0.5	20

Fluoride Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			3.34	95.8		83.83	111.07		
LFB-F			0.5	92.0		90	110		
LFB-F			0.5	94.0		90	110		
LFB-F			0.5	90.0		90	110		
LFB-F			0.5	104.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	102333001		0.5	104.0	94.0	80	120	10.1	20
MS/MSD-F	102347006		0.5	90.0	100.0	80	120	6.4	20
MS/MSD-F	102347015		0.5	114.0	106.0	80	120	4.0	20

Total Dissolved Solids Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	96.0		90.35	110.33		
CRM			736	99.0		90.35	110.33		
MB		<10							
MB		<10							
DUP	102331002							6.7	20
DUP	102347006							2.5	20
DUP	102560001							3.5	20

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Great River Energy
WO: 102347

Chain of Custody Record

Report To:	Great River Energy	CC:	WSP
Attn:	Cassie Johnston		44 Union Blvd, Suite 300
Address:			Lakewood, CO 80228
Phone:			
Email:	CJohnston@GREnergy.com		

Project Name: SS 2025 Wells
Event: Sept 2025
Sampled By: Jeremy Meyer / Ethan Gust

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 223	30 Sept 25	0951	GW	X	X	X	17.71	4224	9.95	3.23	App III, App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radchem, Dissolved and Total for Remainder of Metals) (See Attachments)
002	MW- 224	30 Sept 25	1308	GW	X	X	X	22.90	2689	8.58	7.70	
003	MW- 225	30 Sept 25	1206	GW	X	X	X	21.47	4337	8.75	8.94	
004	MW- 226	29 Sept 25	1407	GW	X	X	X	19.19	3188	6.80	0.00	
005	MW- 227	30 Sept 25	0839	GW	X	X	X	15.89	2897	7.46	100.0	
006	MW- 228 MS/MSD	30 Sept 25	1130	GW	3	3	3	19.17	3181	9.42	66.71	
007	MW- 229	30 Sept 25	1615	GW	X	X	X	24.37	5897	8.88	5.20	
008	MW- 230	30 Sept 25	0835	GW	X	X	X	13.05	1492	9.56	128.6	
009	DUP- 2025 - 1	30 Sept 25	0951	GW	X	X	X	17.71	4224	9.95	3.23	

Comments: Wells installed in 2025

	Relinquished By		Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		30 Sept 25 1804	Log In Walk In #2	5.6 °C/TM 805 ROI Y/N		1 Oct 25 0800
2						

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Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS 2025 Wells
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: Sept 2025
Address:		Lakewood, CO 80228	Sampled By: Jeremy Hey / Ethan Gers
Phone:			
Email:	CJohnston@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)							Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
010	MW- 206	30Sept25	1510	GW	X	X	X							26.88	2621	7.44	609	App III, App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radchem, Dissolved and Total for Remainder of Metals) (See Attachments)
011	MW- 207	29Sept25	0846	GW	X	X	X							15.38	2160	7.11	241.3	
013 012	MW- 208	29Sept25	1117	GW	X	X	X							17.31	1304	8.40	9.62	
DUP013	MW- PB1R	29Sept25	1307	GW	X	X	X							14.91	1670	7.30	10.73	
014	MW- 302	29Sept25	1003	GW	X	X	X							15.11	1403	7.74	53.69	
DUP015	DUP- 2025-2	29Sept25	1107	GW	X	X	X							17.31	1304	8.40	9.62	
016	FB- 2025	30 Sept25	1108	GW	X	X	X							NA	NA	NA	NA	
⊗LS 1Oct25																		

Comments: Wells installed in 2025

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	30Sept25 1804	Log In / Walk In #3	5.6 °C/TM 806 ROI Y/N		1Oct25 0800
2					

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February 2025 GREAT RIVER ENERGY - STANTON STATION GL21509219.000
DRAFT - SUBJECT TO CHANGE

Table 1: Proposed 2025 Stanton Station Plant Facilities Schedule for Budgetary Estimation

Location	Well ID		2025				
			Q1 - Feb	Q1 - Mar	Q2 - Jun	Q3 - Sep	Q4 - Nov
Upgradient/Side-gradient	MW-6B	1		App IV, Iron, Aluminum, Manganese (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)		App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)
	MW-7A	1	TDS and Field Parameters				
	MW-7B	1					
	MW-8B	1				TDS and Field Parameters	
	MW-105	1					
Bottom Ash Landfill	MW-9N	1					
	MW-102	1					
	MW-103	1					
Property Boundary	MW-PB1	1					
Wells Installed in May 2022	MW-210	1					
	MW-211	1					
	MW-212	1					
	MW-213	1					
	MW-214	1					
Piezometers [1]	PZ-BA-A	1					
	PZ-BA-B	1					
Sumps [2]	BAI-Sump-S	1					
Surface Water [3]	Missouri-River	1					
	Rail-Drainage	1					
Internal - Prior Bottom Ash Impoundment Downgradient	MW-1R	1					
	MW-104	1					
Bottom Ash Impoundment	MW-201	1				TDS and Field Parameters	
	MW-202	1	Boron, Sulfate, and Field Parameters				
	MW-203	1					
Closed Landfill	MW-10	1					
	MW-204	1					
	MW-205	1					
Additional Internal Locations	MW-4	1					
	MW-PB2	1					
Wells Installed in February 2023	MW-215	1					
	MW-216	1					
	MW-217	1					
	MW-218	1					
	MW-219	1					
	MW-220	1					
	MW-221	1					
	MW-222	1					
	MW-300	1					
	MW-301	1					
	MW-PB3	1					
Proposed Additional Wells for Installation in Q2 2025	TBD	1			App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)	App III, App IV, Additional List (Total Only for Mercury and Radiochem, Dissolved and Total for Remainder of Metals)
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
Proposed Additional Wells for Installation in Q1 2026	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
	TBD	1					
Total # of Sample Locations			2	40	53	15	53

Notes:
Suggested locations for collection of QA/QC samples in 2025 are listed in Table 2.
App III - Appendix III Detection Monitoring List, Table 5
App IV - Appendix IV Assessment Monitoring List, Table 6
Additional List - Table 7
Required field parameters are listed in Table 5 and Table 6
1. The piezometers do not have dedicated pumps and will need to be sampled by other methods.
2. The sump should be sampled using surface water collection methods via the sump riser.
3. Surface water samples to be collected only if safely accessible and free water is present.

WSP DRAFT - SUBJECT TO CHANGE

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February 2025 GL21509219.000

Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.
* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

wsp

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	223
Sampling Personal:	JH

Weather Conditions: Temp: 65 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	9.50	ft
Total Depth:	18.25	ft
Depth to Top of Pump:	14.77	ft
Water Level After Sample:	11.45	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	2	Sec.
Recover:	3	Sec.
PSI:		

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
Dup 2025-1

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
30 Sept 25	0926	Start of Well Purge									
	0931	17.15	4227	10.01	1.35	-97.7	13.71	10.96	100.0	0.5	Clear
	0936	17.66	4237	10.00	1.63	-78.9	23.69	11.20	100.0	0.5	Clear
	0941	17.59	4222	9.97	1.91	-76.8	9.08	11.35	100.0	0.5	Clear
	0946	17.59	4215	9.96	1.91	-72.5	7.05	11.38	100.0	0.5	Clear
	0951	17.71	4224	9.95	1.66	-72.2	3.23	11.41	100.0	0.5	

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
30 Sept 25	0951	17.71	4224	9.95	1.66	-72.2	3.23				Clear

Comments: installed dedicated bladder pump & locked well

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	224
Sampling Personal:	JH

Weather Conditions: Temp: 75 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.09	ft
Total Depth:	18.50	
Depth to Top of Pump:	14.82	ft
Water Level After Sample:	Below pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	2	Sec.
Recover:	58	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	~~1 Gal Nitric~~
500mL Nitric	Insufficient volume / recharge to collect full bottle
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
30Sept25	1106	Start of Well Purge									clear, slightly turbid, turbid
	1111	20.13	2670	8.71	1.12	0.8	10.58	12.98	100.0	0.5	Clear
	1116	19.82	2667	8.69	1.26	1.8	4.26	13.66	100.0	0.5	Clear
	1121	19.66	2570	8.62	2.22	30.5	2.04	14.05	100.0	0.5	Clear
well recharged for 1.5hrs	1126	19.62	2458	8.46	3.59	67.7	0.62	Below Pump	100.0	0.5	Clear
	1131	19.78	2415	8.34	4.86	93.7	1.60	BP	100.0	0.5	Clear
	1136	19.75	2403	8.41	5.45	71.7	6.98	BP	100.0	0.5	
		Purged Dry									
	1308	22.90	2689	8.58	3.05	56.5	7.70	13.66			

Well Stabilized? YES (NO) Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
30 Sept25	1308	22.90	2689	8.58	3.05	56.5	7.70				Clear

Comments: installed dedicated bladder pump & Locked well
Collected Field Blank 225 @ 1108

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	225
Sampling Personal:	JTL

Weather Conditions: Temp: 75 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	(NO)
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.22	ft
Total Depth:	18.62	ft
Depth to Top of Pump:	16.15	ft
Water Level After Sample:	Below Pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 58	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
30 Sept 25	1141	Start of Well Purge									
	1146	21.79	4366	8.80	0.83	-80.9	42.06	13.65	100.0	0.5	Clear
	1151	21.45	4351	8.80	0.41	-108.7	22.04	14.70	100.0	0.5	Clear
	1156	21.42	4340	8.79	0.44	-110.6	11.12	15.10	100.0	0.5	Clear
	1201	21.45	4330	8.76	0.69	-92.2	9.92	15.60	100.0	0.5	Clear
	1206	21.47	4337	8.75	0.89	-81.9	8.94	15.98	100.0	0.5	

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
30 Sept 25	1206	21.47	4337	8.75	0.89	-81.9	8.94				Clear

Comments: installed dedicated bladder pump & locked well

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	226
Sampling Personal:	JH

Weather Conditions: Temp: 70 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.95	ft
Total Depth:	17.60	ft
Depth to Top of Pump:		ft
Water Level After Sample:	13.15	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	1"
Sampling Method:	Bladder	1"
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	3	Sec.
Recover:	7	Sec.
PSI:		

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
29 Sept 25	1343	Start of Well Purge									
	1347	19.32	3195	6.80	0.33	96.8	0.57	13.15	100.0	0.5	Clear
	1352	19.36	3184	6.80	0.42	100.4	0.12	13.15	100.0	0.5	Clear
	1357	19.23	3177	6.80	0.40	100.4	0.00	13.15	100.0	0.5	Clear
	1402	19.14	3178	6.80	0.23	97.0	0.00	13.15	100.0	0.5	Clear
	1407	19.19	3188	6.80	0.15	93.4	0.00	13.15	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
29 Sept 25	1407	19.19	3188	6.80	0.15	93.4	0.00				Clear

Comments: installed dedicated bladder pump & tethered well

1" bladder
Slight obstruction in well

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	230
Sampling Personal:	JM

Weather Conditions: Temp: 60 °F Wind: N @ 5-10 Precip: ~~Sunny~~ / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	~~NO~~
Well Labeled?	~~YES~~	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.45 ~~Total Depth~~	ft
Total Depth:	42.05	ft
Depth to Top of Pump:	38.25	ft
Water Level After Sample:	14.06	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	~~YES~~	NO

Control Settings:	
Purge: 4	Sec.
Recover: 56	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / ~~NO~~
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
30 Sept 25	0755	Start of Well Purge									
	0800	14.36	1496	7.80	0.30	-37.3	250.9	13.88	100.0	0.5	ST
	0805	13.99	1481	7.81	1.81	8.4	474.9	13.90	100.0	0.5	ST
	0810	12.91	1479	7.81	1.73	-21.8	386.4	14.05	100.0	0.5	ST
	0815	12.92	1477	7.80	1.52	-32.8	268.0	14.05	100.0	0.5	ST
	0820	12.89	1487	7.76	0.95	-54.5	765.2	14.05	100.0	0.5	ST
	0825	12.94	1494	7.62	0.60	-65.9	120.0	14.06	100.0	0.5	ST
	0830	12.93	1495	7.61	0.56	-67.3	112.0	14.06	100.0	0.5	ST
	0835	13.05	1492	7.56	0.63	-66.6	128.6	14.06	100.0	0.5	ST
		Well Stabilized?	(YES)	NO				Total Volume Purged:		4.0	Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
30 Sept 25	0835	13.05	1492	7.56	0.63	-66.6	128.6				ST

Comments: installed dedicated bladder pump & lated well

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	207
Sampling Personal:	JAH

Weather Conditions: Temp: 55 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES (NO)
Well Labeled?	(YES) NO
Repairs Necessary?	
Casing Diameter:	2"
Water Level Before Purge:	8.51 ft
Total Depth	21.05 ft
Depth to Top of Pump:	17.28 ft
Water Level After Sample:	8.79 ft
Measurement Method:	Electric Water Level Indicator

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 58	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
29Sept25	0806	Start of Well Purge									
	0811	15.85	2260	7.03	0.91	209.0	269.0	8.72	100.0	500.0	ST
	0816	15.63	2193	7.05	0.58	188.3	224.3	8.80	100.0	500.0	ST
	0821	15.49	2165	7.07	0.42	75.2	207.8	8.76	100.0	500.0	ST
	0826	15.30	2146	7.08	0.54	33.4	171.0	8.80	100.0	500.0	ST
	0831	15.38	2164	7.08	0.59	18.6	200.6	8.78	100.0	500.0	ST
	0836	15.36	2168	7.09	0.34	6.0	189.8	8.77	100.0	500.0	ST
	0841	15.35	2175	7.10	0.53	-6.7	185.0	8.75	100.0	500.0	ST
	0846	15.38	2160	7.11	0.32	-12.3	241.3	8.80	100.0	500.0	ST
		Well Stabilized?	(YES)	NO				Total Volume Purged:	4.0	Liters	

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
29 Sept 25	0846	15.38	2160	7.11	0.32	-12.3	241.3				ST

Comments: *Gen installed dedicated bladder pump & locked well*

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Additional data collected from non-program locations - not required by program.

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Member ACIL

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	20B
Sampling Personal:	

Weather Conditions: Temp: 65 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.24	ft
Total Depth:	16.92	ft
Depth to Top of Pump:	13.95	ft
Water Level After Sample:	12.45	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge:	Sec.
Recover: 58	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
Dup 2025-2

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
29 Sept 25	1052	Start of Well Purge									
	1057	17.55	1314	8.38	0.58	47.2	28.97	12.41	100.0	500.0	Clear
	1102	17.35	1308	8.38	0.54	53.6	28.77	12.45	100.0	500.0	Clear
	1107	17.16	1311	8.39	0.45	57.8	13.66	12.42	100.0	500.0	Clear
	1112	17.32	1317	8.40	0.56	48.8	9.81	12.42	100.0	500.0	clear
	1117	17.31	1304	8.40	0.70	50.8	9.62	12.45	100.0	500.0	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
29 Sept 25	1117	17.31	1304	8.40	0.70	50.8	9.62				Clear

Comments: installed dedicated bladder pump & locked well

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Additional data collected from non-program locations - not required by program.

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	PB 1R
Sampling Personal:	

Weather Conditions: Temp: 70 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	25.84	ft
Total Depth:	38.25	ft
Depth to Top of Pump:	33.55	ft
Water Level After Sample:	27.11	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 4	Sec.
Recover: 56	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
29 Sept 25	1242	Start of Well Purge									clear, slightly turbid, turbid
	1247	15.61	1614	7.31	0.37	29.6	183.6	27.05	100.0	500.0	ST
	1252	15.75	1655	7.29	0.43	35.0	50.83	27.06	100.0	500.0	Clear
	1257	14.96	1632	7.29	0.45	38.5	34.05	27.15	100.0	500.0	Clear
	1302	14.83	1654	7.29	0.46	40.2	19.85	27.12	100.0	500.0	Clear
	1307	14.91	1670	7.30	0.48	40.2	10.73	27.12	100.0	500.0	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
29 Sept 25	1307	14.91	1670	7.30	0.48	40.2	10.73				Clear

Comments: installed dedicated Bladder pump & locked well

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	302
Sampling Personal:	JMH

Weather Conditions: Temp: 60 °F Wind: N @ 5-10 Precip: (Sunny) / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.68	ft
Ttl Depth:	22.15	ft
Depth to Top of Pump:	18.85	ft
Water Level After Sample:	16.85	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	03	Sec.
Recover:	57	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
29Sept25	0938	Start of Well Purge									
	0943	16.44	1391	7.70	0.90	-71.2	105.6	13.45	100.0	500.0	Clear
	0948	15.42	1407	7.72	1.22	-65.2	81.19	14.16	100.0	500.0	Clear
	0953	15.08	1399	7.75	0.68	-69.2	69.32	14.84	100.0	500.0	Clear
	0958	15.06	1401	7.75	0.66	-66.7	67.21	15.15	100.0	500.0	Clear
	1003	15.11	1403	7.74	0.72	-66.1	53.69	15.32	100.0	500.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
29Sept25	1003	15.11	1403	7.74	0.72	-66.1	53.69				Clear

Comments: installed dedicated bladder pump & locked well

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	MW-227
Sampling Personal:	Ethan Cress

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.09	ft
Total Depth	18.09	
Depth to Top of Pump:	15.16	ft
Water Level After Sample:	Below Pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:
Purge: ~~4~~ 2 Sec.
Recover: ~~56~~ 58 Sec.
PSI: —

Bottle List:
1 Liter Raw ~~1 Gal Nitric~~
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample? ~~YES~~ / (NO)
Duplicate Sample ID: ~~MS/MSD~~

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
30Sep25	0809	Start of Well Purge									
	0814	15.12	3059	7.59	—	180.1	143.2	13.92	100.0	0.5	Clear
	0819	15.21	2871	7.54	—	159.6	94.25	14.53	100.0	0.5	Clear
	0824	15.66	2788	7.51	—	156.7	88.29	Below pump	100.0	0.5	Clear
	0829	16.05	2778	7.51	—	151.4	89.87	Below pump	100.0	0.5	Clear
	0834	15.99	2827	7.50	—	149.3	77.26	Below pump	100.0	0.5	Clear
	0839	15.89	2897	7.46	—	143.3	100.0	Below pump	100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 3.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
30Sep25	0839	15.89	2897	7.46	—	143.3	100.0				Clear

Comments: Installed Dedicated pump and tubing and labled + locked well . unable to get DTW reading meter malfunction
Recharge too slow for MS/MSD + T
1 gal nitric

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	MW-228
Sampling Personal:	Ethan Gross

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	(NO)
Well Labeled?	YES	(NO)
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	8.65	ft
Total Depth	13.50	
Depth to Top of Pump:	10.55	ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 58	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
MS/MSD

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
	1110	Start of Well Purge									clear, slightly turbid, turbid
	1115	19.70	3219	9.38	—	341.1	57.70	9.55	100.0	0.5	Clear
	1120	19.20	3210	9.40	—	22.0	64.90	9.95	100.0	0.5	Clear
30Sep25	1125	19.31	3195	9.41	—	18.7	59.10	10.10	100.0	0.5	Clear
	1130	19.17	3181	9.42	—	12.4	66.71	10.30	100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
30Sep25	1130	19.17	3181	9.42	—	12.4	66.71				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	MW-229
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.72	ft
Total Depth	18.68	
Depth to Top of Pump:	15.70	ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 58	Sec.
PSI: —	

Bottle List:
1 Liter Raw ~~1 Gal Nitric~~
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
30 Sep 25	1555	Start of Well Purge									
	1600	24.97	5470	8.44	—	95.7	5.01	12.72	100.0	0.5	Clear
	1805	24.15	5873	8.78	—	45.8	3.20	12.75	100.0	0.5	Clear
	1610	24.20	5893	8.88	—	26.2	4.39	12.75	100.0	0.5	Clear
	1615	24.37	5897	8.88	—	23.8	5.20	12.75	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 2.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
30 Sep 25	1615	24.37	5897	8.88	—	23.8	5.20				Clear

Comments: ~~Insuf~~ unable to keep up enough to fill gallon jug

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Member ACIL

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	MW-206
Sampling Personal:	EKL, CRK

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES (NO)
Well Labeled?	YES (NO)
Repairs Necessary?	
Casing Diameter:	2"
Water Level Before Purge:	7.48 ft
Total Depth	13.48
Depth to Top of Pump:	9.50 ft
Water Level After Sample:	ft
Measurement Method:	Electric Water Level Indicator

SAMPLING INFORMATION

Purging Method:	Bladder
Sampling Method:	Bladder
Dedicated Equipment?	(YES) NO

Control Settings:	
Purge: 2	Sec.
Recover: 58	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
	1445	Start of Well Purge									clear, slightly turbid, turbid
30Sep25	1450	23.09	2704	7.51	—	12.5	13.37	7.62	100.0	0.5	Clear
	1455	21.59	2700	7.42	—	-63.3	12.90	7.65	100.0	0.5	Clear
	1500	20.94	2657	7.45	—	-88.4	5.94	7.70	100.0	0.5	Clear
	1505	20.95	2628	7.44	—	-99.1	6.71	7.72	100.0	0.5	Clear
	1510	20.88	2621	7.44	—	-101.5	6.09		100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 25 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
30Sep25	1510	20.88	2621	7.44	—	-101.5	6.09				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 1 Oct 25 Time: 1101 Analyst: PN

Work Order #: 102347

Containers Supplied by MVTL: ☒ Yes ☐ No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
18	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
18	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
18	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: SS 2025 Wells Sept 2025 (102376) **PO:** 8126848

Cassie Johnston
Great River Energy
12300 Elm Creek Boulevard
Osseo, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102376001 **Date Collected:** 09/30/2025 09:51 **Matrix:** Groundwater
Sample ID: MW-223 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		10/24/2025 09:13	
Radium 228	See Attached			1		10/24/2025 09:13	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102376002 **Date Collected:** 09/30/2025 12:06 **Matrix:** Groundwater
Sample ID: MW-225 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		10/24/2025 09:13	
Radium 228	See Attached			1		10/24/2025 09:13	

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102376003 **Date Collected:** 09/29/2025 14:07 **Matrix:** Groundwater
Sample ID: MW-226 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		10/24/2025 09:13	
Radium 228	See Attached			1		10/24/2025 09:13	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102376004 **Date Collected:** 09/30/2025 11:30 **Matrix:** Groundwater
Sample ID: MW-228 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		10/24/2025 09:13	
Radium 228	See Attached			1		10/24/2025 09:13	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102376005 **Date Collected:** 09/30/2025 08:35 **Matrix:** Groundwater
Sample ID: MW-230 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		10/24/2025 09:13	
Radium 228	See Attached			1		10/24/2025 09:13	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102376006 **Date Collected:** 09/30/2025 09:51 **Matrix:** Groundwater
Sample ID: DUP-2025-1 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		10/24/2025 09:13	
Radium 228	See Attached			1		10/24/2025 09:13	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102376007 **Date Collected:** 09/30/2025 15:10 **Matrix:** Groundwater
Sample ID: MW-206 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		10/24/2025 09:13	
Radium 228	See Attached			1		10/24/2025 09:13	

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Additional data collected from non-program locations - not required by program.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102376008 **Date Collected:** 09/29/2025 08:46 **Matrix:** Groundwater
Sample ID: MW-207 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		10/24/2025 09:13	
Radium 228	See Attached			1		10/24/2025 09:13	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID:	102376009	**Date Collected:**	09/29/2025 11:17	**Matrix:**	Groundwater
Sample ID:	MW-208	**Date Received:**	09/30/2025 18:04	**Collector:**	MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		10/24/2025 09:13	
Radium 228	See Attached			1		10/24/2025 09:13	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102376010 **Date Collected:** 09/29/2025 13:07 **Matrix:** Groundwater
Sample ID: MW-PB1R **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		10/24/2025 09:13	
Radium 228	See Attached			1		10/24/2025 09:13	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID:	102376011	**Date Collected:**	09/29/2025 10:03	**Matrix:**	Groundwater
Sample ID:	MW-302	**Date Received:**	09/30/2025 18:04	**Collector:**	MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		10/24/2025 09:13	
Radium 228	See Attached			1		10/24/2025 09:13	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102376012 **Date Collected:** 09/29/2025 11:17 **Matrix:** Groundwater
Sample ID: DUP-2025-2 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		10/24/2025 09:13	
Radium 228	See Attached			1		10/24/2025 09:13	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 102376013 **Date Collected:** 09/30/2025 11:08 **Matrix:** Groundwater
Sample ID: FB-2025 **Date Received:** 09/30/2025 18:04 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		10/24/2025 09:13	
Radium 228	See Attached			1		10/24/2025 09:13	

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ANALYTICAL SUMMARY REPORT

October 23, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25100134 Quote ID: C15480
Project Name: 102376

Energy Laboratories, Inc. Casper WY received the following 10 samples for Minnesota Valley Testing Laboratories on 10/3/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25100134-001	102376001, MW-223	09/30/25 9:51	10/03/25	Aqueous	pH Check for Nitric Radiochem FIRST Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25100134-002	102376002, MW-225	09/30/25 12:06	10/03/25	Aqueous	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25100134-003	102376003, MW-226	09/29/25 14:07	10/03/25	Aqueous	Same As Above
C25100134-004	102376004, MW-228	09/30/25 11:30	10/03/25	Aqueous	pH Check for Nitric Radiochem FIRST Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25100134-005	102376005, MW-230	09/30/25 8:35	10/03/25	Aqueous	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25100134-006	102376006, DUP-2025-1	09/30/25 9:51	10/03/25	Aqueous	Same As Above
C25100134-007	102376007, MW-206	09/30/25 15:10	10/03/25	Aqueous	Same As Above
C25100134-008	102376008, MW-207	09/29/25 8:46	10/03/25	Aqueous	Same As Above
C25100134-009	10237600, MW-208	09/29/25 11:17	10/03/25	Aqueous	Same As Above
C25100134-010	102376010, MW-PB1R	09/29/25 13:07	10/03/25	Aqueous	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 102376
Lab ID: C25100134-001
Client Sample ID: 102376001, MW-223

Report Date: 10/23/25
Collection Date: 09/30/25 09:51
DateReceived: 10/03/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.3	pCi/L				E903.0	10/20/25 10:15 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	10/20/25 10:15 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	10/20/25 10:15 / dmr
Radium 228	0.007	pCi/L	U			RA-05	10/13/25 14:56 / haw
Radium 228 precision (±)	0.4	pCi/L				RA-05	10/13/25 14:56 / haw
Radium 228 MDC	0.7	pCi/L				RA-05	10/13/25 14:56 / haw
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	10/22/25 11:02 / dmf
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	10/22/25 11:02 / dmf
Radium 226 + Radium 228 MDC	0.7	pCi/L				A7500-RA	10/22/25 11:02 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 102376
Lab ID: C25100134-002
Client Sample ID: 102376002, MW-225

Report Date: 10/23/25
Collection Date: 09/30/25 12:06
DateReceived: 10/03/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.3	pCi/L				E903.0	10/20/25 10:15 / dmr
Radium 226 precision (±)	0.2	pCi/L				E903.0	10/20/25 10:15 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	10/20/25 10:15 / dmr
Radium 228	0.5	pCi/L	U			RA-05	10/13/25 14:56 / haw
Radium 228 precision (±)	0.5	pCi/L				RA-05	10/13/25 14:56 / haw
Radium 228 MDC	0.7	pCi/L				RA-05	10/13/25 14:56 / haw
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	10/22/25 11:02 / dmf
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	10/22/25 11:02 / dmf
Radium 226 + Radium 228 MDC	0.8	pCi/L				A7500-RA	10/22/25 11:02 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 102376
Lab ID: C25100134-003
Client Sample ID: 102376003, MW-226

Report Date: 10/23/25
Collection Date: 09/29/25 14:07
DateReceived: 10/03/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.03	pCi/L	U			E903.0	10/20/25 10:15 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	10/20/25 10:15 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	10/20/25 10:15 / dmr
Radium 228	0.1	pCi/L	U			RA-05	10/13/25 14:56 / haw
Radium 228 precision (±)	0.4	pCi/L				RA-05	10/13/25 14:56 / haw
Radium 228 MDC	0.7	pCi/L				RA-05	10/13/25 14:56 / haw
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	10/22/25 11:02 / dmf
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	10/22/25 11:02 / dmf
Radium 226 + Radium 228 MDC	0.8	pCi/L				A7500-RA	10/22/25 11:02 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 102376
Lab ID: C25100134-004
Client Sample ID: 102376004, MW-228

Report Date: 10/23/25
Collection Date: 09/30/25 11:30
DateReceived: 10/03/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	10/20/25 10:15 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	10/20/25 10:15 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	10/20/25 10:15 / dmr
Radium 228	0.9	pCi/L				RA-05	10/13/25 14:56 / haw
Radium 228 precision (±)	0.5	pCi/L				RA-05	10/13/25 14:56 / haw
Radium 228 MDC	0.8	pCi/L				RA-05	10/13/25 14:56 / haw
Radium 226 + Radium 228	1.0	pCi/L				A7500-RA	10/22/25 11:02 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	10/22/25 11:02 / dmf
Radium 226 + Radium 228 MDC	0.8	pCi/L				A7500-RA	10/22/25 11:02 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 102376
Lab ID: C25100134-005
Client Sample ID: 102376005, MW-230

Report Date: 10/23/25
Collection Date: 09/30/25 08:35
DateReceived: 10/03/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L				E903.0	10/20/25 10:15 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	10/20/25 10:15 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	10/20/25 10:15 / dmr
Radium 228	0.6	pCi/L	U			RA-05	10/13/25 14:56 / haw
Radium 228 precision (±)	0.4	pCi/L				RA-05	10/13/25 14:56 / haw
Radium 228 MDC	0.7	pCi/L				RA-05	10/13/25 14:56 / haw
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	10/22/25 11:02 / dmf
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	10/22/25 11:02 / dmf
Radium 226 + Radium 228 MDC	0.7	pCi/L				A7500-RA	10/22/25 11:02 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 102376
Lab ID: C25100134-006
Client Sample ID: 102376006, DUP-2025-1

Report Date: 10/23/25
Collection Date: 09/30/25 09:51
DateReceived: 10/03/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L				E903.0	10/20/25 10:15 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	10/20/25 10:15 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	10/20/25 10:15 / dmr
Radium 228	0.8	pCi/L				RA-05	10/13/25 14:56 / haw
Radium 228 precision (±)	0.5	pCi/L				RA-05	10/13/25 14:56 / haw
Radium 228 MDC	0.8	pCi/L				RA-05	10/13/25 14:56 / haw
Radium 226 + Radium 228	1.0	pCi/L				A7500-RA	10/22/25 11:02 / dmf
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	10/22/25 11:02 / dmf
Radium 226 + Radium 228 MDC	0.8	pCi/L				A7500-RA	10/22/25 11:02 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 102376
Lab ID: C25100134-007
Client Sample ID: 102376007, MW-206

Report Date: 10/23/25
Collection Date: 09/30/25 15:10
DateReceived: 10/03/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	10/23/25 10:06 / dmr
Radium 226 precision (±)	0.08	pCi/L				E903.0	10/23/25 10:06 / dmr
Radium 226 MDC	0.1	pCi/L				E903.0	10/23/25 10:06 / dmr
Radium 228	0.7	pCi/L	U			RA-05	10/15/25 13:30 / apt
Radium 228 precision (±)	0.5	pCi/L				RA-05	10/15/25 13:30 / apt
Radium 228 MDC	0.8	pCi/L				RA-05	10/15/25 13:30 / apt
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	10/23/25 12:25 / dmf
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	10/23/25 12:25 / dmf
Radium 226 + Radium 228 MDC	0.8	pCi/L				A7500-RA	10/23/25 12:25 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 102376
Lab ID: C25100134-008
Client Sample ID: 102376008, MW-207

Report Date: 10/23/25
Collection Date: 09/29/25 08:46
DateReceived: 10/03/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L				E903.0	10/23/25 10:06 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	10/23/25 10:06 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	10/23/25 10:06 / dmr
Radium 228	0.8	pCi/L	U			RA-05	10/15/25 13:30 / apt
Radium 228 precision (±)	0.6	pCi/L				RA-05	10/15/25 13:30 / apt
Radium 228 MDC	0.9	pCi/L				RA-05	10/15/25 13:30 / apt
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	10/23/25 12:25 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	10/23/25 12:25 / dmf
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	10/23/25 12:25 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 102376
Lab ID: C25100134-009
Client Sample ID: 10237600, MW-208

Report Date: 10/23/25
Collection Date: 09/29/25 11:17
DateReceived: 10/03/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.08	pCi/L	U			E903.0	10/23/25 10:06 / dmr
Radium 226 precision (±)	0.09	pCi/L				E903.0	10/23/25 10:06 / dmr
Radium 226 MDC	0.1	pCi/L				E903.0	10/23/25 10:06 / dmr
Radium 228	0.7	pCi/L	U			RA-05	10/15/25 13:30 / apt
Radium 228 precision (±)	0.5	pCi/L				RA-05	10/15/25 13:30 / apt
Radium 228 MDC	0.8	pCi/L				RA-05	10/15/25 13:30 / apt
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	10/23/25 12:25 / dmf
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	10/23/25 12:25 / dmf
Radium 226 + Radium 228 MDC	0.8	pCi/L				A7500-RA	10/23/25 12:25 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 102376
Lab ID: C25100134-010
Client Sample ID: 102376010, MW-PB1R

Report Date: 10/23/25
Collection Date: 09/29/25 13:07
DateReceived: 10/03/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.0006	pCi/L	U			E903.0	10/23/25 10:06 / dmr
Radium 226 precision (±)	0.08	pCi/L				E903.0	10/23/25 10:06 / dmr
Radium 226 MDC	0.1	pCi/L				E903.0	10/23/25 10:06 / dmr
Radium 228	0.8	pCi/L	U			RA-05	10/15/25 13:30 / apt
Radium 228 precision (±)	0.5	pCi/L				RA-05	10/15/25 13:30 / apt
Radium 228 MDC	0.8	pCi/L				RA-05	10/15/25 13:30 / apt
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	10/23/25 12:25 / dmf
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	10/23/25 12:25 / dmf
Radium 226 + Radium 228 MDC	0.8	pCi/L				A7500-RA	10/23/25 12:25 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25100134 **Report Date:** 10/23/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11858
Lab ID: LCS-RA226-11858	3	Laboratory Control Sample				Run: TENNELEC-4_251008G			10/20/25 12:19	
Radium 226		10	pCi/L		100	70	130			
Radium 226 precision (±)		1.6	pCi/L							
Radium 226 MDC		0.20	pCi/L							
Lab ID: MB-RA226-11858	3	Method Blank				Run: TENNELEC-4_251008G			10/20/25 12:19	
Radium 226		-0.08	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.3	pCi/L							
Lab ID: C25100134-004AMS1	3	Sample Matrix Spike				Run: TENNELEC-4_251008G			10/20/25 10:15	
Radium 226		12	pCi/L		93	70	130			
Radium 226 precision (±)		1.9	pCi/L							
Radium 226 MDC		0.20	pCi/L							
Lab ID: C25100134-004AMSD1	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_251008G			10/20/25 10:15	
Radium 226		11	pCi/L		84	70	130	11	30	
Radium 226 precision (±)		1.7	pCi/L							
Radium 226 MDC		0.18	pCi/L							
- The RER result is 0.46.										
Method: E903.0										Batch: RA226-11861RR
Lab ID: LCS-RA226-11861	3	Laboratory Control Sample				Run: TENNELEC-4_251009D			10/23/25 10:06	
Radium 226		8.5	pCi/L		85	70	130			
Radium 226 precision (±)		1.4	pCi/L							
Radium 226 MDC		0.12	pCi/L							
Lab ID: MB-RA226-11861	3	Method Blank				Run: TENNELEC-4_251009D			10/23/25 10:06	
Radium 226		0.04	pCi/L							U
Radium 226 precision (±)		0.08	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Lab ID: C25100134-007ADUP	3	Sample Duplicate				Run: TENNELEC-4_251009D			10/23/25 10:06	
Radium 226		0.069	pCi/L					46	30	UR
Radium 226 precision (±)		0.082	pCi/L							
Radium 226 MDC		0.13	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.36.										

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25100134 **Report Date:** 10/23/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7794
Lab ID: LCS-228-RA226-11858	3	Laboratory Control Sample				Run: TENNELEC-4_251008A				10/13/25 14:56
Radium 228		9.4	pCi/L		106	70	130			
Radium 228 precision (±)		2.4	pCi/L							
Radium 228 MDC		0.80	pCi/L							
Lab ID: MB-RA226-11858	3	Method Blank				Run: TENNELEC-4_251008A				10/13/25 14:56
Radium 228		0.8	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		0.9	pCi/L							
Lab ID: C25100134-004AMS4	3	Sample Matrix Spike				Run: TENNELEC-4_251008A				10/13/25 14:56
Radium 228		8.1	pCi/L		65	70	130			S
Radium 228 precision (±)		2.1	pCi/L							
Radium 228 MDC		0.80	pCi/L							
Lab ID: C25100134-004AMSD4	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_251008A				10/13/25 14:56
Radium 228		13	pCi/L		105	70	130	43	30	R
Radium 228 precision (±)		3.2	pCi/L							
Radium 228 MDC		0.80	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 1.16.										
Method: RA-05										Batch: RA228-7796
Lab ID: LCS-228-RA226-11861	3	Laboratory Control Sample				Run: TENNELEC-4_251009A				10/15/25 13:30
Radium 228		9.0	pCi/L		101	70	130			
Radium 228 precision (±)		2.4	pCi/L							
Radium 228 MDC		0.85	pCi/L							
Lab ID: MB-RA226-11861	3	Method Blank				Run: TENNELEC-4_251009A				10/15/25 13:30
Radium 228		0.4	pCi/L							U
Radium 228 precision (±)		0.5	pCi/L							
Radium 228 MDC		0.9	pCi/L							
Lab ID: C25100134-007ADUP	3	Sample Duplicate				Run: TENNELEC-4_251009A				10/15/25 13:30
Radium 228		0.63	pCi/L					12	30	U
Radium 228 precision (±)		0.50	pCi/L							
Radium 228 MDC		0.78	pCi/L							
- The RER result is 0.12.										

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
U - Not detected
ND - Not detected at the Reporting Limit (RL)
S - Spike recovery outside of advisory limits

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25100134

Login completed by: Lorie D. Snider
Reviewed by: srichins
Reviewed Date: 10/13/2025
Date Received: 10/3/2025
Received by: LXQ
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	21.4°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature blank temperature in shipping container 1 was 19.0°C, shipping container 2 was 18.6°C, shipping container 3 was 21.4°C and shipping container 4 was 18.9°C

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Work Order Receipt Checklist - Continued

Minnesota Valley Testing Laboratories C25100134

The sample MW-223 for radionuclides analysis was received at pH >2. Nitric acid (15 mL) was added to preserve to pH <2. In accordance with the method, these samples must held for 16 hours prior to analysis. LDS 10/03/25

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Laboratory Certifications and Accreditations

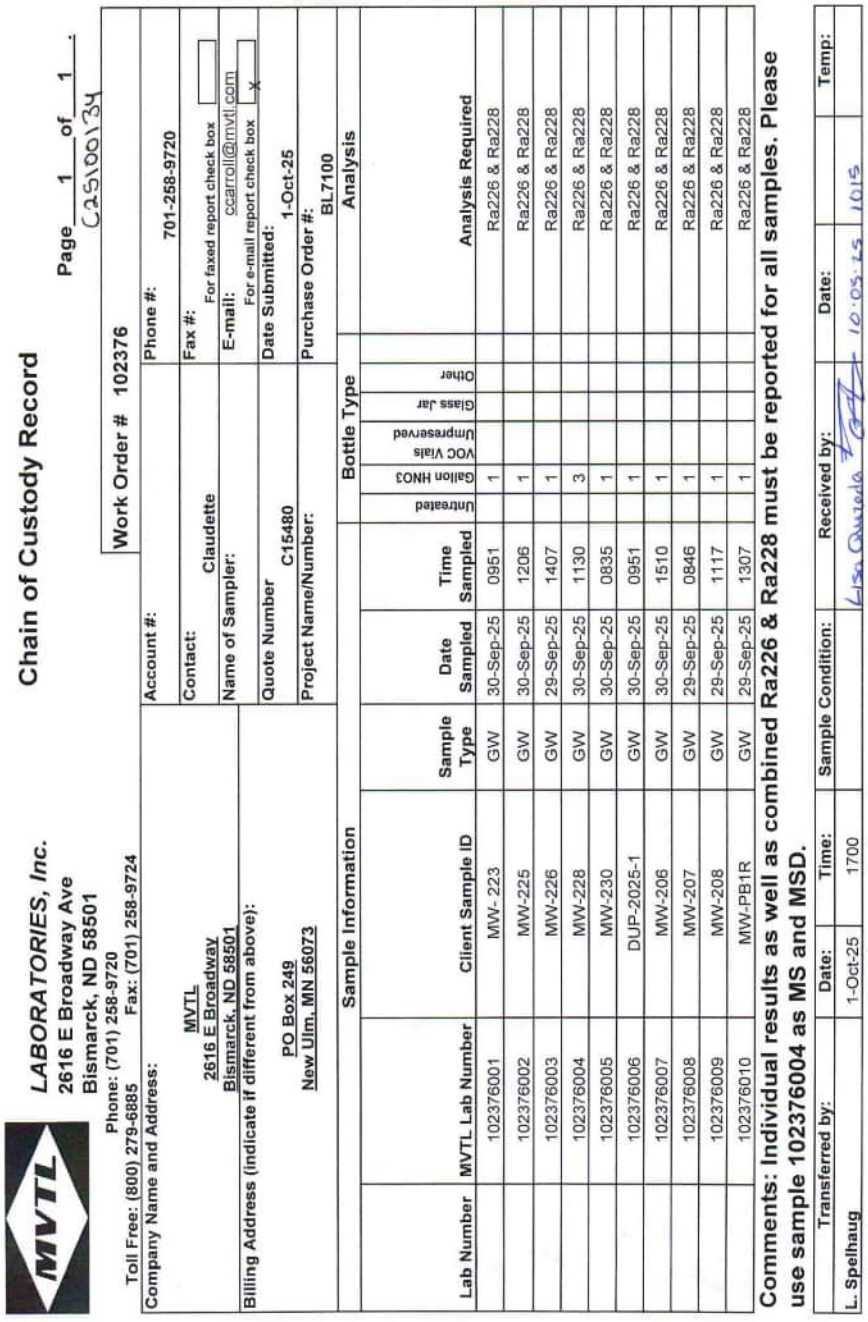
Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Account #: 5109 **Client:** Great River Energy



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2616 E Broadway Ave
Bismarck, ND 58501
Phone: (701) 258-9720
Toll Free: (800) 279-6885 Fax: (701) 258-9724

Chain of Custody Record

Page 1 of 1
CA51001734

Work Order # 102376

Company Name and Address:
MVTL
2616 E Broadway
Bismarck, ND 58501

Account #:
Contact: Claudette
Name of Sampler:

Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box x

Billing Address (indicate if different from above):
PO Box 249
New Ulm, MN 56073

Quote Number C15480
Project Name/Number:

Date Submitted: 1-Oct-25
Purchase Order #: BL7100

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Unpreserved	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	102376001	MW- 223	GW	30-Sep-25	0951		1				Ra226 & Ra228
	102376002	MW-225	GW	30-Sep-25	1206		1				Ra226 & Ra228
	102376003	MW-226	GW	29-Sep-25	1407		1				Ra226 & Ra228
	102376004	MW-228	GW	30-Sep-25	1130		3				Ra226 & Ra228
	102376005	MW-230	GW	30-Sep-25	0835		1				Ra226 & Ra228
	102376006	DUP-2025-1	GW	30-Sep-25	0951		1				Ra226 & Ra228
	102376007	MW-206	GW	30-Sep-25	1510		1				Ra226 & Ra228
	102376008	MW-207	GW	29-Sep-25	0846		1				Ra226 & Ra228
	102376009	MW-208	GW	29-Sep-25	1117		1				Ra226 & Ra228
	102376010	MW-PB1R	GW	29-Sep-25	1307		1				Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples. Please use sample 102376004 as MS and MSD.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
L. Spelhaug	1-Oct-25	1700		Lisa Qurada	10/03/25 1015	

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ANALYTICAL SUMMARY REPORT

October 23, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25100135 Quote ID: C15480
Project Name: 102376

Energy Laboratories, Inc. Casper WY received the following 3 samples for Minnesota Valley Testing Laboratories on 10/3/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25100135-001	102376011, MW-302	09/29/25 10:03	10/03/25	Aqueous	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25100135-002	102376012, DUP-2025-2	09/29/25 11:17	10/03/25	Aqueous	Same As Above
C25100135-003	102376013, FB-2025	09/30/25 11:08	10/03/25	Aqueous	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 102376
Lab ID: C25100135-001
Client Sample ID: 102376011, MW-302

Report Date: 10/23/25
Collection Date: 09/29/25 10:03
DateReceived: 10/03/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L				E903.0	10/23/25 10:06 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	10/23/25 10:06 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	10/23/25 10:06 / dmr
Radium 228	0.7	pCi/L	U			RA-05	10/15/25 13:30 / apt
Radium 228 precision (±)	0.5	pCi/L				RA-05	10/15/25 13:30 / apt
Radium 228 MDC	0.8	pCi/L				RA-05	10/15/25 13:30 / apt
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	10/23/25 12:25 / dmf
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	10/23/25 12:25 / dmf
Radium 226 + Radium 228 MDC	0.8	pCi/L				A7500-RA	10/23/25 12:25 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Additional data collected from non-program locations - not required by program.

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 102376
Lab ID: C25100135-002
Client Sample ID: 102376012, DUP-2025-2

Report Date: 10/23/25
Collection Date: 09/29/25 11:17
DateReceived: 10/03/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.03	pCi/L	U			E903.0	10/23/25 10:06 / dmr
Radium 226 precision (±)	0.07	pCi/L				E903.0	10/23/25 10:06 / dmr
Radium 226 MDC	0.1	pCi/L				E903.0	10/23/25 10:06 / dmr
Radium 228	0.6	pCi/L	U			RA-05	10/15/25 13:30 / apt
Radium 228 precision (±)	0.5	pCi/L				RA-05	10/15/25 13:30 / apt
Radium 228 MDC	0.8	pCi/L				RA-05	10/15/25 13:30 / apt
Radium 226 + Radium 228	0.4	pCi/L	U			A7500-RA	10/23/25 12:25 / dmf
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	10/23/25 12:25 / dmf
Radium 226 + Radium 228 MDC	0.8	pCi/L				A7500-RA	10/23/25 12:25 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 102376
Lab ID: C25100135-003
Client Sample ID: 102376013, FB-2025

Report Date: 10/23/25
Collection Date: 09/30/25 11:08
DateReceived: 10/03/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.07	pCi/L	U			E903.0	10/23/25 10:06 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	10/23/25 10:06 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	10/23/25 10:06 / dmr
Radium 228	0.3	pCi/L	U			RA-05	10/15/25 13:30 / apt
Radium 228 precision (±)	0.7	pCi/L				RA-05	10/15/25 13:30 / apt
Radium 228 MDC	1.1	pCi/L				RA-05	10/15/25 13:30 / apt
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	10/23/25 12:25 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	10/23/25 12:25 / dmf
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	10/23/25 12:25 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25100135 **Report Date:** 10/23/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11861RR
Lab ID: LCS-RA226-11861	3	Laboratory Control Sample				Run: TENNELEC-4_251009D				10/23/25 10:06
Radium 226		8.5	pCi/L		85	70	130			
Radium 226 precision (±)		1.4	pCi/L							
Radium 226 MDC		0.12	pCi/L							
Lab ID: MB-RA226-11861	3	Method Blank				Run: TENNELEC-4_251009D				10/23/25 10:06
Radium 226		0.04	pCi/L							U
Radium 226 precision (±)		0.08	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Lab ID: C25100134-007ADUP	3	Sample Duplicate				Run: TENNELEC-4_251009D				10/23/25 10:06
Radium 226		0.069	pCi/L					46	30	UR
Radium 226 precision (±)		0.082	pCi/L							
Radium 226 MDC		0.13	pCi/L							

- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.36.

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Account #: 5109 **Client:** Great River Energy

QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25100135 **Report Date:** 10/23/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7796
Lab ID: LCS-228-RA226-11861	3	Laboratory Control Sample				Run: TENNELEC-4_251009A				10/15/25 13:30
Radium 228		9.0	pCi/L		101	70	130			
Radium 228 precision (±)		2.4	pCi/L							
Radium 228 MDC		0.85	pCi/L							
Lab ID: MB-RA226-11861	3	Method Blank				Run: TENNELEC-4_251009A				10/15/25 13:30
Radium 228		0.4	pCi/L							U
Radium 228 precision (±)		0.5	pCi/L							
Radium 228 MDC		0.9	pCi/L							
Lab ID: C25100134-007ADUP	3	Sample Duplicate				Run: TENNELEC-4_251009A				10/15/25 13:30
Radium 228		0.63	pCi/L					12	30	U
Radium 228 precision (±)		0.50	pCi/L							
Radium 228 MDC		0.78	pCi/L							

- The RER result is 0.12.

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25100135

Login completed by: Lorie D. Snider
Reviewed by: srichins
Reviewed Date: 10/13/2025
Date Received: 10/3/2025
Received by: LXQ
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	21.4°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature blank temperature in shipping container 1 was 19.0°C, shipping container 2 was 18.6°C, shipping container 3 was 21.4°C and shipping container 4 was 18.9°C. LDS 10/03/25

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Account #: 5109 **Client:** Great River Energy

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Laboratory Certifications and Accreditations

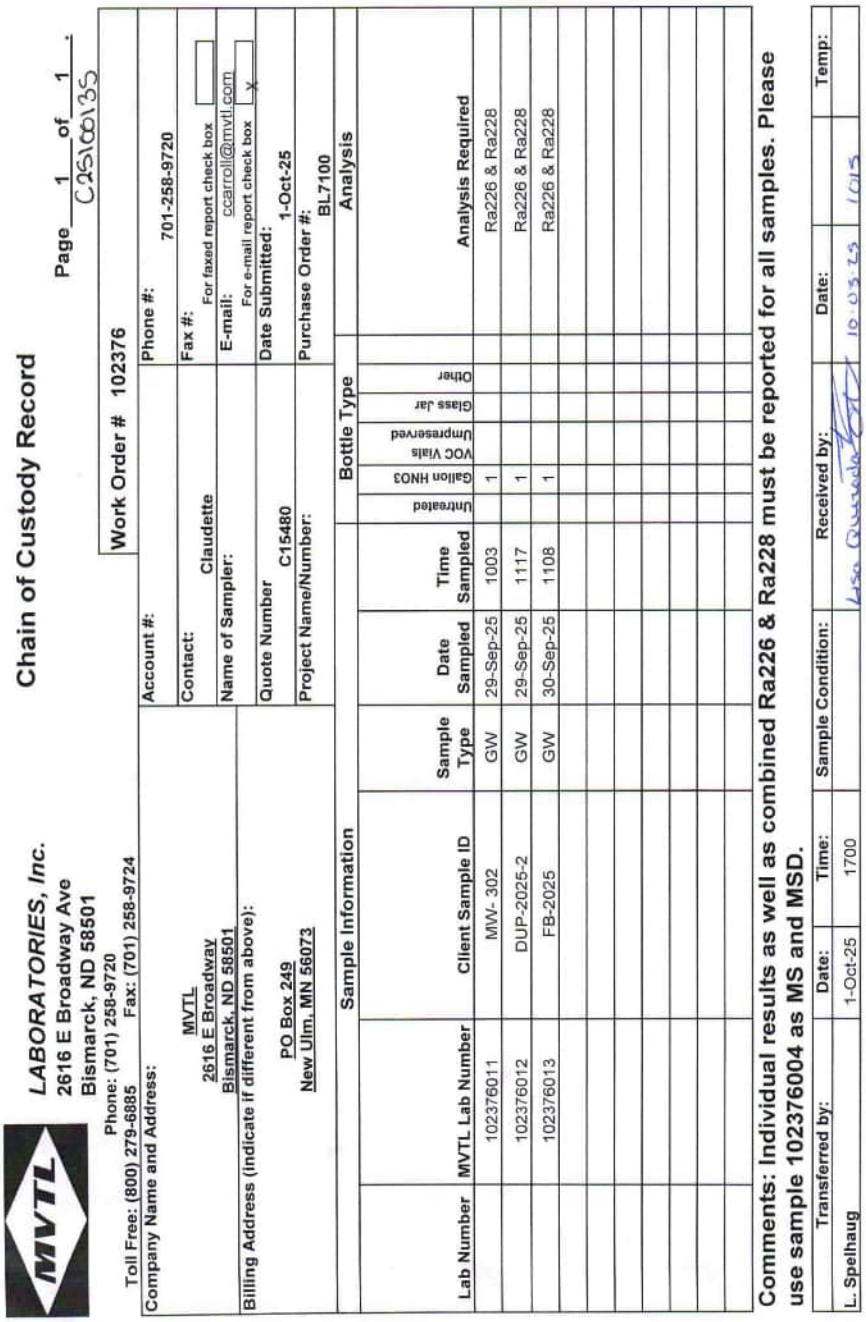
Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Toll Free: (800) 279-6885 Fax: (701) 258-9724

Chain of Custody Record

Page 1 of 1

C25100135

Work Order # 102376

Company Name and Address: MVTL, 2616 E Broadway, Bismarck, ND 58501
Account #:
Contact: Claudette
Name of Sampler:
Quote Number C15480
Project Name/Number:
Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box x
Date Submitted: 1-Oct-25
Purchase Order #: BL7100

Billing Address (indicate if different from above): PO Box 249, New Ulm, MN 56073

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Unpreserved	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	102376011	MW- 302	GW	29-Sep-25	1003		1				Ra226 & Ra228
	102376012	DUP-2025-2	GW	29-Sep-25	1117		1				Ra226 & Ra228
	102376013	FB-2025	GW	30-Sep-25	1108		1				Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples. Please use sample 102376004 as MS and MSD.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:		Temp:
L. Spelhaug	1-Oct-25	1700		Lisa Quarnstrom	10-03-25	1015	

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Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
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Great River Energy
WO: 102376

Chain of Custody Record

Report To: Great River Energy
Attn: Cassie Johnston
Address:
Phone:
Email: CJohnston@GREnergy.com

CC: WSP
44 Union Blvd, Suite 300
Lakewood, CO 80228

Project Name: SS 2025 Wells
Event: Sept 2025
Sampled By: Jeremy Meyer / Ethan Gress

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric	Field Readings	Analysis Required
001	MW- 223	30 Sept 25	0951	GW				X		Radium 226 and 228 Combined
—	MW- 224	30 Sept 25	1308	GW				~~X~~ X	insufficient volume to collect	
002	MW- 225	30 Sept 25	1206	GW				X		
003	MW- 226	29 Sept 25	1407	GW				X		
—	MW- 227	30 Sept 25	0839	GW				~~X~~	insufficient volume collected	
004	MW- 228 MS/MSD	30 Sept 25	1130	GW				3		
—	MW- 229	30 Sept 25	1615	GW				~~X~~	insufficient volume collected	
005	MW- 230	30 Sept 25	0835	GW				X		
006	DUP- 2025 -1	30 Sept 25	0951	GW				X		

Comments: Wells installed in 2025

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		30 Sept 25 1804	Log In (Walk In #2)	Ambient		1 Oct 25 0800
2						

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Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
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Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS 2025 Wells
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: Sept 2025
Address:		Lakewood, CO 80228	Sampled By: Jeremy Meyer / Ethan Gress
Phone:			
Email:	CJohnston@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric										Analysis Required
007	MW- 206	30 Sept 25	1516	GW				X										Radium 226 and 228 Combined
008	MW- 207	29 Sept 25	0846	GW				X										
009	MW- 208	29 Sept 25	1117	GW				X										
010	MW- PB1R	29 Sept 25	1307	GW				X										
011	MW- 302	29 Sept 25	1003	GW				X										
012	DUP- 2025-2	29 Sept 25	1117	GW				X										
013	FB- 2025	30 Sept 25	1108	GW				X										

Comments: Wells installed in 2025

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		30 Sept 25 1804	Log In Walk In #2	Ambient		1 Oct 25 0600
2						

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	223
Sampling Personal:	JTL

Weather Conditions: Temp: 65 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	9.50	ft
Total Depth:	18.25	ft
Depth to Top of Pump:	14.77	ft
Water Level After Sample:	11.45	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 33	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
Dup 2025-1

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
30 Sept 25	0926	Start of Well Purge									
	0931	17.15	4227	10.01	1.35	-97.7	13.71	10.96	100.0	0.5	Clear
	0936	17.66	4237	10.02	1.63	-78.9	23.69	11.20	100.0	0.5	Clear
	0941	17.59	4222	9.97	1.91	-76.8	9.08	11.35	100.0	0.5	Clear
	0946	17.59	4215	9.96	1.91	-72.5	7.05	11.38	100.0	0.5	Clear
	0951	17.71	4224	9.95	1.66	-72.2	3.23	11.41	100.0	0.5	

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
30 Sept 25	0951	17.71	4224	9.95	1.66	-72.2	3.23				Clear

Comments: installed dedicated bladder pump & locked well

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	224
Sampling Personal:	JH

Weather Conditions: Temp: 75 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES (NO)
Well Labeled?	(YES) NO
Repairs Necessary?	
Casing Diameter:	2"
Water Level Before Purge:	12.09 ft
Total Depth:	18.50
Depth to Top of Pump:	14.82 ft
Water Level After Sample:	Below Pump ft
Measurement Method:	Electric Water Level Indicator

SAMPLING INFORMATION

Purging Method:	Bladder
Sampling Method:	Bladder
Dedicated Equipment?	(YES) NO

Control Settings:	
Purge:	2 Sec.
Recover:	58 Sec.
PSI:	—

Bottle List:	
1 Liter Raw	~~1 Gal Nitric~~
500mL Nitric	Pump sufficient volume / reduce rate to collect full bottle set
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
30Sept25	1106	Start of Well Purge									
	1111	20.13	2670	8.71	1.12	0.8	10.50	12.98	100.0	0.5	Clear
	1116	19.82	2667	8.69	1.26	1.0	4.26	13.66	100.0	0.5	Clear
well recharged for 1.5hrs	1121	19.66	2570	8.62	2.22	30.5	2.04	14.05	100.0	0.5	Clear
	1126	19.62	2458	8.46	3.59	67.7	0.62	Below Pump	100.0	0.5	Clear
	1131	19.78	2415	8.34	4.86	93.7	1.60	BP	100.0	0.5	Clear
	1136	19.75	2403	8.41	5.45	71.7	6.98	BP	100.0	0.5	
		Purged	Dry								
	1308	22.90	2689	8.58	3.05	56.5	7.70	13.66			
		Well Stabilized?	YES	(NO)				Total Volume Purged:	2.5	Liters	

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
30 Sept 25	1308	22.90	2689	8.58	3.05	56.5	7.70				Clear

Comments: installed dedicated bladder pump & Locked well
Collected Field Blank 2025 @ 1108

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	225
Sampling Personal:	JTL

Weather Conditions: Temp: 75 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES (NO)
Well Labeled?	(YES) NO
Repairs Necessary?	
Casing Diameter:	2"
Water Level Before Purge:	13.22 ft
Total Depth:	18.62 ft
Depth to Top of Pump:	16.15 ft
Water Level After Sample:	Below Pump ft
Measurement Method:	Electric Water Level Indicator

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 58	Sec.
PSI: —	

Bottle List:
1 Liter Raw
500mL Nitric
500mL Nitric (filtered)
1 Gal Nitric

Duplicate Sample? YES (NO)
Duplicate Sample ID: —

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
30 Sept 25	1141	Start of Well Purge									
	1146	21.79	4366	8.80	0.83	-80.9	42.06	13.65	100.0	0.5	Clear
	1151	21.45	4351	8.80	0.41	-108.7	22.04	14.70	100.0	0.5	Clear
	1156	21.42	4360	8.79	0.44	-110.6	11.12	15.10	100.0	0.5	Clear
	1201	21.45	4330	8.76	0.69	-92.2	9.92	15.60	100.0	0.5	Clear
	1206	21.47	4337	8.75	0.89	-81.9	8.94	15.98	100.0	0.5	

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
30 Sept 25	1206	21.47	4337	8.75	0.89	-81.9	8.94				Clear

Comments: installed dedicated bladder pump & locked well

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	226
Sampling Personal:	JH

Weather Conditions: Temp: 70 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	(NO)
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.95	ft
Total Depth:	17.60	ft
Depth to Top of Pump:		ft
Water Level After Sample:	13.15	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	1"
Sampling Method:	Bladder	1"
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	3	Sec.
Recover:	7	Sec.
PSI:		

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
29 Sept 25	1343	Start of Well Purge									
	1347	19.32	3195	6.80	0.33	96.8	0.57	13.15	100.0	0.5	Clear
	1352	19.36	3184	6.80	0.42	100.4	0.12	13.15	100.0	0.5	Clear
	1357	19.23	3177	6.80	0.40	100.4	0.00	13.15	100.0	0.5	Clear
	1402	19.14	3178	6.80	0.23	97.0	0.00	13.15	100.0	0.5	Clear
	1407	19.19	3188	6.80	0.15	93.4	0.00	13.15	100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
29 Sept 25	1407	19.19	3188	6.80	0.15	93.4	0.00				Clear

Comments: installed dedicated bladder pump & tubing well

1" bladder
Slight obstruction in well

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Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	230
Sampling Personal:	JH

Weather Conditions: Temp: 60 °F Wind: N @ 5-10 Precip: ~~Sunny~~ / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES NO
Well Labeled?	~~YES~~ NO
Repairs Necessary?	
Casing Diameter:	2"
Water Level Before Purge:	13.45 ~~Total Depth~~ ft
Total Depth:	42.05 ft
Depth to Top of Pump:	38.25 ft
Water Level After Sample:	14.06 ft
Measurement Method:	Electric Water Level Indicator

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	~~YES~~	NO

Control Settings:	
Purge: 4	Sec.
Recover: 56	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / ~~NO~~
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
30 Sept 25	0755	Start of Well Purge									
	0800	14.36	1496	7.80	0.30	-37.3	250.9	13.88	100.0	0.5	ST
	0805	13.99	1481	7.81	1.81	8.4	~~474.9~~	13.90	100.0	0.5	ST
	0810	12.91	1479	7.81	1.73	-21.8	386.4	14.05	100.0	0.5	ST
	0815	12.92	1477	7.80	1.52	-32.8	268.0	14.05	100.0	0.5	ST
	0820	12.89	1487	7.96	0.95	-54.5	765.2	14.05	100.0	0.5	ST
	0825	12.94	1494	7.62	0.60	-65.9	120.0	14.06	100.0	0.5	ST
	0830	12.93	1495	7.61	0.56	-67.3	112.0	14.06	100.0	0.5	ST
	0835	13.05	1492	7.56	0.63	-66.6	128.6	14.06	100.0	0.5	ST

Well Stabilized? ~~YES~~ NO Total Volume Purged: 4.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
30 Sept 25	0835	13.05	1492	7.56	0.63	-66.6	128.6				ST

Comments: installed dedicated bladder pump & locked well

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	207
Sampling Personal:	JAB

Weather Conditions: Temp: 55 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	(NO)
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	8.51	ft
Total Depth:	21.05	ft
Depth to Top of Pump:	17.28	ft
Water Level After Sample:	8.79	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 58	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
29Sept25	0806	Start of Well Purge									
	0811	15.85	2260	7.03	0.91	209.0	269.0	8.72	100.0	500.0	ST
	0816	15.63	2193	7.05	0.58	188.3	224.3	8.80	100.0	500.0	ST
	0821	15.49	2165	7.07	0.42	75.2	207.0	8.76	100.0	500.0	ST
	0826	15.30	2146	7.08	0.54	33.4	171.0	8.80	100.0	500.0	ST
	0831	15.38	2164	7.08	0.59	18.6	200.6	8.78	100.0	500.0	ST
	0836	15.36	2168	7.09	0.34	6.0	184.8	8.77	100.0	500.0	ST
	0841	15.35	2175	7.10	0.53	-6.7	185.0	8.75	100.0	500.0	ST
	0846	15.38	2160	7.11	0.32	-12.3	241.3	8.80	100.0	500.0	ST

Well Stabilized? (YES) NO Total Volume Purged: 4.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
29 Sept 25	0846	15.38	2160	7.11	0.32	-12.3	241.3				ST

Comments: Sta installed dedicated bladder pump & locked well

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	108
Sampling Personal:	

Weather Conditions: Temp: 65 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.24	ft
Total Depth:	16.92	ft
Depth to Top of Pump:	13.95	ft
Water Level After Sample:	12.45	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	8 2	Sec.
Recover:	58	Sec.
PSI:		

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
Dup 2025-2

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
29 Sept 25	1052	Start of Well Purge									
	1057	17.55	1314	8.38	0.58	47.2	28.97	12.41	100.0	500.0	Clear
	1102	17.35	1308	8.38	0.54	53.6	28.77	12.45	100.0	500.0	Clear
	1107	17.16	1311	8.39	0.45	57.8	13.66	12.42	100.0	500.0	Clear
	1112	17.32	1317	8.40	0.56	48.8	9.81	12.42	100.0	500.0	Clear
	1117	17.31	1304	8.40	0.70	50.8	9.62	12.45	100.0	500.0	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
29 Sept 25	1117	17.31	1304	8.40	0.70	50.8	9.62				Clear

Comments: installed dedicated bladder pump & baled well

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	PB 1R
Sampling Personal:	

Weather Conditions: Temp: 70 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	25.84	ft
Total Depth:	38.25	ft
Depth to Top of Pump:	33.55	ft
Water Level After Sample:	27.11	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 4	Sec.
Recover: 56	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
29 Sept 25	1242	Start of Well Purge									clear, slightly turbid, turbid
	1247	15.61	1614	7.31	0.37	29.6	183.6	27.05	100.0	500	ST
	1252	15.75	1655	7.29	0.43	35.0	50.83	27.06	100.0	500.0	Clear
	1257	14.96	1632	7.29	0.45	38.5	34.05	27.15	100.0	500.0	Clear
	1302	14.83	1654	7.29	0.46	40.2	19.85	27.12	100.0	500.2	Clear
	1307	14.91	1670	7.30	0.48	40.2	10.73	27.12	100.0	500.0	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
29 Sept 25	1307	14.91	1670	7.30	0.48	40.2	10.73				Clear

Comments: installed dedicated Bladder pump & locked well

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	302
Sampling Personal:	JTH

Weather Conditions: Temp: 60 °F Wind: N @ 5-10 Precip: (Sunny) / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.68	ft
Total Depth:	22.15	ft
Depth to Top of Pump:	16.85	ft
Water Level After Sample:	16.85	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	@ 3	Sec.
Recover:	~~58~~ 57	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
29Sept25	0938	Start of Well Purge									
	0943	16.44	1391	7.70	0.90	-71.2	105.6	13.45	100.0	500.0	Clear
	0948	15.42	1407	7.72	1.22	-65.2	81.19	14.16	100.0	500.0	Clear
	0953	15.08	1399	7.75	0.68	-69.2	69.32	14.84	100.0	500.0	Clear
	0958	15.06	1401	7.75	0.66	-66.7	67.21	15.15	100.0	500.0	Clear
	1003	15.11	1403	7.74	0.72	-66.1	53.69	15.32	100.0	500.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
29Sept25	1003	15.11	1403	7.74	0.72	-66.1	53.69				Clear

Comments:	installed dedicated bladder pump & locked well

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	MW-227
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	~~NO~~
Well Labeled?	YES	~~NO~~
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.09	ft
Total Depth	18.09	
Depth to Top of Pump:	15.16	ft
Water Level After Sample:	Below pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	~~4~~ 2	Sec.
Recover:	~~56~~ 58	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	~~1 Gal Nitric~~
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
~~YES~~ / (NO)
Duplicate Sample ID:
MS/MSD

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	0809	Start of Well Purge									
	0814	15.12	3059	7.59	—	180.1	143.2	13.42	100.0	0.5	Clear
	0819	15.21	2871	7.54	—	159.6	94.25	14.53	100.0	0.5	Clear
	0824	15.66	2788	7.51	—	156.7	88.29	Below pump	100.0	0.5	Clear
	0829	16.05	2778	7.51	—	151.4	89.87	Below pump	100.0	0.5	Clear
	0834	15.99	2822	7.50	—	149.3	77.26	Below pump	100.0	0.5	Clear
	0839	15.89	2897	7.46	—	143.3	100.0	Below pump	100.0	0.5	Clear

30Sep25

Well Stabilized? (YES) NO Total Volume Purged: 3.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
30Sep25	0839	15.89	2897	7.46	—	143.3	100.0				Clear

Comments: Installed Dedicated pump and tubing and labled ~~locked~~ well ; unable to get DO reading meter malfunction
Recharge too slow for MS/MSD ++
1 gal nitric

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	MW-228
Sampling Personal:	Ethan Gross

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	(NO)
Well Labeled?	YES	(NO)
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	8.65	ft
Total Depth	13.50	
Depth to Top of Pump:	10.55	ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 58	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
MS/MSD

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
30Sep25	1110	Start of Well Purge									
	1115	19.70	3219	9.38	—	31.1	57.70	9.55	100.0	0.5	Clear
	1120	19.20	3210	9.40	—	22.0	64.90	9.95	100.0	0.5	Clear
	1125	19.31	3195	9.41	—	18.7	69.10	10.10	100.0	0.5	Clear
	1130	19.17	3181	9.42	—	12.4	66.71	10.30	100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
30Sep25	1130	19.17	3181	9.42	—	12.4	66.71				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company: GRE Stanton Station
Event: Sept 2025
Sample ID: MW-229
Sampling Personal: Ethan Gress

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.72	ft
Total Depth	18.68	
Depth to Top of Pump:	15.70	ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 58	Sec.
PSI: —	

Bottle List:
1 Liter Raw ~~1 Gal Nitric~~
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
30 Sep 25	1555	Start of Well Purge									
	1800	24.47	5470	8.44	—	95.7	5.01	12.72	100.0	0.5	Clear
	1805	24.15	5873	8.78	—	45.8	3.20	12.75	100.0	0.5	Clear
	1810	24.20	5893	8.88	—	26.2	4.30	12.75	100.0	0.5	Clear
	1815	24.37	5897	8.88	—	23.8	5.20	12.75	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 2.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
30 Sep 25	1815	24.37	5897	8.88	—	23.8	5.20				Clear

Comments: ~~Insuf~~ unable to keep up enough to fill gallon jug

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Member ACIL

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Sept 2025
Sample ID:	MW-206
Sampling Personal:	Ethan Greer

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES (NO)
Well Labeled?	YES (NO)
Repairs Necessary?	
Casing Diameter:	2"
Water Level Before Purge:	7.48 ft
Total Depth	13.48
Depth to Top of Pump:	9.50 ft
Water Level After Sample:	ft
Measurement Method:	Electric Water Level Indicator

SAMPLING INFORMATION

Purging Method:	Bladder
Sampling Method:	Bladder
Dedicated Equipment?	(YES) NO

Control Settings:	
Purge: 2	Sec.
Recover: 58	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
30Sep25	1445	Start of Well Purge									
	1450	23.09	2704	7.51	—	12.5	13.37	7.62	100.0	0.5	Clear
	1455	21.59	2700	7.47	—	-63.3	12.90	7.65	100.0	0.5	Clear
	1500	20.94	2657	7.45	—	-88.4	5.94	7.70	100.0	0.5	Clear
	1506	20.95	2628	7.44	—	-99.1	6.71	7.72	100.0	0.5	Clear
	1510	20.88	2621	7.44	—	-101.5	6.09		100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 25 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
30Sep25	1510	20.88	2621	7.44	—	-101.5	6.09				Clear

Comments:

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Additional data collected from non-program locations - not required by program.

APPENDIX B-6

Q2 2025 Resample

MVTL

2616 E. Broadway Ave, Bismarck, ND

Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	2025
Sample ID:	MA
Sampling Personal:	

Weather Conditions: Temp: 45 °F Wind: E @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.58	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.05	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 58	Sec.
PSI: —	

Bottle List:
1 Liter Raw — 1 Gal Nitric
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	**Time**	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
	0752	**Start of Well Purge**									clear, slightly turbid, turbid
15 Oct 25	0757	11.41	17,115	7.25	1.22	*145.6	1.89	12.01	100.0	0.5	Clear
	0802	11.43	17,227	7.25	1.32	*146.9	2.73	12.20	100.0	0.5	Clear
	0807	11.45	17,203	7.26	1.43	148.2	3.01	12.48	100.0	0.5	Clear
	0812	11.49	17,131	7.27	1.84	151.2	4.01	12.71	100.0	0.5	Clear
	0817	11.53	17,002	7.31	2.86	160.0	1.51	13.05	100.0	0.5	Clear

Well Stabilized? (YES) NO

Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
15 Oct 25	0817	11.53	17,002	7.31	2.86	160.0	1.51				Clear

Comments:	

APPENDIX B-7

Q4 2025

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS Up Nov 2025 (108076) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108076001 **Date Collected:** 11/19/2025 07:40 **Matrix:** Groundwater
Sample ID: MW-6B **Date Received:** 11/20/2025 06:30 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1491**	umhos/cm	1	1		11/19/2025 07:40	
Method: 150.2							
pH - Field	**7.66**	units	0.01	1		11/19/2025 07:40	
Method: 170.1							
Temperature - Field C	**17.82**	degrees C		1		11/19/2025 07:40	
Method: ASTM D516-16							
Sulfate	**354**	mg/L	25	5		11/25/2025 11:28	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.36**	mg/L	0.1	1	11/20/2025 15:48	11/25/2025 15:42	
Calcium	**21.5**	mg/L	1	1	11/20/2025 15:48	11/21/2025 11:01	
Lithium	**0.0498**	mg/L	0.02	1	11/20/2025 15:48	11/25/2025 09:00	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/20/2025 15:48	11/26/2025 17:46	
Arsenic	**0.0041**	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 17:46	
Barium	**0.0241**	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 17:46	
Beryllium	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 17:46	
Cadmium	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 17:46	
Chromium	<0.002	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 17:46	
Cobalt	<0.002	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 17:46	
Lead	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 17:46	
Molybdenum	**0.0118**	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 17:46	
Selenium	<0.005	mg/L	0.005	5	11/20/2025 15:48	11/26/2025 17:46	
Thallium	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 17:46	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108076001 **Date Collected:** 11/19/2025 07:40 **Matrix:** Groundwater
Sample ID: MW-6B **Date Received:** 11/20/2025 06:30 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.2**	units	0.1	1		11/20/2025 21:27	*
Method: SM4500-Cl-E 2021							
Chloride	**15.8**	mg/L	2.0	1		11/25/2025 10:50	
Method: SM4500-F-C-2021							
Fluoride	**0.58**	mg/L	0.1	1		11/21/2025 15:31	
Method: USGS I-1750-85							
Total Dissolved Solids	**1060**	mg/L	10	1		11/24/2025 13:20	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108076002 **Date Collected:** 11/19/2025 12:45 **Matrix:** Groundwater
Sample ID: MW-7A **Date Received:** 11/20/2025 06:30 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**15696**	umhos/cm	1	1		11/19/2025 12:45	
Method: 150.2							
pH - Field	**7.27**	units	0.01	1		11/19/2025 12:45	
Method: 170.1							
Temperature - Field C	**19.55**	degrees C		1		11/19/2025 12:45	
Method: ASTM D516-16							
Sulfate	**11000**	mg/L	250	50		11/25/2025 11:29	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.83**	mg/L	0.5	5	11/20/2025 15:48	11/25/2025 15:43	
Calcium	**447**	mg/L	10	10	11/20/2025 15:48	11/21/2025 11:03	
Lithium	**0.288**	mg/L	0.1	5	11/20/2025 15:48	11/25/2025 09:01	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/20/2025 15:48	11/26/2025 17:51	
Arsenic	<0.002	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 17:51	
Barium	**0.0089**	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 17:51	
Beryllium	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 17:51	
Cadmium	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 17:51	
Chromium	<0.002	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 17:51	
Cobalt	<0.002	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 17:51	
Lead	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 17:51	
Molybdenum	**0.0117**	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 17:51	
Selenium	<0.005	mg/L	0.005	5	11/20/2025 15:48	11/26/2025 17:51	
Thallium	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 17:51	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108076002 **Date Collected:** 11/19/2025 12:45 **Matrix:** Groundwater
Sample ID: MW-7A **Date Received:** 11/20/2025 06:30 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		11/20/2025 21:37	*
Method: SM4500-Cl-E 2021							
Chloride	**40.6**	mg/L	2.0	1		11/25/2025 10:56	
Method: SM4500-F-C-2021							
Fluoride	**0.58**	mg/L	0.1	1		11/21/2025 15:37	
Method: USGS I-1750-85							
Total Dissolved Solids	**17300**	mg/L	10	1		11/24/2025 13:20	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108076003 **Date Collected:** 11/19/2025 11:25 **Matrix:** Groundwater
Sample ID: MW-7B **Date Received:** 11/20/2025 06:30 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1531**	umhos/cm	1	1		11/19/2025 11:25	
Method: 150.2							
pH - Field	**7.78**	units	0.01	1		11/19/2025 11:25	
Method: 170.1							
Temperature - Field C	**16.99**	degrees C		1		11/19/2025 11:25	
Method: ASTM D516-16							
Sulfate	**258**	mg/L	25	5		11/25/2025 11:30	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.48**	mg/L	0.1	1	11/20/2025 15:48	11/25/2025 15:45	
Calcium	**18.5**	mg/L	1	1	11/20/2025 15:48	11/21/2025 11:05	
Lithium	**0.0580**	mg/L	0.02	1	11/20/2025 15:48	11/25/2025 09:02	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/20/2025 15:48	11/26/2025 18:11	
Arsenic	<0.002	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 18:11	
Barium	**0.0182**	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 18:11	
Beryllium	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 18:11	
Cadmium	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 18:11	
Chromium	<0.002	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 18:11	
Cobalt	<0.002	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 18:11	
Lead	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 18:11	
Molybdenum	**0.0036**	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 18:11	
Selenium	<0.005	mg/L	0.005	5	11/20/2025 15:48	11/26/2025 18:11	
Thallium	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 18:11	

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108076003 **Date Collected:** 11/19/2025 11:25 **Matrix:** Groundwater
Sample ID: MW-7B **Date Received:** 11/20/2025 06:30 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.2**	units	0.1	1		11/20/2025 21:48	*
Method: SM4500-Cl-E 2021							
Chloride	**10.8**	mg/L	2.0	1		11/25/2025 10:57	
Method: SM4500-F-C-2021							
Fluoride	**0.58**	mg/L	0.1	1		11/21/2025 16:36	
Method: USGS I-1750-85							
Total Dissolved Solids	**1080**	mg/L	10	1		11/24/2025 13:20	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108076004 **Date Collected:** 11/19/2025 08:55 **Matrix:** Groundwater
Sample ID: MW-8B **Date Received:** 11/20/2025 06:30 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1404**	umhos/cm	1	1		11/19/2025 08:55	
Method: 150.2							
pH - Field	**7.37**	units	0.01	1		11/19/2025 08:55	
Method: 170.1							
Temperature - Field C	**18.22**	degrees C		1		11/19/2025 08:55	
Method: ASTM D516-16							
Sulfate	**306**	mg/L	25	5		11/25/2025 11:32	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.38**	mg/L	0.1	1	11/20/2025 15:48	11/25/2025 15:49	
Calcium	**90.8**	mg/L	1	1	11/20/2025 15:48	11/21/2025 11:08	
Lithium	**0.0812**	mg/L	0.02	1	11/20/2025 15:48	11/25/2025 09:05	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/20/2025 15:48	11/26/2025 17:56	
Arsenic	<0.002	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 17:56	
Barium	**0.0286**	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 17:56	
Beryllium	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 17:56	
Cadmium	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 17:56	
Chromium	<0.002	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 17:56	
Cobalt	<0.002	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 17:56	
Lead	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 17:56	
Molybdenum	<0.002	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 17:56	
Selenium	<0.005	mg/L	0.005	5	11/20/2025 15:48	11/26/2025 17:56	
Thallium	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 17:56	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108076004 **Date Collected:** 11/19/2025 08:55 **Matrix:** Groundwater
Sample ID: MW-8B **Date Received:** 11/20/2025 06:30 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		11/20/2025 23:29	*
Method: SM4500-Cl-E 2021							
Chloride	**11.2**	mg/L	2.0	1		11/25/2025 10:59	
Method: SM4500-F-C-2021							
Fluoride	**0.27**	mg/L	0.1	1		11/20/2025 23:29	
Method: USGS I-1750-85							
Total Dissolved Solids	**979**	mg/L	10	1		11/24/2025 13:20	

Analysis Results Comments

Alkalinity, Total

Matrix spike and/or matrix spike duplicate recovery was low; the associated laboratory control sample recovery was acceptable.

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108076005 **Date Collected:** 11/19/2025 10:22 **Matrix:** Groundwater
Sample ID: MW-105 **Date Received:** 11/20/2025 06:30 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1715**	umhos/cm	1	1		11/19/2025 10:22	
Method: 150.2							
pH - Field	**7.81**	units	0.01	1		11/19/2025 10:22	
Method: 170.1							
Temperature - Field C	**19.06**	degrees C		1		11/19/2025 10:22	
Method: ASTM D516-16							
Sulfate	**384**	mg/L	25	5		11/25/2025 12:58	*
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.38**	mg/L	0.1	1	11/20/2025 15:48	11/25/2025 15:50	
Calcium	**40.8**	mg/L	1	1	11/20/2025 15:48	11/21/2025 11:12	
Lithium	**0.0478**	mg/L	0.02	1	11/20/2025 15:48	11/25/2025 09:07	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/20/2025 15:48	11/26/2025 18:01	
Arsenic	<0.002	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 18:01	
Barium	**0.0391**	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 18:01	
Beryllium	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 18:01	
Cadmium	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 18:01	
Chromium	<0.002	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 18:01	
Cobalt	<0.002	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 18:01	
Lead	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 18:01	
Molybdenum	**0.0299**	mg/L	0.002	5	11/20/2025 15:48	11/26/2025 18:01	
Selenium	**0.0206**	mg/L	0.005	5	11/20/2025 15:48	11/26/2025 18:01	
Thallium	<0.0005	mg/L	0.0005	5	11/20/2025 15:48	11/26/2025 18:01	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108076005 **Date Collected:** 11/19/2025 10:22 **Matrix:** Groundwater
Sample ID: MW-105 **Date Received:** 11/20/2025 06:30 **Collector:** MVTL Field Service

Temp @ Receipt (C): 3.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.2**	units	0.1	1		11/20/2025 23:40	*
Method: SM4500-Cl-E 2021							
Chloride	**9.6**	mg/L	2.0	1		11/25/2025 11:00	
Method: SM4500-F-C-2021							
Fluoride	**1.02**	mg/L	0.1	1		11/20/2025 23:40	
Method: USGS I-1750-85							
Total Dissolved Solids	**1210**	mg/L	10	1		11/24/2025 13:20	

Analysis Results Comments

Sulfate

Matrix spike and/or matrix spike duplicate recovery was low; the associated laboratory control sample recovery was acceptable.

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 108076

Sulfate — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			100	99.7		85	115		
LFB			100	98.4		85	115		
LFB			100	93.8		85	115		
LFB			100	88.8		85	115		
LFB			100	97.7		85	115		
LFB			100	98.1		85	115		
LFB			100	97.6		85	115		
LFB			100	95.9		85	115		
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MS/MSD	107885004		500	82.8	84.8	85	115	1.2	20
MS/MSD	108045016		500	79.1	81.4	85	115	1.6	20
MS/MSD	108076003		500	91.4	91.7	85	115	0.3	20
MS/MSD	108076005		500	83.6	84.6	85	115	0.6	20
MS/MSD	108243001		500	88.6	86.1	85	115	1.9	20
MS/MSD	108246001		500	88.8	89.2	85	115	0.2	20
MS/MSD	108246007		100	94.1	94.9	85	115	0.8	20

Chloride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			30	95.1		90	110		
LFB			30	94.9		90	110		
LFB			30	94.6		90	110		
LFB			30	94.7		90	110		

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Account #: 5109 **Client:** Great River Energy

Chloride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			30	94.8		90	110		
LFB			30	95.3		90	110		
LFB			30	94.5		90	110		
LFB			30	94.5		90	110		
LFB			30	94.7		90	110		
LFB			30	94.6		90	110		
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MS/MSD	108045012		30	94.4	100.4	80	120	5.7	20
MS/MSD	108076003		30	94.2	94.1	80	120	0.0	20
MS/MSD	108245003		30	98.4	99.8	80	120	0.9	20
MS/MSD	108460004		30	94.5	94.5	80	120	0.0	20
MS/MSD	108460010		30	95.7	95.4	80	120	0.1	20

Aluminum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	101.0		85	115		
MB		<0.1							
MS/MSD	108076003		0.4	110.0	106.0	70	130	3.5	20

Aluminum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.4	101.0		85	115		
MB		<0.1							

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Account #: 5109 **Client:** Great River Energy

Aluminum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	108076003		1	98.9	99.9	75	125	0.9	20
SPK/SPKD	108246006		0.4	100.0	98.0	75	125	2.2	20
SPK/SPKD	108663001		0.4	106.0	107.0	75	125	0.6	20
SPK/SPKD	108756002		0.4	88.2	91.8	75	125	3.0	20
SPK/SPKD	108756002		1	105.0	106.0	75	125	0.9	20
SPK/SPKD	108796013		0.4	110.0	108.0	75	125	1.9	20
SPK/SPKD	108925002		0.4	114.0	112.0	75	125	1.5	20

Boron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	107.0		85	115		
MB		<0.1							
MS/MSD	108076003		0.4	105.0	99.6	70	130	2.3	20

Boron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	107.0		85	115		
MB		<0.1							
SPK/SPKD	108076003		0.4	95.1	92.1	75	125	1.5	20
SPK/SPKD	108246005		0.4	90.0	89.0	75	125	0.3	20

Calcium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	113.0		85	115		
MB		<1							
PDS/PDSD	108045003		100	93.2	91.0	75	125	1.0	20
PDS/PDSD	108045012		100	92.5	91.4	75	125	0.5	20
DUP	108076003							3.3	20
PDS/PDSD	108076004		100	98.0	97.8	75	125	0.1	20
PDS/PDSD	108111001		100	97.2	96.4	75	125	0.5	20

Calcium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	113.0		85	115		
MB		<1							
SPK/SPKD	108076004		100	96.6	96.4	75	125	0.1	20

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Account #: 5109 **Client:** Great River Energy

Iron Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	110.0		85	115		
MB		<0.1							
MS/MSD	108076003		0.4	87.5	87.5	70	130	0.0	20

Iron, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.4	110.0		85	115		
MB		<0.1							
SPK/SPKD	108076003		1	90.0	90.4	75	125	0.2	20
SPK/SPKD	108246006		0.4	81.8	82.1	75	125	0.3	20
SPK/SPKD	108663001		0.4	93.7	94.6	75	125	0.9	20
SPK/SPKD	108756002		0.4	85.7	87.4	75	125	2.6	20
SPK/SPKD	108756002		1	95.9	96.4	75	125	0.6	20
SPK/SPKD	108796013		0.4	87.3	87.6	75	125	0.3	20
SPK/SPKD	108925002		0.4	87.0	87.5	75	125	0.6	20

Lithium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	105.0		85	115		
MB		<0.04							
MS/MSD	108076003		0.4	100.0	97.9	70	130	2.2	20
PDS/PDSD	108246002		0.4	95.9	95.8	75	125	0.0	20

Lithium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	105.0		85	115		
MB		<0.04							
SPK/SPKD	108076003		0.4	93.2	92.8	75	125	0.4	20
SPK/SPKD	108246005		0.4	93.8	92.7	75	125	1.1	20

Magnesium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	113.0		85	115		
MB		<1							
PDS/PDSD	108045003		100	99.8	98.7	75	125	0.9	20

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Account #: 5109 **Client:** Great River Energy

Magnesium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	108045012		100	99.1	98.1	75	125	0.7	20
DUP	108076003							2.2	20
PDS/PDSD	108076004		100	94.5	95.0	75	125	0.3	20
PDS/PDSD	108111001		100	96.6	95.9	75	125	0.4	20

Magnesium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	113.0		85	115		
MB		<1							
SPK/SPKD	108076004		100	93.6	94.1	75	125	0.3	20

Manganese Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	113.0		85	115		
MB		<0.05							
MS/MSD	108076003		0.4	96.2	95.0	70	130	1.1	20

Manganese, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.05							
LFB-OE			0.4	113.0		85	115		
MB		<0.05							
SPK/SPKD	108076003		1	95.2	95.3	75	125	0.1	20
SPK/SPKD	108246006		0.4	91.4	91.6	75	125	0.3	20
SPK/SPKD	108663001		0.4	96.1	96.4	75	125	0.3	20
SPK/SPKD	108756002		1	97.0	97.5	75	125	0.3	20
SPK/SPKD	108796013		0.4	77.2	78.4	75	125	0.5	20
SPK/SPKD	108925002		0.4	79.4	80.3	75	125	0.3	20

Potassium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
MB		<1							
PDS/PDSD	108045003		100	100.0	98.9	75	125	1.2	20
PDS/PDSD	108045012		100	101.0	99.7	75	125	0.7	20
DUP	108076003							2.7	20

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Potassium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	108076004		100	102.0	103.0	75	125	0.9	20
PDS/PDSD	108111001		100	101.0	100.0	75	125	0.0	20

Potassium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
MB		<1							
SPK/SPKD	108076004		100	102.0	103.0	75	125	0.6	20

Sodium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
MB		<1							
PDS/PDSD	108045003		100	100.0	98.7	75	125	1.2	20
PDS/PDSD	108045012		100	101.0	99.6	75	125	0.9	20
DUP	108076003							2.7	20
PDS/PDSD	108076004		100	83.7	88.8	75	125	1.8	20
PDS/PDSD	108111001		100	72.7	75.5	75	125	0.5	20

Sodium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
MB		<1							
SPK/SPKD	108076004		100	87.3	87.7	75	125	0.2	20

Antimony Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	93.0		80	120		
MB		<0.001							
SPK/SPKD	108045024		0.1	102.0	103.0	75	125	1.3	20
MS/MSD	108076003		0.4	108.0	104.0	75	125	4.0	20
SPK	108076003		0.1	103.0		75	125		

Antimony, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	93.0		80	120		
MB		<0.001							
SPK/SPKD	108045024		0.1	102.0	103.0	75	125	1.3	20

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Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	108076003		0.4	108.0	104.0	75	125	4.0	20
SPK	108076003		0.1	103.0		75	125		
SPK/SPKD	108076003		0.1	108.0	106.0	75	125	1.5	20
SPK/SPKD	108246007		0.1	104.0	106.0	75	125	2.3	20

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
MB		<0.002							
SPK/SPKD	108045024		0.1	94.6	96.2	75	125	1.7	20
MS/MSD	108076003		0.4	105.0	105.0	75	125	0.5	20
SPK	108076003		0.1	96.1		75	125		

Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
MB		<0.002							
SPK/SPKD	108045024		0.1	94.6	96.2	75	125	1.7	20
MS/MSD	108076003		0.4	105.0	105.0	75	125	0.5	20
SPK	108076003		0.1	96.1		75	125		
SPK/SPKD	108076003		0.1	102.0	102.0	75	125	0.4	20
SPK/SPKD	108246007		0.1	98.2	98.5	75	125	0.3	20

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.002							
SPK/SPKD	108045024		0.1	99.1	101.0	75	125	2.3	20
MS/MSD	108076003		0.4	102.0	101.0	75	125	1.2	20
SPK	108076003		0.1	98.0		75	125		

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.002							
SPK/SPKD	108045024		0.1	99.1	101.0	75	125	2.3	20

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Barium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	108076003		0.4	102.0	101.0	75	125	1.2	20
SPK	108076003		0.1	98.0		75	125		
SPK/SPKD	108076003		0.1	98.8	99.4	75	125	0.5	20
SPK/SPKD	108246007		0.1	104.0	106.0	75	125	2.3	20

Beryllium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
MB		<0.0005							
SPK/SPKD	108045024		0.1	101.0	101.0	75	125	0.8	20
MS/MSD	108076003		0.4	102.0	99.8	75	125	1.7	20
SPK	108076003		0.1	93.5		75	125		

Beryllium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
MB		<0.0005							
SPK/SPKD	108045024		0.1	101.0	101.0	75	125	0.8	20
MS/MSD	108076003		0.4	102.0	99.8	75	125	1.7	20
SPK	108076003		0.1	93.5		75	125		
SPK/SPKD	108076003		0.1	91.0	91.0	75	125	0.0	20
SPK/SPKD	108246007		0.1	95.4	96.2	75	125	0.8	20

Cadmium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	95.0		80	120		
MB		<0.0005							
SPK/SPKD	108045024		0.1	99.8	103.0	75	125	3.2	20
MS/MSD	108076003		0.4	105.0	99.6	75	125	5.4	20
SPK	108076003		0.1	96.9		75	125		

Cadmium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	95.0		80	120		
MB		<0.0005							
SPK/SPKD	108045024		0.1	99.8	103.0	75	125	3.2	20

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Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	108076003		0.4	105.0	99.6	75	125	5.4	20
SPK	108076003		0.1	96.9		75	125		
SPK/SPKD	108076003		0.1	105.0	103.0	75	125	2.3	20
SPK/SPKD	108246007		0.1	105.0	106.0	75	125	1.4	20

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	114.0		80	120		
MB		<0.002							
SPK/SPKD	108045024		0.1	97.6	98.6	75	125	1.0	20
MS/MSD	108076003		0.4	103.0	105.0	75	125	1.9	20
SPK	108076003		0.1	101.0		75	125		

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	114.0		80	120		
MB		<0.002							
SPK/SPKD	108045024		0.1	97.6	98.6	75	125	1.0	20
MS/MSD	108076003		0.4	103.0	105.0	75	125	1.9	20
SPK/SPKD	108076003		0.1	100.0	101.0	75	125	0.5	20
SPK/SPKD	108246007		0.1	103.0	99.0	75	125	4.3	20

Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	112.0		80	120		
MB		<0.002							
SPK	108045024					75	125		
SPK/SPKD	108045024		0.1	96.7	97.9	75	125	1.2	20
MS/MSD	108076003		0.4	102.0	103.0	75	125	1.2	20

Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	112.0		80	120		
MB		<0.002							
SPK/SPKD	108045024		0.1	96.7	97.9	75	125	1.2	20
MS/MSD	108076003		0.4	102.0	103.0	75	125	1.2	20

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Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	108076003		0.1	96.2		75	125		
SPK/SPKD	108076003		0.1	98.8	99.8	75	125	1.0	20
SPK/SPKD	108246007		0.1	103.0	100.0	75	125	2.1	20

Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
MB		<0.0005							
SPK/SPKD	108045024		0.1	102.0	101.0	75	125	0.7	20
MS/MSD	108076003		0.4	113.0	107.0	75	125	5.0	20
SPK	108076003		0.1	104.0		75	125		

Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
MB		<0.0005							
SPK/SPKD	108045024		0.1	102.0	101.0	75	125	0.7	20
MS/MSD	108076003		0.4	113.0	107.0	75	125	5.0	20
SPK	108076003		0.1	104.0		75	125		
SPK/SPKD	108076003		0.1	107.0	104.0	75	125	2.8	20
SPK/SPKD	108246007		0.1	101.0	101.0	75	125	0.1	20

Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
MB		<0.002							
SPK/SPKD	108045024		0.1	98.8	100.0	75	125	1.2	20
MS/MSD	108076003		0.4	102.0	100.0	75	125	1.7	20
SPK	108076003		0.1	102.0		75	125		

Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
MB		<0.002							
SPK/SPKD	108045024		0.1	98.8	100.0	75	125	1.2	20
MS/MSD	108076003		0.4	102.0	100.0	75	125	1.7	20

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Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	108076003		0.1	102.0		75	125		
SPK/SPKD	108076003		0.1	108.0	104.0	75	125	3.0	20
SPK/SPKD	108246007		0.1	105.0	101.0	75	125	3.4	20

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
MB		<0.005							
SPK/SPKD	108045024		0.1	96.2	98.3	75	125	2.2	20
MS/MSD	108076003		0.4	106.0	105.0	75	125	1.0	20
SPK	108076003		0.1	94.8		75	125		

Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
MB		<0.005							
SPK/SPKD	108045024		0.1	96.2	98.3	75	125	2.2	20
MS/MSD	108076003		0.4	106.0	105.0	75	125	1.0	20
SPK	108076003		0.1	94.8		75	125		
SPK/SPKD	108076003		0.1	96.3	93.5	75	125	3.0	20
SPK/SPKD	108246007		0.1	96.6	97.5	75	125	0.9	20

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
MB		<0.0005							
SPK/SPKD	108045024		0.1	102.0	103.0	75	125	0.5	20
MS/MSD	108076003		0.4	107.0	109.0	75	125	0.9	20
SPK	108076003		0.1	105.0		75	125		

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
MB		<0.0005							
SPK/SPKD	108045024		0.1	102.0	103.0	75	125	0.5	20
MS/MSD	108076003		0.4	107.0	109.0	75	125	0.9	20

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Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	108076003		0.1	105.0		75	125		
SPK/SPKD	108076003		0.1	109.0	107.0	75	125	2.2	20
SPK/SPKD	108246007		0.1	101.0	103.0	75	125	2.2	20

Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	85.1		85	115		
LFB			0.002	93.2		85	115		
LFB			0.002	90.3		85	115		
LRB		<0.0002							
MB		<0.0002							
MB		<0.0002							
MS/MSD	108045075		0.002	89.5	88.6	70	130	0.0	20
MS/MSD	108076003		0.002	87.9	86.7	70	130	5.7	20
MS/MSD	108246007		0.002	85.2	86.4	70	130	0.0	20
MS/MSD	108508001		0.002	90.1	92.4	70	130	0.0	20

Alkalinity, Total — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			501	90.6		80	120		
LFB			410	94.9		90	110		
LFB			410	94.3		90	110		
LFB			410	95.0		90	110		
LFB			410	94.2		90	110		
LFB			410	91.4		90	110		
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MS/MSD	108045008		410	86.5	85.1	80	120	0.8	20
MS/MSD	108045012		410	73.7	73.1	80	120	0.3	20
MS/MSD	108076003		410	83.4	83.9	80	120	0.3	20

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Account #: 5109 **Client:** Great River Energy

Alkalinity, Total Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	108076004		410	75.6	74.9	80	120	0.4	20

pH Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
DUP	108045009							0.5	20
DUP	108045017								
DUP	108076005							0.2	20
DUP	108111003							0.3	20

pH Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	99.3					
CRM-PH			6	99.2					
CRM-PH			6	99.0					
CRM-PH			6	99.0					
CRM-PH			6	99.0					

Fluoride Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			3.34	106.0		83.83	111.07		
CRM-F			3.34	105.0		83.83	111.07		
LFB-F			0.5	108.0		90	110		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	102.0		90	110		
LFB-F			0.5	100.0		90	110		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	98.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							

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Account #: 5109 **Client:** Great River Energy

Fluoride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	108045010		0.5	108.0	106.0	80	120	1.2	20
MS/MSD-F	108076001		0.5	106.0	90.0	80	120	7.5	20
MS/MSD-F	108076003		0.5	98.0	96.0	80	120	0.9	20
MS/MSD-F	108076005		0.5	108.0	94.0	80	120	4.6	20
MS/MSD-F	108245003		0.5	92.0	94.0	80	120	1.1	20
MS/MSD-F	108246006		0.5	96.0	90.0	80	120	3.0	20

Total Dissolved Solids — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	97.0		90.35	110.33		
MB		<10							
DUP	108076003							1.8	20
DUP	108244001							1.6	20

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Minnesota Valley Testing Laboratories
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Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 108076

Chain of Custody Record

Report To:	Great River Energy	CC:	WSP
Attn:	Erik Heinen		44 Union Blvd, Suite 300
Address:			Lakewood, CO 80228
Phone:			
Email:	EHeinen@GREnergy.com		

Project Name: SS UP
Event: Nov 2025
Sampled By: Jeremy Mayer

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 6B	19 Nov 25	0740	GW	X	X	X	17.82	1491	7.66	7.05	App III, App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radchem, Dissolved and Total for Remainder of Metals) (See Attachments)
002	MW- 7A	19 Nov 25	1245	GW	X	X	X	19.55	1596	7.27	4.84	
003	MW- 7B/MS/MSD	19 Nov 25	1125	GW	3	3	3	16.99	1531	7.78	3.36	
004	MW- 8B	19 Nov 25	0855	GW	X	X	X	18.22	1404	7.37	21.21	
005	MW- 105	19 Nov 25	1022	GW	X	X	X	19.06	1715	7.81	1.85	

Comments: Upgradient/Side-gradient Wells

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	20 Nov 25 0630	Log In Walk in #2	3.7 °C/TM 805 RO(Y)N		20 Nov 25 0805
2					

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Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.
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Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	6B
Sampling Personal:	J, CK

Weather Conditions: Temp: 40 °F Wind: N @ 5-12 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	18.17	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	21.08	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 57	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
19 Nov 25	0715	Start of Well Purge									
	0720	17.81	1490	7.65	1.70	196.2	9.06	21.05	100	0.5	Clear
	0725	17.83	1493	7.65	1.59	197.1	6.53	21.06	100	0.5	Clear
	0730	17.81	1485	7.65	1.72	196.5	5.54	21.05	100	0.5	Clear
	0735	17.82	1487	7.66	1.76	196.1	8.05	21.04	100	0.5	Clear
	0740	17.82	1491	7.66	1.82	195.3	7.05	21.05	100	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
19 Nov 25	0740	17.82	1491	7.66	1.82	195.3	7.05				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	7A
Sampling Personal:	JTH

Weather Conditions: Temp: 45 °F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.52	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.35	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	2	Sec.
Recover:	56	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID: —

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
19 Nov 25	1220	Start of Well Purge									
	1225	19.56	15675	7.24	0.76	77.9	3.38	12.20	100.0	0.5	Clear
	1230	19.56	15611	7.26	0.99	89.4	5.04	12.48	100.0	0.5	Clear
	1235	19.57	15609	7.27	1.75	102.4	3.64	12.85	100.0	0.5	Clear
	1240	19.54	15624	7.27	1.89	110.5	3.68	12.99	100.0	0.5	Clear
	1245	19.55	15696	7.27	1.84	114.1	4.84	13.30	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
19 Nov 25	1245	19.55	15696	7.27	1.84	114.1	4.84				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	~~MW-78~~
Sampling Personal:	

Weather Conditions: Temp: 45 °F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.25	ft
Depth to Top of Pump:		ft
Water Level After Sample:	11.48	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:		
1 Liter Raw	1 Gal Nitric	
500mL Nitric		x3
500mL Nitric (filtered)		

Duplicate Sample?
YES / NO
Duplicate Sample ID:
MS/MSD

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
19 Nov 25	1100	Start of Well Purge									
	1105	17.00	1540	7.79	0.17	-128.6	0.00	11.46	200.0	1.0	Clear
	1110	16.95	1532	7.78	0.16	-127.0	1.21	11.47	200.0	1.0	Clear
	1115	16.93	1541	7.78	0.11	-126.7	0.51	11.48	200.0	1.0	Clear
	1120	16.95	1548	7.78	0.05	-128.4	1.21	11.48	200.0	1.0	Clear
	1125	16.99	1531	7.78	0.09	-125.5	3.36	11.48	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
19 Nov 25	1125	16.99	1531	7.78	0.09	-125.5	3.36				Clear

Comments:

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	BB
Sampling Personal:	

Weather Conditions: Temp: 40°F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	44.25	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	44.40	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 5	Sec.
Recover: 10	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
19 Nov 25	0830	Start of Well Purge									
	0835	18.35	1430	7.37	0.18	43.9	1.92	44.33	100.0	0.5	Clear
	0840	18.20	1406	7.37	0.21	42.0	7.46	44.35	100.0	0.5	Clear
	0845	18.21	1400	7.37	0.22	42.3	8.78	44.37	100.0	0.5	Clear
	0850	18.21	1401	7.37	0.22	42.1	12.95	44.38	100.0	0.5	Clear
	0855	18.22	1404	7.37	0.23	42.1	21.21	44.38	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
19 Nov 25	0855	18.22	1404	7.37	0.23	42.1	21.21				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	105
Sampling Personal:	JTH

Weather Conditions: Temp: 45 °F Wind: N @ 5 - 10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	14.90	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	14.99	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge:	2 Sec.
Recover:	26 Sec.
PSI:	—

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
19 Nov 25	0957	Start of Well Purge									
	1002	19.15	1721	7.80	0.19	98.8	7.62	14.93	200.0	1.0	Clear
	1007	19.10	1712	7.81	0.17	97.1	3.44	14.95	200.0	1.0	Clear
	1012	19.05	1710	7.81	0.15	94.4	1.88	14.97	200.0	1.0	Clear
	1017	19.05	1714	7.81	0.15	94.2	3.02	14.98	200.0	1.0	Clear
	1022	19.06	1715	7.81	0.15	93.9	1.85	14.98	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
19 Nov 25	1022	19.06	1715	7.81	0.15	93.9	1.85				Clear

Comments:

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 20 NOV 25 Time: 1041 Analyst: DW

Work Order #: 1058076

Containers Supplied by MVTL: [X] Yes [ ] No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
1	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
1	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
1	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS UP Nov 2025 (108174) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108174001 **Date Collected:** 11/19/2025 07:40 **Matrix:** Groundwater
Sample ID: MW-6B **Date Received:** 11/20/2025 06:30 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/19/2025 09:21	
Radium 228	See Attached			1		12/19/2025 09:21	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID:	108174002	**Date Collected:**	11/19/2025 12:45	**Matrix:**	Groundwater
Sample ID:	MW-7A	**Date Received:**	11/20/2025 06:30	**Collector:**	MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/19/2025 09:21	
Radium 228	See Attached			1		12/19/2025 09:21	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108174003 **Date Collected:** 11/19/2025 11:25 **Matrix:** Groundwater
Sample ID: MW-7B **Date Received:** 11/20/2025 06:30 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/19/2025 09:21	
Radium 228	See Attached			1		12/19/2025 09:21	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108174004 **Date Collected:** 11/19/2025 08:55 **Matrix:** Groundwater
Sample ID: MW-8B **Date Received:** 11/20/2025 06:30 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/19/2025 09:21	
Radium 228	See Attached			1		12/19/2025 09:21	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108174005 **Date Collected:** 11/19/2025 10:22 **Matrix:** Groundwater
Sample ID: MW-105 **Date Received:** 11/20/2025 06:30 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/19/2025 09:21	
Radium 228	See Attached			1		12/19/2025 09:21	

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ANALYTICAL SUMMARY REPORT

December 18, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25110736 Quote ID: C15480
Project Name: 108174

Energy Laboratories, Inc. Casper WY received the following 5 samples for Minnesota Valley Testing Laboratories on 11/25/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25110736-001	108174001, MW-6B	11/19/25 7:40	11/25/25	Groundwater	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25110736-002	108174002, MW-7A	11/19/25 12:45	11/25/25	Groundwater	Same As Above
C25110736-003	108174003, MW-7B	11/19/25 11:25	11/25/25	Groundwater	Same As Above
C25110736-004	108174004, MW-8B	11/19/25 8:55	11/25/25	Groundwater	Same As Above
C25110736-005	108174005, MW-105	11/19/25 10:22	11/25/25	Groundwater	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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Account #: 5109 **Client:** Great River Energy

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108174
Lab ID: C25110736-001
Client Sample ID: 108174001, MW-6B

Report Date: 12/18/25
Collection Date: 11/19/25 07:40
DateReceived: 11/25/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.04	pCi/L	U			E903.0	12/15/25 13:32 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/15/25 13:32 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/15/25 13:32 / dmr
Radium 228	0.9	pCi/L				RA-05	12/10/25 14:25 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/10/25 14:25 / jls1
Radium 228 MDC	0.8	pCi/L				RA-05	12/10/25 14:25 / jls1
Radium 226 + Radium 228	1.0	pCi/L				A7500-RA	12/16/25 12:59 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/16/25 12:59 / dmf
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/16/25 12:59 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108174
Lab ID: C25110736-002
Client Sample ID: 108174002, MW-7A

Report Date: 12/18/25
Collection Date: 11/19/25 12:45
DateReceived: 11/25/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.05	pCi/L	U			E903.0	12/15/25 13:32 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/15/25 13:32 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/15/25 13:32 / dmr
Radium 228	-0.04	pCi/L	U			RA-05	12/10/25 14:25 / jls1
Radium 228 precision (±)	0.5	pCi/L				RA-05	12/10/25 14:25 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/10/25 14:25 / jls1
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	12/16/25 12:59 / dmf
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	12/16/25 12:59 / dmf
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/16/25 12:59 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
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Account #: 5109 **Client:** Great River Energy

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108174
Lab ID: C25110736-003
Client Sample ID: 108174003, MW-7B

Report Date: 12/18/25
Collection Date: 11/19/25 11:25
DateReceived: 11/25/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L	U			E903.0	12/15/25 13:32 / dmr
Radium 226 precision (±)	0.2	pCi/L				E903.0	12/15/25 13:32 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/15/25 13:32 / dmr
Radium 228	0.4	pCi/L	U			RA-05	12/10/25 14:25 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/10/25 14:25 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/10/25 14:25 / jls1
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	12/16/25 12:59 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/16/25 12:59 / dmf
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/16/25 12:59 / dmf

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108174
Lab ID: C25110736-004
Client Sample ID: 108174004, MW-8B

Report Date: 12/18/25
Collection Date: 11/19/25 08:55
DateReceived: 11/25/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.07	pCi/L	U			E903.0	12/15/25 14:16 / dmr
Radium 226 precision (±)	0.09	pCi/L				E903.0	12/15/25 14:16 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/15/25 14:16 / dmr
Radium 228	0.3	pCi/L	U			RA-05	12/10/25 14:25 / jls1
Radium 228 precision (±)	0.5	pCi/L				RA-05	12/10/25 14:25 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/10/25 14:25 / jls1
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	12/16/25 12:59 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/16/25 12:59 / dmf
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/16/25 12:59 / dmf

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108174
Lab ID: C25110736-005
Client Sample ID: 108174005, MW-105

Report Date: 12/18/25
Collection Date: 11/19/25 10:22
DateReceived: 11/25/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.02	pCi/L	U			E903.0	12/15/25 14:16 / dmr
Radium 226 precision (±)	0.09	pCi/L				E903.0	12/15/25 14:16 / dmr
Radium 226 MDC	0.1	pCi/L				E903.0	12/15/25 14:16 / dmr
Radium 228	0.6	pCi/L	U			RA-05	12/10/25 14:25 / jls1
Radium 228 precision (±)	0.5	pCi/L				RA-05	12/10/25 14:25 / jls1
Radium 228 MDC	0.8	pCi/L				RA-05	12/10/25 14:25 / jls1
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	12/16/25 12:59 / dmf
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	12/16/25 12:59 / dmf
Radium 226 + Radium 228 MDC	0.8	pCi/L				A7500-RA	12/16/25 12:59 / dmf

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Account #: 5109 **Client:** Great River Energy

QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25110736 **Report Date:** 12/17/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11922R
Lab ID: LCS-RA226-11922	3	Laboratory Control Sample				Run: TENNELEC-4_251202G				12/15/25 11:30
Radium 226		12	pCi/L		117	70	130			
Radium 226 precision (±)		2.2	pCi/L							
Radium 226 MDC		0.23	pCi/L							
Lab ID: C25110736-003AMS1	3	Sample Matrix Spike				Run: TENNELEC-4_251202G				12/15/25 13:32
Radium 226		10	pCi/L		103	70	130			
Radium 226 precision (±)		1.9	pCi/L							
Radium 226 MDC		0.18	pCi/L							
Lab ID: C25110736-003AMSD1	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_251202G				12/15/25 14:16
Radium 226		10	pCi/L		102	70	130	1.1	30	
Radium 226 precision (±)		1.9	pCi/L							
Radium 226 MDC		0.16	pCi/L							
- The RER result is 0.04.										
Method: E903.0										Batch: RA226-11922R
Lab ID: MB-RA226-11922	3	Method Blank				Run: TENNELEC-4_251202H				12/16/25 10:08
Radium 226		0.03	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							

Qualifiers:

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25110736 **Report Date:** 12/17/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7848
Lab ID: LCS-228-RA226-11922	3	Laboratory Control Sample				Run: TENNELEC-4_251202E				12/10/25 14:25
Radium 228		7.7	pCi/L		88	70	130			
Radium 228 precision (±)		2.3	pCi/L							
Radium 228 MDC		0.87	pCi/L							
Lab ID: MB-RA226-11922	3	Method Blank				Run: TENNELEC-4_251202E				12/10/25 14:25
Radium 228		0.2	pCi/L							U
Radium 228 precision (±)		0.5	pCi/L							
Radium 228 MDC		0.9	pCi/L							
Lab ID: C25110736-003AMS4	3	Sample Matrix Spike				Run: TENNELEC-4_251202E				12/10/25 14:25
Radium 228		8.2	pCi/L		89	70	130			
Radium 228 precision (±)		2.5	pCi/L							
Radium 228 MDC		0.86	pCi/L							
Lab ID: C25110736-003AMSD4	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_251202E				12/10/25 14:25
Radium 228		7.5	pCi/L		82	70	130	8.1	30	
Radium 228 precision (±)		2.3	pCi/L							
Radium 228 MDC		0.90	pCi/L							

- The RER result is 0.19.

Qualifiers:

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25110736

Login completed by: Lorie D. Snider
Reviewed by: dsawyer
Reviewed Date: 12/5/2025

Date Received: 11/25/2025
Received by: LDS
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	7.4°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature blank temperature in shipping container 1 was 0.2°C. The temperature blank temperature in shipping container 2 was 7.1°C, shipping container 3 was 6.9°C, shipping container 4 was 7.4°C, shipping container 5 was 7.1°C

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Work Order Receipt Checklist - Continued

Minnesota Valley Testing Laboratories C25110736

and shipping container 6 was 6.8°C. LDS 11/25/25

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Laboratory Certifications and Accreditations

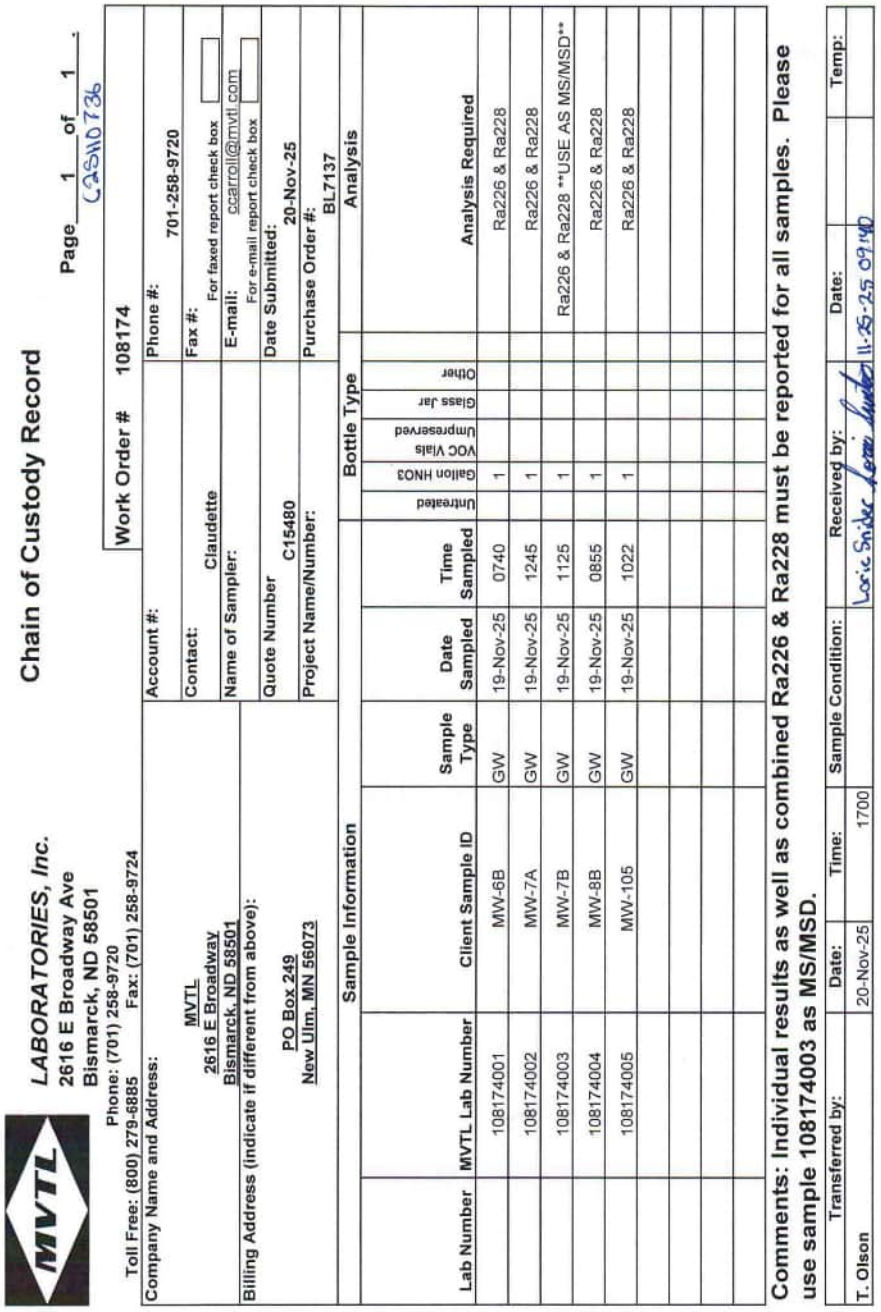
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	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Chain of Custody Record

Page 1 of 1

CASW0736

Work Order # 108174

Company Name and Address:
MVTL
2616 E Broadway
Bismarck, ND 58501

Account #:
Contact: Claudette
Name of Sampler:

Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box

Billing Address (indicate if different from above):
PO Box 249
New Ulm, MN 56073

Quote Number C15480
Project Name/Number:

Date Submitted: 20-Nov-25
Purchase Order #: BL7137

Sample Information						Bottle Type						Analysis
Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Untreated	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other		Analysis Required
	108174001	MW-6B	GW	19-Nov-25	0740		1					Ra226 & Ra228
	108174002	MW-7A	GW	19-Nov-25	1245		1					Ra226 & Ra228
	108174003	MW-7B	GW	19-Nov-25	1125		1					Ra226 & Ra228 **USE AS MS/MSD**
	108174004	MW-8B	GW	19-Nov-25	0855		1					Ra226 & Ra228
	108174005	MW-105	GW	19-Nov-25	1022		1					Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples. Please use sample 108174003 as MS/MSD.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
T. Olson	20-Nov-25	1700		Lorie Snider Lorie Snider	11-25-25 0940	

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Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 108174

Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS UP
Attn:	Erik Heinen	44 Union Blvd, Suite 300	Event: Nov 2025
Address:		Lakewood, CO 80228	Sampled By: Jeremy Meyer
Phone:			
Email:	EHeinen@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric										Analysis Required
001	MW- 6B	19 Nov 25	1740	GW				X										
002	MW- 7A	19 Nov 25	1245	GW				X										
003	MW- 7B/MS/MSD	19 Nov 25	1125	GW				3										
004	MW- 8B	19 Nov 25	0855	GW				X										
005	MW- 105	19 Nov 25	1022	GW				X										Radium 226 and 228 Combined

Comments: Upgradient/Side-gradient Wells

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		20Nov25 0630	Log In Walk In #2	Ambient	C. Cruff	20NOV25 0800
2						

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MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	6B
Sampling Personal:	JM, CH

Weather Conditions: Temp: 40 °F Wind: N @ 5-12 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	18.17	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	21.08	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 57	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
19 Nov 25	0715	Start of Well Purge									
	0720	17.81	1490	7.65	1.70	196.2	9.06	21.05	100.0	0.5	Clear
	0725	17.83	1493	7.65	1.59	197.1	6.33	21.06	100.0	0.5	Clear
	0730	17.81	1485	7.65	1.72	196.5	5.54	21.05	100.0	0.5	Clear
	0735	17.82	1487	7.66	1.76	196.1	8.05	21.04	100.0	0.5	Clear
	0740	17.82	1491	7.66	1.82	195.3	7.05	21.05	100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
19 Nov 25	0740	17.82	1491	7.66	1.82	195.3	7.05				Clear

Comments:

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	JA
Sampling Personal:	JTh

Weather Conditions: Temp: 45 °F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.52	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.35	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	8 2	Sec.
Recover:	30 58	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
19 Nov 25	1220	Start of Well Purge									
	1225	19.56	15675	7.24	0.76	77.9	3.38	12.20	100.0	0.5	Clear
	1230	19.56	15611	7.26	0.99	89.4	5.04	12.48	100.0	0.5	Clear
	1235	19.57	15609	7.27	1.75	102.4	3.64	12.83	100.0	0.5	Clear
	1240	19.54	15624	7.27	1.89	110.5	3.68	12.99	100.0	0.5	Clear
	1245	19.55	15696	7.27	1.84	114.1	4.84	13.32	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
19 Nov 25	1245	19.55	15696	7.27	1.84	114.1	4.84				Clear

Comments:

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company: GRE Stanton Station
Event: Nov 2025
Sample ID: ~~SA~~ 78
Sampling Personal: JM

Weather Conditions: Temp: 45 °F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.25	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	11.48	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 26	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	x3
500mL Nitric (filtered)	

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
MS/MSD

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
19 Nov 25	1100	Start of Well Purge									
	1105	17.00	1540	7.79	0.17	-123.6	0.00	11.46	200.0	1.0	Clear
	1110	16.95	1532	7.78	0.16	-127.0	1.21	11.47	200.0	1.0	Clear
	1115	16.93	1541	7.78	0.11	-126.7	0.51	11.48	200.0	1.0	Clear
	1120	16.95	1548	7.78	0.05	-128.4	1.21	11.48	200.0	1.0	Clear
	1125	16.99	1531	7.78	0.09	-125.5	3.36	11.48	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
19 Nov 25	1125	16.99	1531	7.78	0.09	-125.5	3.36				Clear

Comments:

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	BR
Sampling Personal:	

Weather Conditions: Temp: 40 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	44.25	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	44.40	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 5	Sec.
Recover: 10	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
19 Nov 25	0830	Start of Well Purge									
	0835	18.35	1430	7.37	0.18	43.9	1.92	44.33	100.0	0.5	Clear
	0840	18.20	1406	7.37	0.21	42.0	7.46	44.35	100.0	0.5	Clear
	0845	18.21	1400	7.37	0.22	42.3	8.78	44.37	100.0	0.5	Clear
	0850	18.21	1401	7.37	0.22	42.1	12.95	44.38	100.0	0.5	Clear
	0855	18.22	1404	7.37	0.23	42.1	21.21	44.38	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
19 Nov 25	0855	18.22	1404	7.37	0.23	42.1	21.21				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	105
Sampling Personal:	JTH

Weather Conditions: Temp: 45 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	14.90	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	14.99	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
19 Nov 25	0957	Start of Well Purge									
	1002	19.15	1721	7.80	0.19	98.8	7.62	14.93	200.0	1.0	Clear
	1007	19.10	1712	7.81	0.17	97.1	3.44	14.95	200.0	1.0	Clear
	1012	19.05	1710	7.81	0.15	94.4	1.88	14.97	200.0	1.0	Clear
	1017	19.05	1714	7.81	0.15	94.2	3.02	14.98	200.0	1.0	Clear
	1022	19.06	1715	7.81	0.15	93.9	1.85	14.98	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
19 Nov 25	1022	19.06	1715	7.81	0.15	93.9	1.85				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS BAL Nov 2025 (108245) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108245001 **Date Collected:** 11/20/2025 08:56 **Matrix:** Groundwater
Sample ID: MW-9N **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**3996**	umhos/cm	1	1		11/20/2025 08:56	
Method: 150.2							
pH - Field	**7.13**	units	0.01	1		11/20/2025 08:56	
Method: 170.1							
Temperature - Field C	**19.42**	degrees C		1		11/20/2025 08:56	
Method: ASTM D516-16							
Sulfate	**1370**	mg/L	50	10		11/25/2025 13:39	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**2.96**	mg/L	0.1	1	11/21/2025 15:49	11/25/2025 16:24	
Calcium	**78.4**	mg/L	1	1	11/21/2025 15:49	11/28/2025 11:02	
Lithium	**0.0535**	mg/L	0.02	1	11/21/2025 15:49	11/25/2025 09:11	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/21/2025 15:49	12/02/2025 10:47	
Arsenic	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 10:47	
Barium	**0.0618**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 10:47	
Beryllium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 10:47	
Cadmium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 10:47	
Chromium	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 10:47	
Cobalt	**0.0023**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 10:47	
Lead	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 10:47	
Molybdenum	**0.0429**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 10:47	
Selenium	**0.0135**	mg/L	0.005	5	11/21/2025 15:49	12/02/2025 10:47	
Thallium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 10:47	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108245001 **Date Collected:** 11/20/2025 08:56 **Matrix:** Groundwater
Sample ID: MW-9N **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		11/21/2025 22:02	*
Method: SM4500-Cl-E 2021							
Chloride	**25.4**	mg/L	2.0	1		11/25/2025 11:41	
Method: SM4500-F-C-2021							
Fluoride	**0.77**	mg/L	0.1	1		11/21/2025 22:02	
Method: USGS I-1750-85							
Total Dissolved Solids	**3230**	mg/L	10	1		11/26/2025 15:00	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108245002 **Date Collected:** 11/20/2025 08:56 **Matrix:** Groundwater
Sample ID: DUP-BAL **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**3996**	umhos/cm	1	1		11/20/2025 08:56	
Method: 150.2							
pH - Field	**7.13**	units	0.01	1		11/20/2025 08:56	
Method: 170.1							
Temperature - Field C	**19.42**	degrees C		1		11/20/2025 08:56	
Method: ASTM D516-16							
Sulfate	**1370**	mg/L	50	10		11/25/2025 13:40	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**2.95**	mg/L	0.1	1	11/21/2025 15:49	11/25/2025 16:29	
Calcium	**78.5**	mg/L	1	1	11/21/2025 15:49	11/28/2025 11:03	
Lithium	**0.0538**	mg/L	0.02	1	11/21/2025 15:49	11/25/2025 09:15	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/21/2025 15:49	12/02/2025 11:07	
Arsenic	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:07	
Barium	**0.0618**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:07	
Beryllium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:07	
Cadmium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:07	
Chromium	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:07	
Cobalt	**0.0023**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:07	
Lead	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:07	
Molybdenum	**0.0425**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:07	
Selenium	**0.0138**	mg/L	0.005	5	11/21/2025 15:49	12/02/2025 11:07	
Thallium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:07	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108245002 **Date Collected:** 11/20/2025 08:56 **Matrix:** Groundwater
Sample ID: DUP-BAL **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		11/21/2025 22:13	*
Method: SM4500-Cl-E 2021							
Chloride	**25.2**	mg/L	2.0	1		11/25/2025 11:42	
Method: SM4500-F-C-2021							
Fluoride	**0.72**	mg/L	0.1	1		11/21/2025 22:13	
Method: USGS I-1750-85							
Total Dissolved Solids	**3260**	mg/L	10	1		11/26/2025 15:00	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108245003 **Date Collected:** 11/20/2025 08:00 **Matrix:** Groundwater
Sample ID: MW-102 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1898**	umhos/cm	1	1		11/20/2025 10:10	
Method: 150.2							
pH - Field	**7.59**	units	0.01	1		11/20/2025 08:00	
Method: 170.1							
Temperature - Field C	**18.88**	degrees C		1		11/20/2025 08:00	
Method: ASTM D516-16							
Sulfate	**532**	mg/L	25	5		11/25/2025 13:42	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.45**	mg/L	0.1	1	11/21/2025 15:49	11/25/2025 16:30	
Calcium	**60.6**	mg/L	1	1	11/21/2025 15:49	11/28/2025 11:04	
Lithium	**0.0558**	mg/L	0.02	1	11/21/2025 15:49	11/25/2025 09:16	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/21/2025 15:49	12/02/2025 11:12	
Arsenic	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:12	
Barium	**0.0298**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:12	
Beryllium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:12	
Cadmium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:12	
Chromium	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:12	
Cobalt	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:12	
Lead	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:12	
Molybdenum	**0.0175**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:12	
Selenium	<0.005	mg/L	0.005	5	11/21/2025 15:49	12/02/2025 11:12	
Thallium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:12	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108245003 **Date Collected:** 11/20/2025 08:00 **Matrix:** Groundwater
Sample ID: MW-102 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		11/21/2025 22:25	*
Method: SM4500-Cl-E 2021							
Chloride	**14.9**	mg/L	2.0	1		11/25/2025 11:44	
Method: SM4500-F-C-2021							
Fluoride	**0.49**	mg/L	0.1	1		11/21/2025 22:25	
Method: USGS I-1750-85							
Total Dissolved Solids	**1410**	mg/L	10	1		11/26/2025 15:00	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108245004 **Date Collected:** 11/20/2025 10:10 **Matrix:** Groundwater
Sample ID: MW-103 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2543**	umhos/cm	1	1		11/20/2025 10:10	
Method: 150.2							
pH - Field	**8.55**	units	0.01	1		11/20/2025 10:10	
Method: 170.1							
Temperature - Field C	**19.32**	degrees C		1		11/20/2025 10:10	
Method: ASTM D516-16							
Sulfate	**622**	mg/L	25	5		11/25/2025 13:43	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**1.38**	mg/L	0.1	1	11/21/2025 15:49	11/25/2025 16:31	
Calcium	**35.3**	mg/L	1	1	11/21/2025 15:49	11/28/2025 11:05	
Lithium	**0.0320**	mg/L	0.02	1	11/21/2025 15:49	11/25/2025 09:19	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/21/2025 15:49	12/02/2025 11:17	
Arsenic	**0.0178**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:17	
Barium	**0.0689**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:17	
Beryllium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:17	
Cadmium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:17	
Chromium	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:17	
Cobalt	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:17	
Lead	**0.0019**	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:17	
Molybdenum	**0.0365**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:17	
Selenium	**0.0121**	mg/L	0.005	5	11/21/2025 15:49	12/02/2025 11:17	
Thallium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:17	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108245004 **Date Collected:** 11/20/2025 10:10 **Matrix:** Groundwater
Sample ID: MW-103 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.6**	units	0.1	1		11/21/2025 22:35	*
Method: SM4500-Cl-E 2021							
Chloride	**16.4**	mg/L	2.0	1		11/25/2025 11:52	
Method: SM4500-F-C-2021							
Fluoride	**0.46**	mg/L	0.1	1		11/21/2025 22:35	
Method: USGS I-1750-85							
Total Dissolved Solids	**1860**	mg/L	10	1		11/26/2025 15:00	

Analysis Results Comments

pH

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 108245

Sulfate — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			100	99.7		85	115		
LFB			100	98.4		85	115		
LFB			100	93.8		85	115		
LFB			100	88.8		85	115		
LFB			100	97.7		85	115		
LFB			100	98.1		85	115		
LFB			100	97.6		85	115		
LFB			100	95.9		85	115		
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MS/MSD	107885004		500	82.8	84.8	85	115	1.2	20
MS/MSD	108045016		500	79.1	81.4	85	115	1.6	20
MS/MSD	108076003		500	91.4	91.7	85	115	0.3	20
MS/MSD	108076005		500	83.6	84.6	85	115	0.6	20
MS/MSD	108243001		500	88.6	86.1	85	115	1.9	20
MS/MSD	108246001		500	88.8	89.2	85	115	0.2	20
MS/MSD	108246007		100	94.1	94.9	85	115	0.8	20

Chloride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			30	95.1		90	110		
LFB			30	94.9		90	110		
LFB			30	94.6		90	110		
LFB			30	94.7		90	110		

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Account #: 5109 **Client:** Great River Energy

Chloride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			30	94.8		90	110		
LFB			30	95.3		90	110		
LFB			30	94.5		90	110		
LFB			30	94.5		90	110		
LFB			30	94.7		90	110		
LFB			30	94.6		90	110		
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MS/MSD	108045012		30	94.4	100.4	80	120	5.7	20
MS/MSD	108076003		30	94.2	94.1	80	120	0.0	20
MS/MSD	108245003		30	98.4	99.8	80	120	0.9	20
MS/MSD	108460004		30	94.5	94.5	80	120	0.0	20
MS/MSD	108460010		30	95.7	95.4	80	120	0.1	20

Aluminum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	99.4		85	115		
MB		<0.1							
MS/MSD	108245001		0.4	107.0	112.0	70	130	5.3	20

Aluminum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.4	99.4		85	115		
MB		<0.1							

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Aluminum, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	108076003		1	98.9	99.9	75	125	0.9	20
SPK/SPKD	108246006		0.4	100.0	98.0	75	125	2.2	20
SPK/SPKD	108663001		0.4	106.0	107.0	75	125	0.6	20
SPK/SPKD	108756002		0.4	88.2	91.8	75	125	3.0	20
SPK/SPKD	108756002		1	105.0	106.0	75	125	0.9	20
SPK/SPKD	108796013		0.4	110.0	108.0	75	125	1.9	20
SPK/SPKD	108925002		0.4	114.0	112.0	75	125	1.5	20

Boron Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	102.0		85	115		
MB		<0.1							
MS/MSD	108745001		0.4	88.8	108.0	70	130	2.3	20

Boron, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	102.0		85	115		
MB		<0.1							
SPK/SPKD	108076003		0.4	95.1	92.1	75	125	1.5	20
SPK/SPKD	108246005		0.4	90.0	89.0	75	125	0.3	20

Calcium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	111.0		85	115		
MB		<1							
PDS/PDSD	108737003		500	99.7	98.1	75	125	1.3	20
DUP	108243003							0.2	20
PDS/PDSD	108246002		100	93.7	94.4	75	125	0.4	20
PDS/PDSD	108246005		100	94.9	94.9	75	125	0.0	20
PDS/PDSD	108460005		100	89.7	90.6	75	125	0.4	20
PDS/PDSD	108663001		100	98.1	96.8	75	125	0.9	20
PDS/PDSD	108756001		100	93.9	93.5	75	125	0.2	20
PDS/PDSD	108756002		100	87.9	89.3	75	125	0.5	20
PDS/PDSD	108796003		500	102.0	102.0	75	125	0.1	20

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Calcium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	108796012		100	96.4	98.0	75	125	1.2	20

Calcium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	111.0		85	115		
MB		<1							
SPK/SPKD	108663001		100	99.7	101.0	75	125	1.0	20
SPK/SPKD	108756002		100	89.0	90.7	75	125	0.7	20
SPK/SPKD	108796012		100	102.0	100.0	75	125	1.2	20
SPK/SPKD	108796014		100	96.2	96.4	75	125	0.1	20

Iron				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	107.0		85	115		
MB		<0.1							
MS/MSD	108345001		0.4	100.0	87.5	70	130	19.2	20

Iron, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.4	107.0		85	115		
MB		<0.1							
SPK/SPKD	108076003		1	90.0	90.4	75	125	0.2	20
SPK/SPKD	108246006		0.4	81.8	82.1	75	125	0.3	20
SPK/SPKD	108663001		0.4	93.7	94.6	75	125	0.9	20
SPK/SPKD	108756007		0.4	85.2	87.4	75	125	2.6	20
SPK/SPKD	108756002		1	95.9	96.4	75	125	0.6	20
SPK/SPKD	108796013		0.4	87.3	87.6	75	125	0.3	20
SPK/SPKD	108925002		0.4	87.0	87.5	75	125	0.6	20

Lithium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	106.0		85	115		
MB		<0.04							
MS/MSD	108345001		0.4	98.0	102.0	70	130	3.5	20
PDS/PDSD	108246002		0.4	95.9	95.8	75	125	0.0	20

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	106.0		85	115		
MB		<0.04							
SPK/SPKD	108076003		0.4	93.2	92.8	75	125	0.4	20
SPK/SPKD	108246005		0.4	93.8	92.7	75	125	1.1	20

Magnesium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	111.0		85	115		
MB		<1							
PDS/PDSD	108237003		500	98.2	96.7	75	125	0.9	20
DUP	108243003							0.8	20
PDS/PDSD	108246002		100	98.3	98.9	75	125	0.5	20
PDS/PDSD	108246005		100	98.9	98.9	75	125	0.0	20
PDS/PDSD	108460005		100	94.9	95.6	75	125	0.4	20
PDS/PDSD	108663001		100	99.7	98.7	75	125	0.8	20
PDS/PDSD	108756001		100	98.9	98.5	75	125	0.3	20
PDS/PDSD	108756002		100	92.9	93.9	75	125	0.5	20
PDS/PDSD	108796003		500	103.0	102.0	75	125	0.7	20
PDS/PDSD	108796012		100	100.0	100.0	75	125	0.5	20

Magnesium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	111.0		85	115		
MB		<1							
SPK/SPKD	108663001		100	102.0	103.0	75	125	0.9	20
SPK/SPKD	108756002		100	94.2	95.4	75	125	0.6	20
SPK/SPKD	108796012		100	102.0	103.0	75	125	0.7	20
SPK/SPKD	108796014		100	100.0	100.0	75	125	0.2	20

Manganese — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	110.0		85	115		
MB		<0.05							
MS/MSD	108245001		0.4	81.4	87.1	70	130	3.5	20

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Account #: 5109 **Client:** Great River Energy

Manganese, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.05							
LFB-OE			0.4	110.0		85	115		
MB		<0.05							
SPK/SPKD	108076003		1	95.2	95.3	75	125	0.1	20
SPK/SPKD	108246006		0.4	91.4	91.6	75	125	0.3	20
SPK/SPKD	108663001		0.4	96.1	96.4	75	125	0.3	20
SPK/SPKD	108756002		1	97.0	97.5	75	125	0.3	20
SPK/SPKD	108796013		0.4	77.2	78.4	75	125	0.5	20
SPK/SPKD	108925002		0.4	79.4	80.3	75	125	0.3	20

Potassium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	109.0		85	115		
MB		<1							
PDS/PDSD	108237003		500	100.0	97.9	75	125	2.0	20
DUP	108243003							1.1	20
PDS/PDSD	108246002		100	101.0	101.0	75	125	0.6	20
PDS/PDSD	108246005		100	101.0	100.0	75	125	0.6	20
PDS/PDSD	108460005		100	99.6	99.1	75	125	0.4	20
PDS/PDSD	108663001		100	100.0	101.0	75	125	0.6	20
PDS/PDSD	108756001		100	101.0	99.7	75	125	1.4	20
PDS/PDSD	108756002		100	101.0	101.0	75	125	0.1	20
PDS/PDSD	108796003		500	103.0	102.0	75	125	1.4	20
PDS/PDSD	108796012		100	103.0	101.0	75	125	1.6	20

Potassium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	109.0		85	115		
MB		<1							
SPK/SPKD	108663001		100	102.0	103.0	75	125	1.0	20
SPK/SPKD	108756002		100	101.0	101.0	75	125	0.4	20
SPK/SPKD	108796012		100	100.0	102.0	75	125	1.5	20
SPK/SPKD	108796014		100	102.0	100.0	75	125	1.0	20

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Account #: 5109 **Client:** Great River Energy

Sodium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
MB		<1							
PDS/PDSD	108237003		500	83.6	79.8	75	125	1.3	20
DUP	108243003							1.5	20
PDS/PDSD	108246002		100	71.9	72.8	75	125	0.2	20
PDS/PDSD	108246005		100	80.3	77.7	75	125	0.7	20
PDS/PDSD	108460005		100	82.3	81.1	75	125	0.4	20
PDS/PDSD	108663001		100	100.0	97.7	75	125	1.4	20
PDS/PDSD	108756001		100	83.9	85.7	75	125	0.5	20
PDS/PDSD	108756002		100	89.8	84.4	75	125	1.6	20
PDS/PDSD	108796003		500	89.6	83.2	75	125	2.2	20
PDS/PDSD	108796012		100	77.9	78.8	75	125	0.3	20

Sodium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
MB		<1							
SPK/SPKD	108663001		100	97.9	101.0	75	125	1.7	20
SPK/SPKD	108756002		100	83.0	84.9	75	125	0.6	20
SPK/SPKD	108796012		100	83.7	85.2	75	125	0.4	20
SPK/SPKD	108796014		100	83.1	84.6	75	125	0.4	20

Antimony				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	95.4		80	120		
MB		<0.001							
MS/MSD	108245001		0.4	102.0	108.0	75	125	5.5	20

Antimony, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	95.4		80	120		
MB		<0.001							
SPK/SPKD	108076003		0.1	108.0	106.0	75	125	1.5	20
MS/MSD	108245001		0.4	102.0	108.0	75	125	5.5	20

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Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	108246007		0.1	104.0	106.0	75	125	2.3	20

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
MB		<0.002							
MS/MSD	108245001		0.4	100.0	103.0	75	125	3.2	20

Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
MB		<0.002							
SPK/SPKD	108076003		0.1	102.0	102.0	75	125	0.4	20
MS/MSD	108245001		0.4	100.0	103.0	75	125	3.2	20
SPK/SPKD	108246007		0.1	98.2	98.5	75	125	0.3	20

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
MB		<0.002							
MS/MSD	108245001		0.4	102.0	106.0	75	125	4.0	20

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
MB		<0.002							
SPK/SPKD	108076003		0.1	98.8	99.4	75	125	0.5	20
MS/MSD	108245001		0.4	102.0	106.0	75	125	4.0	20
SPK/SPKD	108246007		0.1	104.0	106.0	75	125	2.3	20

Beryllium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
MB		<0.0005							
MS/MSD	108245001		0.4	96.2	99.3	75	125	3.1	20

Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		

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Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0005							
SPK/SPKD	108076003		0.1	91.0	91.0	75	125	0.0	20
MS/MSD	108245001		0.4	96.2	99.3	75	125	3.1	20
SPK/SPKD	108246007		0.1	95.4	96.2	75	125	0.8	20

Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	94.9		80	120		
MB		<0.0005							
MS/MSD	108245001		0.4	101.0	107.0	75	125	6.0	20

Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	94.9		80	120		
MB		<0.0005							
SPK/SPKD	108076003		0.1	105.0	103.0	75	125	2.3	20
MS/MSD	108245001		0.4	101.0	107.0	75	125	6.0	20
SPK/SPKD	108246007		0.1	105.0	106.0	75	125	1.4	20

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	117.0		80	120		
MB		<0.002							
MS/MSD	108245001		0.4	101.0	103.0	75	125	2.2	20

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	117.0		80	120		
MB		<0.002							
SPK/SPKD	108076003		0.1	100.0	101.0	75	125	0.5	20
MS/MSD	108245001		0.4	101.0	103.0	75	125	2.2	20
SPK/SPKD	108246007		0.1	103.0	99.0	75	125	4.3	20

Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	115.0		80	120		
MB		<0.002							
MS/MSD	108245001		0.4	101.0	103.0	75	125	2.0	20

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Account #: 5109 **Client:** Great River Energy

Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	115.0		80	120		
MB		<0.002							
SPK/SPKD	108076003		0.1	98.8	99.8	75	125	1.0	20
MS/MSD	108245001		0.4	101.0	103.0	75	125	2.0	20
SPK/SPKD	108246007		0.1	103.0	100.0	75	125	2.1	20

Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.0005							
MS/MSD	108245001		0.4	108.0	107.0	75	125	0.7	20

Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.0005							
SPK/SPKD	108076003		0.1	107.0	104.0	75	125	2.8	20
MS/MSD	108245001		0.4	108.0	107.0	75	125	0.7	20
SPK/SPKD	108246007		0.1	101.0	101.0	75	125	0.1	20

Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
MB		<0.002							
MS/MSD	108245001		0.4	99.5	105.0	75	125	4.4	20

Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
MB		<0.002							
SPK/SPKD	108076003		0.1	108.0	104.0	75	125	3.0	20
MS/MSD	108245001		0.4	99.5	105.0	75	125	4.4	20
SPK/SPKD	108246007		0.1	105.0	101.0	75	125	3.4	20

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.005							

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Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	108245001		0.4	102.0	99.5	75	125	2.6	20

Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
MB		<0.005							
SPK/SPKD	108076003		0.1	96.3	93.5	75	125	3.0	20
MS/MSD	108245001		0.4	102.0	99.5	75	125	2.6	20
SPK/SPKD	108246007		0.1	96.6	97.5	75	125	0.9	20

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							
MS/MSD	108245001		0.4	109.0	106.0	75	125	2.6	20

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
MB		<0.0005							
SPK/SPKD	108076003		0.1	109.0	107.0	75	125	2.2	20
MS/MSD	108245001		0.4	109.0	106.0	75	125	2.6	20
SPK/SPKD	108246007		0.1	101.0	103.0	75	125	2.2	20

Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	85.1		85	115		
LFB			0.002	93.2		85	115		
LFB			0.002	90.3		85	115		
LRB		<0.0002							
MB		<0.0002							
MB		<0.0002							
MS/MSD	108045025		0.002	89.5	88.6	70	130	0.0	20
MS/MSD	108076003		0.002	87.9	86.7	70	130	5.7	20
MS/MSD	108246007		0.002	85.2	86.4	70	130	0.0	20
MS/MSD	108508001		0.002	90.1	92.4	70	130	0.0	20

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Account #: 5109 **Client:** Great River Energy

Alkalinity, Total — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			501	90.6		80	120		
LFB			410	93.0		90	110		
LFB			410	90.6		90	110		
LFB			410	91.3		90	110		
LFB			410	91.4		90	110		
LFB			410	91.4		90	110		
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MS/MSD	108119007		410	78.2	79.3	80	120	0.0	20
MS/MSD	108243001		410	84.1	83.9	80	120	0.0	20
MS/MSD	108245002		410	84.7	84.3	80	120	0.0	20
MS/MSD	108246005		410	71.6	71.5	80	120	0.0	20

pH — Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	99.8					
CRM-PH			6	99.8					
CRM-PH			6	99.7					
CRM-PH			6	99.5					
CRM-PH			6	99.3					
CRM-PH			6	99.3					
DUP	107956001							4.0	20
DUP	108241001							0.0	20
DUP	108243003							0.8	20
DUP	108246003							0.7	20

Fluoride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			3.34	105.0		83.83	111.07		
LFB-F			0.5	102.0		90	110		

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Account #: 5109 **Client:** Great River Energy

Fluoride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-F			0.5	100.0		90	110		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	98.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	108076001		0.5	106.0	90.0	80	120	7.5	20
MS/MSD-F	108076003		0.5	98.0	96.0	80	120	0.9	20
MS/MSD-F	108245003		0.5	92.0	94.0	80	120	1.1	20
MS/MSD-F	108246006		0.5	96.0	90.0	80	120	3.0	20

Total Dissolved Solids — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	99.0		90.35	110.33		
MB		<10							
DUP	108246006							0.7	20
DUP	108667006							0.3	20

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Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 108245

Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS BAL
Attn:	Erik Heinen	44 Union Blvd, Suite 300	Event: Nov 2025
Address:		Lakewood, CO 80228	Sampled By:
Phone:			
Email:	EHeinen@GREnergy.com		

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 9N	20 Nov 25	0856	GW	X	X	X	19.42	3996	7.13	3.50	App III, App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radchem, Dissolved and Total for Remainder of Metals) (See Attachments)
002	DUP- BAL	20 Nov 25	0856	GW	X	X	X	19.42	3996	7.13	3.50	
003	MW- 102	20 Nov 25	0800	GW	X	X	X	18.88	1898	7.59	37.27	
004	MW- 103	20 Nov 25	1010	GW	X	X	X	19.32	2543	8.55	1.34	

Comments: Bottom Ash Landfill Wells

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		21 Nov 25 0772	Log In Walk In #2	0.5 °C/TM 605 ROI Y/N	C. Canto	21 NOV 25 0746
2						

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Account #: 5109 **Client:** Great River Energy

Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy

Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

wsp

1

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	9N
Sampling Personal:	JyR

Weather Conditions: Temp: 40 °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.95	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	14.77	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	2	Sec.
Recover:	2e,	Sec.
PSI:	—	

Bottle List:		
1 Liter Raw	1 Gal Nitric	
500mL Nitric		x2
500mL Nitric (filtered)		

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
Dup BA2

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
20 Nov 25	0831	Start of Well Purge									
	0836	19.30	4025	7.13	0.47	159.6	7.66	14.75	200.0	1.0	Clear
	0841	19.35	3998	7.13	0.46	151.5	3.78	14.75	200.0	1.0	Clear
	0846	19.46	4031	7.12	0.29	148.6	8.49	14.74	200.0	1.0	Clear
	0851	19.54	4012	7.13	0.43	144.0	10.60	14.75	200.0	1.0	Clear
	0856	19.42	3996	7.13	0.33	144.2	3.50	14.74	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
20 Nov 25	0856	19.42	3996	7.13	0.33	144.2	3.50				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	102
Sampling Personal:	

Weather Conditions: Temp: 35 °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	18.12	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	18.75	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 7	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
20 Nov 25	0735	Start of Well Purge									
	0740	18.84	1899	7.54	0.64	116.3	15.02	18.65	200.0	1.0	Clear
	0745	18.69	1904	7.57	0.18	109.5	22.47	18.69	200.0	1.0	Clear
	0750	18.68	1903	7.58	0.18	108.5	31.57	18.72	200.0	1.0	Clear
	0755	18.82	1891	7.58	0.15	105.8	74.93	18.73	200.0	1.0	Clear
	0800	18.88	1898	7.59	0.13	103.6	37.27	18.74	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
20 Nov 25	0800	18.88	1898	7.59	0.13	103.6	37.27				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	103
Sampling Personal:	

Weather Conditions: Temp: 35 °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	19.78	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	20.02	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
20 Nov 25	0945	Start of Well Purge									clear, slightly turbid, turbid
	0950	19.16	2650	8.55	0.33	93.0	5.44	19.85	200.0	1.0	Clear
	0955	19.26	2617	8.53	0.29	90.0	4.29	19.98	200.0	1.0	Clear
	1000	19.22	2572	8.52	0.24	87.0	5.40	20.00	200.0	1.0	Clear
	1005	19.27	2549	8.53	0.21	84.0	4.81	20.00	200.0	1.0	Clear
	1010	19.32	2543	8.55	0.22	82.6	1.34	20.00	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
20 Nov 25	1010	19.32	2543	8.55	0.22	82.6	1.34				Clear

Comments:

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 21 NOV 25 Time: 1116 Analyst: PW

Work Order #: 108245

Containers Supplied by MVTL: ☒ Yes ☐ No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS BAL Nov 2025 (108250) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108250001 **Date Collected:** 11/20/2025 08:56 **Matrix:** Groundwater
Sample ID: MW-9N **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/30/2025 09:52	
Radium 228	See Attached			1		12/30/2025 09:52	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108250002 **Date Collected:** 11/20/2025 08:56 **Matrix:** Groundwater
Sample ID: DUP-BAL **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/30/2025 09:52	
Radium 228	See Attached			1		12/30/2025 09:52	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108250003 **Date Collected:** 11/20/2025 08:00 **Matrix:** Groundwater
Sample ID: MW-102 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/30/2025 09:52	
Radium 228	See Attached			1		12/30/2025 09:52	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108250004 **Date Collected:** 11/20/2025 10:10 **Matrix:** Groundwater
Sample ID: MW-103 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/30/2025 09:52	
Radium 228	See Attached			1		12/30/2025 09:52	

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Account #: 5109 **Client:** Great River Energy

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ANALYTICAL SUMMARY REPORT

December 29, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25110733 Quote ID: C15480
Project Name: 108250

Energy Laboratories, Inc. Casper WY received the following 4 samples for Minnesota Valley Testing Laboratories on 11/25/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25110733-001	10825001, MW-9N	11/20/25 08:56	11/25/25	Groundwater	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25110733-002	108250002, DUP BAL	11/20/25 08:56	11/25/25	Groundwater	Same As Above
C25110733-003	108250003, MW-102	11/20/25 08:00	11/25/25	Groundwater	Same As Above
C25110733-004	108250004, MW-103	11/20/25 10:10	11/25/25	Groundwater	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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Account #: 5109 **Client:** Great River Energy

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108250
Lab ID: C25110733-001
Client Sample ID: 10825001, MW-9N

Report Date: 12/29/25
Collection Date: 11/20/25 08:56
DateReceived: 11/25/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.08	pCi/L	U			E903.0	12/16/25 18:34 / dmr
Radium 226 precision (±)	0.2	pCi/L				E903.0	12/16/25 18:34 / dmr
Radium 226 MDC	0.3	pCi/L				E903.0	12/16/25 18:34 / dmr
Radium 228	-0.2	pCi/L	U			RA-05	12/10/25 16:48 / jls1
Radium 228 precision (±)	0.8	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 228 MDC	1.3	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 226 + Radium 228	0.8	pCi/L	U			A7500-RA	12/17/25 12:35 / dmf
Radium 226 + Radium 228 precision (±)	0.8	pCi/L				A7500-RA	12/17/25 12:35 / dmf
Radium 226 + Radium 228 MDC	1.3	pCi/L				A7500-RA	12/17/25 12:35 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108250
Lab ID: C25110733-002
Client Sample ID: 108250002, DUP BAL

Report Date: 12/29/25
Collection Date: 11/20/25 08:56
DateReceived: 11/25/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	12/15/25 12:14 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/15/25 12:14 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/15/25 12:14 / dmr
Radium 228	0.3	pCi/L	U			RA-05	12/10/25 14:25 / jls1
Radium 228 precision (±)	0.5	pCi/L				RA-05	12/10/25 14:25 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/10/25 14:25 / jls1
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	12/16/25 12:59 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/16/25 12:59 / dmf
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/16/25 12:59 / dmf

Report Definitions:
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QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108250
Lab ID: C25110733-003
Client Sample ID: 108250003, MW-102

Report Date: 12/29/25
Collection Date: 11/20/25 08:00
DateReceived: 11/25/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.08	pCi/L	U			E903.0	12/15/25 12:14 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/15/25 12:14 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/15/25 12:14 / dmr
Radium 228	0.4	pCi/L	U			RA-05	12/10/25 14:25 / jls1
Radium 228 precision (±)	0.5	pCi/L				RA-05	12/10/25 14:25 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/10/25 14:25 / jls1
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	12/16/25 12:59 / dmf
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	12/16/25 12:59 / dmf
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/16/25 12:59 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108250
Lab ID: C25110733-004
Client Sample ID: 108250004, MW-103

Report Date: 12/29/25
Collection Date: 11/20/25 10:10
DateReceived: 11/25/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L	U			E903.0	12/15/25 13:32 / dmr
Radium 226 precision (±)	0.2	pCi/L				E903.0	12/15/25 13:32 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/15/25 13:32 / dmr
Radium 228	-0.1	pCi/L	U			RA-05	12/10/25 14:25 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/10/25 14:25 / jls1
Radium 228 MDC	1.1	pCi/L				RA-05	12/10/25 14:25 / jls1
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	12/16/25 12:59 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	12/16/25 12:59 / dmf
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	12/16/25 12:59 / dmf

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Account #: 5109 **Client:** Great River Energy

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25110733 **Report Date:** 12/17/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11921
Lab ID: LCS-RA226-11921	3	Laboratory Control Sample				Run: TENNELEC-3_251202C				12/16/25 14:38
Radium 226		11	pCi/L		110	70	130			
Radium 226 precision (±)		2.0	pCi/L							
Radium 226 MDC		0.25	pCi/L							
Lab ID: MB-RA226-11921	3	Method Blank				Run: TENNELEC-3_251202C				12/16/25 14:38
Radium 226		-0.004	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C25110731-007ADUP	3	Sample Duplicate				Run: TENNELEC-3_251202C				12/16/25 18:34
Radium 226		-0.012	pCi/L					130	30	UR
Radium 226 precision (±)		0.13	pCi/L							
Radium 226 MDC		0.22	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.26.										
Method: E903.0										Batch: RA226-11922R
Lab ID: LCS-RA226-11922	3	Laboratory Control Sample				Run: TENNELEC-4_251202G				12/15/25 11:30
Radium 226		12	pCi/L		117	70	130			
Radium 226 precision (±)		2.2	pCi/L							
Radium 226 MDC		0.23	pCi/L							
Lab ID: C25110736-003AMS1	3	Sample Matrix Spike				Run: TENNELEC-4_251202G				12/15/25 13:32
Radium 226		10	pCi/L		103	70	130			
Radium 226 precision (±)		1.9	pCi/L							
Radium 226 MDC		0.18	pCi/L							
Lab ID: C25110736-003AMSD1	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_251202G				12/15/25 14:16
Radium 226		10	pCi/L		102	70	130	1.1	30	
Radium 226 precision (±)		1.9	pCi/L							
Radium 226 MDC		0.16	pCi/L							
- The RER result is 0.04.										
Method: E903.0										Batch: RA226-11922R
Lab ID: MB-RA226-11922	3	Method Blank				Run: TENNELEC-4_251202H				12/16/25 10:08
Radium 226		0.03	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25110733 **Report Date:** 12/17/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7848
Lab ID: LCS-228-RA226-11922	3	Laboratory Control Sample				Run: TENNELEC-4_251202E				12/10/25 14:25
Radium 228		7.7	pCi/L		88	70	130			
Radium 228 precision (±)		2.3	pCi/L							
Radium 228 MDC		0.87	pCi/L							
Lab ID: MB-RA226-11922	3	Method Blank				Run: TENNELEC-4_251202E				12/10/25 14:25
Radium 228		0.2	pCi/L							U
Radium 228 precision (±)		0.5	pCi/L							
Radium 228 MDC		0.9	pCi/L							
Lab ID: C25110736-003AMS4	3	Sample Matrix Spike				Run: TENNELEC-4_251202E				12/10/25 14:25
Radium 228		8.2	pCi/L		89	70	130			
Radium 228 precision (±)		2.5	pCi/L							
Radium 228 MDC		0.86	pCi/L							
Lab ID: C25110736-003AMSD4	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_251202E				12/10/25 14:25
Radium 228		7.5	pCi/L		82	70	130	8.1	30	
Radium 228 precision (±)		2.3	pCi/L							
Radium 228 MDC		0.90	pCi/L							
- The RER result is 0.19.										
Method: RA-05										Batch: RA228-7847
Lab ID: LCS-228-RA226-11921	3	Laboratory Control Sample				Run: TENNELEC-4_251202F				12/10/25 16:48
Radium 228		8.1	pCi/L		93	70	130			
Radium 228 precision (±)		2.5	pCi/L							
Radium 228 MDC		0.92	pCi/L							
Lab ID: MB-RA226-11921	3	Method Blank				Run: TENNELEC-4_251202F				12/10/25 16:48
Radium 228		0.5	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		0.9	pCi/L							
Lab ID: C25110731-007ADUP	3	Sample Duplicate				Run: TENNELEC-4_251202F				12/10/25 16:48
Radium 228		0.40	pCi/L					28	30	U
Radium 228 precision (±)		0.58	pCi/L							
Radium 228 MDC		0.93	pCi/L							
- The RER result is 0.15.										

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Account #: 5109 **Client:** Great River Energy

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25110733

Login completed by: Lorie D. Snider
Reviewed by: dsawyer
Reviewed Date: 12/2/2025
Date Received: 11/25/2025
Received by: LDS
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	7.4°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature blank temperature in shipping container 1 was 0.2°C. The temperature blank temperature in shipping container 2 was 7.1°C, shipping container 3 was 6.9°C, shipping container 4 was 7.4°C, shipping container 5 was 7.1°C

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Work Order Receipt Checklist - Continued

Minnesota Valley Testing Laboratories C25110733

and shipping container 6 was 6.8°C. LDS 11/25/25

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Laboratory Certifications and Accreditations

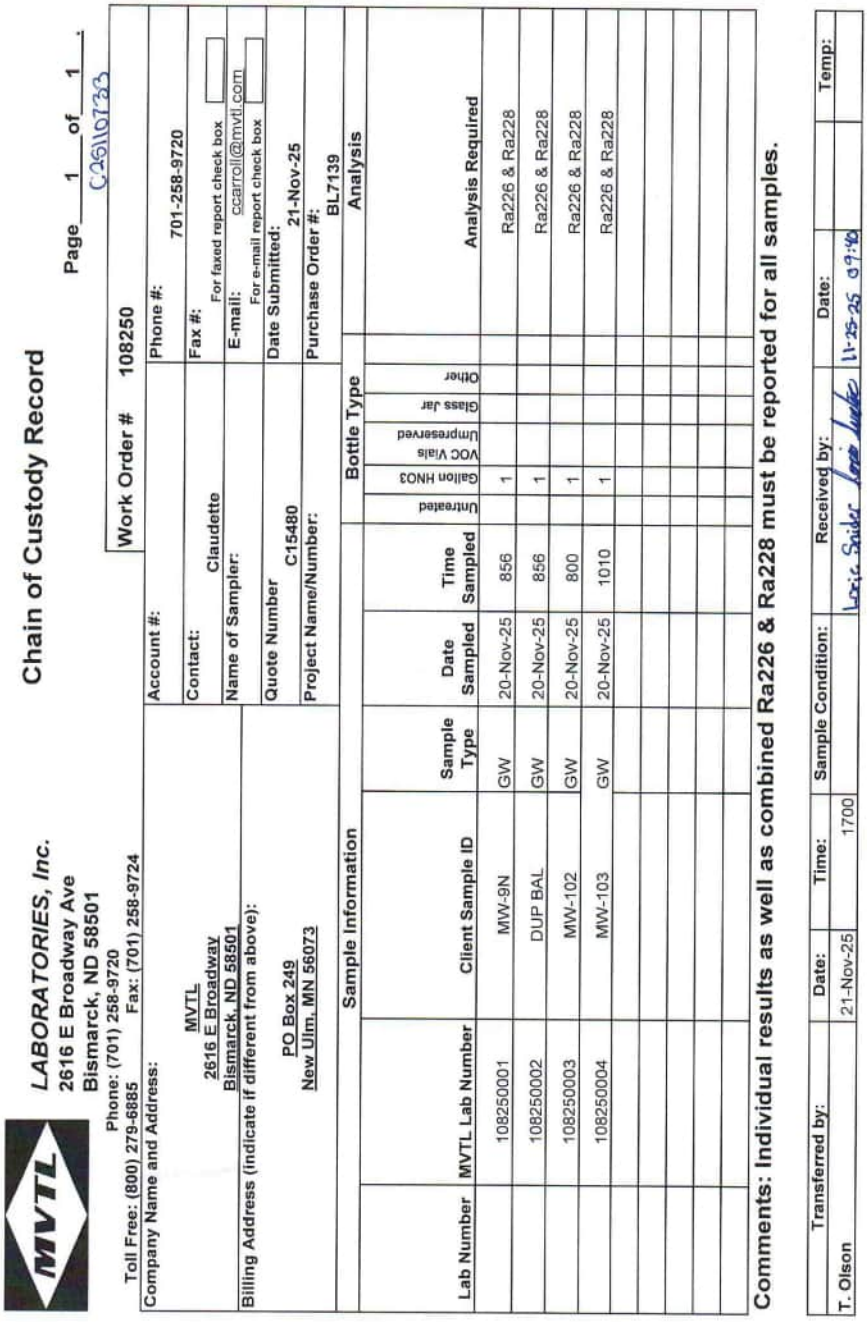
Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Account #: 5109 **Client:** Great River Energy



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Chain of Custody Record

Page 1 of 1 C25107733

Work Order # 108250

Company Name and Address: MVTL 2616 E Broadway Bismarck, ND 58501
Billing Address (indicate if different from above): PO Box 249 New Ulm, MN 56073

Account #:
Contact: Claudette
Name of Sampler:
Quote Number C15480
Project Name/Number:

Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box
Date Submitted: 21-Nov-25
Purchase Order #: BL7139

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Untreated	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	108250001	MW-9N	GW	20-Nov-25	856	1					Ra226 & Ra228
	108250002	DUP BAL	GW	20-Nov-25	856	1					Ra226 & Ra228
	108250003	MW-102	GW	20-Nov-25	800	1					Ra226 & Ra228
	108250004	MW-103	GW	20-Nov-25	1010	1					Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples.

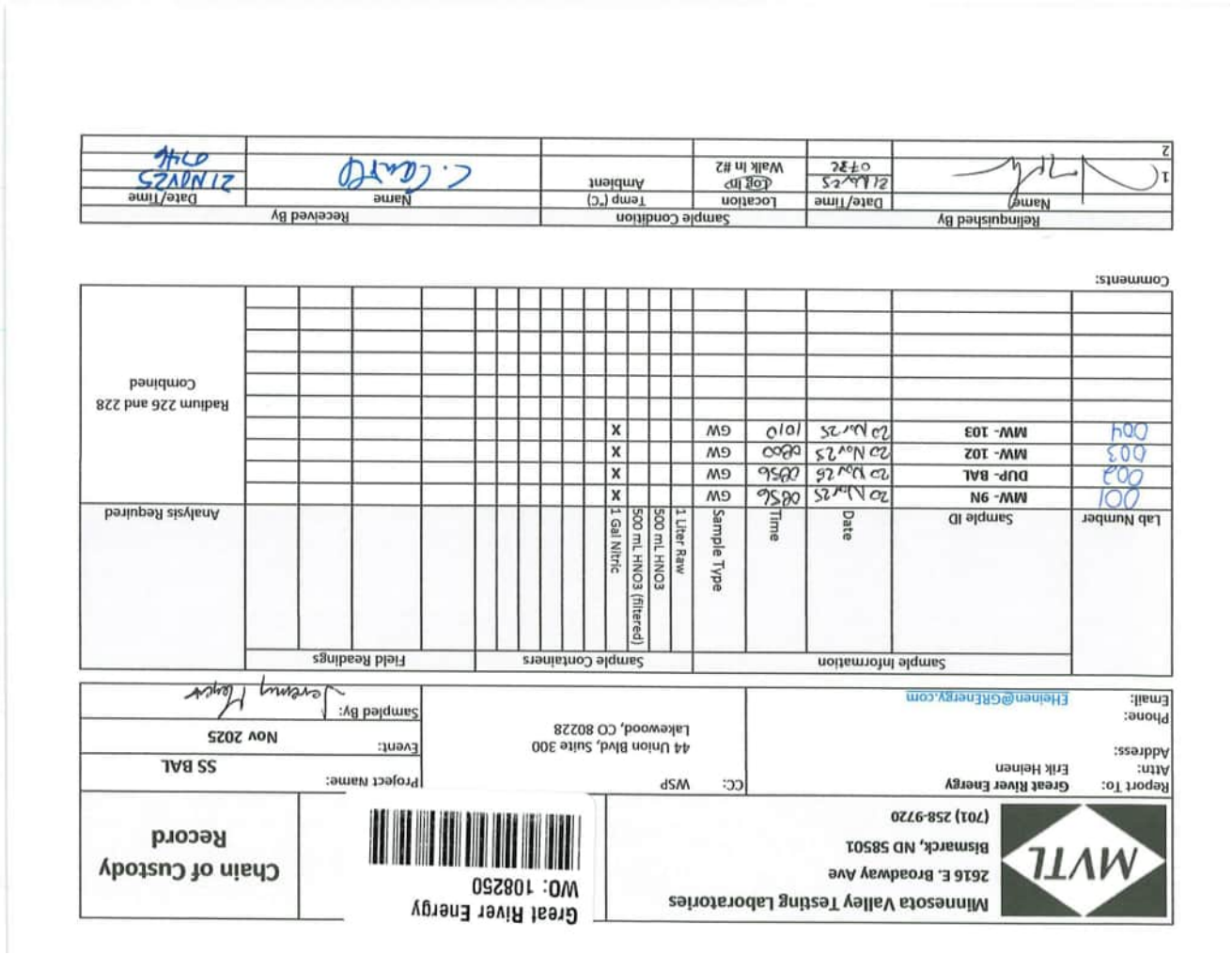
Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
T. Olson	21-Nov-25	1700		Logie Snider	11-25-25 09:10	

Page 11 of 11

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	9N
Sampling Personal:	JyM

Weather Conditions: Temp: 40 °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.95	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	14.75	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	2	Sec.
Recover:	26	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	x2
500mL Nitric (filtered)	

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
Dup BA2

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
20 Nov 25	0831	Start of Well Purge									
	0836	19.30	4028	7.13	0.47	159.6	7.66	14.75	200.0	1.0	Clear
	0841	19.35	3998	7.13	0.46	151.5	3.78	14.75	200.0	1.0	Clear
	0846	19.46	4031	7.12	0.29	148.6	8.49	14.74	200.0	1.0	Clear
	0851	19.54	4012	7.13	0.43	144.0	10.60	14.75	200.0	1.0	Clear
	0856	19.42	3996	7.13	0.33	144.2	3.50	14.74	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
20 Nov 25	0856	19.42	3996	7.13	0.33	144.2	3.50				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	102
Sampling Personal:	

Weather Conditions: Temp: 35 °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	18.12	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	18.75	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 7	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
20 Nov 25	0735	Start of Well Purge									
	0740	18.84	1899	7.54	0.64	116.3	15.02	18.65	200.0	1.0	Clear
	0745	18.69	1904	7.57	0.18	109.5	22.47	18.69	200.0	1.0	Clear
	0750	18.68	1903	7.58	0.18	108.5	31.57	18.72	200.0	1.0	Clear
	0755	18.82	1891	7.58	0.15	105.8	74.93	18.73	200.0	1.0	Clear
	0800	18.88	1898	7.59	0.13	103.6	37.27	18.74	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
20 Nov 25	0800	18.88	1898	7.59	0.13	103.6	37.27				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	103
Sampling Personal:	

Weather Conditions: Temp: 35 °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	19.78	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	20.02	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	3	Sec.
Recover:	27	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
20 Nov25	0945	Start of Well Purge									
	0950	19.16	2650	8.55	0.33	93.0	5.44	19.85	200.0	1.0	Clear
	0955	19.26	2617	8.53	0.29	90.0	4.29	19.98	200.0	1.0	Clear
	1000	19.22	2572	8.52	0.24	87.0	5.40	20.00	200.0	1.0	Clear
	1005	19.27	2549	8.53	0.21	84.0	4.81	20.00	200.0	1.0	Clear
	1010	19.32	2543	8.55	0.22	82.6	1.34	20.00	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
20 Nov 25	1010	19.32	2543	8.55	0.22	82.6	1.34				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS Internal Nov 2025 (108925) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
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Account #: 5109 **Client:** Great River Energy

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108925001 **Date Collected:** 12/01/2025 09:30 **Matrix:** Groundwater
Sample ID: MW-1R **Date Received:** 12/01/2025 14:20 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1426**	umhos/cm	1	1		12/01/2025 09:30	
Method: 150.2							
pH - Field	**7.75**	units	0.01	1		12/01/2025 09:30	
Method: 170.1							
Temperature - Field C	**15.79**	degrees C		1		12/01/2025 09:30	
Method: ASTM D516-16							
Sulfate	**350**	mg/L	25	5		12/03/2025 16:08	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/09/2025 09:00	12/09/2025 15:30	
Method: EPA 6010D							
Boron	**1.18**	mg/L	0.1	1	12/01/2025 16:28	12/03/2025 14:57	
Calcium	**91.5**	mg/L	1	1	12/01/2025 16:28	12/05/2025 09:11	
Lithium	**0.0431**	mg/L	0.02	1	12/01/2025 16:28	12/03/2025 10:51	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	12/01/2025 16:28	12/09/2025 14:50	
Arsenic	**0.0021**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 14:50	
Barium	**0.0733**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 14:50	
Beryllium	<0.0005	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 14:50	
Cadmium	<0.0005	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 14:50	
Chromium	**0.0042**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 14:50	
Cobalt	<0.002	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 14:50	
Lead	**0.0012**	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 14:50	
Molybdenum	**0.0159**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 14:50	
Selenium	<0.005	mg/L	0.005	5	12/01/2025 16:28	12/09/2025 14:50	
Thallium	<0.0005	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 14:50	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108925001 **Date Collected:** 12/01/2025 09:30 **Matrix:** Groundwater
Sample ID: MW-1R **Date Received:** 12/01/2025 14:20 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.1**	units	0.1	1		12/03/2025 13:08	*
Method: SM4500-Cl-E 2021							
Chloride	**11.3**	mg/L	2.0	1		12/02/2025 11:28	
Method: SM4500-F-C-2021							
Fluoride	**0.81**	mg/L	0.1	1		12/01/2025 21:37	
Method: USGS I-1750-85							
Total Dissolved Solids	**1010**	mg/L	10	1		12/05/2025 14:21	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108925002 **Date Collected:** 12/01/2025 10:30 **Matrix:** Groundwater
Sample ID: MW-104 **Date Received:** 12/01/2025 14:20 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1741**	umhos/cm	1	1		12/01/2025 10:30	
Method: 150.2							
pH - Field	**7.35**	units	0.01	1		12/01/2025 10:30	
Method: 170.1							
Temperature - Field C	**16.19**	degrees C		1		12/01/2025 10:30	
Method: ASTM D516-16							
Sulfate	**409**	mg/L	25	5		12/03/2025 16:09	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/09/2025 09:00	12/09/2025 15:30	
Method: EPA 6010D							
Boron	**0.70**	mg/L	0.1	1	12/01/2025 16:28	12/03/2025 14:58	
Calcium	**78.3**	mg/L	1	1	12/01/2025 16:28	12/05/2025 09:14	
Lithium	**0.0282**	mg/L	0.02	1	12/01/2025 16:28	12/03/2025 10:52	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	12/01/2025 16:28	12/09/2025 14:55	
Arsenic	<0.002	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 14:55	
Barium	**0.0568**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 14:55	
Beryllium	<0.0005	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 14:55	
Cadmium	<0.0005	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 14:55	
Chromium	<0.002	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 14:55	
Cobalt	<0.002	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 14:55	
Lead	<0.0005	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 14:55	
Molybdenum	**0.0459**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 14:55	
Selenium	<0.005	mg/L	0.005	5	12/01/2025 16:28	12/09/2025 14:55	
Thallium	<0.0005	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 14:55	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108925002 **Date Collected:** 12/01/2025 10:30 **Matrix:** Groundwater
Sample ID: MW-104 **Date Received:** 12/01/2025 14:20 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.7 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		12/01/2025 22:58	*
Method: SM4500-Cl-E 2021							
Chloride	**12.2**	mg/L	2.0	1		12/02/2025 11:29	
Method: SM4500-F-C-2021							
Fluoride	**0.79**	mg/L	0.1	1		12/01/2025 22:58	
Method: USGS I-1750-85							
Total Dissolved Solids	**1220**	mg/L	10	1		12/05/2025 14:21	

Analysis Results Comments

Alkalinity, Total

Matrix spike and/or matrix spike duplicate recovery was low; the associated laboratory control sample recovery was acceptable.

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 108925

Sulfate — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			100	103.0		85	115		
LFB			100	94.9		85	115		
LFB			100	100.0		85	115		
LFB			100	93.6		85	115		
LFB			100	89.8		85	115		
LFB			100	113.0		85	115		
LFB			100	106.0		85	115		
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MS/MSD	108460010		2000	88.5	87.9	85	115	0.2	20
MS/MSD	108667008		500	91.6	92.8	85	115	0.0	20
MS/MSD	108667013		100	88.4	90.5	85	115	2.3	20
MS/MSD	108796005		500	79.8	78.5	85	115	0.8	20
MS/MSD	108796015		100	115.6	115.5	85	115	0.0	20
MS/MSD	108925002		500	106.8	108.8	85	115	1.1	20

Chloride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			30	94.0		90	110		
LFB			30	94.1		90	110		
LFB			30	94.8		90	110		
LFB			30	94.6		90	110		
LFB			30	94.1		90	110		
LFB			30	93.9		90	110		
LFB			30	93.8		90	110		

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Chloride				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MS/MSD	108667013		30	94.5	93.7	80	120	1.1	20
MS/MSD	108796010		30	101.2	97.4	80	120	1.0	20
MS/MSD	108925002		30	94.9	96.0	80	120	0.7	20

Aluminum				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	98.9		85	115		
MB		<0.1							
MS/MSD	108925002		0.4	122.0	124.0	70	130	1.3	20

Aluminum, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.4	98.9		85	115		
MB		<0.1							
SPK/SPKD	108076003		1	98.9	99.9	75	125	0.9	20
SPK/SPKD	108246006		0.4	100.0	98.0	75	125	2.2	20
SPK/SPKD	108663001		0.4	106.0	107.0	75	125	0.6	20
SPK/SPKD	108756002		0.4	88.2	91.8	75	125	3.0	20
SPK/SPKD	108756002		1	105.0	106.0	75	125	0.9	20
SPK/SPKD	108796013		0.4	110.0	108.0	75	125	1.9	20
SPK/SPKD	108925002		0.4	114.0	112.0	75	125	1.5	20

Boron				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	99.4		85	115		
MB		<0.1							

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Account #: 5109 **Client:** Great River Energy

Boron Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	108925002		0.4	86.3	86.0	70	130	0.1	20

Boron, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	99.4		85	115		
MB		<0.1							
SPK/SPKD	108663001		0.4	95.7	95.0	75	125	0.5	20
SPK/SPKD	108796008		0.4	89.2	88.0	75	125	0.6	20
SPK/SPKD	108796012		0.4	79.8	78.2	75	125	0.4	20

Calcium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	106.0		85	115		
MB		<1							
PDS/PDSD	108045030		100	87.0	89.6	75	125	1.0	20
PDS/PDSD	108925001		100	94.7	94.5	75	125	0.1	20
DUP	108925002							1.6	20
PDS/PDSD	109428001		100	95.9	97.1	75	125	0.7	20

Calcium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	106.0		85	115		
MB		<1							
SPK/SPKD	108663001		100	99.7	101.0	75	125	1.0	20
SPK/SPKD	108756002		100	89.0	90.7	75	125	0.7	20
SPK/SPKD	108796012		100	102.0	100.0	75	125	1.2	20
SPK/SPKD	108796014		100	96.2	96.4	75	125	0.1	20

Iron Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	108.0		85	115		
MB		<0.1							
MS/MSD	108925002		0.4	101.0	100.0	70	130	0.1	20

Iron, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.4	108.0		85	115		

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Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.1							
SPK/SPKD	108076003		1	90.0	90.4	75	125	0.2	20
SPK/SPKD	108246006		0.4	81.8	82.1	75	125	0.3	20
SPK/SPKD	108663001		0.4	93.7	94.6	75	125	0.9	20
SPK/SPKD	108756002		0.4	85.2	87.4	75	125	2.6	20
SPK/SPKD	108756002		1	95.9	96.4	75	125	0.6	20
SPK/SPKD	108796013		0.4	87.3	87.6	75	125	0.3	20
SPK/SPKD	108925002		0.4	87.0	87.5	75	125	0.6	20

Lithium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	112.0		85	115		
MB		<0.04							
MS/MSD	108925002		0.4	102.0	100.0	70	130	1.3	20

Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	112.0		85	115		
MB		<0.04							
SPK/SPKD	108663001		0.4	93.9	93.3	75	125	0.6	20
SPK/SPKD	108796008		0.4	91.8	94.1	75	125	2.2	20
SPK/SPKD	108796012		0.4	94.3	93.0	75	125	1.3	20

Magnesium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	108.0		85	115		
MB		<1							
PDS/PDSD	108045030		100	97.0	97.7	75	125	0.4	20
PDS/PDSD	108925001		100	101.0	101.0	75	125	0.1	20
DUP	108925002							2.0	20
PDS/PDSD	109428001		100	100.0	101.0	75	125	0.5	20

Magnesium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	108.0		85	115		
MB		<1							

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
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Account #: 5109 **Client:** Great River Energy

Magnesium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	108663001		100	102.0	103.0	75	125	0.9	20
SPK/SPKD	108756002		100	94.2	95.4	75	125	0.6	20
SPK/SPKD	108796012		100	102.0	103.0	75	125	0.7	20
SPK/SPKD	108796014		100	100.0	100.0	75	125	0.2	20

Manganese Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	112.0		85	115		
MB		<0.05							
MS/MSD	108925002		0.4	82.8	84.0	70	130	0.4	20

Manganese, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.05							
LFB-OE			0.4	112.0		85	115		
MB		<0.05							
SPK/SPKD	108076005		1	95.2	95.3	75	125	0.1	20
SPK/SPKD	108246006		0.4	91.4	91.6	75	125	0.3	20
SPK/SPKD	108663001		0.4	96.1	96.4	75	125	0.3	20
SPK/SPKD	108756002		1	97.0	97.5	75	125	0.3	20
SPK/SPKD	108796013		0.4	77.2	78.4	75	125	0.5	20
SPK/SPKD	108925002		0.4	79.4	80.3	75	125	0.3	20

Potassium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	108.0		85	115		
MB		<1							
PDS/PDSD	108045030		100	103.0	102.0	75	125	1.1	20
PDS/PDSD	108925001		100	103.0	102.0	75	125	0.5	20
DUP	108925002							3.0	20
PDS/PDSD	109428001		100	102.0	101.0	75	125	0.5	20

Potassium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	108.0		85	115		
MB		<1							

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Potassium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	108663001		100	102.0	103.0	75	125	1.0	20
SPK/SPKD	108756002		100	101.0	101.0	75	125	0.4	20
SPK/SPKD	108796012		100	100.0	102.0	75	125	1.5	20
SPK/SPKD	108796014		100	102.0	100.0	75	125	1.0	20

Sodium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	110.0		85	115		
MB		<1							
PDS/PDSD	108045030		100	102.0	103.0	75	125	0.9	20
PDS/PDSD	108925001		100	79.7	79.3	75	125	0.1	20
DUP	108925002							1.9	20
PDS/PDSD	109428001		100	102.0	102.0	75	125	0.3	20

Sodium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	110.0		85	115		
MB		<1							
SPK/SPKD	108663001		100	97.9	101.0	75	125	1.7	20
SPK/SPKD	108756002		100	83.0	84.9	75	125	0.6	20
SPK/SPKD	108796012		100	83.7	85.2	75	125	0.4	20
SPK/SPKD	108796014		100	83.1	84.6	75	125	0.4	20

Antimony Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	92.2		80	120		
LFB-MS			0.1	94.5		80	120		
MB		<0.001							
MB		<0.001							
MS/MSD	108925002		0.4	109.0	106.0	75	125	3.3	20
SPK	108925002		0.1	105.0		75	125		

Antimony, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	92.2		80	120		
LFB-MS			0.1	94.5		80	120		

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Account #: 5109 **Client:** Great River Energy

Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.001							
MB		<0.001							
SPK/SPKD	108796010		0.15	105.0	107.0	75	125	2.3	20
MS/MSD	108925002		0.4	109.0	106.0	75	125	3.3	20
SPK	108925002		0.1	105.0		75	125		
SPK/SPKD	108925002		0.15	105.0	108.0	75	125	2.8	20

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108925002		0.4	109.0	107.0	75	125	1.9	20
SPK	108925002		0.1	107.0		75	125		

Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.002							
MB		<0.002							
SPK/SPKD	108796010		0.15	104.0	106.0	75	125	2.0	20
MS/MSD	108925002		0.4	109.0	107.0	75	125	1.9	20
SPK	108925002		0.1	107.0		75	125		
SPK/SPKD	108925002		0.15	105.0	106.0	75	125	0.4	20

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
LFB-MS			0.1	105.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108925002		0.4	111.0	112.0	75	125	0.8	20

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Barium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	108925002		0.1	117.0		75	125		

Barium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
LFB-MS			0.1	105.0		80	120		
MB		<0.002							
MB		<0.002							
SPK/SPKD	108796010		0.15	106.0	106.0	75	125	0.1	20
MS/MSD	108925002		0.4	111.0	112.0	75	125	0.8	20
SPK	108925002		0.1	117.0		75	125		
SPK/SPKD	108925002		0.15	102.0	106.0	75	125	3.2	20

Beryllium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108925002		0.4	103.0	104.0	75	125	1.0	20
SPK	108925002		0.1	98.9		75	125		

Beryllium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MB		<0.0005							
SPK/SPKD	108796010		0.15	91.5	91.5	75	125	0.0	20
MS/MSD	108925002		0.4	103.0	104.0	75	125	1.0	20
SPK	108925002		0.1	98.9		75	125		
SPK/SPKD	108925002		0.15	92.7	93.1	75	125	0.4	20

Cadmium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	95.7		80	120		

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Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	97.2		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108925002		0.4	109.0	107.0	75	125	1.6	20
SPK	108925002		0.1	105.0		75	125		

Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	95.7		80	120		
LFB-MS			0.1	97.2		80	120		
MB		<0.0005							
MB		<0.0005							
SPK/SPKD	108796010		0.15	101.0	105.0	75	125	4.5	20
MS/MSD	108925002		0.4	109.0	107.0	75	125	1.6	20
SPK	108925002		0.1	105.0		75	125		
SPK/SPKD	108925002		0.15	102.0	105.0	75	125	3.2	20

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	116.0		80	120		
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108925002		0.4	106.0	110.0	75	125	3.7	20
SPK	108925002		0.1	110.0		75	125		

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	116.0		80	120		
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MB		<0.002							
SPK/SPKD	108796010		0.15	107.0	106.0	75	125	0.3	20
MS/MSD	108925002		0.4	106.0	110.0	75	125	3.7	20

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Chromium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	108925002		0.1	110.0		75	125		
SPK/SPKD	108925002		0.15	103.0	105.0	75	125	1.5	20

Cobalt Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	115.0		80	120		
LFB-MS			0.1	108.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108925002		0.4	108.0	111.0	75	125	3.4	20
SPK	108925002		0.1	112.0		75	125		

Cobalt, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	115.0		80	120		
LFB-MS			0.1	108.0		80	120		
MB		<0.002							
MB		<0.002							
SPK/SPKD	108796010		0.15	106.0	105.0	75	125	1.1	20
MS/MSD	108925002		0.4	108.0	111.0	75	125	3.4	20
SPK	108925002		0.1	112.0		75	125		
SPK/SPKD	108925002		0.15	104.0	104.0	75	125	0.1	20

Lead Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	105.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108925002		0.4	115.0	118.0	75	125	3.2	20
SPK	108925002		0.1	108.0		75	125		

Lead, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	105.0		80	120		

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Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0005							
MB		<0.0005							
SPK/SPKD	108796010		0.15	107.0	108.0	75	125	0.6	20
MS/MSD	108925002		0.4	115.0	119.0	75	125	3.2	20
SPK	108925002		0.1	108.0		75	125		
SPK/SPKD	108925002		0.15	109.0	109.0	75	125	0.3	20

Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108925002		0.4	107.0	105.0	75	125	1.3	20
SPK	108925002		0.1	111.0		75	125		

Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.002							
MB		<0.002							
SPK/SPKD	108796010		0.15	109.0	112.0	75	125	2.3	20
MS/MSD	108925002		0.4	107.0	105.0	75	125	1.3	20
SPK	108925002		0.1	111.0		75	125		
SPK/SPKD	108925002		0.15	106.0	110.0	75	125	2.8	20

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	95.9		80	120		
MB		<0.005							
MB		<0.005							
MS/MSD	108925002		0.4	99.4	101.0	75	125	1.3	20

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Selenium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	108925002		0.1	102.0		75	125		

Selenium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	95.9		80	120		
MB		<0.005							
MB		<0.005							
SPK/SPKD	108796010		0.15	99.2	98.5	75	125	0.7	20
MS/MSD	108925002		0.4	99.4	101.0	75	125	1.3	20
SPK	108925002		0.1	102.0		75	125		
SPK/SPKD	108925002		0.15	101.0	101.0	75	125	0.1	20

Thallium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	107.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108925002		0.4	110.0	112.0	75	125	2.0	20
SPK	108925002		0.1	110.0		75	125		

Thallium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	107.0		80	120		
MB		<0.0005							
MB		<0.0005							
SPK/SPKD	108796010		0.15	109.0	110.0	75	125	1.1	20
MS/MSD	108925002		0.4	110.0	112.0	75	125	2.0	20
SPK	108925002		0.1	110.0		75	125		
SPK/SPKD	108925002		0.15	111.0	111.0	75	125	0.1	20

Mercury				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	94.6		85	115		

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Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	110.0		85	115		
LRB		<0.0002							
MB		<0.0002							
MS/MSD	108925002		0.002	112.0	109.0	70	130	0.0	20
MS/MSD	109512003		0.002	87.1	84.1	70	130	0.0	20
MS/MSD	109671001		0.002	83.6	77.3	70	130	12.5	20

Alkalinity, Total — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			501	90.7		80	120		
LFB			410	94.3		90	110		
LFB			410	94.8		90	110		
LFB			410	95.4		90	110		
LFB			410	95.4		90	110		
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MS/MSD	108667009		410	84.8	85.5	80	120	0.3	20
MS/MSD	108691006		410	88.3	87.6	80	120	0.5	20
MS/MSD	108925002		410	77.5	77.5	80	120	0.0	20

pH — Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	99.8					
CRM-PH			6	99.7					
CRM-PH			6	99.7					
CRM-PH			6	99.5					
CRM-PH			6	99.3					
DUP	108045029							0.1	20
DUP	108045034							0.4	20
DUP	108925002							1.3	20

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Fluoride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			3.34	106.0		83.83	111.07		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	104.0		90	110		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	104.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	108667011		0.5	102.0	104.0	80	120	1.2	20
MS/MSD-F	108796014		0.5	110.0	102.0	80	120	3.4	20
MS/MSD-F	108925002		0.5	102.0	102.0	80	120	0.0	20

Total Dissolved Solids — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	99.0		90.35	110.33		
MB		<10							
DUP	108925002							3.7	20
DUP	109129005							5.3	20
DUP	109129009							3.1	20

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Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 108925

Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS Internal
Attn:	Erik Heinen		Event: Nov 2025
Address:		44 Union Blvd, Suite 300 Lakewood, CO 80228	Sampled By:
Phone:			
Email:	EHeinen@GREnergy.com		

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric	Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 1R	1 Dec 25	0930	GW	X	X	X		15.79	1426	7.75	96.54	App III, App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radchem, Dissolved and Total for Remainder of Metals) (See Attachments)
002	MW- 104/MS/MSD	1 Dec 25	1030	GW	3	3	3		16.19	1741	7.55	2.56	

Comments: Internal Wells

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	1 Dec 25 1420	Log In Walk In #2	5.7°C/TM 807 ROI Y/N		1 Dec 25 1420
2					

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Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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February 2025 GL21509219.000

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

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Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	JR
Sampling Personal:	

Weather Conditions: Temp: -1 °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	17.35	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	17.67	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
1 Dec 25	0905	Start of Well Purge									
	0910	15.67	1429	7.77	0.16	-108.9	84.56	17.41	200.0	1.0	Clear
	0915	16.31	1423	7.75	0.94	-117.9	102.4	17.48	200.0	1.0	Clear
	0920	15.65	1402	7.75	0.11	-118.1	96.19	17.52	200.0	1.0	Clear
	0925	15.77	1417	7.74	0.09	-118.4	105.4	17.60	200.0	1.0	Clear
	0930	15.79	1426	7.75	0.09	-119.3	96.54	17.65	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
1 Dec 25	0930	15.79	1426	7.75	0.09	-119.3	96.54				Clear

Comments: removed pump to free check ball. reinstalled pump

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	[illegible]104
Sampling Personal:	[illegible]

Weather Conditions: Temp: -7 °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	22.38	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	22.40	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:		
1 Liter Raw	1 Gal Nitric	x3
500mL Nitric		
500mL Nitric (filtered)		

Duplicate Sample?
YES / NO
Duplicate Sample ID:
MS/MSD

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
1 Dec 25	1005	Start of Well Purge									
	1010	16.20	1720	7.37	0.08	44.9	12.79	22.39	200.0	1.0	Clear
	1015	16.33	1733	7.37	0.08	47.6	8.75	22.40	200.0	1.0	Clear
	1020	16.29	1734	7.36	0.08	49.2	8.56	22.40	200.0	1.0	Clear
	1025	16.27	1725	7.35	0.06	56.4	4.26	22.40	200.0	1.0	Clear
	1030	16.19	1741	7.35	0.06	61.9	2.56	22.40	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
1 Dec 25	1030	16.19	1741	7.35	0.06	61.9	2.56				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 1 Dec 25 Time: 1524 Analyst: DN

Work Order #: 108925

Containers Supplied by MVTL: [X] Yes [ ] No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
4	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS Internal Nov 2025 (108923) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108923001 **Date Collected:** 12/01/2025 09:30 **Matrix:** Groundwater
Sample ID: MW-1R **Date Received:** 12/01/2025 14:20 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		01/06/2026 10:52	
Radium 228	See Attached			1		01/06/2026 10:52	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108923002 **Date Collected:** 12/01/2025 10:30 **Matrix:** Groundwater
Sample ID: MW-104 **Date Received:** 12/01/2025 14:20 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		01/06/2026 10:52	
Radium 228	See Attached			1		01/06/2026 10:52	

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Account #: 5109 **Client:** Great River Energy

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ANALYTICAL SUMMARY REPORT

January 05, 2026

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25120125 Quote ID: C15480
Project Name: 108923

Energy Laboratories, Inc. Casper WY received the following 2 samples for Minnesota Valley Testing Laboratories on 12/3/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25120125-001	108923001, MW-1R	12/01/25 09:30	12/03/25	Groundwater	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25120125-002	108923002, MW-104	12/01/25 10:30	12/03/25	Groundwater	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108923
Lab ID: C25120125-001
Client Sample ID: 108923001, MW-1R

Report Date: 01/05/26
Collection Date: 12/01/25 09:30
DateReceived: 12/03/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L	U			E903.0	12/22/25 16:21 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/22/25 16:21 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/22/25 16:21 / dmr
Radium 228	0.7	pCi/L	U			RA-05	12/16/25 14:47 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/16/25 14:47 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/16/25 14:47 / jls1
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	12/29/25 16:26 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/29/25 16:26 / dmf
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/29/25 16:26 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108923
Lab ID: C25120125-002
Client Sample ID: 108923002, MW-104

Report Date: 01/05/26
Collection Date: 12/01/25 10:30
DateReceived: 12/03/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	12/22/25 16:21 / dmr
Radium 226 precision (±)	0.2	pCi/L				E903.0	12/22/25 16:21 / dmr
Radium 226 MDC	0.3	pCi/L				E903.0	12/22/25 16:21 / dmr
Radium 228	1.2	pCi/L				RA-05	12/16/25 14:47 / jls1
Radium 228 precision (±)	0.7	pCi/L				RA-05	12/16/25 14:47 / jls1
Radium 228 MDC	1.0	pCi/L				RA-05	12/16/25 14:47 / jls1
Radium 226 + Radium 228	1.3	pCi/L				A7500-RA	12/29/25 16:26 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	12/29/25 16:26 / dmf
Radium 226 + Radium 228 MDC	1.0	pCi/L				A7500-RA	12/29/25 16:26 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25120125 **Report Date:** 12/31/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11930R
Lab ID: LCS-RA226-11930	3	Laboratory Control Sample				Run: TENNELEC-3_251208B				12/22/25 13:50
Radium 226		10	pCi/L		105	70	130			
Radium 226 precision (±)		1.9	pCi/L							
Radium 226 MDC		0.24	pCi/L							
Lab ID: MB-RA226-11930	3	Method Blank				Run: TENNELEC-3_251208B				12/22/25 13:50
Radium 226		-0.05	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.3	pCi/L							
Lab ID: C25120125-002AMS1	3	Sample Matrix Spike				Run: TENNELEC-3_251208B				12/22/25 18:25
Radium 226		8.9	pCi/L		88	70	130			
Radium 226 precision (±)		1.7	pCi/L							
Radium 226 MDC		0.21	pCi/L							
Lab ID: C25120125-002AMSD1	3	Sample Matrix Spike Duplicate				Run: TENNELEC-3_251208B				12/22/25 18:25
Radium 226		10	pCi/L		99	70	130	11	30	
Radium 226 precision (±)		1.8	pCi/L							
Radium 226 MDC		0.22	pCi/L							

- The RER result is 0.43.

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Account #: 5109 **Client:** Great River Energy

QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25120125 **Report Date:** 12/31/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7856
Lab ID: LCS-228-RA226-11930	3	Laboratory Control Sample				Run: TENNELEC-4_251208B				12/16/25 14:47
Radium 228		8.7	pCi/L		100	70	130			
Radium 228 precision (±)		2.7	pCi/L							
Radium 228 MDC		0.99	pCi/L							
Lab ID: MB-RA226-11930	3	Method Blank				Run: TENNELEC-4_251208B				12/16/25 14:47
Radium 228		1	pCi/L							U
Radium 228 precision (±)		0.7	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C25120125-002AMS4	3	Sample Matrix Spike				Run: TENNELEC-4_251208B				12/16/25 14:47
Radium 228		8.3	pCi/L		81	70	130			
Radium 228 precision (±)		2.6	pCi/L							
Radium 228 MDC		1.1	pCi/L							
Lab ID: C25120125-002AMSD4	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_251208B				12/16/25 14:47
Radium 228		8.7	pCi/L		86	70	130	5.4	30	
Radium 228 precision (±)		2.7	pCi/L							
Radium 228 MDC		1.0	pCi/L							

- The RER result is 0.12.

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25120125

Login completed by: Lisa X. Quezada
Reviewed by: dsawyer
Reviewed Date: 12/9/2025
Date Received: 12/3/2025
Received by: SLR
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	5.6°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature blank temperature in shipping container 1 was 2.7°C, shipping container 2 was 4.6°C, and shipping container 3 was 5.6°C. LXQ 12/03/25

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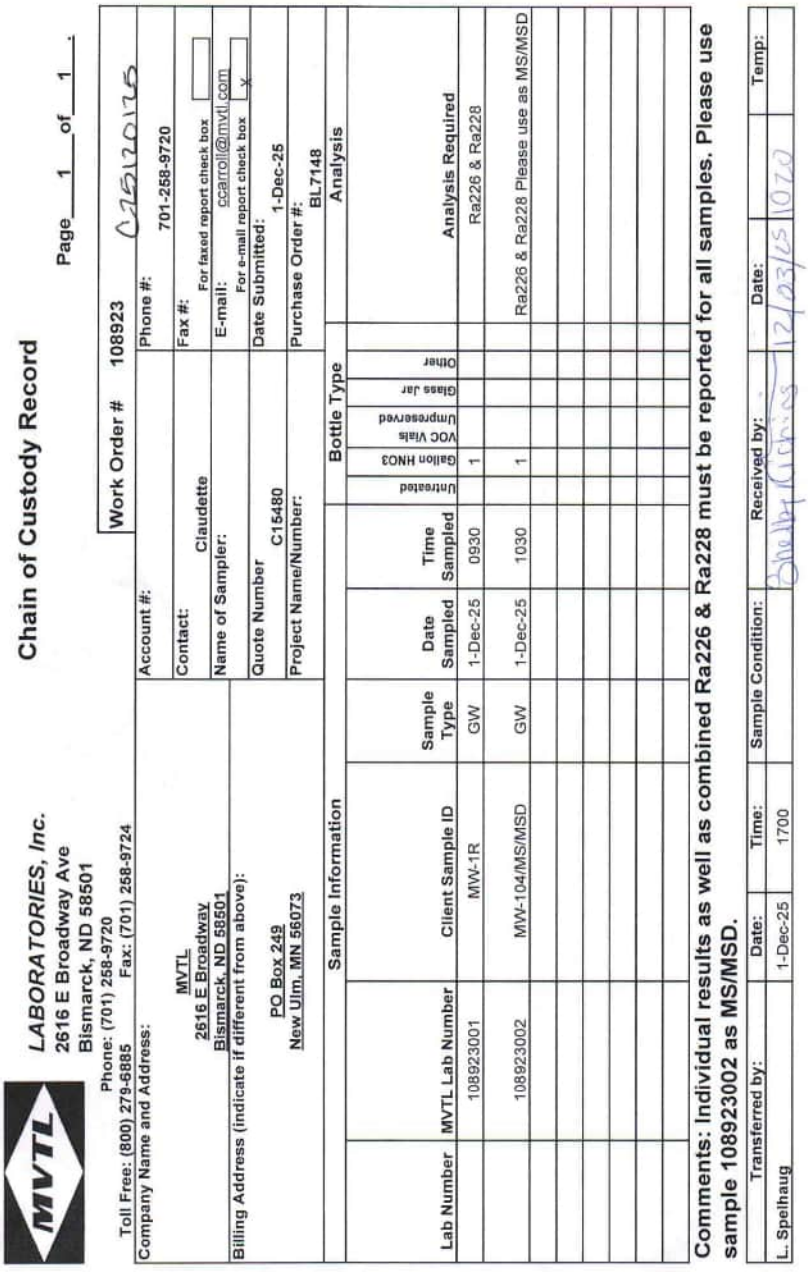
	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Bismarck, ND 58501
Phone: (701) 258-9720
Toll Free: (800) 279-6885 Fax: (701) 258-9724

Chain of Custody Record

Page 1 of 1

Work Order # 108923 C25120176

Company Name and Address: MVTL, 2616 E Broadway, Bismarck, ND 58501
Billing Address (indicate if different from above): PO Box 249, New Ulm, MN 56073
Account #:
Contact: Claudette
Name of Sampler:
Quote Number C15480
Project Name/Number:
Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box x
Date Submitted: 1-Dec-25
Purchase Order #: BL7148

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Untreated	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	108923001	MW-1R	GW	1-Dec-25	0930		1				Ra226 & Ra228
	108923002	MW-104/MS/MSD	GW	1-Dec-25	1030		1				Ra226 & Ra228 Please use as MS/MSD

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples. Please use sample 108923002 as MS/MSD.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
L. Speihaug	1-Dec-25	1700		Shelby Cross	12/03/25 1070	

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2616 East Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724
1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Member ACIL

Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 108923

Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS Internal
Attn:	Erik Heinen	44 Union Blvd, Suite 300	Event: Nov 2025
Address:		Lakewood, CO 80228	Sampled By:
Phone:			
Email:	EHeinen@GREnergy.com		

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric	Field Readings	Analysis Required
001	MW- 1R	1 Dec 25	0930	GW				X		Radium 226 and 228 Combined
002	MW- 104/MS/MSD	1 Dec 25	1030	GW				3		

Comments:

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		1 Dec 25 1420	Log In Walk In #2	Ambient		01 Dec 25 1420
2						

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	JR
Sampling Personal:	

Weather Conditions: Temp: -1 °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	17.35	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	17.67	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
1 Dec 25	0905	Start of Well Purge									
	0910	15.67	1429	7.77	0.16	-108.9	84.56	17.41	200	1.0	Clear
	0915	16.31	1423	7.75	0.94	-117.9	102.4	17.48	200	1.0	Clear
	0920	15.65	1402	7.75	0.11	-118.1	96.17	17.52	200	1.0	Clear
	0925	15.77	1417	7.74	0.09	-118.4	105.4	17.60	200	1.0	Clear
	0930	15.79	1426	7.75	0.09	-119.3	96.54	17.65	200	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
1 Dec 25	0930	15.79	1426	7.75	0.09	-119.3	96.54				Clear

Comments: removed pump to free check ball. reinstalled pump

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	[illegible]104
Sampling Personal:	[illegible]

Weather Conditions: Temp: [illegible] °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	22.38	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	22.40	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28	Sec.
PSI:	—	

Bottle List:		
1 Liter Raw	1 Gal Nitric	
500mL Nitric		x3
500mL Nitric (filtered)		

Duplicate Sample?
YES / NO
Duplicate Sample ID:
MS/MSD

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
1 Dec 25	1005	Start of Well Purge									
	1010	16.20	1720	7.37	0.08	44.9	12.79	22.39	200.0	1.0	Clear
	1015	16.33	1733	7.37	0.08	47.6	8.75	22.40	200.0	1.0	Clear
	1020	16.29	1734	7.36	0.08	49.2	8.56	22.40	200.0	1.0	Clear
	1025	16.27	1725	7.35	0.06	56.4	4.26	22.40	200.0	1.0	Clear
	1030	16.19	1741	7.35	0.06	61.9	2.56	22.40	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
1 Dec 25	1030	16.19	1741	7.35	0.06	61.9	2.56				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS BAI Nov 2025 (108926) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108926001 **Date Collected:** 12/01/2025 10:00 **Matrix:** Groundwater
Sample ID: MW-201 **Date Received:** 12/01/2025 14:22 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.3 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2987**	umhos/cm	1	1		12/01/2025 10:00	
Method: 150.2							
pH - Field	**7.55**	units	0.01	1		12/01/2025 10:00	
Method: 170.1							
Temperature - Field C	**7.17**	degrees C		1		12/01/2025 10:00	
Method: ASTM D516-16							
Sulfate	**1120**	mg/L	25	5		12/03/2025 16:11	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/09/2025 09:00	12/09/2025 15:30	
Method: EPA 6010D							
Boron	**1.58**	mg/L	0.1	1	12/01/2025 16:28	12/03/2025 15:00	
Calcium	**97.7**	mg/L	1	1	12/01/2025 16:28	12/05/2025 09:15	
Lithium	<0.02	mg/L	0.02	1	12/01/2025 16:28	12/03/2025 10:54	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	12/01/2025 16:28	12/09/2025 15:29	
Arsenic	**0.0020**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 15:29	
Barium	**0.0461**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 15:29	
Beryllium	<0.0005	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 15:29	
Cadmium	**0.0006**	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 15:29	
Chromium	**0.0061**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 15:29	
Cobalt	**0.0035**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 15:29	
Lead	**0.0029**	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 15:29	
Molybdenum	**0.1868**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 15:29	
Selenium	<0.005	mg/L	0.005	5	12/01/2025 16:28	12/09/2025 15:29	
Thallium	<0.0005	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 15:29	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108926001 **Date Collected:** 12/01/2025 10:00 **Matrix:** Groundwater
Sample ID: MW-201 **Date Received:** 12/01/2025 14:22 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.3 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		12/01/2025 23:09	*
Method: SM4500-Cl-E 2021							
Chloride	**18.9**	mg/L	2.0	1		12/02/2025 11:30	
Method: SM4500-F-C-2021							
Fluoride	**0.87**	mg/L	0.1	1		12/01/2025 23:09	
Method: USGS I-1750-85							
Total Dissolved Solids	**2220**	mg/L	10	1		12/05/2025 14:21	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108926002 **Date Collected:** 12/01/2025 11:15 **Matrix:** Groundwater
Sample ID: MW-202 **Date Received:** 12/01/2025 14:22 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.3 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2139**	umhos/cm	1	1		12/01/2025 11:15	
Method: 150.2							
pH - Field	**7.12**	units	0.01	1		12/01/2025 11:15	
Method: 170.1							
Temperature - Field C	**6.89**	degrees C		1		12/01/2025 11:15	
Method: ASTM D516-16							
Sulfate	**642**	mg/L	25	5		12/03/2025 16:12	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/09/2025 09:00	12/09/2025 15:30	
Method: EPA 6010D							
Boron	**2.03**	mg/L	0.1	1	12/01/2025 16:28	12/03/2025 15:03	
Calcium	**209**	mg/L	1	1	12/01/2025 16:28	12/05/2025 09:16	
Lithium	**0.0321**	mg/L	0.02	1	12/01/2025 16:28	12/03/2025 10:55	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	12/01/2025 16:28	12/09/2025 15:34	
Arsenic	**0.0055**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 15:34	
Barium	**0.2399**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 15:34	
Beryllium	**0.0005**	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 15:34	
Cadmium	<0.0005	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 15:34	
Chromium	**0.0193**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 15:34	
Cobalt	**0.0096**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 15:34	
Lead	**0.0074**	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 15:34	
Molybdenum	**0.0033**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 15:34	
Selenium	**0.0079**	mg/L	0.005	5	12/01/2025 16:28	12/09/2025 15:34	
Thallium	<0.0005	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 15:34	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108926002 **Date Collected:** 12/01/2025 11:15 **Matrix:** Groundwater
Sample ID: MW-202 **Date Received:** 12/01/2025 14:22 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.3 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.7**	units	0.1	1		12/01/2025 23:19	*
Method: SM4500-Cl-E 2021							
Chloride	**13.6**	mg/L	2.0	1		12/02/2025 11:32	
Method: SM4500-F-C-2021							
Fluoride	**0.13**	mg/L	0.1	1		12/01/2025 23:19	
Method: USGS I-1750-85							
Total Dissolved Solids	**1530**	mg/L	10	1		12/05/2025 14:21	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108926003 **Date Collected:** 12/01/2025 12:23 **Matrix:** Groundwater
Sample ID: MW-203 **Date Received:** 12/01/2025 14:22 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.3 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2195**	umhos/cm	1	1		12/01/2025 12:23	
Method: 150.2							
pH - Field	**9.37**	units	0.01	1		12/01/2025 12:23	
Method: 170.1							
Temperature - Field C	**7.85**	degrees C		1		12/01/2025 12:23	
Method: ASTM D516-16							
Sulfate	**578**	mg/L	25	5		12/03/2025 16:13	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/09/2025 09:00	12/09/2025 15:30	
Method: EPA 6010D							
Boron	**1.71**	mg/L	0.1	1	12/01/2025 16:28	12/03/2025 15:03	
Calcium	**12.6**	mg/L	1	1	12/01/2025 16:28	12/05/2025 09:17	
Lithium	<0.02	mg/L	0.02	1	12/01/2025 16:28	12/03/2025 10:56	
Method: EPA 6020B							
Antimony	**0.0012**	mg/L	0.001	5	12/01/2025 16:28	12/09/2025 15:39	
Arsenic	**0.0301**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 15:39	
Barium	**0.0317**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 15:39	
Beryllium	<0.0005	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 15:39	
Cadmium	**0.0008**	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 15:39	
Chromium	**0.0020**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 15:39	
Cobalt	**0.0034**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 15:39	
Lead	**0.0064**	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 15:39	
Molybdenum	**0.0639**	mg/L	0.002	5	12/01/2025 16:28	12/09/2025 15:39	
Selenium	**0.0062**	mg/L	0.005	5	12/01/2025 16:28	12/09/2025 15:39	
Thallium	<0.0005	mg/L	0.0005	5	12/01/2025 16:28	12/09/2025 15:39	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108926003 **Date Collected:** 12/01/2025 12:23 **Matrix:** Groundwater
Sample ID: MW-203 **Date Received:** 12/01/2025 14:22 **Collector:** MVTL Field Service

Temp @ Receipt (C): 5.3 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**9.4**	units	0.1	1		12/01/2025 23:30	*
Method: SM4500-Cl-E 2021							
Chloride	**12.9**	mg/L	2.0	1		12/02/2025 11:33	
Method: SM4500-F-C-2021							
Fluoride	**0.94**	mg/L	0.1	1		12/01/2025 23:30	
Method: USGS I-1750-85							
Total Dissolved Solids	**1530**	mg/L	10	1		12/05/2025 14:21	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 108926

Sulfate — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			100	103.0		85	115		
LFB			100	94.9		85	115		
LFB			100	100.0		85	115		
LFB			100	93.6		85	115		
LFB			100	89.8		85	115		
LFB			100	113.0		85	115		
LFB			100	106.0		85	115		
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MS/MSD	108460010		2000	88.5	87.9	85	115	0.2	20
MS/MSD	108667008		500	91.6	92.8	85	115	0.0	20
MS/MSD	108667013		100	88.4	90.5	85	115	2.3	20
MS/MSD	108796005		500	79.8	78.5	85	115	0.8	20
MS/MSD	108796015		100	115.6	115.5	85	115	0.0	20
MS/MSD	108925002		500	106.8	108.8	85	115	1.1	20

Chloride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			30	94.0		90	110		
LFB			30	94.1		90	110		
LFB			30	94.8		90	110		
LFB			30	94.6		90	110		
LFB			30	94.1		90	110		
LFB			30	93.9		90	110		
LFB			30	93.8		90	110		

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Chloride				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MS/MSD	108667013		30	94.5	93.7	80	120	1.1	20
MS/MSD	108796010		30	101.2	97.4	80	120	1.0	20
MS/MSD	108925002		30	94.9	96.0	80	120	0.7	20

Aluminum				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	98.9		85	115		
MB		<0.1							
MS/MSD	108925002		0.4	122.0	124.0	70	130	1.3	20

Aluminum, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	98.9		85	115		
MB		<0.1							
MS/MSD	108926001		0.4	126.0	123.0	70	130	1.8	20

Boron				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	99.4		85	115		
MB		<0.1							
MS/MSD	108925002		0.4	86.3	86.0	70	130	0.1	20
MS/MSD	108926001		0.4	89.2	84.0	70	130	1.1	20

Boron, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	99.4		85	115		
MB		<0.1							

Calcium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	106.0		85	115		

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Calcium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<1							
PDS/PDSD	108045030		100	87.0	89.6	75	125	1.0	20
PDS/PDSD	108925001		100	94.7	94.5	75	125	0.1	20
DUP	108925002							1.6	20
PDS/PDSD	109428001		100	95.9	97.1	75	125	0.7	20

Calcium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	106.0		85	115		
MB		<1							
DUP	108926002							0.7	20

Iron Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	108.0		85	115		
MB		<0.1							
MS/MSD	108925002		0.4	101.0	100.0	70	130	0.1	20

Iron, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	108.0		85	115		
MB		<0.1							
MS/MSD	108926001		0.4	92.2	89.6	70	130	2.0	20

Lithium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	112.0		85	115		
MB		<0.04							
MS/MSD	108925002		0.4	102.0	100.0	70	130	1.3	20
MS/MSD	108926001		0.4	106.0	103.0	70	130	2.8	20

Lithium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	112.0		85	115		
MB		<0.04							

Magnesium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	108.0		85	115		

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Magnesium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<1							
PDS/PDSD	108045030		100	97.0	97.7	75	125	0.4	20
PDS/PDSD	108925001		100	101.0	101.0	75	125	0.1	20
DUP	108925002							2.0	20
PDS/PDSD	109428001		100	100.0	101.0	75	125	0.5	20

Magnesium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	108.0		85	115		
MB		<1							
DUP	108926002							1.0	20

Manganese — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	112.0		85	115		
MB		<0.05							
MS/MSD	108925002		0.4	87.8	84.0	70	130	0.4	20

Manganese, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	112.0		85	115		
MB		<0.05							
MS/MSD	108926001		0.4	93.4	89.5	70	130	2.5	20

Potassium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	108.0		85	115		
MB		<1							
PDS/PDSD	108045030		100	103.0	102.0	75	125	1.1	20
PDS/PDSD	108925001		100	103.0	102.0	75	125	0.5	20
DUP	108925002							3.0	20
PDS/PDSD	109428001		100	102.0	101.0	75	125	0.5	20

Potassium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	108.0		85	115		
MB		<1							
DUP	108926002							0.8	20

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Sodium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	110.0		85	115		
MB		<1							
PDS/PDSD	108045030		100	102.0	103.0	75	125	0.9	20
PDS/PDSD	108925001		100	79.7	79.3	75	125	0.1	20
DUP	108925002							1.9	20
PDS/PDSD	109428001		100	102.0	102.0	75	125	0.3	20

Sodium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	110.0		85	115		
MB		<1							
DUP	108926002							0.0	20

Antimony — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	92.2		80	120		
LFB-MS			0.1	94.5		80	120		
MB		<0.001							
MB		<0.001							
MS/MSD	108925002		0.4	109.0	106.0	75	125	3.3	20
SPK	108925002		0.1	105.0		75	125		
MS/MSD	108926001		0.4	110.0	107.0	75	125	3.2	20

Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	92.2		80	120		
LFB-MS			0.1	94.5		80	120		
MB		<0.001							
MB		<0.001							
MS/MSD	108925002		0.4	109.0	106.0	75	125	3.3	20
SPK	108925002		0.1	105.0		75	125		
MS/MSD	108926001		0.4	110.0	107.0	75	125	3.2	20

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		

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Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108925002		0.4	109.0	107.0	75	125	1.9	20
SPK	108925002		0.1	107.0		75	125		
MS/MSD	108926001		0.4	104.0	99.0	75	125	4.4	20

Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108925002		0.4	109.0	107.0	75	125	1.9	20
SPK	108925002		0.1	107.0		75	125		
MS/MSD	108926001		0.4	104.0	99.0	75	125	4.4	20

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
LFB-MS			0.1	105.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108925002		0.4	111.0	112.0	75	125	0.8	20
SPK	108925002		0.1	117.0		75	125		
MS/MSD	108926001		0.4	108.0	107.0	75	125	1.1	20

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
LFB-MS			0.1	105.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108925002		0.4	111.0	112.0	75	125	0.8	20

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Barium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	108925002		0.1	117.0		75	125		
MS/MSD	108926001		0.4	108.0	107.0	75	125	1.1	20

Beryllium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108925002		0.4	103.0	104.0	75	125	1.0	20
SPK	108925002		0.1	98.9		75	125		
MS/MSD	108926001		0.4	101.0	97.9	75	125	2.5	20

Beryllium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108925002		0.4	103.0	104.0	75	125	1.0	20
SPK	108925002		0.1	98.9		75	125		
MS/MSD	108926001		0.4	101.0	97.9	75	125	2.5	20

Cadmium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	95.7		80	120		
LFB-MS			0.1	97.2		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108925002		0.4	109.0	107.0	75	125	1.6	20
SPK	108925002		0.1	105.0		75	125		
MS/MSD	108926001		0.4	108.0	107.0	75	125	0.9	20

Cadmium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	95.7		80	120		

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Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	97.2		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108925002		0.4	109.0	107.0	75	125	1.6	20
SPK	108925002		0.1	105.0		75	125		
MS/MSD	108926001		0.4	108.0	107.0	75	125	0.9	20

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	116.0		80	120		
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108925002		0.4	106.0	110.0	75	125	3.7	20
SPK	108925002		0.1	110.0		75	125		
MS/MSD	108926001		0.4	101.0	97.5	75	125	3.0	20

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	116.0		80	120		
LFB-MS			0.1	106.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108925002		0.4	106.0	110.0	75	125	3.7	20
SPK	108925002		0.1	110.0		75	125		
MS/MSD	108926001		0.4	101.0	97.5	75	125	3.0	20

Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	115.0		80	120		
LFB-MS			0.1	108.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108925002		0.4	108.0	111.0	75	125	3.4	20

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Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	108925002		0.1	112.0		75	125		
MS/MSD	108926001		0.4	101.0	97.6	75	125	3.8	20

Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	115.0		80	120		
LFB-MS			0.1	108.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108925002		0.4	108.0	111.0	75	125	3.4	20
SPK	108925002		0.1	112.0		75	125		
MS/MSD	108926001		0.4	101.0	97.6	75	125	3.8	20

Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	105.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108925002		0.4	115.0	119.0	75	125	3.2	20
SPK	108925002		0.1	108.0		75	125		
MS/MSD	108926001		0.4	112.0	104.0	75	125	7.2	20

Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	105.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108925002		0.4	115.0	119.0	75	125	3.2	20
SPK	108925002		0.1	108.0		75	125		
MS/MSD	108926001		0.4	112.0	104.0	75	125	7.2	20

Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		

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Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108925002		0.4	107.0	105.0	75	125	1.3	20
SPK	108925002		0.1	111.0		75	125		
MS/MSD	108926001		0.4	108.0	100.0	75	125	4.9	20

Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108925002		0.4	107.0	105.0	75	125	1.3	20
SPK	108925002		0.1	111.0		75	125		
MS/MSD	108926001		0.4	108.0	100.0	75	125	4.9	20

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	95.9		80	120		
MB		<0.005							
MB		<0.005							
MS/MSD	108925002		0.4	99.4	101.0	75	125	1.3	20
SPK	108925002		0.1	102.0		75	125		
MS/MSD	108926001		0.4	103.0	103.0	75	125	0.0	20

Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	95.9		80	120		
MB		<0.005							
MB		<0.005							
MS/MSD	108925002		0.4	99.4	101.0	75	125	1.3	20

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Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	108925002		0.1	102.0		75	125		
MS/MSD	108926001		0.4	103.0	103.0	75	125	0.0	20

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	107.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108925002		0.4	110.0	112.0	75	125	2.0	20
SPK	108925002		0.1	110.0		75	125		
MS/MSD	108926001		0.4	107.0	97.9	75	125	9.3	20

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	107.0		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108925002		0.4	110.0	112.0	75	125	2.0	20
SPK	108925002		0.1	110.0		75	125		
MS/MSD	108926001		0.4	107.0	97.9	75	125	9.3	20

Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	110.0		85	115		
LFB			0.002	94.6		85	115		
LRB		<0.0002							
MB		<0.0002							
MS/MSD	108925002		0.002	112.0	109.0	70	130	0.0	20
MS/MSD	109512003		0.002	87.1	84.1	70	130	0.0	20
MS/MSD	109671001		0.002	83.6	77.3	70	130	12.5	20

Alkalinity, Total — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			501	90.7		80	120		

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Alkalinity, Total Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			410	94.3		90	110		
LFB			410	94.8		90	110		
LFB			410	95.4		90	110		
LFB			410	95.4		90	110		
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MS/MSD	108667009		410	84.8	85.5	80	120	0.8	20
MS/MSD	108691006		410	88.3	87.6	80	120	0.5	20
MS/MSD	108925002		410	77.5	77.5	80	120	0.0	20

pH Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	99.8					
CRM-PH			6	99.7					
DUP	108925002							1.3	20

Fluoride Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			3.34	106.0		83.83	111.07		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	104.0		90	110		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	104.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	108667011		0.5	102.0	104.0	80	120	1.2	20
MS/MSD-F	108796014		0.5	110.0	102.0	80	120	3.4	20
MS/MSD-F	108925002		0.5	102.0	102.0	80	120	0.0	20

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Total Dissolved Solids Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	99.0		90.35	110.33		
MB		<10							
DUP	108925002							3.2	20
DUP	109129005							5.3	20
DUP	109129009							3.1	20

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Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 108926

Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS BAI
Attn:	Erik Heinen	44 Union Blvd, Suite 300	Event: Nov 2025
Address:		Lakewood, CO 80228	Sampled By: Ethan Gross
Phone:			
Email:	EHeinen@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric						Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 201	1Dec25	1000	GW	X	X	X							7.17	2987	7.55	93.0	App III, App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radchem, Dissolved and Total for Remainder of Metals) (See Attachments)
002	MW- 202	1Dec25	1115	GW	X	X	X							6.89	2139	7.12	662.6	
003	MW- 203	1 Dec25	1223	GW	X	X	X							7.85	2195	9.37	0.75	

Comments: Bottom Ash Impoundment Wells

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		1Dec25 1422	(Log In) Walk In #2	5.3 °C/TM 805 ROI Y/N		1Dec.25 1422
2						

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Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.
* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

wsp

1

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	201
Sampling Personal:	Ethan Carlson

Weather Conditions: Temp: 0 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	10.70	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	11.25	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
1 Dec 25	0935	Start of Well Purge									
	0945	6.19	3055	6.78	4.23	-2.0	171.1	11.23	200.0	2.0	Clear
	0950	7.13	2994	7.57	0.86	-13.9	109.7	11.23	200.0	1.0	Clear
	0955	6.95	2981	7.54	1.03	14.9	97.8	11.23	200.0	1.0	Clear
	1000	7.17	2987	7.55	1.40	35.1	93.0	11.23	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
1 Dec 25	1000	7.17	2987	7.55	1.40	35.1	93.0				Clear

Comments:

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	202
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 8 °F Wind: N/W @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.20	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.70	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
1 Dec 25	1055	Start of Well Purge									
	1105	7.07	2146	7.21	2.23	249.3	832.6	11.92	200.0	2.0	~~Clear~~ Turbid
	1110	7.08	2144	7.15	1.93	250.2	639.3	12.00	200.0	1.0	~~Clear~~ Turbid
	1115	6.89	2139	7.12	1.87	249.6	662.6	12.10	200 ∞	1.0	Turbid

Well Stabilized? (YES) NO Total Volume Purged: 4.6 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
1 Dec 25	1115	6.89	2139	7.12	1.87	249.6	662.6				~~Clear~~ Turbid

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	203
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 0 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	8.75	ft
Depth to Top of Pump:		ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
1Dec25	1203	Start of Well Purge									
	1213	8.15	2228	9.41	0.93	256.1	79.66	10.05	200.0	2.0	Clear Brown
	1218	7.95	2161	9.37	0.92	246.4	0.33	10.27	200.0	1.0	Clear Brown
	1223	7.85	2195	9.37	0.61	256.4	0.75	10.53	200.0	1.0	Clear Brown

Well Stabilized? YES NO Total Volume Purged: 4.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
1Dec25	1223	7.85	2195	9.37	0.61	256.4	0.75				Clear Brown

Comments:

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 1 Dec 25 Time: 1525 Analyst: PN

Work Order #: 1089126

Containers Supplied by MVTL: [X] Yes [ ] No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
3	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
3	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
3	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS BAI Nov 2025 (108927) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108927001 **Date Collected:** 12/01/2025 10:00 **Matrix:** Groundwater
Sample ID: MW-201 **Date Received:** 12/01/2025 14:22 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		01/06/2026 10:52	
Radium 228	See Attached			1		01/06/2026 10:52	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108927002 **Date Collected:** 12/01/2025 11:15 **Matrix:** Groundwater
Sample ID: MW-202 **Date Received:** 12/01/2025 14:22 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		01/06/2026 10:52	
Radium 228	See Attached			1		01/06/2026 10:52	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108927003 **Date Collected:** 12/01/2025 12:23 **Matrix:** Groundwater
Sample ID: MW-203 **Date Received:** 12/01/2025 14:22 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		01/06/2026 10:52	
Radium 228	See Attached			1		01/06/2026 10:52	

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Account #: 5109 **Client:** Great River Energy

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ANALYTICAL SUMMARY REPORT

January 05, 2026

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25120138 Quote ID: C15480
Project Name: 108927

Energy Laboratories, Inc. Casper WY received the following 3 samples for Minnesota Valley Testing Laboratories on 12/3/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25120138-001	108927001, MW-201	12/01/25 10:00	12/03/25	Groundwater	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25120138-002	108927002, MW-202	12/01/25 11:15	12/03/25	Groundwater	Same As Above
C25120138-003	108927003, MW-203	12/01/25 12:23	12/03/25	Groundwater	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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Account #: 5109 **Client:** Great River Energy

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108927
Lab ID: C25120138-001
Client Sample ID: 108927001, MW-201

Report Date: 01/05/26
Collection Date: 12/01/25 10:00
DateReceived: 12/03/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	12/23/25 11:08 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/23/25 11:08 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/23/25 11:08 / dmr
Radium 228	0.4	pCi/L	U			RA-05	12/16/25 14:47 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/16/25 14:47 / jls1
Radium 228 MDC	1	pCi/L				RA-05	12/16/25 14:47 / jls1
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	12/29/25 16:26 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/29/25 16:26 / dmf
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	12/29/25 16:26 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

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Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108927
Lab ID: C25120138-002
Client Sample ID: 108927002, MW-202

Report Date: 01/05/26
Collection Date: 12/01/25 11:15
DateReceived: 12/03/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.08	pCi/L	U			E903.0	12/23/25 11:08 / dmr
Radium 226 precision (±)	0.2	pCi/L				E903.0	12/23/25 11:08 / dmr
Radium 226 MDC	0.3	pCi/L				E903.0	12/23/25 11:08 / dmr
Radium 228	0.5	pCi/L	U			RA-05	12/16/25 14:47 / jls1
Radium 228 precision (±)	0.7	pCi/L				RA-05	12/16/25 14:47 / jls1
Radium 228 MDC	1.2	pCi/L				RA-05	12/16/25 14:47 / jls1
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	12/29/25 16:26 / dmf
Radium 226 + Radium 228 precision (±)	0.8	pCi/L				A7500-RA	12/29/25 16:26 / dmf
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	12/29/25 16:26 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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2616 East Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724
1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108927
Lab ID: C25120138-003
Client Sample ID: 108927003, MW-203

Report Date: 01/05/26
Collection Date: 12/01/25 12:23
DateReceived: 12/03/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.4	pCi/L				E903.0	12/23/25 11:08 / dmr
Radium 226 precision (±)	0.2	pCi/L				E903.0	12/23/25 11:08 / dmr
Radium 226 MDC	0.3	pCi/L				E903.0	12/23/25 11:08 / dmr
Radium 228	0.9	pCi/L	U			RA-05	12/16/25 15:47 / jls1
Radium 228 precision (±)	0.7	pCi/L				RA-05	12/16/25 15:47 / jls1
Radium 228 MDC	1.1	pCi/L				RA-05	12/16/25 15:47 / jls1
Radium 226 + Radium 228	0.9	pCi/L	U			A7500-RA	12/29/25 16:26 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	12/29/25 16:26 / dmf
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	12/29/25 16:26 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25120138 **Report Date:** 12/31/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11930R
Lab ID: LCS-RA226-11930	3	Laboratory Control Sample				Run: TENNELEC-3_251208B				12/22/25 13:50
Radium 226		10	pCi/L		105	70	130			
Radium 226 precision (±)		1.9	pCi/L							
Radium 226 MDC		0.24	pCi/L							
Lab ID: MB-RA226-11930	3	Method Blank				Run: TENNELEC-3_251208B				12/22/25 13:50
Radium 226		-0.05	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.3	pCi/L							
Lab ID: C25120125-002AMS1	3	Sample Matrix Spike				Run: TENNELEC-3_251208B				12/22/25 18:25
Radium 226		8.9	pCi/L		88	70	130			
Radium 226 precision (±)		1.7	pCi/L							
Radium 226 MDC		0.21	pCi/L							
Lab ID: C25120125-002AMSD1	3	Sample Matrix Spike Duplicate				Run: TENNELEC-3_251208B				12/22/25 18:25
Radium 226		10	pCi/L		99	70	130	11	30	
Radium 226 precision (±)		1.8	pCi/L							
Radium 226 MDC		0.22	pCi/L							

- The RER result is 0.43.

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25120138 **Report Date:** 12/31/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7856
Lab ID: LCS-228-RA226-11930	3	Laboratory Control Sample				Run: TENNELEC-4_251208B				12/16/25 14:47
Radium 228		8.7	pCi/L		100	70	130			
Radium 228 precision (±)		2.7	pCi/L							
Radium 228 MDC		0.99	pCi/L							
Lab ID: MB-RA226-11930	3	Method Blank				Run: TENNELEC-4_251208B				12/16/25 14:47
Radium 228		1	pCi/L							U
Radium 228 precision (±)		0.7	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C25120125-002AMS4	3	Sample Matrix Spike				Run: TENNELEC-4_251208B				12/16/25 14:47
Radium 228		8.3	pCi/L		81	70	130			
Radium 228 precision (±)		2.6	pCi/L							
Radium 228 MDC		1.1	pCi/L							
Lab ID: C25120125-002AMSD4	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_251208B				12/16/25 14:47
Radium 228		8.7	pCi/L		86	70	130	5.4	30	
Radium 228 precision (±)		2.7	pCi/L							
Radium 228 MDC		1.0	pCi/L							

- The RER result is 0.12.

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25120138

Login completed by: Lisa X. Quezada
Reviewed by: dsawyer
Reviewed Date: 12/10/2025
Date Received: 12/3/2025
Received by: SLR
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	5.6°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature blank temperature in shipping container 1 was 2.7°C, shipping container 2 was 4.6°C, and shipping container 3 was 5.6°C. LXQ 12/03/25

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Laboratory Certifications and Accreditations

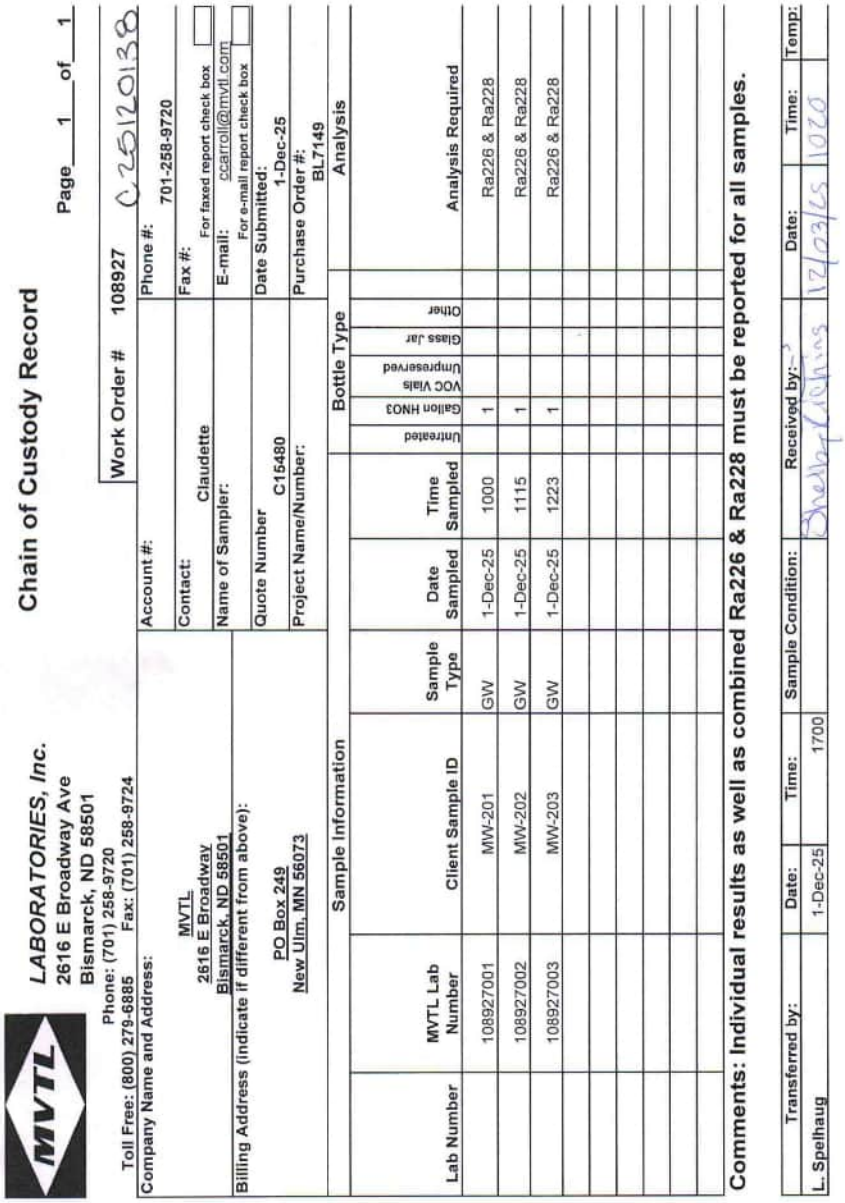
Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Chain of Custody Record

Page 1 of 1

Work Order # 108927 C25120138

Company Name and Address: MVTL 2616 E Broadway Bismarck, ND 58501

Billing Address (indicate if different from above): PO Box 249 New Ulm, MN 56073

Account #:
Contact: Claudette
Name of Sampler:
Quote Number C15480
Project Name/Number:

Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box
Date Submitted: 1-Dec-25
Purchase Order #: BL7149

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Unpreserved	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	108927001	MW-201	GW	1-Dec-25	1000		1				Ra226 & Ra228
	108927002	MW-202	GW	1-Dec-25	1115		1				Ra226 & Ra228
	108927003	MW-203	GW	1-Dec-25	1223		1				Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Time:	Temp:
L. Spelhaug	1-Dec-25	1700		Shelby Collins	12/03/25	1020	

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Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 108927

Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS BAI
Attn:	Erik Heinen		Event: Nov 2025
Address:		44 Union Blvd, Suite 300 Lakewood, CO 80228	Sampled By: Ethan Gress
Phone:			
Email:	EHeinen@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric										Analysis Required
001	MW- 201	1 Dec 25	1000	GW				X										Radium 226 and 228 Combined
002	MW- 202	1 Dec 25	1115	GW				X										
003	MW- 203	1 Dec 25	1223	GW				X										

Comments:

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		1 Dec 25 1422	Log In Walk In #2	Ambient		1 Dec 25 1422
2						

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	201
Sampling Personal:	Ethan Gotlesen

Weather Conditions: Temp: 0 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	10.70	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	11.25	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
1 Dec 25	0935	Start of Well Purge									
	0945	6.19	3055	6.78	4.23	-2.0	171.1	11.23	200.0	2.0	Clear
	0950	7.13	2994	7.37	0.86	-13.9	109.7	11.23	200.0	1.0	Clear
	0955	6.95	2981	7.54	1.03	14.9	97.8	11.23	200.0	1.0	Clear
	1000	7.17	2987	7.55	1.40	35.1	93.0	11.23	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
1 Dec 25	1000	7.17	2987	7.55	1.40	35.1	93.0				Clear

Comments:

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MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	202
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 8 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.20	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.70	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
	1055	Start of Well Purge									clear, slightly turbid, turbid
1 Dec 25	1105	7.07	2146	7.21	2.23	249.3	832.6	11.92	200.0	2.0	~~Ethan~~ Turbid
	1110	7.08	2144	7.15	1.93	250.2	639.3	12.00	200 @	1.0	~~Ethan~~ Turbid
	1115	6.89	2139	7.12	1.87	249.6	662.6	12.10	200 @	1.0	Turbid

Well Stabilized? YES NO Total Volume Purged: 4.6 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
1 Dec 25	1115	6.89	2139	7.12	1.87	249.6	662.6				~~Ethan~~ Turbid

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	203
Sampling Personal:	EThomGress

Weather Conditions: Temp: 0 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	8.75	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
1Dec25	1203	Start of Well Purge									
	1213	8.15	2228	9.91	0.93	256.1	79.66	10.05	200.0	2.0	Clear Brown
	1218	7.95	2161	9.27	0.92	246.4	0.33	10.27	200.0	1.0	Clear Brown
	1223	7.85	2195	9.37	0.61	238.4	0.75	10.53	200.0	1.0	Clear Brown

Well Stabilized? YES NO Total Volume Purged: 4.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
1Dec25	1223	7.85	2195	9.37	0.61	238.4	0.75				Clear Brown

Comments:

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS 2022 Wells Nov 2025 (108246) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108246001 **Date Collected:** 11/20/2025 12:33 **Matrix:** Groundwater
Sample ID: MW-210 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1524**	umhos/cm	1	1		11/20/2025 12:33	
Method: 150.2							
pH - Field	**7.71**	units	0.01	1		11/20/2025 12:33	
Method: 170.1							
Temperature - Field C	**21.19**	degrees C		1		11/20/2025 12:33	
Method: ASTM D516-16							
Sulfate	**381**	mg/L	25	5		11/25/2025 13:44	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.75**	mg/L	0.1	1	11/21/2025 15:49	11/25/2025 16:33	
Calcium	**72.3**	mg/L	1	1	11/21/2025 15:49	11/28/2025 11:06	
Lithium	**0.0416**	mg/L	0.02	1	11/21/2025 15:49	11/25/2025 09:20	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/21/2025 15:49	12/02/2025 11:22	
Arsenic	**0.0028**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:22	
Barium	**0.0564**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:22	
Beryllium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:22	
Cadmium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:22	
Chromium	**0.0021**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:22	
Cobalt	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:22	
Lead	**0.0010**	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:22	
Molybdenum	**0.0132**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:22	
Selenium	<0.005	mg/L	0.005	5	11/21/2025 15:49	12/02/2025 11:22	
Thallium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:22	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108246001 **Date Collected:** 11/20/2025 12:33 **Matrix:** Groundwater
Sample ID: MW-210 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.1**	units	0.1	1		11/21/2025 22:48	*
Method: SM4500-Cl-E 2021							
Chloride	**11.9**	mg/L	2.0	1		11/25/2025 11:53	
Method: SM4500-F-C-2021							
Fluoride	**0.64**	mg/L	0.1	1		11/21/2025 22:48	
Method: USGS I-1750-85							
Total Dissolved Solids	**1110**	mg/L	10	1		11/26/2025 15:00	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108246002 **Date Collected:** 11/20/2025 12:33 **Matrix:** Groundwater
Sample ID: DUP-2022 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1524**	umhos/cm	1	1		11/20/2025 12:33	
Method: 150.2							
pH - Field	**7.71**	units	0.01	1		11/20/2025 12:33	
Method: 170.1							
Temperature - Field C	**21.19**	degrees C		1		11/20/2025 12:33	
Method: ASTM D516-16							
Sulfate	**394**	mg/L	25	5		11/25/2025 13:45	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.75**	mg/L	0.1	1	11/21/2025 15:49	11/25/2025 16:34	
Calcium	**71.2**	mg/L	1	1	11/21/2025 15:49	11/28/2025 11:07	
Lithium	**0.0412**	mg/L	0.02	1	11/21/2025 15:49	11/25/2025 09:21	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/21/2025 15:49	12/02/2025 11:28	
Arsenic	**0.0033**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:28	
Barium	**0.0567**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:28	
Beryllium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:28	
Cadmium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:28	
Chromium	**0.0027**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:28	
Cobalt	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:28	
Lead	**0.0010**	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:28	
Molybdenum	**0.0132**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 11:28	
Selenium	<0.005	mg/L	0.005	5	11/21/2025 15:49	12/02/2025 11:28	
Thallium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 11:28	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108246002 **Date Collected:** 11/20/2025 12:33 **Matrix:** Groundwater
Sample ID: DUP-2022 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.1**	units	0.1	1		11/21/2025 22:59	*
Method: SM4500-Cl-E 2021							
Chloride	**11.9**	mg/L	2.0	1		11/25/2025 11:54	
Method: SM4500-F-C-2021							
Fluoride	**0.64**	mg/L	0.1	1		11/21/2025 22:59	
Method: USGS I-1750-85							
Total Dissolved Solids	**1090**	mg/L	10	1		11/26/2025 15:00	

Task Comments

5161155 - METb/4229

Post digestion spike recovery for sodium was low; the relative percent difference between the post digestion spike and post digestion spike duplicate was acceptable.

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108246003 **Date Collected:** 11/20/2025 10:52 **Matrix:** Groundwater
Sample ID: MW-211 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2400**	umhos/cm	1	1		11/20/2025 10:52	
Method: 150.2							
pH - Field	**7.89**	units	0.01	1		11/20/2025 10:52	
Method: 170.1							
Temperature - Field C	**20.18**	degrees C		1		11/20/2025 10:52	
Method: ASTM D516-16							
Sulfate	**768**	mg/L	25	5		11/25/2025 13:53	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**1.62**	mg/L	0.1	1	11/21/2025 15:49	11/25/2025 16:40	
Calcium	**61.4**	mg/L	1	1	11/21/2025 15:49	11/28/2025 11:14	
Lithium	**0.0259**	mg/L	0.02	1	11/21/2025 15:49	11/25/2025 09:24	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/21/2025 15:49	12/02/2025 12:27	
Arsenic	**0.0109**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:27	
Barium	**0.1151**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:27	
Beryllium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 12:27	
Cadmium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 12:27	
Chromium	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:27	
Cobalt	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:27	
Lead	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 12:27	
Molybdenum	**0.0234**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:27	
Selenium	<0.005	mg/L	0.005	5	11/21/2025 15:49	12/02/2025 12:27	
Thallium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 12:27	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108246003 **Date Collected:** 11/20/2025 10:52 **Matrix:** Groundwater
Sample ID: MW-211 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.2**	units	0.1	1		11/22/2025 01:01	*
Method: SM4500-Cl-E 2021							
Chloride	**17.4**	mg/L	2.0	1		11/25/2025 11:55	
Method: SM4500-F-C-2021							
Fluoride	**0.57**	mg/L	0.1	1		11/22/2025 01:01	
Method: USGS I-1750-85							
Total Dissolved Solids	**1800**	mg/L	10	1		11/26/2025 15:00	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108246004 **Date Collected:** 11/20/2025 11:40 **Matrix:** Groundwater
Sample ID: MW-212 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1817**	umhos/cm	1	1		11/20/2025 11:40	
Method: 150.2							
pH - Field	**8.15**	units	0.01	1		11/20/2025 11:40	
Method: 170.1							
Temperature - Field C	**20.5**	degrees C		1		11/20/2025 11:40	
Method: ASTM D516-16							
Sulfate	**443**	mg/L	25	5		11/25/2025 13:54	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.84**	mg/L	0.1	1	11/21/2025 15:49	11/25/2025 16:41	
Calcium	**42.7**	mg/L	1	1	11/21/2025 15:49	11/28/2025 11:16	
Lithium	**0.0260**	mg/L	0.02	1	11/21/2025 15:49	11/25/2025 09:25	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/21/2025 15:49	12/02/2025 12:32	
Arsenic	**0.0029**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:32	
Barium	**0.0739**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:32	
Beryllium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 12:32	
Cadmium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 12:32	
Chromium	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:32	
Cobalt	**0.0026**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:32	
Lead	**0.0018**	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 12:32	
Molybdenum	**0.0422**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:32	
Selenium	<0.005	mg/L	0.005	5	11/21/2025 15:49	12/02/2025 12:32	
Thallium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 12:32	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108246004 **Date Collected:** 11/20/2025 11:40 **Matrix:** Groundwater
Sample ID: MW-212 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.3**	units	0.1	1		11/22/2025 01:11	*
Method: SM4500-Cl-E 2021							
Chloride	**14.4**	mg/L	2.0	1		11/25/2025 11:57	
Method: SM4500-F-C-2021							
Fluoride	**0.47**	mg/L	0.1	1		11/22/2025 01:11	
Method: USGS I-1750-85							
Total Dissolved Solids	**1310**	mg/L	10	1		11/26/2025 15:00	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108246005 **Date Collected:** 11/20/2025 13:42 **Matrix:** Groundwater
Sample ID: MW-213 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1435**	umhos/cm	1	1		11/20/2025 13:42	
Method: 150.2							
pH - Field	**7.72**	units	0.01	1		11/20/2025 13:42	
Method: 170.1							
Temperature - Field C	**20.85**	degrees C		1		11/20/2025 13:42	
Method: ASTM D516-16							
Sulfate	**350**	mg/L	25	5		11/25/2025 13:55	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**1.19**	mg/L	0.1	1	11/21/2025 15:49	11/25/2025 16:43	
Calcium	**79.5**	mg/L	1	1	11/21/2025 15:49	11/28/2025 11:17	
Lithium	**0.0368**	mg/L	0.02	1	11/21/2025 15:49	11/25/2025 09:26	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/21/2025 15:49	12/02/2025 12:37	
Arsenic	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:37	
Barium	**0.0388**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:37	
Beryllium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 12:37	
Cadmium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 12:37	
Chromium	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:37	
Cobalt	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:37	
Lead	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 12:37	
Molybdenum	**0.0178**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:37	
Selenium	<0.005	mg/L	0.005	5	11/21/2025 15:49	12/02/2025 12:37	
Thallium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 12:37	

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108246005 **Date Collected:** 11/20/2025 13:42 **Matrix:** Groundwater
Sample ID: MW-213 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.1**	units	0.1	1		11/22/2025 01:24	*
Method: SM4500-Cl-E 2021							
Chloride	**11.4**	mg/L	2.0	1		11/25/2025 11:58	
Method: SM4500-F-C-2021							
Fluoride	**0.85**	mg/L	0.1	1		11/22/2025 01:24	
Method: USGS I-1750-85							
Total Dissolved Solids	**1050**	mg/L	10	1		11/26/2025 15:00	

Analysis Results Comments

Alkalinity, Total

Matrix spike and/or matrix spike duplicate recovery was low; the associated laboratory control sample recovery was acceptable.

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108246006 **Date Collected:** 11/20/2025 14:56 **Matrix:** Groundwater
Sample ID: MW-214 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1906**	umhos/cm	1	1		11/20/2025 14:56	
Method: 150.2							
pH - Field	**7.62**	units	0.01	1		11/20/2025 14:56	
Method: 170.1							
Temperature - Field C	**18.38**	degrees C		1		11/20/2025 14:56	
Method: ASTM D516-16							
Sulfate	**501**	mg/L	25	5		11/25/2025 13:56	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.45**	mg/L	0.1	1	11/21/2025 15:49	11/25/2025 16:47	
Calcium	**50.0**	mg/L	1	1	11/21/2025 15:49	11/28/2025 11:21	
Lithium	**0.0642**	mg/L	0.02	1	11/21/2025 15:49	11/25/2025 09:27	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/21/2025 15:49	12/02/2025 12:42	
Arsenic	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:42	
Barium	**0.0306**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:42	
Beryllium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 12:42	
Cadmium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 12:42	
Chromium	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:42	
Cobalt	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:42	
Lead	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 12:42	
Molybdenum	**0.0139**	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 12:42	
Selenium	<0.005	mg/L	0.005	5	11/21/2025 15:49	12/02/2025 12:42	
Thallium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 12:42	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108246006 **Date Collected:** 11/20/2025 14:56 **Matrix:** Groundwater
Sample ID: MW-214 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.1**	units	0.1	1		11/22/2025 01:35	*
Method: SM4500-Cl-E 2021							
Chloride	**20.4**	mg/L	2.0	1		11/25/2025 11:59	
Method: SM4500-F-C-2021							
Fluoride	**0.54**	mg/L	0.1	1		11/22/2025 01:35	
Method: USGS I-1750-85							
Total Dissolved Solids	**1360**	mg/L	10	1		11/26/2025 15:00	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108246007 **Date Collected:** 11/20/2025 14:33 **Matrix:** Groundwater
Sample ID: FB-2022 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	<5	mg/L	5	1		11/25/2025 13:57	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	<0.1	mg/L	0.1	1	11/21/2025 15:49	11/25/2025 16:51	
Calcium	<1	mg/L	1	1	11/21/2025 15:49	11/28/2025 11:22	
Lithium	<0.02	mg/L	0.02	1	11/21/2025 15:49	11/25/2025 09:31	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/21/2025 15:49	12/02/2025 13:07	
Arsenic	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 13:07	
Barium	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 13:07	
Beryllium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 13:07	
Cadmium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 13:07	
Chromium	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 13:07	
Cobalt	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 13:07	
Lead	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 13:07	
Molybdenum	<0.002	mg/L	0.002	5	11/21/2025 15:49	12/02/2025 13:07	
Selenium	<0.005	mg/L	0.005	5	11/21/2025 15:49	12/02/2025 13:07	
Thallium	<0.0005	mg/L	0.0005	5	11/21/2025 15:49	12/02/2025 13:07	
Method: SM4500 H+ B-2021							
pH	**6.6**	units	0.1	1		11/22/2025 01:45	*
Method: SM4500-Cl-E 2021							
Chloride	<2.0	mg/L	2.0	1		11/25/2025 12:00	
Method: SM4500-F-C-2021							
Fluoride	<0.1	mg/L	0.1	1		11/22/2025 01:45	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108246007 **Date Collected:** 11/20/2025 14:33 **Matrix:** Groundwater
Sample ID: FB-2022 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): 0.5 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: USGS I-1750-85							
Total Dissolved Solids	<10	mg/L	10	1		11/26/2025 15:00	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 108246

Sulfate — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			100	99.7		85	115		
LFB			100	98.4		85	115		
LFB			100	93.8		85	115		
LFB			100	88.8		85	115		
LFB			100	97.7		85	115		
LFB			100	98.1		85	115		
LFB			100	97.6		85	115		
LFB			100	95.9		85	115		
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MSD	107885004		500	82.8	84.8	85	115	1.2	20
MSD	108045016		500	79.1	81.4	85	115	1.6	20
MSD	108076003		500	91.4	91.7	85	115	0.3	20
MSD	108076005		500	83.6	84.6	85	115	0.6	20
MSD	108243001		500	88.6	86.1	85	115	1.9	20
MSD	108246001		500	88.8	89.2	85	115	0.2	20
MSD	108246007		100	94.1	94.9	85	115	0.8	20

Chloride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			30	95.1		90	110		
LFB			30	94.9		90	110		
LFB			30	94.6		90	110		
LFB			30	94.7		90	110		

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Account #: 5109 **Client:** Great River Energy

Chloride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			30	94.8		90	110		
LFB			30	95.3		90	110		
LFB			30	94.5		90	110		
LFB			30	94.5		90	110		
LFB			30	94.7		90	110		
LFB			30	94.6		90	110		
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MSD	108045012		30	94.4	100.4	80	120	5.7	20
MSD	108076003		30	94.2	94.1	80	120	0.0	20
MSD	108245003		30	98.4	99.8	80	120	0.9	20
MSD	108460004		30	94.5	94.5	80	120	0.0	20
MSD	108460010		30	95.7	95.4	80	120	0.1	20

Aluminum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-DE			0.4	99.4		85	115		
LFB-DE			0.4	101.0		85	115		
MB		<0.1							
MB		<0.1							
MSD	108245001		0.4	107.0	112.0	70	130	5.3	20
MSD	108246006		0.4	127.0	124.0	70	130	1.8	20

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Account #: 5109 **Client:** Great River Energy

Aluminum, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.4	99.4		85	115		
LFB-OE			0.4	101.0		85	115		
MB		<0.1							
MB		<0.1							
SPKD	108076003		1	98.9	99.9	75	125	0.9	20
SPKD	108246006		0.4	100.0	98.0	75	125	2.2	20
SPKD	108663001		0.4	106.0	107.0	75	125	0.6	20
SPKD	108756007		0.4	88.2	91.8	75	125	3.0	20
SPKD	108756002		1	105.0	106.0	75	125	0.9	20
SPKD	108796013		0.4	110.0	108.0	75	125	1.9	20
SPKD	108925002		0.4	114.0	112.0	75	125	1.5	20

Boron				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	102.0		85	115		
LFB-OE			0.4	103.0		85	115		
MB		<0.1							
MB		<0.1							
MSD	108245001		0.4	88.8	108.0	70	130	2.3	20
MSD	108246006		0.4	99.6	102.0	70	130	1.3	20

Boron, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	102.0		85	115		
LFB-OE			0.4	103.0		85	115		
MB		<0.1							
MB		<0.1							
SPKD	108076003		0.4	95.1	92.1	75	125	1.5	20
SPKD	108246005		0.4	90.0	89.0	75	125	0.3	20

Calcium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	111.0		85	115		

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Account #: 5109 **Client:** Great River Energy

Calcium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
MB		<1							
MB		<1							
PDSD	108237003		500	99.7	98.1	75	125	1.3	20
DUP	108243003							0.2	20
PDSD	108246002		100	93.7	94.4	75	125	0.4	20
DUP	108246003							1.4	20
PDSD	108246005		100	94.9	94.9	75	125	0.0	20
PDSD	108460005		100	89.7	90.6	75	125	0.4	20
PDSD	108663001		100	98.1	96.8	75	125	0.9	20
PDSD	108756001		100	93.9	93.5	75	125	0.2	20
PDSD	108756002		100	87.9	89.2	75	125	0.5	20
PDSD	108796003		500	102.0	102.0	75	125	0.1	20
PDSD	108796012		100	96.4	98.0	75	125	1.2	20

Calcium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	111.0		85	115		
LFB-MI			100	112.0		85	115		
MB		<1							
MB		<1							
SPKD	108663001		100	99.7	101.0	75	125	1.0	20
SPKD	108756002		100	89.0	90.7	75	125	0.7	20
SPKD	108796012		100	102.0	100.0	75	125	1.2	20
SPKD	108796014		100	96.2	96.4	75	125	0.1	20

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	107.0		85	115		
LFB-OE			0.4	106.0		85	115		
MB		<0.1							
MB		<0.1							
MSD	108245001		0.4	100.0	82.5	70	130	19.2	20

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Account #: 5109 **Client:** Great River Energy

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MSD	108246006		0.4	92.2	94.2	70	130	1.4	20

Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.4	107.0		85	115		
LFB-OE			0.4	106.0		85	115		
MB		<0.1							
MB		<0.1							
SPKD	108076003		1	90.0	90.4	75	125	0.2	20
SPKD	108246006		0.4	81.8	82.1	75	125	0.3	20
SPKD	108663001		0.4	93.7	94.6	75	125	0.9	20
SPKD	108756002		0.4	85.7	87.4	75	125	2.6	20
SPKD	108756002		1	95.9	96.4	75	125	0.6	20
SPKD	108796013		0.4	87.3	87.6	75	125	0.3	20
SPKD	108925002		0.4	87.0	87.5	75	125	0.6	20

Lithium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	106.0		85	115		
LFB-OE			0.4	107.0		85	115		
MB		<0.04							
MB		<0.04							
MSD	108245001		0.4	98.0	102.0	70	130	3.5	20
PDSD	108246002		0.4	95.9	95.8	75	125	0.0	20
MSD	108246006		0.4	102.0	104.0	70	130	2.1	20

Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	106.0		85	115		
LFB-OE			0.4	107.0		85	115		
MB		<0.04							
MB		<0.04							
SPKD	108076003		0.4	93.2	92.8	75	125	0.4	20

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Account #: 5109 **Client:** Great River Energy

Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPKD	108246005		0.4	93.8	92.7	75	125	1.1	20

Magnesium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	111.0		85	115		
LFB-MI			100	112.0		85	115		
MB		<1							
MB		<1							
PDSD	108237003		500	98.2	96.7	75	125	0.9	20
DUP	108243003							0.8	20
PDSD	108246002		100	98.3	98.9	75	125	0.5	20
DUP	108246003							1.5	20
PDSD	108246005		100	98.9	98.9	75	125	0.0	20
PDSD	108460005		100	94.9	95.6	75	125	0.4	20
PDSD	108663001		100	99.7	98.7	75	125	0.8	20
PDSD	108756001		100	98.9	98.5	75	125	0.3	20
PDSD	108756002		100	92.9	93.9	75	125	0.5	20
PDSD	108796003		500	103.0	102.0	75	125	0.7	20
PDSD	108796012		100	100.0	100.0	75	125	0.5	20

Magnesium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	111.0		85	115		
LFB-MI			100	112.0		85	115		
MB		<1							
MB		<1							
SPKD	108663001		100	102.0	103.0	75	125	0.9	20
SPKD	108756002		100	94.2	95.4	75	125	0.6	20
SPKD	108796012		100	102.0	103.0	75	125	0.7	20
SPKD	108796014		100	100.0	100.0	75	125	0.2	20

Manganese — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	110.0		85	115		

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Account #: 5109 **Client:** Great River Energy

Manganese — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	109.0		85	115		
MB		<0.05							
MB		<0.05							
MSD	108245001		0.4	81.4	87.1	70	130	3.5	20
MSD	108246006		0.4	102.0	104.0	70	130	1.4	20

Manganese, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.05							
LFB-OE			0.4	110.0		85	115		
LFB-OE			0.4	109.0		85	115		
MB		<0.05							
MB		<0.05							
SPKD	108076003		1	95.2	95.3	75	125	0.1	20
SPKD	108246006		0.4	91.4	91.6	75	125	0.3	20
SPKD	108663001		0.4	96.1	96.4	75	125	0.3	20
SPKD	108758002		1	97.0	97.5	75	125	0.3	20
SPKD	108796013		0.4	77.2	78.4	75	125	0.5	20
SPKD	108925002		0.4	79.4	80.3	75	125	0.3	20

Potassium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	109.0		85	115		
LFB-MI			100	111.0		85	115		
MB		<1							
MB		<1							
PDSD	108237003		500	100.0	97.9	75	125	2.0	20
DUP	108243003							1.1	20
PDSD	108246002		100	101.0	101.0	75	125	0.6	20
DUP	108246003							0.5	20
PDSD	108246005		100	101.0	100.0	75	125	0.6	20
PDSD	108460005		100	99.6	99.1	75	125	0.4	20
PDSD	108663001		100	100.0	101.0	75	125	0.6	20

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Account #: 5109 **Client:** Great River Energy

Potassium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDSD	108756001		100	101.0	99.7	75	125	1.4	20
PDSD	108756002		100	101.0	101.0	75	125	0.1	20
PDSD	108796003		500	103.0	102.0	75	125	1.4	20
PDSD	108796012		100	103.0	101.0	75	125	1.6	20

Potassium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	109.0		85	115		
LFB-MI			100	111.0		85	115		
MB		<1							
MB		<1							
SPKD	108663001		100	102.0	103.0	75	125	1.0	20
SPKD	108756002		100	101.0	101.0	75	125	0.4	20
SPKD	108796012		100	100.0	102.0	75	125	1.5	20
SPKD	108796014		100	102.0	100.0	75	125	1.0	20

Sodium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
LFB-MI			100	111.0		85	115		
MB		<1							
MB		<1							
PDSD	108737003		500	83.6	79.8	75	125	1.3	20
DUP	108243003							1.5	20
PDSD	108246002		100	71.9	72.8	75	125	0.2	20
DUP	108246003							0.2	20
PDSD	108246005		100	80.3	77.7	75	125	0.7	20
PDSD	108460005		100	82.3	81.1	75	125	0.4	20
PDSD	108663001		100	100.0	97.7	75	125	1.4	20
PDSD	108756001		100	83.9	85.7	75	125	0.5	20
PDSD	108756002		100	89.8	84.4	75	125	1.6	20
PDSD	108796003		500	89.6	83.2	75	125	2.2	20
PDSD	108796012		100	77.9	78.8	75	125	0.3	20

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Account #: 5109 **Client:** Great River Energy

Sodium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	112.0		85	115		
LFB-MI			100	111.0		85	115		
MB		<1							
MB		<1							
SPKD	108663001		100	97.9	101.0	75	125	1.7	20
SPKD	108756002		100	83.0	84.9	75	125	0.6	20
SPKD	108796012		100	83.7	85.2	75	125	0.4	20
SPKD	108796014		100	83.1	84.6	75	125	0.4	20

Antimony — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	95.4		80	120		
LFB-MS			0.1	93.7		80	120		
MB		<0.001							
MB		<0.001							
MSD	108241005		0.4	110.0	106.0	75	125	3.9	20
MSD	108245001		0.4	102.0	108.0	75	125	5.5	20
MSD	108246006		0.4	108.0	109.0	75	125	1.2	20
SPK	108246006		0.1	106.0		75	125		

Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	95.4		80	120		
LFB-MS			0.1	93.7		80	120		
MB		<0.001							
MB		<0.001							
SPKD	108076003		0.1	108.0	106.0	75	125	1.5	20
MSD	108241005		0.4	110.0	106.0	75	125	3.9	20
MSD	108245001		0.4	102.0	108.0	75	125	5.5	20
MSD	108246006		0.4	108.0	109.0	75	125	1.2	20
SPK	108246006		0.1	106.0		75	125		
SPKD	108246007		0.1	104.0	106.0	75	125	2.3	20

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Account #: 5109 **Client:** Great River Energy

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.002							
MB		<0.002							
MSD	108241005		0.4	92.0	91.7	75	125	0.3	20
MSD	108245001		0.4	100.0	103.0	75	125	3.2	20
MSD	108246006		0.4	103.0	103.0	75	125	0.5	20
SPK	108246006		0.1	101.0		75	125		

Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.002							
MB		<0.002							
SPKD	108076003		0.1	102.0	102.0	75	125	0.4	20
MSD	108241005		0.4	92.0	91.7	75	125	0.3	20
MSD	108245001		0.4	100.0	103.0	75	125	3.2	20
MSD	108246006		0.4	103.0	103.0	75	125	0.5	20
SPK	108246006		0.1	101.0		75	125		
SPKD	108246007		0.1	98.2	98.5	75	125	0.3	20

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	101.0		80	120		
MB		<0.002							
MB		<0.002							
MSD	108241005		0.4	98.3	95.5	75	125	2.5	20
MSD	108245001		0.4	102.0	106.0	75	125	4.0	20
MSD	108246006		0.4	106.0	107.0	75	125	0.7	20
SPK	108246006		0.1	105.0		75	125		

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Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0		80	120		
LFB-MS			0.1	101.0		80	120		
MB		<0.002							
MB		<0.002							
SPKD	108076003		0.1	98.8	99.4	75	125	0.5	20
MSD	108241005		0.4	98.3	95.5	75	125	2.5	20
MSD	108245001		0.4	102.0	106.0	75	125	4.0	20
MSD	108246006		0.4	106.0	107.0	75	125	0.7	20
SPK	108246006		0.1	105.0		75	125		
SPKD	108246007		0.1	104.0	106.0	75	125	2.3	20

Beryllium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	103.0		80	120		
MB		<0.0005							
MB		<0.0005							
MSD	108241005		0.4	93.9	91.7	75	125	2.4	20
MSD	108245001		0.4	96.2	99.3	75	125	3.1	20
MSD	108246006		0.4	100.0	101.0	75	125	0.8	20
SPK	108246006		0.1	93.0		75	125		

Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	103.0		80	120		
MB		<0.0005							
MB		<0.0005							
SPKD	108076003		0.1	91.0	91.0	75	125	0.0	20
MSD	108241005		0.4	93.9	91.7	75	125	2.4	20
MSD	108245001		0.4	96.2	99.3	75	125	3.1	20
MSD	108246006		0.4	100.0	101.0	75	125	0.8	20
SPK	108246006		0.1	93.0		75	125		

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Account #: 5109 **Client:** Great River Energy

Beryllium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPKD	108246007		0.1	95.4	96.2	75	125	0.8	20

Cadmium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	94.9		80	120		
LFB-MS			0.1	95.3		80	120		
MB		<0.0005							
MB		<0.0005							
MSD	108241005		0.4	107.0	103.0	75	125	3.3	20
MSD	108245001		0.4	101.0	107.0	75	125	6.0	20
MSD	108246006		0.4	107.0	110.0	75	125	2.3	20
SPK	108246006		0.1	101.0		75	125		

Cadmium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	94.9		80	120		
LFB-MS			0.1	95.3		80	120		
MB		<0.0005							
MB		<0.0005							
SPKD	108076003		0.1	105.0	103.0	75	125	2.3	20
MSD	108241005		0.4	107.0	103.0	75	125	3.3	20
MSD	108245001		0.4	101.0	107.0	75	125	6.0	20
MSD	108246006		0.4	107.0	110.0	75	125	2.3	20
SPK	108246006		0.1	101.0		75	125		
SPKD	108246007		0.1	105.0	106.0	75	125	1.4	20

Chromium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	117.0		80	120		
LFB-MS			0.1	112.0		80	120		
MB		<0.002							
MB		<0.002							
MSD	108241005		0.4	100.0	100.0	75	125	0.0	20
MSD	108245001		0.4	101.0	103.0	75	125	2.2	20

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Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MSD	108246006		0.4	105.0	105.0	75	125	0.0	20
SPK	108246006		0.1	105.0		75	125		

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	117.0		80	120		
LFB-MS			0.1	112.0		80	120		
MB		<0.002							
MB		<0.002							
SPKD	108076003		0.1	100.0	101.0	75	125	0.5	20
MSD	108241005		0.4	100.0	100.0	75	125	0.0	20
MSD	108245001		0.4	101.0	103.0	75	125	2.2	20
MSD	108246006		0.4	105.0	105.0	75	125	0.0	20
SPK	108246006		0.1	105.0		75	125		
SPKD	108246007		0.1	103.0	99.0	75	125	4.3	20

Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	115.0		80	120		
LFB-MS			0.1	111.0		80	120		
MB		<0.002							
MB		<0.002							
MSD	108241005		0.4	95.1	93.5	75	125	1.5	20
MSD	108245001		0.4	101.0	103.0	75	125	2.0	20
MSD	108246006		0.4	105.0	104.0	75	125	1.0	20
SPK	108246006		0.1	102.0		75	125		

Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	115.0		80	120		
LFB-MS			0.1	111.0		80	120		
MB		<0.002							
MB		<0.002							
SPKD	108076003		0.1	98.8	99.8	75	125	1.0	20

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Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MSD	108241005		0.4	95.1	93.5	75	125	1.5	20
MSD	108245001		0.4	101.0	103.0	75	125	2.0	20
MSD	108246006		0.4	105.0	104.0	75	125	1.0	20
SPK	108246006		0.1	102.0		75	125		
SPKD	108246007		0.1	103.0	100.0	75	125	2.1	20

Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	99.0		80	120		
MB		<0.0005							
MB		<0.0005							
MSD	108241005		0.4	113.0	102.0	75	125	10.4	20
MSD	108245001		0.4	108.0	107.0	75	125	0.7	20
MSD	108246006		0.4	108.0	106.0	75	125	2.3	20
SPK	108246006		0.1	102.0		75	125		

Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	99.0		80	120		
MB		<0.0005							
MB		<0.0005							
SPKD	108076003		0.1	107.0	104.0	75	125	2.8	20
MSD	108241005		0.4	113.0	102.0	75	125	10.4	20
MSD	108245001		0.4	108.0	107.0	75	125	0.7	20
MSD	108246006		0.4	108.0	106.0	75	125	2.3	20
SPK	108246006		0.1	102.0		75	125		
SPKD	108246007		0.1	101.0	101.0	75	125	0.1	20

Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	99.2		80	120		

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Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.002							
MB		<0.002							
MSD	108241005		0.4	106.0	101.0	75	125	4.4	20
MSD	108245001		0.4	99.5	105.0	75	125	4.4	20
MSD	108246006		0.4	104.0	104.0	75	125	0.7	20
SPK	108246006		0.1	106.0		75	125		

Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	98.2		80	120		
MB		<0.002							
MB		<0.002							
SPKD	108076003		0.1	108.0	104.0	75	125	3.0	20
MSD	108241005		0.4	106.0	101.0	75	125	4.4	20
MSD	108245001		0.4	99.5	105.0	75	125	4.4	20
MSD	108246006		0.4	104.0	104.0	75	125	0.7	20
SPK	108246006		0.1	106.0		75	125		
SPKD	108246007		0.1	105.0	101.0	75	125	3.4	20

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	100.0		80	120		
MB		<0.005							
MB		<0.005							
MSD	108241005		0.4	100.0	99.6	75	125	0.8	20
MSD	108245001		0.4	102.0	99.5	75	125	2.6	20
MSD	108246006		0.4	110.0	107.0	75	125	3.2	20
SPK	108246006		0.1	101.0		75	125		

Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		

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Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
MB		<0.005							
MB		<0.005							
SPKD	108076003		0.1	96.3	93.5	75	125	3.0	20
MSD	108241005		0.4	100.0	99.6	75	125	0.8	20
MSD	108245001		0.4	102.0	99.5	75	125	2.6	20
MSD	108246006		0.4	110.0	107.0	75	125	3.2	20
SPK	108246006		0.1	101.0		75	125		
SPKD	108246007		0.1	96.6	97.5	75	125	0.9	20

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	101.0		80	120		
MB		<0.0005							
MB		<0.0005							
MSD	108241005		0.4	112.0	105.0	75	125	6.5	20
MSD	108245001		0.4	109.0	106.0	75	125	2.6	20
MSD	108246006		0.4	108.0	106.0	75	125	1.6	20
SPK	108246006		0.1	105.0		75	125		

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	101.0		80	120		
MB		<0.0005							
MB		<0.0005							
SPKD	108076003		0.1	109.0	107.0	75	125	2.2	20
MSD	108241005		0.4	112.0	105.0	75	125	6.5	20
MSD	108245001		0.4	109.0	106.0	75	125	2.6	20
MSD	108246006		0.4	108.0	106.0	75	125	1.6	20
SPK	108246006		0.1	105.0		75	125		
SPKD	108246007		0.1	101.0	103.0	75	125	2.2	20

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Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	85.1		85	115		
LFB			0.002	93.2		85	115		
LFB			0.002	90.3		85	115		
LRB		<0.0002							
MB		<0.0002							
MB		<0.0002							
MSD	108045025		0.002	89.5	88.6	70	130	0.0	20
MSD	108076003		0.002	87.9	86.7	70	130	5.7	20
MSD	108246007		0.002	85.2	86.4	70	130	0.0	20
MSD	108508001		0.002	90.1	92.4	70	130	0.0	20

Alkalinity, Total — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			501	90.6		80	120		
LFB			410	93.0		90	110		
LFB			410	90.6		90	110		
LFB			410	91.3		90	110		
LFB			410	91.4		90	110		
LFB			410	91.4		90	110		
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MSD	108119007		410	78.2	79.3	80	120	0.0	20
MSD	108243001		410	84.1	83.9	80	120	0.0	20
MSD	108245002		410	84.7	84.3	80	120	0.0	20
MSD	108246005		410	71.6	71.5	80	120	0.0	20

pH — Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	99.8					
CRM-PH			6	99.8					

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pH Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	99.7					
CRM-PH			6	99.5					
CRM-PH			6	99.3					
CRM-PH			6	99.3					
DUP	107956001							4.0	20
DUP	108241001							0.0	20
DUP	108243003							0.8	20
DUP	108246003							0.7	20

Fluoride Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			3.34	105.0		83.83	111.07		
LFB-F			0.5	102.0		90	110		
LFB-F			0.5	100.0		90	110		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	98.0		90	110		
LFB-F			0.5	98.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MSD-F	108076001		0.5	106.0	90.0	80	120	7.5	20
MSD-F	108076003		0.5	98.0	96.0	80	120	0.9	20
MSD-F	108245003		0.5	92.0	94.0	80	120	1.1	20
MSD-F	108246006		0.5	96.0	90.0	80	120	3.0	20

Total Dissolved Solids Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	99.0		90.35	110.33		
MB		<10							
DUP	108246006							0.7	20
DUP	108667006							0.3	20

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Minnesota Valley Testing Laboratories
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Bismarck, ND 58501
(701) 258-9720

Great River Energy
WO: 108246

Chain of Custody Record

Report To:	Great River Energy	CC:	WSP
Attn:	Erik Heinen		44 Union Blvd, Suite 300
Address:			Lakewood, CO 80228
Phone:			
Email:	EHeinen@GREnergy.com		

Project Name: SS 2022 Wells
Event: Nov 2025
Sampled By: Jeremy Meyer

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 210	20 Nov 25	1233	GW	X	X	X	21.19	1524	7.71	102.8	App III, App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radchem, Dissolved and Total for Remainder of Metals) (See Attachments)
002	DUP- 2022	20 Nov 25	1233	GW	X	X	X	21.19	1524	7.71	102.8	
003	MW- 211	20 Nov 25	1052	GW	X	X	X	20.18	2400	7.89	0.86	
004	MW- 212	20 Nov 25	1140	GW	X	X	X	20.50	1817	8.15	0.33	
005	MW- 213	20 Nov 25	1342	GW	X	X	X	20.85	1435	7.72	4.93	
006	MW- 214	20 Nov 25	1456	GW	X	X	X	18.38	1906	7.62	4.47	
007	FB- 2022	20 Nov 25	1433	GW	X	X	X	—	—	—	—	

Comments: Wells installed in 2022

	Relinquished By		Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		21 Nov 25 0932	Log In Walk In #2	0.5 °C/TMB ROI Y/N	C. Carroll	21 NOV 25 0746
2						

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Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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Account #: 5109 **Client:** Great River Energy

February 2025 GL21509219.000

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.
* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy

Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

1

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	210
Sampling Personal:	JH

Weather Conditions: Temp: 35 °F Wind: W @ 5-10 Precip: (Sunny) / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	3.80	ft
Depth to Top of Pump:	=	ft
Water Level After Sample:	3.89	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	x2
500mL Nitric (filtered)	

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
Dup 2022

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
20 Nov 25	1158	Start of Well Purge									
	1203	20.40	1491	7.92	2.96	69.0	5.46	13.90	200.0	1.0	Clear
	1208	Lower	check ball	on pump	stuck *	Removed					
	1213	20.91	1518	7.70	0.09	-114.7	133.0	13.88	200.0	1.0	Slightly Turbid (ST)
	1218	21.08	1529	7.70	0.08	-117.2	150.3	13.89	200.0	1.0	ST
	1223	21.06	1516	7.70	0.07	-118.4	129.5	13.90	200.0	1.0	ST
	1228	21.17	1517	7.71	0.10	-118.1	131.4	13.89	200.0	1.0	ST
	1233	21.19	1524	7.71	0.06	-119.7	102.8	13.88	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 6.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
20 Nov 25	1233	21.19	1524	7.71	0.06	-119.7	102.8				Clear

Comments: * Removed Pump / Disassembled pump / rinsed lower checkball with DI water / reinstalled pump

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	211
Sampling Personal:	

Weather Conditions: Temp: 35 °F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	19.20	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	19.36	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
20 Nov 25	1027	Start of Well Purge									
	1032	19.13	2379	7.84	0.19	53.1	0.86	19.25	200.0	1.0	Clear
	1037	19.16	2427	7.89	0.04	8.7	1.44	19.28	200.0	1.0	Clear
	1042	19.18	2382	7.89	0.07	−13.5	1.18	19.30	200.0	1.0	Clear
	1047	20.02	2378	7.89	0.05	−21.4	0.48	19.32	200.0	1.0	Clear
	1052	20.18	2382	7.89	0.04	−23.6	0.73	19.33	200.0	1.0	Clear
	1057	20.18	2400	7.89	0.04	−28.7	0.86	19.35	200.0	1.0	

Well Stabilized? (YES) NO Total Volume Purged: 6.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
20 Nov 25	1052	20.18	2400	7.89	0.04	−28.7	0.86				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	212
Sampling Personal:	

Weather Conditions: Temp: 35 °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	20.05	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	20.10	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
20Nov25	1115	Start of Well Purge									
	1120	20.07	1735	8.12	0.16	16.5	3.18	20.08	200.0	1.0	Clear
	1125	19.97	1829	8.14	0.06	-4.0	0.85	20.09	200.0	1.0	Clear
	1130	20.38	1802	8.13	0.23	-16.8	0.64	20.10	200.0	1.0	Clear
	1135	20.48	1806	8.14	0.02	-28.5	0.21	20.10	200.0	1.0	Clear
	1140	20.50	1817	8.15	0.01	-37.5	0.33	20.10	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
20Nov25	1140	20.50	1817	8.15	0.01	-37.5	0.33				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	213
Sampling Personal:	J Jokay

Weather Conditions: Temp: 35 °F Wind: NW @ 5-10 Precip: (Sunny) / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	17.09	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	17.60	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	3	Sec.
Recover:	27	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
20 Nov 25	1317	Start of Well Purge									
	1322	20.99	1422	7.72	0.00	-134.3	10.16	17.60	200.0	1.0	Clear
	1327	20.92	1414	7.72	0.01	-134.7	14.19	17.60	200.0	1.0	Clear
	1332	20.80	1429	7.72	0.00	-137.8	8.35	17.60	200.0	1.0	Clear
	1337	20.92	1426	7.72	0.00	-139.2	4.91	17.60	200.0	1.0	Clear
	1342	20.85	1434	7.72	0.00	-140.9	4.93	17.60	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
20 Nov 25	1342	20.85	1435	7.72	0.00	-140.9	4.93				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	214
Sampling Personal:	JTH

Weather Conditions: Temp: 35 °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	8.00	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	8.78	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
20Nov25	1431	Start of Well Purge									
	1436	20.86	1871	7.61	0.26	42.7	6.46	8.80	200.0	1.0	Clear
	1441	18.18	1884	7.61	0.25	47.3	7.10	8.80	200.0	1.0	Clear
	1446	18.35	1894	7.62	0.27	51.0	5.72	8.79	200.0	1.0	Clear
	1451	18.28	1899	7.62	0.27	56.1	3.94	8.78	200.0	1.0	Clear
	1456	18.38	1906	7.62	0.25	57.4	4.47	8.78	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
20Nov25	1456	18.38	1906	7.62	0.25	57.4	4.47				Clear

Comments: Collected field Blank 2022 @ 1433

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 21 NOV 25 Time: 1118 Analyst: PW

Work Order #: 1062416

Containers Supplied by MVTL: [X] Yes [ ] No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
7	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
7	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
7	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS 2022 Wells Nov 2025 (108249) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108249001 **Date Collected:** 11/20/2025 12:33 **Matrix:** Groundwater
Sample ID: MW-210 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/30/2025 09:52	
Radium 228	See Attached			1		12/30/2025 09:52	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108249002 **Date Collected:** 11/20/2025 12:33 **Matrix:** Groundwater
Sample ID: DUP-2022 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/30/2025 09:52	
Radium 228	See Attached			1		12/30/2025 09:52	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108249003 **Date Collected:** 11/20/2025 10:52 **Matrix:** Groundwater
Sample ID: MW-211 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/30/2025 09:52	
Radium 228	See Attached			1		12/30/2025 09:52	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108249004 **Date Collected:** 11/20/2025 11:40 **Matrix:** Groundwater
Sample ID: MW-212 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/30/2025 09:52	
Radium 228	See Attached			1		12/30/2025 09:52	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108249005 **Date Collected:** 11/20/2025 13:42 **Matrix:** Groundwater
Sample ID: MW-213 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/30/2025 09:52	
Radium 228	See Attached			1		12/30/2025 09:52	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108249006 **Date Collected:** 11/20/2025 14:56 **Matrix:** Groundwater
Sample ID: MW-214 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/30/2025 09:52	
Radium 228	See Attached			1		12/30/2025 09:52	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108249007 **Date Collected:** 11/20/2025 14:33 **Matrix:** Groundwater
Sample ID: FB-2022 **Date Received:** 11/21/2025 07:32 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/30/2025 09:52	
Radium 228	See Attached			1		12/30/2025 09:52	

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ANALYTICAL SUMMARY REPORT

December 29, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25110731 Quote ID: C15480
Project Name: 108249

Energy Laboratories, Inc. Casper WY received the following 7 samples for Minnesota Valley Testing Laboratories on 11/25/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25110731-001	108249001, MW-210	11/20/25 12:33	11/25/25	Aqueous	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25110731-002	108249002, DUP-2022	11/20/25 12:33	11/25/25	Aqueous	Same As Above
C25110731-003	108249003, MW-211	11/20/25 10:52	11/25/25	Aqueous	Same As Above
C25110731-004	108249004, MW-212	11/20/25 11:40	11/25/25	Aqueous	Same As Above
C25110731-005	108249005, MW-213	11/20/25 13:42	11/25/25	Aqueous	Same As Above
C25110731-006	108249006, MW-214	11/20/25 14:56	11/25/25	Aqueous	Same As Above
C25110731-007	108249007, FB-2022	11/20/25 14:33	11/25/25	Aqueous	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108249
Lab ID: C25110731-001
Client Sample ID: 108249001, MW-210

Report Date: 12/29/25
Collection Date: 11/20/25 12:33
DateReceived: 11/25/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L	U			E903.0	12/16/25 16:46 / dmr
Radium 226 precision (±)	0.2	pCi/L				E903.0	12/16/25 16:46 / dmr
Radium 226 MDC	0.3	pCi/L				E903.0	12/16/25 16:46 / dmr
Radium 228	1.5	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 228 precision (±)	0.9	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 228 MDC	1.2	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 226 + Radium 228	1.7	pCi/L				A7500-RA	12/17/25 12:35 / dmf
Radium 226 + Radium 228 precision (±)	1	pCi/L				A7500-RA	12/17/25 12:35 / dmf
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	12/17/25 12:35 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

Page 2 of 14

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108249
Lab ID: C25110731-002
Client Sample ID: 108249002, DUP-2022

Report Date: 12/29/25
Collection Date: 11/20/25 12:33
DateReceived: 11/25/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.3	pCi/L	U			E903.0	12/16/25 16:46 / dmr
Radium 226 precision (±)	0.2	pCi/L				E903.0	12/16/25 16:46 / dmr
Radium 226 MDC	0.3	pCi/L				E903.0	12/16/25 16:46 / dmr
Radium 228	0.8	pCi/L	U			RA-05	12/10/25 16:48 / jls1
Radium 228 precision (±)	0.7	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 228 MDC	1.1	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	12/17/25 12:35 / dmf
Radium 226 + Radium 228 precision (±)	0.8	pCi/L				A7500-RA	12/17/25 12:35 / dmf
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	12/17/25 12:35 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108249
Lab ID: C25110731-003
Client Sample ID: 108249003, MW-211

Report Date: 12/29/25
Collection Date: 11/20/25 10:52
DateReceived: 11/25/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.04	pCi/L	U			E903.0	12/16/25 16:54 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/16/25 16:54 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/16/25 16:54 / dmr
Radium 228	0.5	pCi/L	U			RA-05	12/10/25 16:48 / jls1
Radium 228 precision (±)	0.7	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 228 MDC	1.0	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	12/17/25 12:35 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	12/17/25 12:35 / dmf
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	12/17/25 12:35 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108249
Lab ID: C25110731-004
Client Sample ID: 108249004, MW-212

Report Date: 12/29/25
Collection Date: 11/20/25 11:40
DateReceived: 11/25/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L	U			E903.0	12/16/25 16:54 / dmr
Radium 226 precision (±)	0.2	pCi/L				E903.0	12/16/25 16:54 / dmr
Radium 226 MDC	0.3	pCi/L				E903.0	12/16/25 16:54 / dmr
Radium 228	0.05	pCi/L	U			RA-05	12/10/25 16:48 / jls1
Radium 228 precision (±)	0.7	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 228 MDC	1.1	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	12/17/25 12:35 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	12/17/25 12:35 / dmf
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	12/17/25 12:35 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108249
Lab ID: C25110731-005
Client Sample ID: 108249005, MW-213

Report Date: 12/29/25
Collection Date: 11/20/25 13:42
DateReceived: 11/25/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L	U			E903.0	12/16/25 16:54 / dmr
Radium 226 precision (±)	0.2	pCi/L				E903.0	12/16/25 16:54 / dmr
Radium 226 MDC	0.3	pCi/L				E903.0	12/16/25 16:54 / dmr
Radium 228	0.8	pCi/L	U			RA-05	12/10/25 16:48 / jls1
Radium 228 precision (±)	0.8	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 228 MDC	1.3	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 226 + Radium 228	0.8	pCi/L	U			A7500-RA	12/17/25 12:35 / dmf
Radium 226 + Radium 228 precision (±)	0.8	pCi/L				A7500-RA	12/17/25 12:35 / dmf
Radium 226 + Radium 228 MDC	1.3	pCi/L				A7500-RA	12/17/25 12:35 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108249
Lab ID: C25110731-006
Client Sample ID: 108249006, MW-214

Report Date: 12/29/25
Collection Date: 11/20/25 14:56
DateReceived: 11/25/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.06	pCi/L	U			E903.0	12/16/25 16:54 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/16/25 16:54 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/16/25 16:54 / dmr
Radium 228	1.1	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 228 precision (±)	0.8	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 228 MDC	1	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 226 + Radium 228	1.2	pCi/L				A7500-RA	12/17/25 12:35 / dmf
Radium 226 + Radium 228 precision (±)	0.8	pCi/L				A7500-RA	12/17/25 12:35 / dmf
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	12/17/25 12:35 / dmf

Report Definitions:
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QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108249
Lab ID: C25110731-007
Client Sample ID: 108249007, FB-2022

Report Date: 12/29/25
Collection Date: 11/20/25 14:33
DateReceived: 11/25/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.06	pCi/L	U			E903.0	12/16/25 16:54 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/16/25 16:54 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/16/25 16:54 / dmr
Radium 228	0.5	pCi/L	U			RA-05	12/10/25 16:48 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 228 MDC	1	pCi/L				RA-05	12/10/25 16:48 / jls1
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	12/17/25 12:35 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/17/25 12:35 / dmf
Radium 226 + Radium 228 MDC	1.0	pCi/L				A7500-RA	12/17/25 12:35 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25110731 **Report Date:** 12/17/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11921
Lab ID: LCS-RA226-11921	3	Laboratory Control Sample				Run: TENNELEC-3_251202C				12/16/25 14:38
Radium 226		11	pCi/L		110	70	130			
Radium 226 precision (±)		2.0	pCi/L							
Radium 226 MDC		0.25	pCi/L							
Lab ID: MB-RA226-11921	3	Method Blank				Run: TENNELEC-3_251202C				12/16/25 14:38
Radium 226		-0.004	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C25110731-007ADUP	3	Sample Duplicate				Run: TENNELEC-3_251202C				12/16/25 18:34
Radium 226		-0.012	pCi/L					130	30	UR
Radium 226 precision (±)		0.13	pCi/L							
Radium 226 MDC		0.22	pCi/L							

- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.26.

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25110731 **Report Date:** 12/17/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7847
Lab ID: LCS-228-RA226-11921	3	Laboratory Control Sample				Run: TENNELEC-4_251202F				12/10/25 16:48
Radium 228		8.1	pCi/L		93	70	130			
Radium 228 precision (±)		2.5	pCi/L							
Radium 228 MDC		0.92	pCi/L							
Lab ID: MB-RA226-11921	3	Method Blank				Run: TENNELEC-4_251202F				12/10/25 16:48
Radium 228		0.5	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		0.9	pCi/L							
Lab ID: C25110731-007ADUP	3	Sample Duplicate				Run: TENNELEC-4_251202F				12/10/25 16:48
Radium 228		0.40	pCi/L					28	30	U
Radium 228 precision (±)		0.58	pCi/L							
Radium 228 MDC		0.93	pCi/L							

- The RER result is 0.15.

Qualifiers:

RL - Analyte Reporting Limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25110731

Login completed by: Lorie D. Snider
Reviewed by: ysmith
Reviewed Date: 12/2/2025
Date Received: 11/25/2025
Received by: LDS
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	7.4°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature blank temperature in shipping container 1 was 0.2°C. The temperature blank temperature in shipping container 2 was 7.1°C, shipping container 3 was 6.9°C, shipping container 4 was 7.4°C, shipping container 5 was 7.1°C

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Work Order Receipt Checklist - Continued

Minnesota Valley Testing Laboratories C25110731

and shipping container 6 was 6.8°C. LDS 11/25/25

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Laboratory Certifications and Accreditations

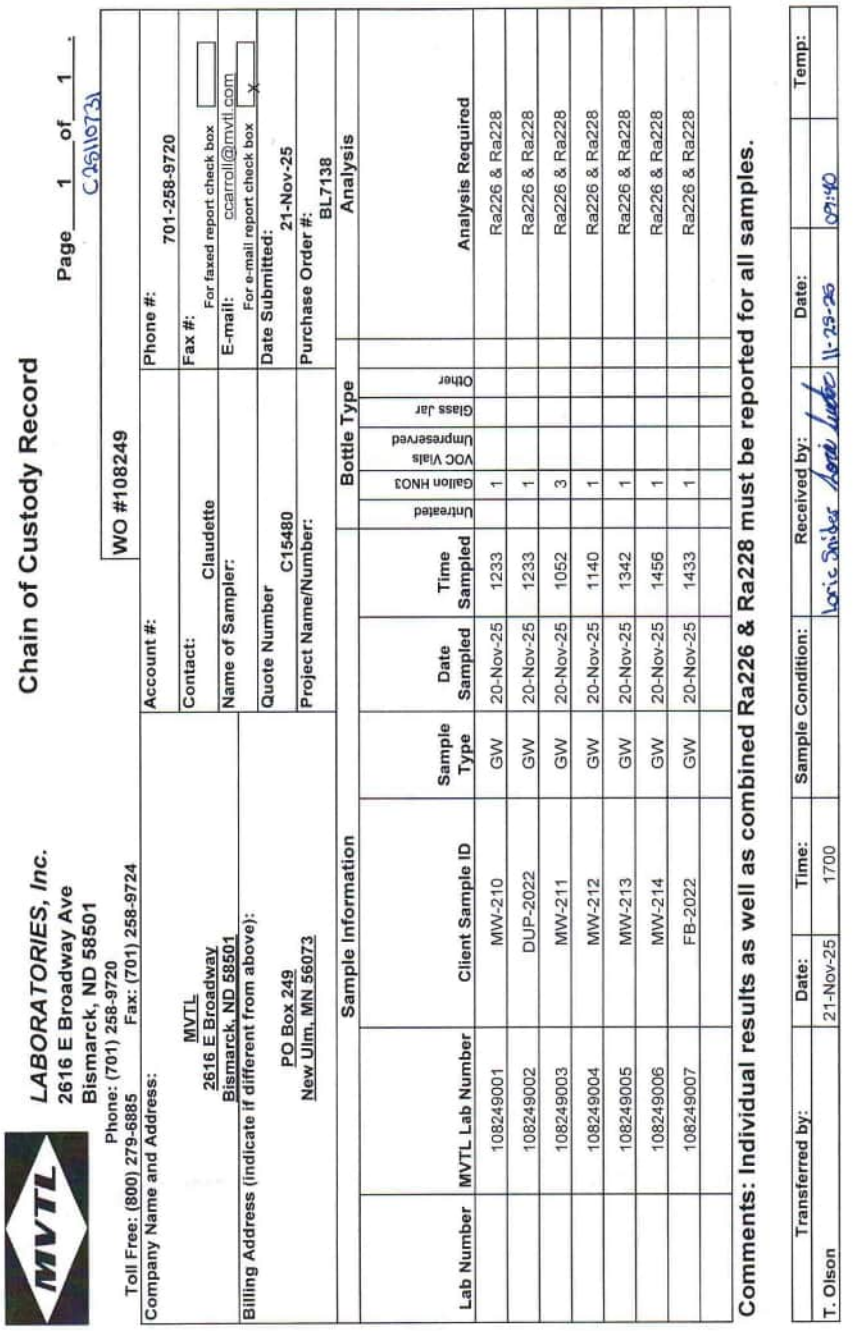
Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Chain of Custody Record

Page 1 of 1

C25110731

WO #108249

Company Name and Address: MVTL, 2616 E Broadway, Bismarck, ND 58501
Account #:
Contact: Claudette
Name of Sampler:
Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box x
Billing Address (indicate if different from above): PO Box 249, New Ulm, MN 56073
Quote Number C15480
Project Name/Number:
Date Submitted: 21-Nov-25
Purchase Order #: BL7138

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Unpreserved	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	108249001	MW-210	GW	20-Nov-25	1233		1				Ra226 & Ra228
	108249002	DUP-2022	GW	20-Nov-25	1233		1				Ra226 & Ra228
	108249003	MW-211	GW	20-Nov-25	1052		3				Ra226 & Ra228
	108249004	MW-212	GW	20-Nov-25	1140		1				Ra226 & Ra228
	108249005	MW-213	GW	20-Nov-25	1342		1				Ra226 & Ra228
	108249006	MW-214	GW	20-Nov-25	1456		1				Ra226 & Ra228
	108249007	FB-2022	GW	20-Nov-25	1433		1				Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
T. Olson	21-Nov-25	1700		Lorie Snider	11-23-25 09:40	

Page 14 of 14

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Minnesota Valley Testing Laboratories
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Great River Energy
WO: 108249

Chain of Custody Record

Report To: Great River Energy
Attn: Erik Heinen
Address:
Phone:
Email: EHeinen@GREnergy.com

CC: WSP
44 Union Blvd, Suite 300
Lakewood, CO 80228

Project Name: SS 2022 Wells
Event: Nov 2025
Sampled By: Jeremy Meyer

Lab Number	Sample ID	Date	Time	Sample Type	Sample Containers: 1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric	Field Readings	Analysis Required
001	MW- 210	20 Nov 25	1233	GW				X		Radium 226 and 228 Combined
002	DUP- 2022	20 Nov 25	1233	GW				X		
003	MW- 211	20 Nov 25	1052	GW				X		
004	MW- 212	20 Nov 25	1140	GW				X		
005	MW- 213	20 Nov 25	1342	GW				X		
006	MW- 214	20 Nov 25	1456	GW				X		
007	FB- 2022	20 Nov 25	1433	GW				X		

Comments:

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	21 Nov 25 0732	Log In Walk In #2	Ambient	C. [illegible]	21 NOV 25 0746
2					

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Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	210
Sampling Personal:	JH

Weather Conditions: Temp: 35 °F Wind: W @ 5-10 Precip: (Sunny) / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	3.80	ft
Depth to Top of Pump:	=	ft
Water Level After Sample:	13.89	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	x2
500mL Nitric (filtered)	

Duplicate Sample?
(YES) / NO
Duplicate Sample ID:
Dup 2022

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
20Nov25	1158	Start of Well Purge									
	1203	20.40	1491	7.92	2.96	69.0	5.46	13.90	200.0	1.0	Clear
	1208	Lower	check ball	on pump	stuck *	Removed					
	1213	20.91	1518	7.70	0.09	-114.7	133.0	13.88	200.0	1.0	Slightly Turbid (ST)
	1218	21.08	1529	7.70	0.08	-117.2	150.3	13.89	200	1.0	ST
	1223	21.06	1516	7.70	0.07	-118.4	129.5	13.90	200.0	1.0	ST
	1228	21.17	1517	7.71	0.10	-118.1	131.4	13.89	200.0	1.0	ST
	1233	21.19	1524	7.71	0.06	-119.7	102.8	13.88	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 6.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
20Nov25	1233	21.19	1524	7.71	0.06	-119.7	102.8				Clear

Comments: * Removed Pump / Disassembled pump / rinsed lower checkball with DI water / reinstalled pump /

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	21
Sampling Personal:	

Weather Conditions: Temp: 35 °F Wind: S @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	19.20	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	19.36	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
20 Nov 25	1027	Start of Well Purge									
	1032	19.13	2379	7.84	0.19	53.1	0.86	19.25	200.0	1.0	Clear
	1037	19.16	2427	7.89	0.04	8.7	1.44	19.28	200.0	1.0	Clear
	1042	19.18	2382	7.89	0.07	-13.5	1.18	19.30	200.0	1.0	Clear
	1047	20.02	2378	7.89	0.05	-21.4	0.48	19.32	200.0	1.0	Clear
	1052	20.18	2382	7.89	0.04	-23.6	0.73	19.33	200.0	1.0	Clear
	1057	20.18	2400	7.89	0.04	-28.7	0.86	19.35	200.0	1.0	

Well Stabilized? (YES) NO Total Volume Purged: 6.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
20 Nov 25	1052	20.18	2400	7.89	0.04	-28.7	0.86				Clear

Comments:

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	212
Sampling Personal:	

Weather Conditions: Temp: 35 °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	20.05	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	20.10	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
20Nov25	1115	Start of Well Purge									
	1120	20.07	1735	8.12	0.16	16.5	3.18	20.08	200.0	1.0	Clear
	1125	19.97	1829	8.14	0.06	-4.0	0.65	22.09	200.0	1.0	Clear
	1130	20.38	1802	8.13	0.23	-16.8	0.64	20.10	200.0	1.0	Clear
	1135	20.48	1806	8.14	0.02	-28.5	0.21	20.10	200.0	1.0	Clear
	1140	20.50	1817	8.15	0.01	-37.5	0.33	20.10	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
20Nov25	1140	20.50	1817	8.15	0.01	-37.5	0.33				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	213
Sampling Personal:	JMK

Weather Conditions: Temp: 35 °F Wind: W @ 5-10 Precip: (Sunny) / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	17.09	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	17.60	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
20 Nov 25	1317	Start of Well Purge									
	1322	20.99	1422	7.72	0.00	-134.3	10.16	17.60	200.0	1.0	Clear
	1327	20.92	1414	7.72	0.01	-134.7	14.19	17.60	200.0	1.0	Clear
	1332	20.80	1429	7.72	0.00	-137.8	8.35	17.60	200.0	1.0	Clear
	1337	20.92	1426	7.72	0.00	-139.2	4.91	17.60	200.0	1.0	Clear
	1342	20.85	1434	7.72	0.00	-140.9	4.93	17.60	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
20 Nov 25	1342	20.85	1435	7.72	0.00	-140.9	4.93				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	214
Sampling Personal:	JTH

Weather Conditions: Temp: 35 °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	8.00	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	8.78	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
20 Nov 25	1431	Start of Well Purge									
	1436	20.86	1871	7.61	0.26	42.7	6.46	8.80	200.0	1.0	Clear
	1441	18.18	1884	7.61	0.23	47.3	7.10	8.80	200.0	1.0	Clear
	1446	18.35	1894	7.62	0.27	51.0	5.72	8.78	200.0	1.0	Clear
	1451	18.28	1899	7.62	0.27	56.1	3.94	8.78	200.0	1.0	Clear
	1456	18.38	1906	7.62	0.25	57.4	4.47	8.78	200.0	1.0	Clear
		Well Stabilized?	(YES)	NO				Total Volume Purged:	5.0	Liters	

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
20 Nov 25	1456	18.38	1906	7.62	0.25	57.4	4.47				Clear

Comments: Collected field Blank 2022 @ 1433

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS 2023 Wells Nov 2025 (108667) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667001 **Date Collected:** 11/24/2025 12:09 **Matrix:** Groundwater
Sample ID: MW-215 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2338**	umhos/cm	1	1		11/24/2025 12:09	
Method: 150.2							
pH - Field	**7.68**	units	0.01	1		11/24/2025 12:09	
Method: 170.1							
Temperature - Field C	**10.92**	degrees C		1		11/24/2025 12:09	
Method: ASTM D516-16							
Sulfate	**662**	mg/L	25	5		12/03/2025 11:03	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.89**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:03	
Calcium	**84.6**	mg/L	1	1	11/26/2025 16:24	11/28/2025 11:55	
Lithium	**0.0449**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:08	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/04/2025 11:47	
Arsenic	**0.0138**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 11:47	
Barium	**0.0826**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 11:47	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 11:47	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 11:47	
Chromium	**0.0043**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 11:47	
Cobalt	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 11:47	
Lead	**0.0015**	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 11:47	
Molybdenum	**0.0149**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 11:47	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/04/2025 11:47	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 11:47	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667001 **Date Collected:** 11/24/2025 12:09 **Matrix:** Groundwater
Sample ID: MW-215 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		11/26/2025 12:20	*
Method: SM4500-Cl-E 2021							
Chloride	**16.7**	mg/L	2.0	1		12/02/2025 10:05	
Method: SM4500-F-C-2021							
Fluoride	**0.50**	mg/L	0.1	1		11/26/2025 12:20	
Method: USGS I-1750-85							
Total Dissolved Solids	**1620**	mg/L	10	1		11/26/2025 15:00	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667002 **Date Collected:** 11/24/2025 13:15 **Matrix:** Groundwater
Sample ID: MW-216 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2068**	umhos/cm	1	1		11/24/2025 13:15	
Method: 150.2							
pH - Field	**7.72**	units	0.01	1		11/24/2025 13:15	
Method: 170.1							
Temperature - Field C	**11.28**	degrees C		1		11/24/2025 13:15	
Method: ASTM D516-16							
Sulfate	**567**	mg/L	25	5		12/03/2025 11:04	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.77**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:04	
Calcium	**77.7**	mg/L	1	1	11/26/2025 16:24	11/28/2025 11:56	
Lithium	**0.0484**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:09	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/04/2025 11:52	
Arsenic	**0.0022**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 11:52	
Barium	**0.0391**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 11:52	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 11:52	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 11:52	
Chromium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 11:52	
Cobalt	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 11:52	
Lead	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 11:52	
Molybdenum	**0.0110**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 11:52	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/04/2025 11:52	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 11:52	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667002 **Date Collected:** 11/24/2025 13:15 **Matrix:** Groundwater
Sample ID: MW-216 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		11/26/2025 12:37	*
Method: SM4500-Cl-E 2021							
Chloride	**14.4**	mg/L	2.0	1		12/02/2025 10:07	
Method: SM4500-F-C-2021							
Fluoride	**0.53**	mg/L	0.1	1		11/26/2025 12:37	
Method: USGS I-1750-85							
Total Dissolved Solids	**1400**	mg/L	10	1		11/26/2025 15:00	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667003 **Date Collected:** 11/24/2025 10:27 **Matrix:** Groundwater
Sample ID: MW-217 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2365**	umhos/cm	1	1		11/24/2025 10:27	
Method: 150.2							
pH - Field	**7.65**	units	0.01	1		11/24/2025 10:27	
Method: 170.1							
Temperature - Field C	**9.27**	degrees C		1		11/24/2025 10:27	
Method: ASTM D516-16							
Sulfate	**701**	mg/L	25	5		12/03/2025 11:06	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.89**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:05	
Calcium	**93.7**	mg/L	1	1	11/26/2025 16:24	11/28/2025 11:57	
Lithium	**0.0492**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:09	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/04/2025 11:58	
Arsenic	**0.0061**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 11:58	
Barium	**0.0515**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 11:58	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 11:58	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 11:58	
Chromium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 11:58	
Cobalt	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 11:58	
Lead	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 11:58	
Molybdenum	**0.0164**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 11:58	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/04/2025 11:58	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 11:58	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667003 **Date Collected:** 11/24/2025 10:27 **Matrix:** Groundwater
Sample ID: MW-217 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		11/26/2025 12:48	*
Method: SM4500-Cl-E 2021							
Chloride	**16.8**	mg/L	2.0	1		12/02/2025 10:08	
Method: SM4500-F-C-2021							
Fluoride	**0.65**	mg/L	0.1	1		11/26/2025 12:48	
Method: USGS I-1750-85							
Total Dissolved Solids	**1640**	mg/L	10	1		11/26/2025 15:00	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667004 **Date Collected:** 11/24/2025 10:27 **Matrix:** Groundwater
Sample ID: DUP-2023 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2365**	umhos/cm	1	1		11/24/2025 10:27	
Method: 150.2							
pH - Field	**7.65**	units	0.01	1		11/24/2025 10:27	
Method: 170.1							
Temperature - Field C	**9.27**	degrees C		1		11/24/2025 10:27	
Method: ASTM D516-16							
Sulfate	**693**	mg/L	25	5		12/03/2025 11:07	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.88**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:05	
Calcium	**92.8**	mg/L	1	1	11/26/2025 16:24	11/28/2025 11:58	
Lithium	**0.0473**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:10	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/04/2025 12:03	
Arsenic	**0.0054**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 12:03	
Barium	**0.0466**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 12:03	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 12:03	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 12:03	
Chromium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 12:03	
Cobalt	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 12:03	
Lead	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 12:03	
Molybdenum	**0.0165**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 12:03	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/04/2025 12:03	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 12:03	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667004 **Date Collected:** 11/24/2025 10:27 **Matrix:** Groundwater
Sample ID: DUP-2023 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		11/26/2025 13:21	*
Method: SM4500-Cl-E 2021							
Chloride	**16.8**	mg/L	2.0	1		12/02/2025 10:09	
Method: SM4500-F-C-2021							
Fluoride	**0.67**	mg/L	0.1	1		11/26/2025 13:21	
Method: USGS I-1750-85							
Total Dissolved Solids	**1640**	mg/L	10	1		11/26/2025 15:00	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667005 **Date Collected:** 11/24/2025 09:05 **Matrix:** Groundwater
Sample ID: MW-218 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2095**	umhos/cm	1	1		11/24/2025 09:05	
Method: 150.2							
pH - Field	**7.55**	units	0.01	1		11/24/2025 09:05	
Method: 170.1							
Temperature - Field C	**10**	degrees C		1		11/24/2025 09:05	
Method: ASTM D516-16							
Sulfate	**584**	mg/L	25	5		12/03/2025 11:08	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.84**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:06	
Calcium	**84.5**	mg/L	1	1	11/26/2025 16:24	11/28/2025 11:59	
Lithium	**0.0491**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:11	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/04/2025 12:08	
Arsenic	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 12:08	
Barium	**0.0450**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 12:08	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 12:08	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 12:08	
Chromium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 12:08	
Cobalt	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 12:08	
Lead	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 12:08	
Molybdenum	**0.0123**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 12:08	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/04/2025 12:08	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 12:08	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667005 **Date Collected:** 11/24/2025 09:05 **Matrix:** Groundwater
Sample ID: MW-218 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		11/26/2025 13:32	*
Method: SM4500-Cl-E 2021							
Chloride	**14.3**	mg/L	2.0	1		12/02/2025 10:10	
Method: SM4500-F-C-2021							
Fluoride	**0.62**	mg/L	0.1	1		11/26/2025 13:32	
Method: USGS I-1750-85							
Total Dissolved Solids	**1480**	mg/L	10	1		11/26/2025 15:00	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667006 **Date Collected:** 11/25/2025 12:23 **Matrix:** Groundwater
Sample ID: MW-219 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**3988**	umhos/cm	1	1		11/25/2025 12:23	
Method: 150.2							
pH - Field	**7.11**	units	0.01	1		11/25/2025 12:23	
Method: 170.1							
Temperature - Field C	**9.98**	degrees C		1		11/25/2025 12:23	
Method: ASTM D516-16							
Sulfate	**1690**	mg/L	50	10		12/03/2025 11:09	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**1.17**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:08	
Calcium	**314**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:00	
Lithium	**0.0351**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:13	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/04/2025 14:05	
Arsenic	**0.0042**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:05	
Barium	**0.0325**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:05	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:05	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:05	
Chromium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:05	
Cobalt	**0.0020**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:05	
Lead	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:05	
Molybdenum	**0.0076**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:05	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/04/2025 14:05	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:05	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667006 **Date Collected:** 11/25/2025 12:23 **Matrix:** Groundwater
Sample ID: MW-219 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.5**	units	0.1	1		11/26/2025 13:43	*
Method: SM4500-Cl-E 2021							
Chloride	**16.5**	mg/L	2.0	1		12/02/2025 10:11	
Method: SM4500-F-C-2021							
Fluoride	**0.15**	mg/L	0.1	1		11/26/2025 13:43	
Method: USGS I-1750-85							
Total Dissolved Solids	**3330**	mg/L	10	1		11/26/2025 15:00	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667007 **Date Collected:** 11/24/2025 14:19 **Matrix:** Groundwater
Sample ID: MW-220 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2023**	umhos/cm	1	1		11/24/2025 14:19	
Method: 150.2							
pH - Field	**7.7**	units	0.01	1		11/24/2025 14:19	
Method: 170.1							
Temperature - Field C	**9.4**	degrees C		1		11/24/2025 14:19	
Method: ASTM D516-16							
Sulfate	**559**	mg/L	25	5		12/03/2025 11:10	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.81**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:09	
Calcium	**79.7**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:01	
Lithium	**0.0485**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:13	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/04/2025 14:10	
Arsenic	**0.0024**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:10	
Barium	**0.0442**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:10	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:10	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:10	
Chromium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:10	
Cobalt	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:10	
Lead	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:10	
Molybdenum	**0.0112**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:10	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/04/2025 14:10	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:10	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667007 **Date Collected:** 11/24/2025 14:19 **Matrix:** Groundwater
Sample ID: MW-220 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		11/26/2025 13:54	*
Method: SM4500-Cl-E 2021							
Chloride	**14.3**	mg/L	2.0	1		12/02/2025 10:17	
Method: SM4500-F-C-2021							
Fluoride	**0.59**	mg/L	0.1	1		11/26/2025 13:54	
Method: USGS I-1750-85							
Total Dissolved Solids	**1400**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667008 **Date Collected:** 11/24/2025 15:43 **Matrix:** Groundwater
Sample ID: MW-221 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2084**	umhos/cm	1	1		11/24/2025 15:43	
Method: 150.2							
pH - Field	**7.75**	units	0.01	1		11/24/2025 15:43	
Method: 170.1							
Temperature - Field C	**8.33**	degrees C		1		11/24/2025 15:43	
Method: ASTM D516-16							
Sulfate	**560**	mg/L	25	5		12/03/2025 11:11	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.74**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:10	
Calcium	**79.1**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:04	
Lithium	**0.0446**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:14	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/04/2025 14:15	
Arsenic	**0.0129**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:15	
Barium	**0.0795**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:15	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:15	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:15	
Chromium	**0.0038**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:15	
Cobalt	**0.0021**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:15	
Lead	**0.0020**	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:15	
Molybdenum	**0.0814**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:15	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/04/2025 14:15	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:15	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667008 **Date Collected:** 11/24/2025 15:43 **Matrix:** Groundwater
Sample ID: MW-221 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		11/26/2025 14:06	*
Method: SM4500-Cl-E 2021							
Chloride	**17.0**	mg/L	2.0	1		12/02/2025 10:18	
Method: SM4500-F-C-2021							
Fluoride	**0.49**	mg/L	0.1	1		11/26/2025 14:06	
Method: USGS I-1750-85							
Total Dissolved Solids	**1450**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667009 **Date Collected:** 11/25/2025 10:37 **Matrix:** Groundwater
Sample ID: MW-222 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2650**	umhos/cm	1	1		11/25/2025 10:37	
Method: 150.2							
pH - Field	**7.86**	units	0.01	1		11/25/2025 10:37	
Method: 170.1							
Temperature - Field C	**5.62**	degrees C		1		11/25/2025 10:37	
Method: ASTM D516-16							
Sulfate	**656**	mg/L	25	5		12/03/2025 11:22	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**2.25**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:12	
Calcium	**37.3**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:05	
Lithium	<0.02	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:16	
Method: EPA 6020B							
Antimony	**0.0010**	mg/L	0.001	5	11/26/2025 16:24	12/04/2025 14:20	
Arsenic	**0.0142**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:20	
Barium	**0.0925**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:20	
Beryllium	**0.0011**	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:20	
Cadmium	**0.0011**	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:20	
Chromium	**0.0090**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:20	
Cobalt	**0.0153**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:20	
Lead	**0.0133**	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:20	
Molybdenum	**0.4747**	mg/L	0.004	10	11/26/2025 16:24	12/04/2025 15:09	
Selenium	**0.0095**	mg/L	0.005	5	11/26/2025 16:24	12/04/2025 14:20	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:20	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667009 **Date Collected:** 11/25/2025 10:37 **Matrix:** Groundwater
Sample ID: MW-222 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		11/26/2025 16:47	*
Method: SM4500-Cl-E 2021							
Chloride	**26.8**	mg/L	10.0	5		12/02/2025 10:20	
Method: SM4500-F-C-2021							
Fluoride	**1.41**	mg/L	0.1	1		12/01/2025 14:53	
Method: USGS I-1750-85							
Total Dissolved Solids	**2110**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667010 **Date Collected:** 11/25/2025 13:19 **Matrix:** Groundwater
Sample ID: MW-300 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2587**	umhos/cm	1	1		11/25/2025 13:19	
Method: 150.2							
pH - Field	**7.43**	units	0.01	1		11/25/2025 13:19	
Method: 170.1							
Temperature - Field C	**9.88**	degrees C		1		11/25/2025 13:19	
Method: ASTM D516-16							
Sulfate	**648**	mg/L	25	5		12/03/2025 11:23	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.89**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:13	
Calcium	**111**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:07	
Lithium	**0.0414**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:16	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/04/2025 14:25	
Arsenic	**0.0065**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:25	
Barium	**0.0606**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:25	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:25	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:25	
Chromium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:25	
Cobalt	**0.0029**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:25	
Lead	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:25	
Molybdenum	**0.0171**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:25	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/04/2025 14:25	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:25	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667010 **Date Collected:** 11/25/2025 13:19 **Matrix:** Groundwater
Sample ID: MW-300 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		11/26/2025 15:28	*
Method: SM4500-Cl-E 2021							
Chloride	**32.9**	mg/L	2.0	1		12/02/2025 10:21	
Method: SM4500-F-C-2021							
Fluoride	**0.75**	mg/L	0.1	1		12/01/2025 15:27	
Method: USGS I-1750-85							
Total Dissolved Solids	**1790**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667011 **Date Collected:** 11/25/2025 16:05 **Matrix:** Groundwater
Sample ID: MW-301 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1209**	umhos/cm	1	1		11/25/2025 16:05	
Method: 150.2							
pH - Field	**7.86**	units	0.01	1		11/25/2025 16:05	
Method: 170.1							
Temperature - Field C	**8.25**	degrees C		1		11/25/2025 16:05	
Method: ASTM D516-16							
Sulfate	**166**	mg/L	5	1		12/03/2025 11:24	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.37**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:13	
Calcium	**34.0**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:08	
Lithium	**0.0713**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:17	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/04/2025 14:30	
Arsenic	**0.0034**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:30	
Barium	**0.1348**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:30	
Beryllium	**0.0010**	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:30	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:30	
Chromium	**0.0127**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:30	
Cobalt	**0.0067**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:30	
Lead	**0.0157**	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:30	
Molybdenum	**0.0021**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:30	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/04/2025 14:30	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:30	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667011 **Date Collected:** 11/25/2025 16:05 **Matrix:** Groundwater
Sample ID: MW-301 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.1**	units	0.1	1		11/26/2025 15:39	*
Method: SM4500-Cl-E 2021							
Chloride	**8.9**	mg/L	2.0	1		12/02/2025 10:22	
Method: SM4500-F-C-2021							
Fluoride	**0.35**	mg/L	0.1	1		12/01/2025 15:38	
Method: USGS I-1750-85							
Total Dissolved Solids	**813**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667012 **Date Collected:** 11/25/2025 14:23 **Matrix:** Groundwater
Sample ID: MW-PB3 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2161**	umhos/cm	1	1		11/25/2025 14:23	
Method: 150.2							
pH - Field	**7.44**	units	0.01	1		11/25/2025 14:23	
Method: 170.1							
Temperature - Field C	**5.15**	degrees C		1		11/25/2025 14:23	
Method: ASTM D516-16							
Sulfate	**540**	mg/L	25	5		12/03/2025 11:25	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.95**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:14	
Calcium	**108**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:08	
Lithium	**0.0353**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:17	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/04/2025 14:35	
Arsenic	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:35	
Barium	**0.0433**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:35	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:35	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:35	
Chromium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:35	
Cobalt	**0.0021**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:35	
Lead	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:35	
Molybdenum	**0.0293**	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:35	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/04/2025 14:35	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:35	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667012 **Date Collected:** 11/25/2025 14:23 **Matrix:** Groundwater
Sample ID: MW-PB3 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		11/26/2025 15:50	*
Method: SM4500-Cl-E 2021							
Chloride	**18.2**	mg/L	2.0	1		12/02/2025 10:23	
Method: SM4500-F-C-2021							
Fluoride	**0.67**	mg/L	0.1	1		12/01/2025 16:01	
Method: USGS I-1750-85							
Total Dissolved Solids	**1470**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667013 **Date Collected:** 11/25/2025 14:08 **Matrix:** Groundwater
Sample ID: FB-2023 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	<5	mg/L	5	1		12/03/2025 11:27	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	<0.1	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:15	
Calcium	<1	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:09	
Lithium	<0.02	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:18	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/04/2025 14:41	
Arsenic	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:41	
Barium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:41	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:41	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:41	
Chromium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:41	
Cobalt	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:41	
Lead	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:41	
Molybdenum	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/04/2025 14:41	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/04/2025 14:41	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/04/2025 14:41	
Method: SM4500 H+ B-2021							
pH	**6.3**	units	0.1	1		11/26/2025 16:02	*
Method: SM4500-Cl-E 2021							
Chloride	<2.0	mg/L	2.0	1		12/02/2025 10:24	
Method: SM4500-F-C-2021							
Fluoride	<0.1	mg/L	0.1	1		12/01/2025 16:12	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108667013 **Date Collected:** 11/25/2025 14:08 **Matrix:** Groundwater
Sample ID: FB-2023 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: USGS I-1750-85							
Total Dissolved Solids	<10	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 108667

Sulfate — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			100	103.0		85	115		
LFB			100	94.9		85	115		
LFB			100	100.0		85	115		
LFB			100	93.6		85	115		
LFB			100	89.8		85	115		
LFB			100	113.0		85	115		
LFB			100	106.0		85	115		
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MS/MSD	108460010		2000	88.5	87.9	85	115	0.2	20
MS/MSD	108667008		500	91.6	92.8	85	115	0.0	20
MS/MSD	108667013		100	88.4	90.5	85	115	2.3	20
MS/MSD	108796005		500	79.8	78.5	85	115	0.8	20
MS/MSD	108796015		100	115.6	115.5	85	115	0.0	20
MS/MSD	108925002		500	106.8	108.8	85	115	1.1	20

Chloride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			30	94.0		90	110		
LFB			30	94.1		90	110		
LFB			30	94.8		90	110		
LFB			30	94.6		90	110		
LFB			30	94.1		90	110		
LFB			30	93.9		90	110		
LFB			30	93.8		90	110		

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Chloride				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MS/MSD	108667013		30	94.5	93.7	80	120	1.1	20
MS/MSD	108796010		30	101.2	97.4	80	120	1.0	20
MS/MSD	108925002		30	94.9	96.0	80	120	0.7	20

Aluminum				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-DE			0.4	100.0		85	115		
LFB-DE			0.4	100.0		85	115		
MB		<0.1							
MB		<0.1							
MS/MSD	108667005		0.4	110.0	108.0	70	130	1.9	20
PDS/PDSD	108796005		0.4	95.9	95.7	75	125	0.1	20

Aluminum, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-DE			0.4	100.0		85	115		
LFB-DE			0.4	100.0		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	108076003		1	98.9	99.9	75	125	0.9	20
SPK/SPKD	108246006		0.4	100.0	98.0	75	125	2.2	20
SPK/SPKD	108663001		0.4	106.0	107.0	75	125	0.6	20
MS/MSD	108667003		0.4	105.0	103.0	70	130	1.9	20
SPK/SPKD	108756002		0.4	88.2	91.8	75	125	3.0	20
SPK/SPKD	108756002		1	105.0	106.0	75	125	0.9	20

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Account #: 5109 **Client:** Great River Energy

Aluminum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	108796011		0.4	105.0	104.0	75	125	1.0	20
SPK/SPKD	108796013		0.4	110.0	108.0	75	125	1.9	20
SPK/SPKD	108925002		0.4	114.0	112.0	75	125	1.5	20

Boron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OF			0.4	99.0		85	115		
LFB-OF			0.4	95.8		85	115		
MB		<0.1							
MB		<0.1							
MS/MSD	108667005		0.4	93.4	90.6	70	130	0.9	20
MS/MSD	108796005		0.4	87.2	87.8	70	130	0.1	20

Boron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OF			0.4	99.0		85	115		
LFB-OF			0.4	95.8		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	108663001		0.4	95.7	95.0	75	125	0.5	20
MS/MSD	108667003		0.4	90.4	89.4	70	130	0.3	20
SPK/SPKD	108796008		0.4	89.2	88.0	75	125	0.6	20
SPK/SPKD	108796012		0.4	79.8	78.7	75	125	0.4	20

Calcium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	105.0		85	115		
LFB-MI			100	105.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	108237003		500	99.7	98.1	75	125	1.3	20
PDS/PDSD	108246002		100	93.7	94.4	75	125	0.4	20
PDS/PDSD	108246005		100	94.9	94.9	75	125	0.0	20
PDS/PDSD	108460005		100	89.7	90.6	75	125	0.4	20

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Account #: 5109 **Client:** Great River Energy

Calcium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
DUP	108663001							1.6	20
PDS/PDSD	108663001		100	98.1	96.8	75	125	0.9	20
PDS/PDSD	108756001		100	93.9	93.5	75	125	0.2	20
PDS/PDSD	108756002		100	87.9	89.2	75	125	0.5	20
PDS/PDSD	108796003		500	102.0	102.0	75	125	0.1	20
PDS/PDSD	108796012		100	96.4	98.0	75	125	1.2	20

Calcium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	105.0		85	115		
LFB-MI			100	105.0		85	115		
MB		<1							
MB		<1							
SPK/SPKD	108663001		100	99.7	101.0	75	125	1.0	20
DUP	108667009							8.9	20
SPK/SPKD	108756002		100	89.0	90.7	75	125	0.7	20
DUP	108796011							0.4	20
SPK/SPKD	108796012		100	102.0	100.0	75	125	1.2	20
SPK/SPKD	108796014		100	96.2	96.4	75	125	0.1	20

Iron				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	107.0		85	115		
LFB-OE			0.4	105.0		85	115		
MB		<0.1							
MB		<0.1							
MS/MSD	108667005		0.4	93.6	81.2	70	130	1.1	20
MS/MSD	108796005		0.4	111.0	108.0	70	130	1.8	20
PDS/PDSD	108796005		0.4	92.6	91.4	75	125	0.7	20

Iron, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.4	107.0		85	115		

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Account #: 5109 **Client:** Great River Energy

Iron, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	105.0		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	108076003		1	90.0	90.4	75	125	0.2	20
SPK/SPKD	108246006		0.4	81.8	82.1	75	125	0.3	20
SPK/SPKD	108663001		0.4	93.7	94.6	75	125	0.9	20
MS/MSD	108667003		0.4	83.4	83.6	70	130	0.1	20
SPK/SPKD	108756002		0.4	85.2	87.4	75	125	2.6	20
SPK/SPKD	108756007		1	95.9	96.4	75	125	0.6	20
PDS/PDSD	108796011		0.4	88.4	89.5	75	125	0.4	20
SPK/SPKD	108796013		0.4	87.3	87.6	75	125	0.3	20
SPK/SPKD	108925002		0.4	87.0	87.5	75	125	0.6	20

Lithium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	110.0		85	115		
LFB-OE			0.4	109.0		85	115		
MB		<0.04							
MB		<0.04							
MS/MSD	108667005		0.4	102.0	101.0	70	130	1.7	20
MS/MSD	108796005		0.4	99.2	98.9	70	130	0.2	20

Lithium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	110.0		85	115		
LFB-OE			0.4	109.0		85	115		
MB		<0.04							
MB		<0.04							
SPK/SPKD	108663001		0.4	93.9	93.3	75	125	0.6	20
MS/MSD	108667003		0.4	101.0	101.0	70	130	0.2	20
SPK/SPKD	108796008		0.4	91.8	94.1	75	125	2.2	20
SPK/SPKD	108796012		0.4	94.3	93.0	75	125	1.3	20

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Account #: 5109 **Client:** Great River Energy

Magnesium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	104.0		85	115		
LFB-MI			100	104.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	108237003		500	98.2	96.7	75	125	0.9	20
PDS/PDSD	108246002		100	98.3	98.9	75	125	0.5	20
PDS/PDSD	108246005		100	98.9	98.9	75	125	0.0	20
PDS/PDSD	108460005		100	94.9	95.6	75	125	0.4	20
DUP	108663001							1.1	20
PDS/PDSD	108663001		100	99.7	98.7	75	125	0.8	20
PDS/PDSD	108756001		100	98.9	98.5	75	125	0.3	20
PDS/PDSD	108756002		100	92.9	93.9	75	125	0.5	20
PDS/PDSD	108796003		500	103.0	102.0	75	125	0.2	20
PDS/PDSD	108796012		100	100.0	100.0	75	125	0.5	20

Magnesium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	104.0		85	115		
LFB-MI			100	104.0		85	115		
MB		<1							
MB		<1							
SPK/SPKD	108663001		100	102.0	103.0	75	125	0.9	20
DUP	108667009							15.7	20
SPK/SPKD	108756002		100	94.7	95.4	75	125	0.6	20
DUP	108796011							1.0	20
SPK/SPKD	108796012		100	102.0	103.0	75	125	0.7	20
SPK/SPKD	108796014		100	100.0	100.0	75	125	0.2	20

Manganese — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	112.0		85	115		
LFB-OE			0.4	109.0		85	115		
MB		<0.05							

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Account #: 5109 **Client:** Great River Energy

Manganese — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.05							
MS/MSD	108667005		0.4	94.4	91.6	70	130	2.1	20
MS/MSD	108796005		0.4	85.6	91.2	70	130	3.4	20
PDS/PDSD	108796005		0.4	86.8	86.3	75	125	0.3	20

Manganese, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.05							
LFB-OE			0.4	112.0		85	115		
LFB-OE			0.4	109.0		85	115		
MB		<0.05							
MB		<0.05							
SPK/SPKD	108076003		1	95.2	95.3	75	125	0.1	20
SPK/SPKD	108246006		0.4	91.4	91.6	75	125	0.3	20
SPK/SPKD	108663001		0.4	96.1	96.4	75	125	0.3	20
MS/MSD	108667003		0.4	91.9	91.3	70	130	0.5	20
SPK/SPKD	108758002		1	97.0	97.5	75	125	0.3	20
PDS/PDSD	108796011		0.4	85.1	82.0	75	125	0.6	20
SPK/SPKD	108796013		0.4	77.2	78.4	75	125	0.5	20
SPK/SPKD	108925002		0.4	79.4	80.3	75	125	0.3	20

Potassium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	103.0		85	115		
LFB-MI			100	103.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	108237003		500	100.0	97.9	75	125	2.0	20
PDS/PDSD	108246002		100	101.0	101.0	75	125	0.6	20
PDS/PDSD	108246005		100	101.0	100.0	75	125	0.6	20
PDS/PDSD	108460005		100	99.6	99.1	75	125	0.4	20
DUP	108663001							1.2	20
PDS/PDSD	108663001		100	100.0	101.0	75	125	0.6	20

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Account #: 5109 **Client:** Great River Energy

Potassium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	108756001		100	101.0	99.7	75	125	1.4	20
PDS/PDSD	108756002		100	101.0	101.0	75	125	0.1	20
PDS/PDSD	108796003		500	103.0	102.0	75	125	1.4	20
PDS/PDSD	108796012		100	103.0	101.0	75	125	1.6	20

Potassium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	103.0		85	115		
LFB-MI			100	103.0		85	115		
MB		<1							
MB		<1							
SPK/SPKD	108663001		100	102.0	103.0	75	125	1.0	20
DUP	108667009							6.0	20
SPK/SPKD	108756002		100	101.0	101.0	75	125	0.4	20
DUP	108796011							6.1	20
SPK/SPKD	108796012		100	100.0	102.0	75	125	1.5	20
SPK/SPKD	108796014		100	102.0	100.0	75	125	1.0	20

Sodium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	106.0		85	115		
LFB-MI			100	106.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	108237003		500	83.6	79.8	75	125	1.3	20
PDS/PDSD	108246002		100	71.9	72.8	75	125	0.2	20
PDS/PDSD	108246005		100	80.3	77.7	75	125	0.7	20
PDS/PDSD	108460005		100	82.3	81.1	75	125	0.4	20
DUP	108663001							2.7	20
PDS/PDSD	108663001		100	100.0	97.7	75	125	1.4	20
PDS/PDSD	108756001		100	83.9	85.7	75	125	0.5	20
PDS/PDSD	108756002		100	89.8	84.4	75	125	1.6	20
PDS/PDSD	108796003		500	89.6	83.2	75	125	2.2	20

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Account #: 5109 **Client:** Great River Energy

Sodium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	108796012		100	77.9	78.8	75	125	0.3	20

Sodium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	106.0		85	115		
LFB-MI			100	106.0		85	115		
MB		<1							
MB		<1							
SPK/SPKD	108663001		100	97.9	101.0	75	125	1.7	20
DUP	108667009							2.0	20
SPK/SPKD	108756002		100	83.0	84.9	75	125	0.6	20
DUP	108796011							3.7	20
SPK/SPKD	108796012		100	83.7	85.2	75	125	0.4	20
SPK/SPKD	108796014		100	83.1	84.6	75	125	0.4	20

Antimony Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	93.4		80	120		
LFB-MS			0.1	91.4		80	120		
MB		<0.001							
MB		<0.001							
MS/MSD	108667003		0.4	100.0	101.0	75	125	0.8	20
MS/MSD	108667005		0.4	104.0	106.0	75	125	1.4	20
MS/MSD	108796005		0.4	101.0	99.6	75	125	1.3	20

Antimony, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	93.4		80	120		
LFB-MS			0.1	91.4		80	120		
MB		<0.001							
MB		<0.001							
MS/MSD	108667005		0.4	100.0	101.0	75	125	0.8	20
MS/MSD	108667005		0.4	104.0	106.0	75	125	1.4	20
SPK/SPKD	108667013		0.1	104.0	103.0	75	125	1.2	20

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Account #: 5109 **Client:** Great River Energy

Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	108796005		0.4	101.0	99.6	75	125	1.3	20

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	96.5		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	96.5	96.3	75	125	0.3	20
MS/MSD	108667005		0.4	95.8	95.7	75	125	0.0	20
MS/MSD	108796005		0.4	93.1	95.1	75	125	1.8	20

Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
LFB-MS			0.1	96.5		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	96.5	96.3	75	125	0.3	20
MS/MSD	108667005		0.4	95.8	95.7	75	125	0.0	20
SPK/SPKD	108667013		0.1	98.4	96.5	75	125	2.0	20
MS/MSD	108796005		0.4	93.1	95.1	75	125	1.8	20

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		
LFB-MS			0.1	99.6		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	99.9	96.7	75	125	3.0	20
MS/MSD	108667005		0.4	105.0	106.0	75	125	0.6	20
MS/MSD	108796005		0.4	100.0	98.9	75	125	1.1	20

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		80	120		

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Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.6		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	99.9	96.7	75	125	3.0	20
MS/MSD	108667005		0.4	105.0	106.0	75	125	0.6	20
SPK/SPKD	108667013		0.1	107.0	103.0	75	125	4.6	20
MS/MSD	108796005		0.4	100.0	98.9	75	125	1.1	20

Beryllium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	97.8		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108667003		0.4	92.6	91.2	75	125	1.6	20
MS/MSD	108667005		0.4	92.9	92.9	75	125	0.3	20
MS/MSD	108796005		0.4	92.1	92.2	75	125	0.3	20

Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	97.8		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108667003		0.4	92.6	91.2	75	125	1.6	20
MS/MSD	108667005		0.4	92.9	92.9	75	125	0.3	20
SPK/SPKD	108667013		0.1	96.1	95.7	75	125	0.4	20
MS/MSD	108796005		0.4	92.1	92.2	75	125	0.3	20

Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	92.5		80	120		
LFB-MS			0.1	93.6		80	120		
MB		<0.0005							

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Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.0005							
MS/MSD	108667003		0.4	101.0	102.0	75	125	1.2	20
MS/MSD	108667005		0.4	104.0	103.0	75	125	0.7	20
MS/MSD	108796005		0.4	101.0	100.0	75	125	1.0	20

Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	92.5		80	120		
LFB-MS			0.1	93.6		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108667003		0.4	101.0	102.0	75	125	1.2	20
MS/MSD	108667005		0.4	104.0	103.0	75	125	0.7	20
SPK/SPKD	108667013		0.1	106.0	105.0	75	125	1.7	20
MS/MSD	108796005		0.4	101.0	100.0	75	125	1.0	20

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
LFB-MS			0.1	101.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	94.4	94.0	75	125	0.5	20
MS/MSD	108667005		0.4	94.1	92.3	75	125	2.1	20
MS/MSD	108796005		0.4	91.6	94.6	75	125	3.2	20

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
LFB-MS			0.1	101.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	94.4	94.0	75	125	0.5	20
MS/MSD	108667005		0.4	94.1	92.3	75	125	2.1	20

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Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	108667013		0.1	101.0	102.0	75	125	1.0	20
MS/MSD	108796005		0.4	91.6	94.6	75	125	3.2	20

Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	95.9	94.4	75	125	1.8	20
MS/MSD	108667005		0.4	94.3	93.5	75	125	0.8	20
MS/MSD	108796005		0.4	92.5	93.8	75	125	1.3	20

Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	95.9	94.4	75	125	1.8	20
MS/MSD	108667005		0.4	94.3	93.5	75	125	0.8	20
SPK/SPKD	108667013		0.1	100.0	101.0	75	125	0.9	20
MS/MSD	108796005		0.4	93.0	94.3	75	125	1.3	20

Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	98.8		80	120		
LFB-MS			0.1	96.1		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108667003		0.4	105.0	99.4	75	125	5.9	20
MS/MSD	108667005		0.4	103.0	107.0	75	125	4.1	20
MS/MSD	108796005		0.4	105.0	99.0	75	125	6.1	20

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Account #: 5109 **Client:** Great River Energy

Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	98.8		80	120		
LFB-MS			0.1	96.1		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108667003		0.4	105.0	99.4	75	125	5.9	20
MS/MSD	108667005		0.4	103.0	107.0	75	125	4.1	20
SPK/SPKD	108667013		0.1	101.0	101.0	75	125	0.3	20
MS/MSD	108796005		0.4	105.0	99.0	75	125	6.1	20

Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	97.7		80	120		
LFB-MS			0.1	96.1		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	96.7	97.2	75	125	0.3	20
MS/MSD	108667005		0.4	96.9	97.4	75	125	0.5	20
MS/MSD	108796005		0.4	96.5	95.0	75	125	1.4	20

Molybdenum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	97.7		80	120		
LFB-MS			0.1	96.1		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	96.7	97.2	75	125	0.3	20
MS/MSD	108667005		0.4	96.9	97.4	75	125	0.5	20
SPK/SPKD	108667013		0.1	102.0	103.0	75	125	0.8	20
MS/MSD	108796005		0.4	96.5	95.0	75	125	1.4	20

Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	94.4		80	120		

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Selenium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.005							
MB		<0.005							
MS/MSD	108667003		0.4	97.0	94.5	75	125	2.6	20
MS/MSD	108667005		0.4	98.7	93.5	75	125	5.5	20
MS/MSD	108796005		0.4	93.7	96.4	75	125	2.9	20

Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	94.4		80	120		
MB		<0.005							
MB		<0.005							
MS/MSD	108667003		0.4	97.0	94.5	75	125	2.6	20
MS/MSD	108667005		0.4	98.7	93.5	75	125	5.5	20
SPK/SPKD	108667013		0.1	96.4	97.4	75	125	1.0	20
MS/MSD	108796005		0.4	93.7	96.4	75	125	2.9	20

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	99.5		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108667003		0.4	98.4	99.7	75	125	1.5	20
MS/MSD	108667005		0.4	104.0	110.0	75	125	4.9	20
MS/MSD	108796005		0.4	107.0	99.9	75	125	6.5	20

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		80	120		
LFB-MS			0.1	99.5		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108667003		0.4	98.4	99.7	75	125	1.5	20

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Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	108667005		0.4	104.0	110.0	75	125	4.9	20
SPK/SPKD	108667013		0.1	103.0	104.0	75	125	0.4	20
MS/MSD	108796005		0.4	107.0	99.9	75	125	6.5	20

Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	87.8		85	115		
LFB			0.002	86.8		85	115		
MB		<0.0002							
MB		<0.0002							
MS/MSD	108667013		0.002	89.0	87.4	70	130	5.7	20
MS/MSD	108796001		0.002	106.0	106.0	70	130	0.0	20
MS/MSD	108796015		0.002	84.5	83.0	70	130	0.0	20
MS/MSD	108840005		0.002	88.4	91.5	70	130	0.0	20

Alkalinity, Total — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			501	90.8		80	120		
CRM			501	90.7		80	120		
LFB			410	94.6		90	110		
LFB			410	92.4		90	110		
LFB			410	95.2		90	110		
LFB			410	95.9		90	110		
LFB			410	94.3		90	110		
LFB			410	94.8		90	110		
LFB			410	95.4		90	110		
LFB			410	95.4		90	110		
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							

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Alkalinity, Total — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<20.5							
MB		<20.5							
MS/MSD	108667003		410	84.4	85.1	80	120	0.2	20
MS/MSD	108667009		410	84.8	85.5	80	120	0.3	20
MS/MSD	108691006		410	88.3	87.6	80	120	0.5	20
MS/MSD	108756003		410	69.6	69.9	80	120	0.1	20
MS/MSD	108796008		410	85.0	86.1	80	120	0.4	20
MS/MSD	108925002		410	77.5	77.5	80	120	0.0	20

pH — Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	99.8					
CRM-PH			6	99.5					
CRM-PH			6	99.3					
CRM-PH			6	99.3					
CRM-PH			6	99.3					
DUP	108667001							0.5	20
DUP	108667011							0.1	20
DUP	108756001							0.4	20
DUP	108796004							2.1	20

Fluoride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			3.34	105.0		83.83	111.07		
CRM-F			3.34	106.0		83.83	111.07		
LFB-F			0.5	100.0		90	110		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	104.0		90	110		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	104.0		90	110		

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Account #: 5109 **Client:** Great River Energy

Fluoride Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	108667007		0.5	98.0	100.0	80	120	0.9	20
MS/MSD-F	108667011		0.5	102.0	104.0	80	120	1.2	20
MS/MSD-F	108756004		0.5	98.0	102.0	80	120	2.3	20
MS/MSD-F	108796010		0.5	112.0	100.0	80	120	7.3	20
MS/MSD-F	108796014		0.5	110.0	102.0	80	120	3.4	20
MS/MSD-F	108925002		0.5	102.0	102.0	80	120	0.0	20

Total Dissolved Solids Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	99.0		90.35	110.33		
CRM			736	99.0		90.35	110.33		
CRM			736	100.0		90.35	110.33		
MB		<10							
MB		<10							
MB		<10							
DUP	108746006							0.7	20
DUP	108667006							0.3	20
DUP	108756003							0.7	20
DUP	108796009							1.9	20
DUP	108835003							2.7	20
DUP	108835004							8.4	20

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Great River Energy
WO: 108667

Chain of Custody Record

Report To:	Great River Energy	CC:	WSP
Attn:	Erik Heinen		44 Union Blvd, Suite 300
Address:			Lakewood, CO 80228
Phone:			
Email:	EHeinen@GREnergy.com		

Project Name: SS 2023 Wells
Event: Nov 2025
Sampled By: Ethan Grass

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric	Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 215	24 Nov 25	1209	GW	X	X	X		10.92	2338	7.68	231.9	App III, App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radchem, Dissolved and Total for Remainder of Metals) (See Attachments)
002	MW- 216	24 Nov 25	1315	GW	X	X	X		11.28	2068	7.72	5.60	
003	MW- 217	24 Nov 25	1027	GW	X	X	X		9.27	2365	7.65	36.33	
004	DUP- 2023	24 Nov 25	1027	GW	X	X	X		9.27	2365	7.65	36.37	
005	MW- 218	24 Nov 25	0905	GW	X	X	X		10.00	2095	7.55	17.91	
006	MW- 219	25 Nov 25	1223	GW	X	X	X		9.98	3988	7.11	4.11	
007	MW- 220	24 Nov 25	1419	GW	X	X	X		9.40	2023	7.70	49.79	
008	MW- 221	24 Nov 25	1543	GW	X	X	X		8.33	2084	7.75	10.83	
009	MW- 222	25 Nov 25	1037	GW	X	X	X		5.62	2650	7.86	10.19	

Comments: Wells installed in 2023

	Relinquished By		Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		25 Nov 25 1523	Log In Walk in #2	2.8 °C/TM 905 ROI Y/N		26 Nov 25 0800
2						

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Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS 2023 Wells
Attn:	Erik Heinen	44 Union Blvd, Suite 300	Event: Nov 2025
Address:		Lakewood, CO 80228	Sampled By: Ethan Gress
Phone:			
Email:	EHeinen@GREnergy.com		

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Liter Nitric	Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
010	MW- 300	25Nov25	1319	GW	X	X	X		9.88	2587	7.47	19.32	App III, App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radchem, Dissolved and Total for Remainder of Metals) (See Attachments)
011	MW- 301	25Nov25	1605	GW	X	X	X		8.25	1209	7.86	641.2	
012	MW- PB3	25Nov25	1423	GW	X	X	X		5.15	2161	7.44	0.00	
013	FB- 2023	25Nov25	1408	GW	X	X	X						

Comments: Wells installed in 2023

	Relinquished By		Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		25Nov25 1823	Log In Walk In #2	2.0 °C/TM 805 ROLY/N		26Nov25 0800
2						

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Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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February 2025 GL21509219.000

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.
* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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2616 East Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724
1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

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Account #: 5109 **Client:** Great River Energy

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	215
Sampling Personal:	

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.05	ft
Depth to Top of Pump:		ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
24/Nov 25	1144	Start of Well Purge									
	1154	11.65	2282	7.67	5.31	81.9	37.90	13.05	200.0	2.0	Clear
	1159	11.10	2346	7.65	3.22	62.7	35.60	13.05	200.0	1.0	Slt
	1204	11.15	2336	7.69	0.02	-105.5	139.60	13.05	200.0	1.0	Clear Turbid
	1209	10.92	2338	7.68	0.00	-119.7	231.9	13.05	200.0	1.0	Clear Turbid

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24/Nov 25	1209	10.92	2338	7.68	0.00	-119.7	231.9				Clear Turbid

Comments:

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Account #: 5109 **Client:** Great River Energy

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	216
Sampling Personal:	Shawn Gress

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.71	ft
Depth to Top of Pump:		ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
24Nov25	1255	Start of Well Purge									
	1305	11.52	2075	7.71	0.11	-132.5	4.20	13.85	200.0	2.0	clear
	1310	11.49	2072	7.71	0.02	-135.2	4.34	13.85	200.0	1.0	clear
	1315	11.28	2068	7.72	0.05	-132.6	5.60	13.85	200.0	1.0	clear

Well Stabilized? YES NO Total Volume Purged: 11.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24Nov25	1315	11.28	2068	7.72	0.05	-137.6	5.60				clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	217
Sampling Personal:	Ethan Cress

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: (Sunny / Partly Cloudy / Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.38	ft
Depth to Top of Pump:		ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 2	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
(YES) NO
Duplicate Sample ID:
Dup 2023

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
24Nov25	0952	Start of Well Purge									
	1002	7.40	2120	8.00	2.79	77.7	185.0	11.38	200.0	2.0	ST
	1007	8.24	2359	7.84	2.07	29.1	125.1	11.38	200.0	1.0	Clear
	1012	8.88	2178	7.63	0.51	-86.1	63.5	11.38	200.0	1.0	Clear
	1017	9.03	2379	7.63	0.03	-98.8	59.13	11.38	200.0	1.0	Clear
	1022	9.11	2358	7.65	0.01	-102.9	42.57	11.38	200.0	1.0	Clear
	1027	9.27	2365	7.65	0.01	-105.7	36.33	11.38	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 7.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24Nov25	1027	9.27	2365	7.65	0.01	-105.7	36.33				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	218
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 25 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.21	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
24Nov25	0845	Start of Well Purge									
	0855	9.70	2096	7.55	0.05	-129.5	23.83	12.30	200.0	2.0	Clear
	0900	9.97	2096	7.55	0.06	-136.4	14.22	12.30	200.0	1.0	Clear
	0905	10.00	2095	7.55	0.06	-139.0	17.91	12.30	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 44.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24Nov25	0905	10.00	2095	7.55	0.06	-139	17.91				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	219
Sampling Personal:	Ethan Cress

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	15.24	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	15.65	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
	1205	Start of Well Purge									
25Nov25	1217	9.89	4050	7.20	0.0	216.2	9.83	15.85	200.0	2.0	Clear
	1218	9.68	4000	7.12	0.0	200.6	9.64	15.75	200.0	1.0	Clear
	1223	9.98	3988	7.11	0.0	177.7	4.11	15.85	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 4.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
25Nov25	1223	9.98	3988	7.11	0.0	177.7	4.11				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	220
Sampling Personal:	Ethan Cross

Weather Conditions: Temp: 40 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.22	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.25	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 23	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
	1359	Start of Well Purge									
(1409)	1404	9.60	2017	7.72	0.68	-47.2	96.98	13.25	200.0	2.0	ST
	1414	9.47	1998	7.70	0.37	-46.9	78.76	13.25	200.0	1.0	ST
24Nov25	1419	9.40	2023	e 7.70	0.60	-56.4	49.70	13.25	200.0	1.0	ST

Well Stabilized? YES NO Total Volume Purged: 11.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
24Nov25	1419	9.40	2023	7.70	0.60	-56.4	49.70				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	221
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	15.75	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	15.75	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: ~~3~~ 2	Sec.
Recover: ~~24~~ 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
24Nov25	1523	Start of Well Purge									
	1533	8.40	2077	7.70	1.28	21.8	14.83	15.75	200.0	2.0	Clear
	1538	8.39	2081	7.75	1.67	20.4	12.76	15.75	200.0	1.0	Clear
	1543	8.33	2084	7.75	1.72	38.7	10.83	15.75	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 4.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24Nov25	1543	8.33	2084	7.75	1.72	38.7	10.83				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	222
Sampling Personal:	Ellen Goess

Weather Conditions: Temp: 30 °F Wind: N/W @ 5-10 Precip: ~~Sunny~~ / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	32.15	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	Below Pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 57	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25Nov25	1017	Start of Well Purge									
	1027	5.53	2618	7.90	2.25	112.9	9.95	32.73	100.0	1.0	Clear Brown (SB)
	1032	5.59	2624	7.86	1.64	127.4	11.83	32.93	100.0	0.5	CB
	1037	5.62	2650	7.86	1.69	138.2	10.19	33.15	100.0	0.5	CB

Well Stabilized? (YES) NO Total Volume Purged: 2.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25Nov25	1037	5.62	2650	7.86	1.69	138.2	10.19				Clear Brown

Comments:	

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	306
Sampling Personal:	Ethan Cuseo

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.25	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.32	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
	1259	Start of Well Purge									
25 Nov 25	1309	9.75	2600	7.12	0.22	-69.5	30.78	12.30	200.0	2.0	Clear
	1314	9.77	2586	7.43	0.04	-75.1	21.99	12.30	200.0	1.0	Clear
	1319	9.88	2587	7.43	0.21	-75.0	19.32	12.30	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 6.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
25 Nov 25	1319	9.88	2587	7.43	0.21	-75.0	19.32				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	301
Sampling Personal:	Ethan Corum

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	16.68	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	24.28	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	4	Sec.
Recover:	26	Sec.
PSI:		

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
	1545	Start of Well Purge									clear, slightly turbid, turbid
25 Nov 25	1555	8.36	1216	7.86	0.94	199.3	333.9	19.82	200.0	2.0	SP
	1600	8.27	1207	7.86	0.00	177.7	463.7	21.15	200.0	1.0	SP
	1605	8.25	1209	7.86	0.00	170.1	641.2	21.95	200.0	1.0	SP Turbid

Well Stabilized? YES NO Total Volume Purged: 41.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 Nov 25	1605	8.25	1209	7.86	0.00	170.1	641.2				Turbid

Comments:

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Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	PB3
Sampling Personal:	Gillian Gregg

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	23.68	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	29.10	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 57	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
25Nov25	1403	Start of Well Purge									
	1413	5.16	2114	7.48	3.61	81.9	0.00	27.80	100.0	1.0	Clear
	1418	5.10	2119	7.51	6.63	138.5	0.00	27.95	100.0	0.5	Clear
	1423	5.14	2161	7.44	2.23	182.9	0.00	28.20	100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25Nov25	1423	5.15	2161	7.44	2.23	182.9	0.00				Clear

Comments:	FB 2027 collected here @ 1408

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 26 NOV 25 Time: 0945 Analyst: PW

Work Order #: 108667

Containers Supplied by MVTL: [X] Yes [ ] No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
3	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
3	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
3	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

PW 26 NOV 25

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS 2023 Wells Nov 2025 (108680) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108680001 **Date Collected:** 11/24/2025 12:09 **Matrix:** Groundwater
Sample ID: MW-215 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108680002 **Date Collected:** 11/24/2025 13:15 **Matrix:** Groundwater
Sample ID: MW-216 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108680003 **Date Collected:** 11/24/2025 10:27 **Matrix:** Groundwater
Sample ID: MW-217 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108680004 **Date Collected:** 11/24/2025 10:27 **Matrix:** Groundwater
Sample ID: DUP-2023 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108680005 **Date Collected:** 11/24/2025 09:05 **Matrix:** Groundwater
Sample ID: MW-218 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108680006 **Date Collected:** 11/25/2025 12:23 **Matrix:** Groundwater
Sample ID: MW-219 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108680007 **Date Collected:** 11/24/2025 14:19 **Matrix:** Groundwater
Sample ID: MW-220 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108680008 **Date Collected:** 11/24/2025 15:43 **Matrix:** Groundwater
Sample ID: MW-221 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108680009 **Date Collected:** 11/25/2025 10:37 **Matrix:** Groundwater
Sample ID: MW-222 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108680010 **Date Collected:** 11/25/2025 13:19 **Matrix:** Groundwater
Sample ID: MW-300 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108680011 **Date Collected:** 11/25/2025 16:05 **Matrix:** Groundwater
Sample ID: MW-301 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108680012 **Date Collected:** 11/25/2025 14:23 **Matrix:** Groundwater
Sample ID: MW-PB3 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108680013 **Date Collected:** 11/25/2025 14:08 **Matrix:** Groundwater
Sample ID: FB-2023 **Date Received:** 11/25/2025 18:23 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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ANALYTICAL SUMMARY REPORT

December 30, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25120010 Quote ID: C15480
Project Name: 108680

Energy Laboratories, Inc. Casper WY received the following 13 samples for Minnesota Valley Testing Laboratories on 12/1/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25120010-001	108680001, MW-215	11/24/25 12:09	12/01/25	Groundwater	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25120010-002	108680002, MW-216	11/24/25 13:15	12/01/25	Groundwater	Same As Above
C25120010-003	108680003, MW-217	11/24/25 10:27	12/01/25	Groundwater	Same As Above
C25120010-004	108680004, DUP-2023	11/24/25 10:27	12/01/25	Groundwater	Same As Above
C25120010-005	108680005, MW-218	11/24/25 09:05	12/01/25	Groundwater	Same As Above
C25120010-006	108680006, MW-219	11/25/25 12:23	12/01/25	Groundwater	Same As Above
C25120010-007	108680007, MW-220	11/24/25 14:19	12/01/25	Groundwater	Same As Above
C25120010-008	108680008, MW-221	11/24/25 15:43	12/01/25	Groundwater	Same As Above
C25120010-009	108680009, MW-222	11/25/25 10:37	12/01/25	Groundwater	Same As Above
C25120010-010	108680010, MW-300	11/25/25 13:19	12/01/25	Groundwater	Same As Above
C25120010-011	108680011, MW-301	11/25/25 16:05	12/01/25	Groundwater	Same As Above
C25120010-012	108680012, MW-PB3	11/25/25 14:23	12/01/25	Groundwater	Same As Above
C25120010-013	108680013, FB-2023	11/25/25 14:08	12/01/25	Groundwater	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108680
Lab ID: C25120010-001
Client Sample ID: 108680001, MW-215

Report Date: 12/30/25
Collection Date: 11/24/25 12:09
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 226 MDC	0.1	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 228	0.6	pCi/L	U			RA-05	12/16/25 11:30 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	12/23/25 15:45 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108680
Lab ID: C25120010-002
Client Sample ID: 108680002, MW-216

Report Date: 12/30/25
Collection Date: 11/24/25 13:15
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.04	pCi/L	U			E903.0	12/22/25 15:24 / apt
Radium 226 precision (±)	0.09	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 226 MDC	0.1	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 228	0.2	pCi/L	U			RA-05	12/16/25 11:30 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 228 MDC	1	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	12/23/25 15:45 / meh

Report Definitions:
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108680
Lab ID: C25120010-003
Client Sample ID: 108680003, MW-217

Report Date: 12/30/25
Collection Date: 11/24/25 10:27
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.02	pCi/L	U			E903.0	12/22/25 15:24 / apt
Radium 226 precision (±)	0.08	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 226 MDC	0.1	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 228	0.6	pCi/L	U			RA-05	12/16/25 11:30 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/23/25 15:45 / meh

Report Definitions:
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Account #: 5109 **Client:** Great River Energy

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108680
Lab ID: C25120010-004
Client Sample ID: 108680004, DUP-2023

Report Date: 12/30/25
Collection Date: 11/24/25 10:27
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 226 MDC	0.1	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 228	0.4	pCi/L	U			RA-05	12/16/25 11:30 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/23/25 15:45 / meh

Report Definitions:
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U - Not detected
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108680
Lab ID: C25120010-005
Client Sample ID: 108680005, MW-218

Report Date: 12/30/25
Collection Date: 11/24/25 09:05
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	12/22/25 15:24 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 226 MDC	0.1	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 228	0.2	pCi/L	U			RA-05	12/16/25 11:30 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	12/23/25 15:45 / meh

Report Definitions:
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108680
Lab ID: C25120010-006
Client Sample ID: 108680006, MW-219

Report Date: 12/30/25
Collection Date: 11/25/25 12:23
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.02	pCi/L	U			E903.0	12/22/25 15:24 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 228	0.4	pCi/L	U			RA-05	12/16/25 11:30 / jls1
Radium 228 precision (±)	0.7	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 228 MDC	1.1	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	12/23/25 15:45 / meh

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108680
Lab ID: C25120010-007
Client Sample ID: 108680007, MW-220

Report Date: 12/30/25
Collection Date: 11/24/25 14:19
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.02	pCi/L	U			E903.0	12/22/25 15:24 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 228	0.6	pCi/L	U			RA-05	12/16/25 11:30 / jls1
Radium 228 precision (±)	0.7	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 228 MDC	1.2	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	12/23/25 15:45 / meh

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108680
Lab ID: C25120010-008
Client Sample ID: 108680008, MW-221

Report Date: 12/30/25
Collection Date: 11/24/25 15:43
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 228	0.2	pCi/L	U			RA-05	12/16/25 11:30 / jls1
Radium 228 precision (±)	0.7	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 228 MDC	1.1	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 226 + Radium 228	0.8	pCi/L	U			A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	12/23/25 15:45 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108680
Lab ID: C25120010-009
Client Sample ID: 108680009, MW-222

Report Date: 12/30/25
Collection Date: 11/25/25 10:37
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.8	pCi/L				E903.0	12/29/25 13:22 / dmr
Radium 226 precision (±)	0.4	pCi/L				E903.0	12/29/25 13:22 / dmr
Radium 226 MDC	0.6	pCi/L				E903.0	12/29/25 13:22 / dmr
Radium 228	2.0	pCi/L	U			RA-05	12/22/25 14:38 / jls1
Radium 228 precision (±)	2.0	pCi/L				RA-05	12/22/25 14:38 / jls1
Radium 228 MDC	3.0	pCi/L				RA-05	12/22/25 14:38 / jls1
Radium 226 + Radium 228	2.3	pCi/L	U			A7500-RA	12/29/25 16:26 / dmf
Radium 226 + Radium 228 precision (±)	2.1	pCi/L				A7500-RA	12/29/25 16:26 / dmf
Radium 226 + Radium 228 MDC	3.0	pCi/L				A7500-RA	12/29/25 16:26 / dmf

Report Definitions:
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QCL - Quality Control Limit
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108680
Lab ID: C25120010-010
Client Sample ID: 108680010, MW-300

Report Date: 12/30/25
Collection Date: 11/25/25 13:19
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.09	pCi/L	U			E903.0	12/22/25 15:24 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 226 MDC	0.1	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 228	0.4	pCi/L	U			RA-05	12/16/25 11:30 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/23/25 15:45 / meh

Report Definitions:
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108680
Lab ID: C25120010-011
Client Sample ID: 108680011, MW-301

Report Date: 12/30/25
Collection Date: 11/25/25 16:05
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	1.5	pCi/L				E903.0	12/17/25 13:03 / dmr
Radium 226 precision (±)	0.4	pCi/L				E903.0	12/17/25 13:03 / dmr
Radium 226 MDC	0.3	pCi/L				E903.0	12/17/25 13:03 / dmr
Radium 228	2.9	pCi/L				RA-05	12/12/25 16:16 / jls1
Radium 228 precision (±)	1.3	pCi/L				RA-05	12/12/25 16:16 / jls1
Radium 228 MDC	1.5	pCi/L				RA-05	12/12/25 16:16 / jls1
Radium 226 + Radium 228	4.4	pCi/L				A7500-RA	12/18/25 11:40 / dmf
Radium 226 + Radium 228 precision (±)	1.4	pCi/L				A7500-RA	12/18/25 11:40 / dmf
Radium 226 + Radium 228 MDC	1.5	pCi/L				A7500-RA	12/18/25 11:40 / dmf

Report Definitions:
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QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108680
Lab ID: C25120010-012
Client Sample ID: 108680012, MW-PB3

Report Date: 12/30/25
Collection Date: 11/25/25 14:23
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.09	pCi/L	U			E903.0	12/17/25 13:03 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/17/25 13:03 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/17/25 13:03 / dmr
Radium 228	0.4	pCi/L	U			RA-05	12/12/25 16:16 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/12/25 16:16 / jls1
Radium 228 MDC	1	pCi/L				RA-05	12/12/25 16:16 / jls1
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	12/18/25 11:40 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/18/25 11:40 / dmf
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	12/18/25 11:40 / dmf

Report Definitions:
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U - Not detected
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108680
Lab ID: C25120010-013
Client Sample ID: 108680013, FB-2023

Report Date: 12/30/25
Collection Date: 11/25/25 14:08
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.09	pCi/L	U			E903.0	12/17/25 13:03 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/17/25 13:03 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/17/25 13:03 / dmr
Radium 228	0.3	pCi/L	U			RA-05	12/12/25 16:16 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/12/25 16:16 / jls1
Radium 228 MDC	1	pCi/L				RA-05	12/12/25 16:16 / jls1
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	12/18/25 11:40 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/18/25 11:40 / dmf
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	12/18/25 11:40 / dmf

Report Definitions:
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U - Not detected
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ND - Not detected at the Reporting Limit (RL)

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Account #: 5109 **Client:** Great River Energy

QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25120010 **Report Date:** 12/29/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11928
Lab ID: LCS-RA226-11928	3	Laboratory Control Sample				Run: TENNELEC-3_251204D				12/17/25 13:03
Radium 226		8.3	pCi/L		83	70	130			
Radium 226 precision (±)		1.6	pCi/L							
Radium 226 MDC		0.25	pCi/L							
Lab ID: MB-RA226-11928	3	Method Blank				Run: TENNELEC-3_251204D				12/17/25 13:03
Radium 226		-0.01	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C25120010-013ADUP	3	Sample Duplicate				Run: TENNELEC-3_251204D				12/17/25 13:03
Radium 226		-0.043	pCi/L					600	30	UR
Radium 226 precision (±)		0.12	pCi/L							
Radium 226 MDC		0.21	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.71.										
Method: E903.0										Batch: RA226-11939
Lab ID: LCS-RA226-11939	3	Laboratory Control Sample				Run: TENNELEC-3_251217A				12/29/25 11:22
Radium 226		9.8	pCi/L		98	70	130			
Radium 226 precision (±)		1.8	pCi/L							
Radium 226 MDC		0.22	pCi/L							
Lab ID: MB-RA226-11939	3	Method Blank				Run: TENNELEC-3_251217A				12/29/25 11:22
Radium 226		-0.06	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C25120425-001EDUP	3	Sample Duplicate				Run: TENNELEC-3_251217A				12/29/25 11:22
Radium 226		100	pCi/L					0.8	30	
Radium 226 precision (±)		18	pCi/L							
Radium 226 MDC		0.23	pCi/L							
- The RER result is 0.03.										
Method: E903.0										Batch: RA226-11925
Lab ID: LCS-RA226-11925	3	Laboratory Control Sample				Run: TENNELEC-4_251204E				12/22/25 13:05
Radium 226		9.6	pCi/L		97	70	130			
Radium 226 precision (±)		1.8	pCi/L							
Radium 226 MDC		0.16	pCi/L							
Lab ID: MB-RA226-11925	3	Method Blank				Run: TENNELEC-4_251204E				12/22/25 13:05
Radium 226		-0.07	pCi/L							U
Radium 226 precision (±)		0.07	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Lab ID: C25120008-011ADUP	3	Sample Duplicate				Run: TENNELEC-4_251204E				12/22/25 15:24
Radium 226		0.0027	pCi/L					230	30	UR
Radium 226 precision (±)		0.083	pCi/L							
Radium 226 MDC		0.14	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.44.										

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25120010 **Report Date:** 12/29/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7854
Lab ID: LCS-228-RA226-11928	3	Laboratory Control Sample				Run: TENNELEC-4_251204C				12/12/25 16:16
Radium 228		9.8	pCi/L		112	70	130			
Radium 228 precision (±)		2.9	pCi/L							
Radium 228 MDC		1.0	pCi/L							
Lab ID: MB-RA226-11928	3	Method Blank				Run: TENNELEC-4_251204C				12/12/25 16:16
Radium 228		0.2	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C25120010-013ADUP	3	Sample Duplicate				Run: TENNELEC-4_251204C				12/12/25 16:16
Radium 228		0.58	pCi/L					69	30	UR
Radium 228 precision (±)		0.61	pCi/L							
Radium 228 MDC		0.96	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.35.										
Method: RA-05										Batch: RA228-7852
Lab ID: LCS-228-RA226-11925	3	Laboratory Control Sample				Run: TENNELEC-4_251204D				12/16/25 11:30
Radium 228		7.5	pCi/L		86	70	130			
Radium 228 precision (±)		2.3	pCi/L							
Radium 228 MDC		1.0	pCi/L							
Lab ID: MB-RA226-11925	3	Method Blank				Run: TENNELEC-4_251204D				12/16/25 11:30
Radium 228		-0.2	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C25120008-011ADUP	3	Sample Duplicate				Run: TENNELEC-4_251204D				12/16/25 11:30
Radium 228		0.10	pCi/L					540	30	UR
Radium 228 precision (±)		0.60	pCi/L							
Radium 228 MDC		1.0	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.39.										
Method: RA-05										Batch: RA228-7864
Lab ID: LCS-228-RA226-11939	3	Laboratory Control Sample				Run: TENNELEC-4_251217A				12/22/25 13:08
Radium 228		7.5	pCi/L		86	70	130			
Radium 228 precision (±)		2.3	pCi/L							
Radium 228 MDC		0.84	pCi/L							
Lab ID: MB-RA226-11939	3	Method Blank				Run: TENNELEC-4_251217A				12/22/25 13:08
Radium 228		0.3	pCi/L							U
Radium 228 precision (±)		0.5	pCi/L							
Radium 228 MDC		0.9	pCi/L							
Lab ID: C25120425-001EDUP	3	Sample Duplicate				Run: TENNELEC-4_251217A				12/22/25 13:08
Radium 228		2.9	pCi/L					23	30	
Radium 228 precision (±)		1.1	pCi/L							
Radium 228 MDC		1.0	pCi/L							
- The RER result is 0.40.										

Qualifiers:

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25120010

Login completed by: Lorie D. Snider
Reviewed by: lquezada
Reviewed Date: 12/8/2025
Date Received: 12/1/2025
Received by: LDS
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	1.0°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature blank temperature in shipping container 1 was 0.3°C, shipping container 2 was 0.2°C, shipping container 3 was -1.8°C, shipping container 4 was -1.0°C, shipping container 5 was 1.0°C, shipping container 6 was 0.8,

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Work Order Receipt Checklist - Continued

Minnesota Valley Testing Laboratories C25120010

shipping container 7 was -0.5 and shipping container 8 was -1.8.

All samples were received partially frozen. Proceed with partially frozen samples per email with Claudette Carroll on 12/01/25. LDS 12/02/25

Two chains of custody were received with workorder 108680. Page one of one is indicated on both chains of custody. Proceeded on one report per phone conversation with Claudette Carroll on 12/05/25. LDS 12/05/25

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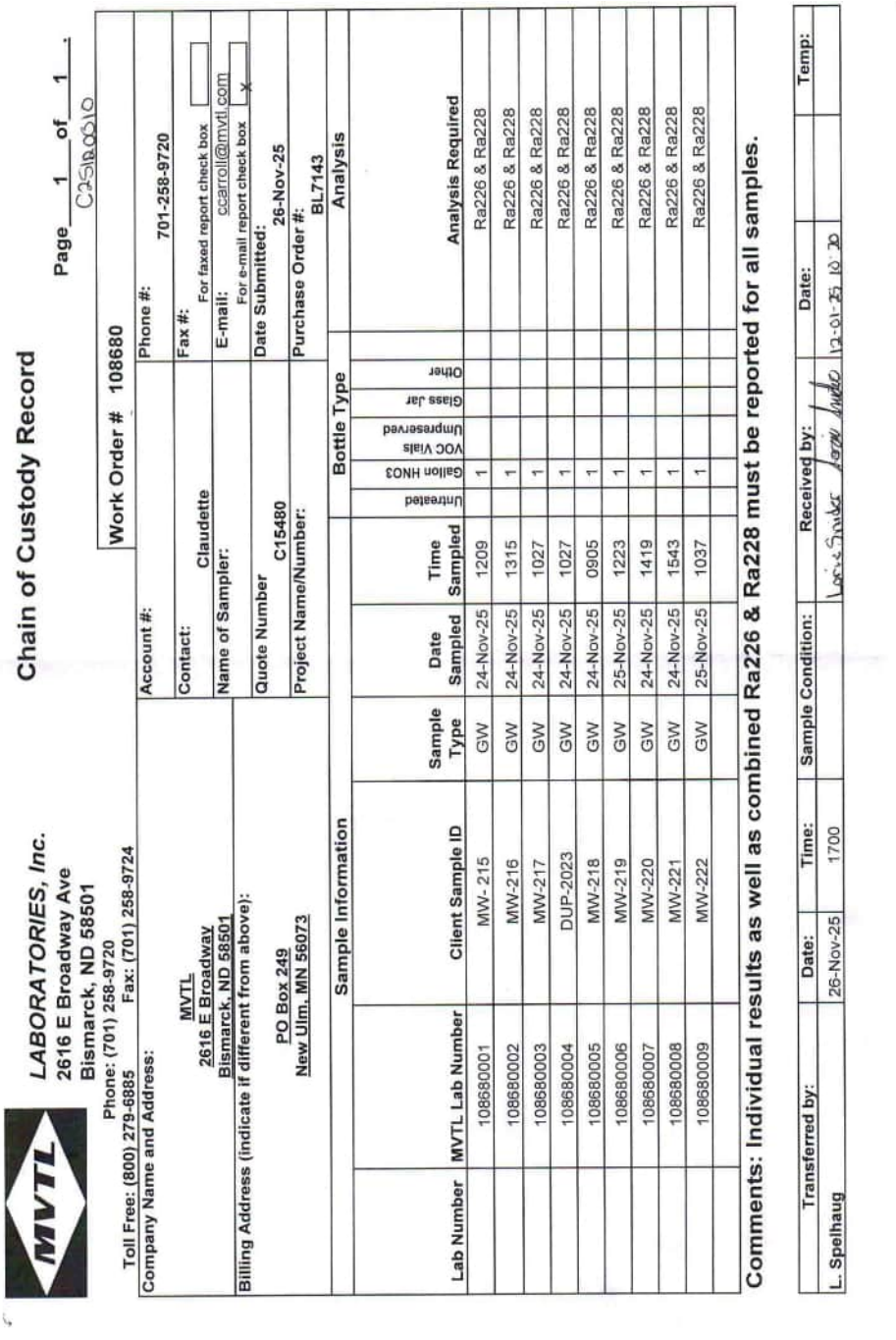
	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Chain of Custody Record

Page 1 of 1

Work Order # 108680

Company Name and Address: MVTL, 2616 E Broadway, Bismarck, ND 58501
Billing Address (indicate if different from above): PO Box 249, New Ulm, MN 56073
Account #:
Contact: Claudette
Name of Sampler:
Quote Number C15480
Project Name/Number:
Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box x
Date Submitted: 26-Nov-25
Purchase Order #: BL7143

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Unpreserved	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	108680001	MW- 215	GW	24-Nov-25	1209		1				Ra226 & Ra228
	108680002	MW-216	GW	24-Nov-25	1315		1				Ra226 & Ra228
	108680003	MW-217	GW	24-Nov-25	1027		1				Ra226 & Ra228
	108680004	DUP-2023	GW	24-Nov-25	1027		1				Ra226 & Ra228
	108680005	MW-218	GW	24-Nov-25	0905		1				Ra226 & Ra228
	108680006	MW-219	GW	25-Nov-25	1223		1				Ra226 & Ra228
	108680007	MW-220	GW	24-Nov-25	1419		1				Ra226 & Ra228
	108680008	MW-221	GW	24-Nov-25	1543		1				Ra226 & Ra228
	108680009	MW-222	GW	25-Nov-25	1037		1				Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples.

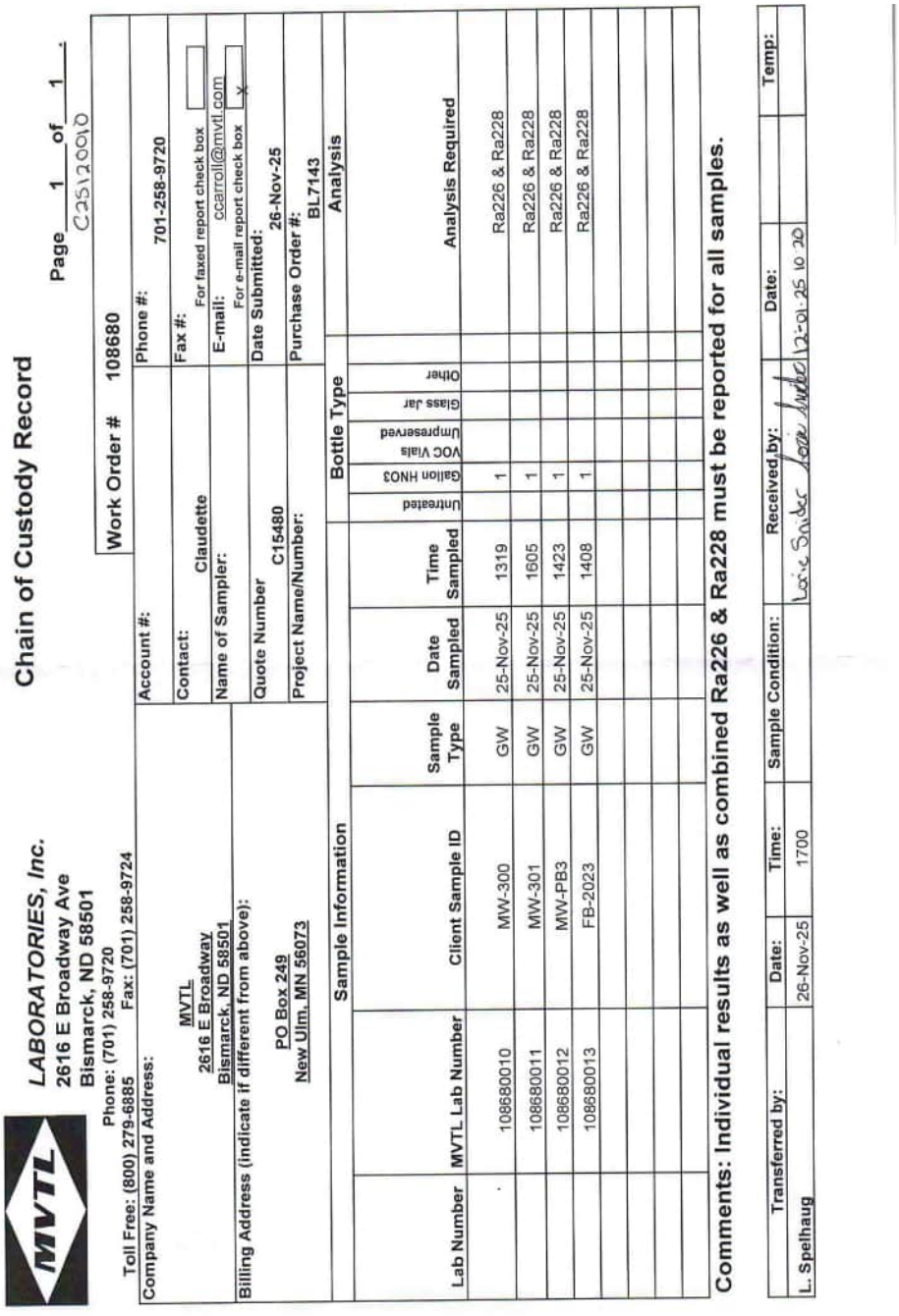
Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
L. Spelhaug	26-Nov-25	1700		Lori Snider	12-01-25 10:20	

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Chain of Custody Record

Page 1 of 1

C25120010

Work Order # 108680

Company Name and Address: MVTL, 2616 E Broadway, Bismarck, ND 58501
Account #:
Phone #: 701-258-9720
Contact: Claudette
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box x
Name of Sampler:
Date Submitted: 26-Nov-25
Quote Number C15480
Project Name/Number:
Purchase Order #: BL7143

Billing Address (indicate if different from above): PO Box 249, New Ulm, MN 56073

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Untreated	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis Required
	108680010	MW-300	GW	25-Nov-25	1319	1					Ra226 & Ra228
	108680011	MW-301	GW	25-Nov-25	1605	1					Ra226 & Ra228
	108680012	MW-PB3	GW	25-Nov-25	1423	1					Ra226 & Ra228
	108680013	FB-2023	GW	25-Nov-25	1408	1					Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
L. Spelhaug	26-Nov-25	1700		Lorie Snider	12-01-25 10:20	

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Great River Energy
WO: 108680

Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS 2023 Wells
Attn:	Erik Heinen		Event: Nov 2025
Address:		44 Union Blvd, Suite 300 Lakewood, CO 80228	Sampled By: Ethan Cress
Phone:			
Email:	EHeinen@GREnergy.com		

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric	Analysis Required
001	MW- 215	24Nov25	1209	GW				X	Radium 226 and 228 Combined
002	MW- 216	24Nov25	1315	GW				X	
003	MW- 217	24Nov25	1027	GW				X	
004	DUP- 2023	24Nov25	1027	GW				X	
005	MW- 218	24Nov25	0905	GW				X	
006	MW- 219	25Nov25	1223	GW				X	
007	MW- 220	24Nov25	1419	GW				X	
008	MW- 221	24Nov25	1543	GW				X	
009	MW- 222	25Nov25	1037	GW				X	

Comments:

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		25Nov25 1825	Log In Walk In #2	Ambient		26Nov25 0800
2						

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Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS 2023 Wells
Attn:	Erik Heinen	44 Union Blvd, Suite 300	Event: Nov 2025
Address:		Lakewood, CO 80228	Sampled By: Ethan Gilless
Phone:			
Email:	EHeinen@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric										Analysis Required
010	MW- 300	25Nov25	1319	GW				X										Radium 226 and 228 Combined
011	MW- 301	25Nov25	1605	GW				X										
012	MW- PB3	25Nov25	1423	GW				X										
013	FB- 2023	25Nov25	1408	GW				X										

Comments:

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		25Nov25 1822	Log In Walk In #2	Ambient		26Nov25 0800
2						

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February 2025 GL21509219.000

Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.
* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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February 2025 GL21509219.000

Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

1

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MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	215
Sampling Personal:	

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.05	ft
Depth to Top of Pump:		ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
	1144	Start of Well Purge									clear, slightly turbid, turbid
	1154	11.65	2282	7.67	5.31	81.9	37.90	13.05	200.0	2.0	Clear
	1159	11.10	2346	7.65	3.22	62.7	35.60	13.05	200.0	1.0	Slt
24 Nov 25	1204	11.05	2336	7.69	0.02	-105.5	139.60	13.05	200.0	1.0	~~Clear~~ Turbid
	1209	10.92	2338	7.68	0.00	-119.7	231.9	13.05	200.0	1.0	~~Clear~~ Turbid

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24 Nov 25	1209	10.92	2338	7.68	0.00	-119.7	231.9				~~Clear~~ Turbid

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	216
Sampling Personal:	Stephen Gross

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.71	ft
Depth to Top of Pump:		ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
	1255	Start of Well Purge									
24Nov25	1305	11.52	2075	7.71	0.11	-132.5	4.20	13.85	200.0	2.0	clear
	1310	11.43	2072	7.71	0.02	-135.3	4.34	13.85	200.0	2.0	Clear
	1315	11.28	2068	7.72	0.05	-132.6	5.60	13.85	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 41.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
24Nov25	1315	11.28	2068	7.72	0.05	-137.6	5.60				Clear

Comments:	

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	217
Sampling Personal:	Ethan Cress

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: (Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.38	ft
Depth to Top of Pump:		ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
(YES) ~~NO~~
Duplicate Sample ID:
Dup 2023

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
24Nov25	0952	Start of Well Purge									
	1002	7.40	2120	8.00	2.79	73.7	185.0	11.38	200.0	2.0	ST
	1007	8.24	2359	7.84	2.07	29.1	125.1	11.38	200.0	1.0	Clear
	1012	8.86	2178	7.63	0.51	-86.1	63.5	11.38	200.0	1.0	Clear
	1017	9.03	2379	7.63	0.03	-98.8	59.13	11.38	200.0	1.0	Clear
	1022	9.11	2358	7.65	0.01	-102.9	42.37	11.38	200.0	1.0	Clear
	1027	9.27	2365	7.65	0.01	-105.7	36.33	11.38	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 7.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
24Nov25	1027	9.27	2365	7.65	0.01	-105.7	36.33				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	218
Sampling Personal:	Ethan Gresse

Weather Conditions: Temp: 25 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.21	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	0815	Start of Well Purge									
24Nov25	0855	9.70	2096	7.55	0.05	-129.5	23.83	12.30	200.0	2.0	Clear
	0900	9.97	2096	7.55	0.06	-136.4	14.22	12.30	200.0	1.0	Clear
	0905	10.00	2095	7.55	0.06	-139.0	17.91	12.30	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 4.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24Nov25	0905	10.00	2095	7.55	0.06	-139	17.91				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet
Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	219
Sampling Personal:	Ethan Cress

Weather Conditions: Temp: 20 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	15.21	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	15.65	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: 27	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
	1203	Start of Well Purge									clear, slightly turbid, turbid
25Nov25	1213	9.89	4050	7.20	0.0	216.2	9.83	15.85	200.0	2.0	Clear
	1218	9.68	4000	7.12	0.0	200.8	9.64	15.75	200.0	1.0	Clear
	1223	9.98	3985	7.11	0.0	177.7	4.11	15.85	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 21.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25Nov25	1223	9.98	3988	7.11	0.0	177.7	4.11				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	220
Sampling Personal:	Ethan Cortes

Weather Conditions: Temp: 40 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.22	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.25	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 23	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
	1359	Start of Well Purge									
(1409)	1404	9.60	2017	7.72	0.68	-47.2	96.98	13.25	200.0	2.0	ST
	1414	9.47	1998	7.70	0.37	-46.9	78.26	13.25	200.0	1.0	ST
24Nov25	1419	9.40	2023	e 7.70	0.60	-56.4	49.70	13.25	200.0	1.0	ST

Well Stabilized? YES NO Total Volume Purged: 6.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24Nov25	1419	9.40	2023	7.70	0.60	-56.4	49.70				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	221
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	15.75	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	15.73	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: ~~3~~ 2	Sec.
Recover: ~~27~~ 28	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
	1523	Start of Well Purge									clear, slightly turbid, turbid
	1533	8.40	2077	7.78	1.28	21.8	14.83	15.75	200.0	2.0	Clear
24Nov25	1538	8.39	2081	7.75	1.67	20.4	12.76	15.75	200.0	1.0	Clear
	1543	8.33	2084	7.75	1.72	38.7	10.83	15.75	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 4.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
24Nov25	1543	8.33	2084	7.75	1.72	38.7	10.83				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	222
Sampling Personal:	Ethan Gress

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: ~~Sunny~~ / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	32.15	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	Below Pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 37	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
	1017	Start of Well Purge									clear, slightly turbid, turbid
25Nov25	1027	5.53	2618	7.90	2.25	112.9	9.95	32.73	100.0	1.0	Clear Brown (SLT)
	1032	5.59	2624	7.86	1.64	127.4	11.83	32.93	100.0	0.5	CLT
	1037	5.62	2650	7.86	1.69	138.2	10.19	33.15	100.0	0.5	CLT

Well Stabilized? (YES) NO Total Volume Purged: 2.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Odor, Ect.
25Nov25	1037	5.62	2650	7.86	1.69	138.2	10.19				Clear Brown

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	308
Sampling Personal:	Ethan Cuers

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.25	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.32	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25 Nov 25	1259	Start of Well Purge									
	1309	9.75	2600	7.42	0.22	-69.5	30.78	12.30	200.0	2.0	Clear
	1314	9.77	2586	7.43	0.04	-75.1	21.99	12.30	200.0	1.0	Clear
	1319	9.88	2587	7.43	0.21	-75.0	19.32	12.30	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 6.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
25 Nov 25	1319	9.88	2587	7.43	0.21	-75.0	19.32				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	301
Sampling Personal:	Ethan Corum

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	16.68	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	24.28	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	3 4	Sec.
Recover:	20 20	Sec.
PSI:		

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
	1545	Start of Well Purge									
25 Nov 25	1555	8.36	1216	7.86	0.94	199.3	333.9	19.82	200.0	2.0	SY
	1600	8.27	1207	7.86	0.00	177.7	463.7	21.15	200.0	1.0	SY
	1605	8.25	1209	7.86	0.00	170.1	641.2	21.95	200.0	1.0	SY Turbid

Well Stabilized? YES NO Total Volume Purged: 41.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 Nov 25	1605	8.25	1209	7.86	0.00	170.1	641.2				Turbid

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	MB3
Sampling Personal:	Gillian Greis

Weather Conditions: Temp: 30 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	23.68	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	29.19	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 57	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25Nov25	1403	Start of Well Purge									
	1413	5.16	2145	7.48	3.61	81.9	0.00	27.80	100.0	1.0	Clear
	1418	5.10	2119	7.51	6.63	138.5	0.00	27.95	100.0	0.5	Clear
	1423	5.15	2161	7.44	2.23	182.9	0.00	28.20	100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
25Nov25	1423	5.15	2161	7.44	2.23	182.9	0.00				Clear

Comments: FB 2027 collected here @ 1408

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS 2025 Wells (108796) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796001 **Date Collected:** 11/25/2025 10:35 **Matrix:** Groundwater
Sample ID: MW-223 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**4024**	umhos/cm	1	1		11/25/2025 10:35	
Method: 150.2							
pH - Field	**10.05**	units	0.01	1		11/25/2025 10:35	
Method: 170.1							
Temperature - Field C	**15.69**	degrees C		1		11/25/2025 10:35	
Method: ASTM D516-16							
Sulfate	**639**	mg/L	25	5		12/03/2025 11:45	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.99**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:23	
Calcium	<5	mg/L	5	5	11/26/2025 16:24	11/28/2025 12:21	
Lithium	<0.02	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:24	
Method: EPA 6020B							
Antimony	**0.0017**	mg/L	0.001	5	11/26/2025 16:24	12/05/2025 09:48	
Arsenic	**0.0120**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 09:48	
Barium	**0.0240**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 09:48	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 09:48	
Cadmium	**0.0009**	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 09:48	
Chromium	**0.0026**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 09:48	
Cobalt	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 09:48	
Lead	**0.0044**	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 09:48	
Molybdenum	**0.1249**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 09:48	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/05/2025 09:48	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 09:48	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796001 **Date Collected:** 11/25/2025 10:35 **Matrix:** Groundwater
Sample ID: MW-223 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**10**	units	0.1	1		11/26/2025 20:45	*
Method: SM4500-Cl-E 2021							
Chloride	**16.9**	mg/L	2.0	1		12/02/2025 10:53	
Method: SM4500-F-C-2021							
Fluoride	<0.1	mg/L	0.1	1		11/26/2025 20:45	
Method: USGS I-1750-85							
Total Dissolved Solids	**2880**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796002 **Date Collected:** 11/26/2025 09:39 **Matrix:** Groundwater
Sample ID: MW-224 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2507**	umhos/cm	1	1		11/26/2025 09:39	
Method: 150.2							
pH - Field	**8.73**	units	0.01	1		11/26/2025 09:39	
Method: 170.1							
Temperature - Field C	**16.3**	degrees C		1		11/26/2025 09:39	
Method: ASTM D516-16							
Sulfate	**695**	mg/L	25	5		12/03/2025 11:46	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**2.08**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:25	
Calcium	**23.4**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:24	
Lithium	<0.02	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:26	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/05/2025 09:53	
Arsenic	**0.0082**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 09:53	
Barium	**0.0383**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 09:53	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 09:53	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 09:53	
Chromium	**0.0025**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 09:53	
Cobalt	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 09:53	
Lead	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 09:53	
Molybdenum	**0.0546**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 09:53	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/05/2025 09:53	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 09:53	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796002 **Date Collected:** 11/26/2025 09:39 **Matrix:** Groundwater
Sample ID: MW-224 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.7**	units	0.1	1		11/26/2025 20:59	*
Method: SM4500-Cl-E 2021							
Chloride	**19.4**	mg/L	2.0	1		12/02/2025 10:54	
Method: SM4500-F-C-2021							
Fluoride	**0.55**	mg/L	0.1	1		11/26/2025 20:59	
Method: USGS I-1750-85							
Total Dissolved Solids	**1890**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796003 **Date Collected:** 11/26/2025 09:58 **Matrix:** Groundwater
Sample ID: MW-225 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**4089**	umhos/cm	1	1		11/26/2025 09:58	
Method: 150.2							
pH - Field	**8.96**	units	0.01	1		11/26/2025 09:58	
Method: 170.1							
Temperature - Field C	**16.13**	degrees C		1		11/26/2025 09:58	
Method: ASTM D516-16							
Sulfate	**1500**	mg/L	50	10		12/03/2025 11:47	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**2.37**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:26	
Calcium	**62.6**	mg/L	5	5	11/26/2025 16:24	11/28/2025 12:25	
Lithium	<0.02	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:26	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/05/2025 09:58	
Arsenic	**0.0100**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 09:58	
Barium	**0.1182**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 09:58	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 09:58	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 09:58	
Chromium	**0.0064**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 09:58	
Cobalt	**0.0020**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 09:58	
Lead	**0.0010**	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 09:58	
Molybdenum	**0.2086**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 09:58	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/10/2025 11:10	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 09:58	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796003 **Date Collected:** 11/26/2025 09:58 **Matrix:** Groundwater
Sample ID: MW-225 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.8**	units	0.1	1		11/26/2025 21:11	*
Method: SM4500-Cl-E 2021							
Chloride	**24.0**	mg/L	2.0	1		12/02/2025 10:55	
Method: SM4500-F-C-2021							
Fluoride	**1.26**	mg/L	0.1	1		11/26/2025 21:11	
Method: USGS I-1750-85							
Total Dissolved Solids	**3300**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796004 **Date Collected:** 11/25/2025 12:52 **Matrix:** Groundwater
Sample ID: MW-226 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2916**	umhos/cm	1	1		11/25/2025 12:52	
Method: 150.2							
pH - Field	**6.86**	units	0.01	1		11/25/2025 12:52	
Method: 170.1							
Temperature - Field C	**17.28**	degrees C		1		11/25/2025 12:52	
Method: ASTM D516-16							
Sulfate	**820**	mg/L	25	5		12/03/2025 11:49	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**3.60**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:27	
Calcium	**212**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:28	
Lithium	**0.0577**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:27	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/05/2025 10:03	
Arsenic	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:03	
Barium	**0.0578**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:03	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:03	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:03	
Chromium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:03	
Cobalt	**0.0053**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:03	
Lead	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:03	
Molybdenum	**0.0102**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:03	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/05/2025 10:03	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:03	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796004 **Date Collected:** 11/25/2025 12:52 **Matrix:** Groundwater
Sample ID: MW-226 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.5**	units	0.1	1		11/26/2025 22:58	*
Method: SM4500-Cl-E 2021							
Chloride	**13.1**	mg/L	2.0	1		12/02/2025 10:56	
Method: SM4500-F-C-2021							
Fluoride	**0.62**	mg/L	0.1	1		11/26/2025 22:58	
Method: USGS I-1750-85							
Total Dissolved Solids	**2430**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796005 **Date Collected:** 11/26/2025 08:58 **Matrix:** Groundwater
Sample ID: MW-227 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2074**	umhos/cm	1	1		11/26/2025 08:58	
Method: 150.2							
pH - Field	**7.53**	units	0.01	1		11/26/2025 08:58	
Method: 170.1							
Temperature - Field C	**16.48**	degrees C		1		11/26/2025 08:58	
Method: ASTM D516-16							
Sulfate	**486**	mg/L	25	5		12/03/2025 11:50	*
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**1.44**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:27	
Calcium	**126**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:29	
Lithium	**0.0671**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:27	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/05/2025 10:44	
Arsenic	**0.0030**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:44	
Barium	**0.0451**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:44	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:44	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:44	
Chromium	**0.0026**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:44	
Cobalt	**0.0020**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:44	
Lead	**0.0005**	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:44	
Molybdenum	**0.0368**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:44	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/05/2025 10:44	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:44	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796005 **Date Collected:** 11/26/2025 08:58 **Matrix:** Groundwater
Sample ID: MW-227 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		11/26/2025 23:10	*
Method: SM4500-Cl-E 2021							
Chloride	**17.0**	mg/L	2.0	1		12/02/2025 10:57	
Method: SM4500-F-C-2021							
Fluoride	**0.34**	mg/L	0.1	1		11/26/2025 23:10	
Method: USGS I-1750-85							
Total Dissolved Solids	**1560**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

Sulfate

Matrix spike and/or matrix spike duplicate recovery was low; the associated laboratory control sample recovery was acceptable.

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796006 **Date Collected:** 11/26/2025 08:42 **Matrix:** Groundwater
Sample ID: MW-228 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2785**	umhos/cm	1	1		11/26/2025 08:42	
Method: 150.2							
pH - Field	**9.66**	units	0.01	1		11/26/2025 08:42	
Method: 170.1							
Temperature - Field C	**15.23**	degrees C		1		11/26/2025 08:42	
Method: ASTM D516-16							
Sulfate	**620**	mg/L	25	5		12/03/2025 15:42	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.46**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:29	
Calcium	**4.81**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:30	
Lithium	<0.02	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:29	
Method: EPA 6020B							
Antimony	**0.0027**	mg/L	0.001	5	11/26/2025 16:24	12/05/2025 10:18	
Arsenic	**0.0350**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:18	
Barium	**0.0613**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:18	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:18	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:18	
Chromium	**0.0097**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:18	
Cobalt	**0.0033**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:18	
Lead	**0.0021**	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:18	
Molybdenum	**0.0486**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:18	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/05/2025 10:18	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:18	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796006 **Date Collected:** 11/26/2025 08:42 **Matrix:** Groundwater
Sample ID: MW-228 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**9.6**	units	0.1	1		11/26/2025 23:21	*
Method: SM4500-Cl-E 2021							
Chloride	**15.3**	mg/L	2.0	1		12/02/2025 10:59	
Method: SM4500-F-C-2021							
Fluoride	**0.43**	mg/L	0.1	1		11/26/2025 23:21	
Method: USGS I-1750-85							
Total Dissolved Solids	**2010**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796007 **Date Collected:** 11/26/2025 08:25 **Matrix:** Groundwater
Sample ID: MW-229 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**4889**	umhos/cm	1	1		11/26/2025 08:25	
Method: 150.2							
pH - Field	**9.07**	units	0.01	1		11/26/2025 08:25	
Method: 170.1							
Temperature - Field C	**15.11**	degrees C		1		11/26/2025 08:25	
Method: ASTM D516-16							
Sulfate	**2540**	mg/L	50	10		12/03/2025 15:43	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**1.33**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:30	
Calcium	**104**	mg/L	5	5	11/26/2025 16:24	11/28/2025 12:32	
Lithium	<0.02	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:30	
Method: EPA 6020B							
Antimony	**0.0010**	mg/L	0.001	5	11/26/2025 16:24	12/05/2025 10:23	
Arsenic	**0.0144**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:23	
Barium	**0.0426**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:23	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:23	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:23	
Chromium	**0.0035**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:23	
Cobalt	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:23	
Lead	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:23	
Molybdenum	**0.1606**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:23	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/05/2025 10:23	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:23	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796007 **Date Collected:** 11/26/2025 08:25 **Matrix:** Groundwater
Sample ID: MW-229 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.9**	units	0.1	1		11/26/2025 23:35	*
Method: SM4500-Cl-E 2021							
Chloride	**18.6**	mg/L	2.0	1		12/02/2025 11:00	
Method: SM4500-F-C-2021							
Fluoride	**0.83**	mg/L	0.1	1		11/26/2025 23:35	
Method: USGS I-1750-85							
Total Dissolved Solids	**3970**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796008 **Date Collected:** 11/25/2025 11:44 **Matrix:** Groundwater
Sample ID: MW-230 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1391**	umhos/cm	1	1		11/25/2025 11:44	
Method: 150.2							
pH - Field	**7.81**	units	0.01	1		11/25/2025 11:44	
Method: 170.1							
Temperature - Field C	**15.77**	degrees C		1		11/25/2025 11:44	
Method: ASTM D516-16							
Sulfate	**195**	mg/L	5	1		12/03/2025 15:44	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.35**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:31	
Calcium	**24.7**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:32	
Lithium	**0.0497**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:30	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/05/2025 10:29	
Arsenic	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:29	
Barium	**0.0398**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:29	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:29	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:29	
Chromium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:29	
Cobalt	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:29	
Lead	**0.0006**	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:29	
Molybdenum	**0.0029**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:29	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/05/2025 10:29	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:29	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796008 **Date Collected:** 11/25/2025 11:44 **Matrix:** Groundwater
Sample ID: MW-230 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.1**	units	0.1	1		11/26/2025 23:47	*
Method: SM4500-Cl-E 2021							
Chloride	**9.1**	mg/L	2.0	1		12/02/2025 11:01	
Method: SM4500-F-C-2021							
Fluoride	**0.63**	mg/L	0.1	1		11/26/2025 23:47	
Method: USGS I-1750-85							
Total Dissolved Solids	**964**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796009 **Date Collected:** 11/26/2025 12:05 **Matrix:** Groundwater
Sample ID: DUP-2025 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2085**	umhos/cm	1	1		11/26/2025 12:05	
Method: 150.2							
pH - Field	**7.21**	units	0.01	1		11/26/2025 12:05	
Method: 170.1							
Temperature - Field C	**17.71**	degrees C		1		11/26/2025 12:05	
Method: ASTM D516-16							
Sulfate	**546**	mg/L	25	5		12/03/2025 15:45	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.13**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:32	
Calcium	**110**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:33	
Lithium	**0.0413**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:31	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/05/2025 10:34	
Arsenic	**0.0039**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:34	
Barium	**0.1397**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:34	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:34	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:34	
Chromium	**0.0023**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:34	
Cobalt	**0.0041**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:34	
Lead	**0.0010**	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:34	
Molybdenum	**0.0102**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:34	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/05/2025 10:34	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:34	

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796009 **Date Collected:** 11/26/2025 12:05 **Matrix:** Groundwater
Sample ID: DUP-2025 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		11/26/2025 23:57	*
Method: SM4500-Cl-E 2021							
Chloride	**27.5**	mg/L	2.0	1		12/02/2025 11:02	
Method: SM4500-F-C-2021							
Fluoride	**0.39**	mg/L	0.1	1		11/26/2025 23:57	
Method: USGS I-1750-85							
Total Dissolved Solids	**1560**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796010 **Date Collected:** 11/25/2025 08:29 **Matrix:** Groundwater
Sample ID: MW-206 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2150**	umhos/cm	1	1		11/25/2025 08:29	
Method: 150.2							
pH - Field	**7.62**	units	0.01	1		11/25/2025 08:29	
Method: 170.1							
Temperature - Field C	**16.49**	degrees C		1		11/25/2025 08:29	
Method: ASTM D516-16							
Sulfate	**533**	mg/L	25	5		12/03/2025 15:46	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.58**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:32	
Calcium	**105**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:36	
Lithium	**0.0353**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:31	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/05/2025 10:39	
Arsenic	**0.0052**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:39	
Barium	**0.0887**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:39	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:39	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:39	
Chromium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:39	
Cobalt	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:39	
Lead	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:39	
Molybdenum	**0.0079**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 10:39	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/05/2025 10:39	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 10:39	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796010 **Date Collected:** 11/25/2025 08:29 **Matrix:** Groundwater
Sample ID: MW-206 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.0**	units	0.1	1		11/27/2025 00:09	*
Method: SM4500-Cl-E 2021							
Chloride	**72.6**	mg/L	2.0	1		12/02/2025 11:03	
Method: SM4500-F-C-2021							
Fluoride	**0.29**	mg/L	0.1	1		11/27/2025 00:09	
Method: USGS I-1750-85							
Total Dissolved Solids	**1540**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796011 **Date Collected:** 11/26/2025 12:05 **Matrix:** Groundwater
Sample ID: MW-207 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**2085**	umhos/cm	1	1		11/26/2025 12:05	
Method: 150.2							
pH - Field	**7.21**	units	0.01	1		11/26/2025 12:05	
Method: 170.1							
Temperature - Field C	**17.71**	degrees C		1		11/26/2025 12:05	
Method: ASTM D516-16							
Sulfate	**574**	mg/L	25	5		12/03/2025 15:47	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**0.14**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:33	
Calcium	**113**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:37	
Lithium	**0.0411**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:32	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/05/2025 11:19	
Arsenic	**0.0037**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:19	
Barium	**0.1434**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:19	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:19	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:19	
Chromium	**0.0032**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:19	
Cobalt	**0.0042**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:19	
Lead	**0.0010**	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:19	
Molybdenum	**0.0103**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:19	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/05/2025 11:19	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:19	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796011 **Date Collected:** 11/26/2025 12:05 **Matrix:** Groundwater
Sample ID: MW-207 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.8**	units	0.1	1		11/27/2025 00:20	*
Method: SM4500-Cl-E 2021							
Chloride	**27.7**	mg/L	2.0	1		12/02/2025 11:12	
Method: SM4500-F-C-2021							
Fluoride	**0.39**	mg/L	0.1	1		11/27/2025 00:20	
Method: USGS I-1750-85							
Total Dissolved Solids	**1570**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796012 **Date Collected:** 11/26/2025 10:45 **Matrix:** Groundwater
Sample ID: MW-208 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1188**	umhos/cm	1	1		11/26/2025 10:45	
Method: 150.2							
pH - Field	**8.56**	units	0.01	1		11/26/2025 10:45	
Method: 170.1							
Temperature - Field C	**14.97**	degrees C		1		11/26/2025 10:45	
Method: ASTM D516-16							
Sulfate	**409**	mg/L	25	5		12/03/2025 15:48	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**1.18**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:35	
Calcium	**43.6**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:39	
Lithium	**0.0357**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:34	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/05/2025 11:24	
Arsenic	**0.0267**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:24	
Barium	**0.0488**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:24	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:24	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:24	
Chromium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:24	
Cobalt	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:24	
Lead	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:24	
Molybdenum	**0.0145**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:24	
Selenium	**0.0051**	mg/L	0.005	5	11/26/2025 16:24	12/05/2025 11:24	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796012 **Date Collected:** 11/26/2025 10:45 **Matrix:** Groundwater
Sample ID: MW-208 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.4**	units	0.1	1		11/27/2025 00:31	*
Method: SM4500-Cl-E 2021							
Chloride	**17.6**	mg/L	2.0	1		12/02/2025 11:13	
Method: SM4500-F-C-2021							
Fluoride	**0.49**	mg/L	0.1	1		11/27/2025 00:31	
Method: USGS I-1750-85							
Total Dissolved Solids	**910**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796013 **Date Collected:** 11/25/2025 14:05 **Matrix:** Groundwater
Sample ID: MW-PB1R **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1563**	umhos/cm	1	1		11/25/2025 14:05	
Method: 150.2							
pH - Field	**7.41**	units	0.01	1		11/25/2025 14:05	
Method: 170.1							
Temperature - Field C	**15.55**	degrees C		1		11/25/2025 14:05	
Method: ASTM D516-16							
Sulfate	**461**	mg/L	25	5		12/03/2025 15:50	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**1.33**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:36	
Calcium	**91.3**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:42	
Lithium	**0.0348**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:34	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/05/2025 11:29	
Arsenic	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:29	
Barium	**0.0461**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:29	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:29	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:29	
Chromium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:29	
Cobalt	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:29	
Lead	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:29	
Molybdenum	**0.0095**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:29	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/05/2025 11:29	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:29	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796013 **Date Collected:** 11/25/2025 14:05 **Matrix:** Groundwater
Sample ID: MW-PB1R **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**7.9**	units	0.1	1		11/27/2025 00:43	*
Method: SM4500-Cl-E 2021							
Chloride	**15.8**	mg/L	2.0	1		12/02/2025 11:14	
Method: SM4500-F-C-2021							
Fluoride	**0.55**	mg/L	0.1	1		11/27/2025 00:43	
Method: USGS I-1750-85							
Total Dissolved Solids	**1150**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796014 **Date Collected:** 11/25/2025 15:23 **Matrix:** Groundwater
Sample ID: MW-302 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: 120.1							
Specific Conductance - Field	**1337**	umhos/cm	1	1		11/25/2025 15:23	
Method: 150.2							
pH - Field	**7.82**	units	0.01	1		11/25/2025 15:23	
Method: 170.1							
Temperature - Field C	**16.82**	degrees C		1		11/25/2025 15:23	
Method: ASTM D516-16							
Sulfate	**505**	mg/L	25	5		12/03/2025 15:51	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	**1.30**	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:37	
Calcium	**67.2**	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:43	
Lithium	**0.0243**	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:35	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/05/2025 11:34	
Arsenic	**0.0023**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:34	
Barium	**0.0953**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:34	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:34	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:34	
Chromium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:34	
Cobalt	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:34	
Lead	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:34	
Molybdenum	**0.0228**	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:34	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/05/2025 11:34	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:34	

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Additional data collected from non-program locations - not required by program.

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www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796014 **Date Collected:** 11/25/2025 15:23 **Matrix:** Groundwater
Sample ID: MW-302 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: SM4500 H+ B-2021							
pH	**8.1**	units	0.1	1		12/01/2025 19:13	*
Method: SM4500-Cl-E 2021							
Chloride	**13.3**	mg/L	2.0	1		12/02/2025 11:15	
Method: SM4500-F-C-2021							
Fluoride	**0.66**	mg/L	0.1	1		12/01/2025 19:13	
Method: USGS I-1750-85							
Total Dissolved Solids	**997**	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796015 **Date Collected:** 11/26/2025 10:50 **Matrix:** Groundwater
Sample ID: FB-2025 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	<5	mg/L	5	1		12/03/2025 15:55	*
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	12/01/2025 08:20	12/01/2025 10:13	
Method: EPA 6010D							
Boron	<0.1	mg/L	0.1	1	11/26/2025 16:24	12/03/2025 14:37	
Calcium	<1	mg/L	1	1	11/26/2025 16:24	11/28/2025 12:44	
Lithium	<0.02	mg/L	0.02	1	11/26/2025 16:24	12/03/2025 10:35	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/26/2025 16:24	12/05/2025 11:39	
Arsenic	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:39	
Barium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:39	
Beryllium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:39	
Cadmium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:39	
Chromium	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:39	
Cobalt	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:39	
Lead	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:39	
Molybdenum	<0.002	mg/L	0.002	5	11/26/2025 16:24	12/05/2025 11:39	
Selenium	<0.005	mg/L	0.005	5	11/26/2025 16:24	12/05/2025 11:39	
Thallium	<0.0005	mg/L	0.0005	5	11/26/2025 16:24	12/05/2025 11:39	
Method: SM4500 H+ B-2021							
pH	**6.4**	units	0.1	1		12/01/2025 19:22	*
Method: SM4500-Cl-E 2021							
Chloride	<2.0	mg/L	2.0	1		12/02/2025 11:16	
Method: SM4500-F-C-2021							
Fluoride	<0.1	mg/L	0.1	1		12/01/2025 19:22	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108796015 **Date Collected:** 11/26/2025 10:50 **Matrix:** Groundwater
Sample ID: FB-2025 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): 2.8 **Received on Ice:** Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: USGS I-1750-85							
Total Dissolved Solids	<10	mg/L	10	1		12/01/2025 10:52	

Analysis Results Comments

Sulfate

Matrix spike and/or matrix spike duplicate recovery was high; the associated laboratory fortified blank recovery was acceptable.

pH

Sample analyzed beyond holding time.

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Account #: 5109 **Client:** Great River Energy

QC Results Summary — WO #: 108796

Sulfate — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			100	103.0		85	115		
LFB			100	94.9		85	115		
LFB			100	100.0		85	115		
LFB			100	93.6		85	115		
LFB			100	89.8		85	115		
LFB			100	113.0		85	115		
LFB			100	106.0		85	115		
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MB		<5							
MS/MSD	108460010		2000	88.5	87.9	85	115	0.2	20
MS/MSD	108667008		500	91.6	92.8	85	115	0.0	20
MS/MSD	108667013		100	88.4	90.5	85	115	2.3	20
MS/MSD	108796005		500	79.8	78.5	85	115	0.8	20
MS/MSD	108796015		100	115.6	115.5	85	115	0.0	20
MS/MSD	108925002		500	106.8	108.8	85	115	1.1	20

Chloride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			30	94.0		90	110		
LFB			30	94.1		90	110		
LFB			30	94.8		90	110		
LFB			30	94.6		90	110		
LFB			30	94.1		90	110		
LFB			30	93.9		90	110		
LFB			30	93.8		90	110		

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Account #: 5109 **Client:** Great River Energy

Chloride				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MS/MSD	108667013		30	94.5	93.7	80	120	1.1	20
MS/MSD	108796010		30	101.2	97.4	80	120	1.0	20
MS/MSD	108925002		30	94.9	96.0	80	120	0.7	20

Aluminum				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	100.0		85	115		
LFB-OE			0.4	99.2		85	115		
MB		<0.1							
MB		<0.1							
MS/MSD	108756001		0.4	118.0	116.0	70	130	1.7	20
PDS/PDSD	108796005		0.4	95.9	95.7	75	125	0.1	20

Aluminum, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.4	100.0		85	115		
LFB-OE			0.4	99.2		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	108076003		1	98.9	99.9	75	125	0.9	20
SPK/SPKD	108246006		0.4	100.0	98.0	75	125	2.2	20
SPK/SPKD	108663001		0.4	106.0	107.0	75	125	0.6	20
MS/MSD	108667003		0.4	105.0	103.0	70	130	1.9	20
SPK/SPKD	108756002		0.4	88.2	91.8	75	125	3.0	20
SPK/SPKD	108756002		1	105.0	106.0	75	125	0.9	20

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Account #: 5109 **Client:** Great River Energy

Aluminum, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	108796011		0.4	105.0	104.0	75	125	1.0	20
SPK/SPKD	108796013		0.4	110.0	108.0	75	125	1.9	20
SPK/SPKD	108925002		0.4	114.0	112.0	75	125	1.5	20

Boron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OF			0.4	95.8		85	115		
LFB-OF			0.4	96.6		85	115		
MB		<0.1							
MB		<0.1							
MS/MSD	108756001		0.4	89.0	93.5	70	130	0.9	20
MS/MSD	108796005		0.4	87.2	87.8	70	130	0.1	20

Boron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OF			0.4	95.8		85	115		
LFB-OF			0.4	96.6		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	108663001		0.4	95.7	95.0	75	125	0.5	20
MS/MSD	108667003		0.4	90.4	89.4	70	130	0.3	20
SPK/SPKD	108796008		0.4	89.2	88.0	75	125	0.6	20
SPK/SPKD	108796012		0.4	79.8	78.7	75	125	0.4	20

Calcium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	105.0		85	115		
LFB-MI			100	105.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	108237003		500	99.7	98.1	75	125	1.3	20
PDS/PDSD	108246002		100	93.7	94.4	75	125	0.4	20
PDS/PDSD	108246005		100	94.9	94.9	75	125	0.0	20
PDS/PDSD	108460005		100	89.7	90.6	75	125	0.4	20

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Account #: 5109 **Client:** Great River Energy

Calcium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	108663001		100	98.1	96.8	75	125	0.9	20
DUP	108667009								
DUP	108756001							0.1	20
PDS/PDSD	108756001		100	93.9	93.5	75	125	0.2	20
PDS/PDSD	108756002		100	87.9	89.2	75	125	0.5	20
PDS/PDSD	108796003		500	102.0	102.0	75	125	0.1	20
PDS/PDSD	108796012		100	96.4	98.0	75	125	1.2	20

Calcium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	105.0		85	115		
LFB-MI			100	105.0		85	115		
MB		<1							
MB		<1							
SPK/SPKD	108663001		100	99.7	101.0	75	125	1.0	20
DUP	108667009							8.9	20
SPK/SPKD	108756002		100	89.0	90.7	75	125	0.7	20
DUP	108796001							0.0	20
DUP	108796011							0.4	20
SPK/SPKD	108796012		100	102.0	100.0	75	125	1.2	20
SPK/SPKD	108796014		100	96.2	96.4	75	125	0.1	20

Iron — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	105.0		85	115		
LFB-OE			0.4	103.0		85	115		
MB		<0.1							
MB		<0.1							
MS/MSD	108756001		0.4	95.7	95.2	70	130	0.5	20
MS/MSD	108796005		0.4	111.0	108.0	70	130	1.8	20
PDS/PDSD	108796005		0.4	92.6	91.4	75	125	0.7	20

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Account #: 5109 **Client:** Great River Energy

Iron, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.1							
LFB-OE			0.4	105.0		85	115		
LFB-OE			0.4	103.0		85	115		
MB		<0.1							
MB		<0.1							
SPK/SPKD	108076003		1	90.0	90.4	75	125	0.2	20
SPK/SPKD	108246006		0.4	81.8	82.1	75	125	0.3	20
SPK/SPKD	108663001		0.4	93.7	94.6	75	125	0.9	20
MS/MSD	108667003		0.4	83.4	83.6	70	130	0.1	20
SPK/SPKD	108756002		0.4	85.2	87.4	75	125	2.6	20
SPK/SPKD	108756002		1	95.9	96.4	75	125	0.6	20
PDS/PDSD	108796011		0.4	88.4	89.5	75	125	0.4	20
SPK/SPKD	108796013		0.4	87.3	87.6	75	125	0.3	20
SPK/SPKD	108925002		0.4	87.0	87.5	75	125	0.6	20

Lithium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	109.0		85	115		
LFB-OE			0.4	109.0		85	115		
MB		<0.04							
MB		<0.04							
MS/MSD	108756001		0.4	103.0	103.0	70	130	0.1	20
MS/MSD	108796005		0.4	99.2	98.9	70	130	0.2	20

Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	109.0		85	115		
LFB-OE			0.4	109.0		85	115		
MB		<0.04							
MB		<0.04							
SPK/SPKD	108663001		0.4	93.9	93.3	75	125	0.6	20
MS/MSD	108667003		0.4	101.0	101.0	70	130	0.2	20
SPK/SPKD	108796008		0.4	91.8	94.1	75	125	2.2	20

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Account #: 5109 **Client:** Great River Energy

Lithium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	108796012		0.4	94.3	93.0	75	125	1.3	20

Magnesium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	104.0		85	115		
LFB-MI			100	104.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	108237003		500	98.2	96.7	75	125	0.9	20
PDS/PDSD	108246002		100	98.3	98.9	75	125	0.5	20
PDS/PDSD	108246005		100	98.9	98.9	75	125	0.0	20
PDS/PDSD	108460005		100	94.9	95.6	75	125	0.4	20
PDS/PDSD	108663001		100	99.7	98.7	75	125	0.8	20
DUP	108756001							0.3	20
PDS/PDSD	108756001		100	98.9	98.5	75	125	0.3	20
PDS/PDSD	108756002		100	92.9	93.9	75	125	0.5	20
PDS/PDSD	108796003		500	103.0	102.0	75	125	0.7	20
PDS/PDSD	108796012		100	100.0	100.0	75	125	0.5	20

Magnesium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	104.0		85	115		
LFB-MI			100	104.0		85	115		
MB		<1							
MB		<1							
SPK/SPKD	108663001		100	102.0	103.0	75	125	0.9	20
DUP	108667009							15.7	20
SPK/SPKD	108756002		100	94.2	95.4	75	125	0.6	20
DUP	108796001							0.0	20
DUP	108796011							1.0	20
SPK/SPKD	108796012		100	102.0	103.0	75	125	0.7	20
SPK/SPKD	108796014		100	100.0	100.0	75	125	0.2	20

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Account #: 5109 **Client:** Great River Energy

Manganese — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	109.0		85	115		
LFB-OE			0.4	108.0		85	115		
MB		<0.05							
MB		<0.05							
MS/MSD	108756001		0.4	112.0	91.4	70	130	2.0	20
MS/MSD	108796005		0.4	85.6	91.2	70	130	3.4	20
PDS/PDSD	108796005		0.4	86.8	86.3	75	125	0.3	20

Manganese, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB		<0.05							
LFB-OE			0.4	109.0		85	115		
LFB-OE			0.4	108.0		85	115		
MB		<0.05							
MB		<0.05							
SPK/SPKD	108076003		1	95.2	95.3	75	125	0.1	20
SPK/SPKD	108246006		0.4	91.4	91.6	75	125	0.3	20
SPK/SPKD	108663001		0.4	96.1	96.4	75	125	0.3	20
MS/MSD	108667003		0.4	91.9	91.3	70	130	0.5	20
SPK/SPKD	108756002		1	97.0	97.5	75	125	0.3	20
PDS/PDSD	108796011		0.4	85.1	82.0	75	125	0.6	20
SPK/SPKD	108796013		0.4	77.2	78.4	75	125	0.5	20
SPK/SPKD	108925002		0.4	79.4	80.3	75	125	0.3	20

Potassium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	103.0		85	115		
LFB-MI			100	103.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	108237003		500	100.0	97.9	75	125	2.0	20
PDS/PDSD	108246002		100	101.0	101.0	75	125	0.6	20
PDS/PDSD	108246005		100	101.0	100.0	75	125	0.6	20

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Account #: 5109 **Client:** Great River Energy

Potassium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	108460005		100	99.6	99.1	75	125	0.4	20
PDS/PDSD	108663001		100	100.0	101.0	75	125	0.6	20
DUP	108756001							0.8	20
PDS/PDSD	108756001		100	101.0	99.7	75	125	1.4	20
PDS/PDSD	108756002		100	101.0	101.0	75	125	0.1	20
PDS/PDSD	108796003		500	103.0	102.0	75	125	1.4	20
PDS/PDSD	108796012		100	103.0	101.0	75	125	1.6	20

Potassium, Dissolved				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	103.0		85	115		
LFB-MI			100	103.0		85	115		
MB		<1							
MB		<1							
SPK/SPKD	108663001		100	102.0	103.0	75	125	1.0	20
DUP	108667009							6.0	20
SPK/SPKD	108756002		100	101.0	101.0	75	125	0.4	20
DUP	108796001							0.0	20
DUP	108796011							6.1	20
SPK/SPKD	108796012		100	100.0	102.0	75	125	1.5	20
SPK/SPKD	108796014		100	102.0	100.0	75	125	1.0	20

Sodium				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	106.0		85	115		
LFB-MI			100	105.0		85	115		
MB		<1							
MB		<1							
PDS/PDSD	108237003		500	83.6	79.8	75	125	1.3	20
PDS/PDSD	108246002		100	71.9	72.8	75	125	0.2	20
PDS/PDSD	108246005		100	80.3	77.7	75	125	0.7	20
PDS/PDSD	108460005		100	82.3	81.1	75	125	0.4	20
PDS/PDSD	108663001		100	100.0	97.7	75	125	1.4	20

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Account #: 5109 **Client:** Great River Energy

Sodium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
DUP	108756001							0.2	20
PDS/PDSD	108756001		100	83.9	85.7	75	125	0.5	20
PDS/PDSD	108756002		100	89.8	84.4	75	125	1.6	20
PDS/PDSD	108796003		500	89.6	83.2	75	125	2.2	20
PDS/PDSD	108796012		100	77.9	78.8	75	125	0.3	20

Sodium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	106.0		85	115		
LFB-MI			100	105.0		85	115		
MB		<1							
MB		<1							
SPK/SPKD	108663001		100	97.9	101.0	75	125	1.7	20
DUP	108667009							2.0	20
SPK/SPKD	108756002		100	83.0	84.9	75	125	0.6	20
DUP	108796001							2.2	20
DUP	108796011							3.7	20
SPK/SPKD	108796012		100	83.7	85.2	75	125	0.4	20
SPK/SPKD	108796014		100	83.1	84.6	75	125	0.4	20

Antimony — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	91.6		80	120		
LFB-MS			0.1	91.4		80	120		
MB		<0.001							
MB		<0.001							
MS/MSD	108667003		0.4	100.0	101.0	75	125	0.8	20
MS/MSD	108756001		0.4	104.0	103.0	75	125	0.7	20
MS/MSD	108796005		0.4	101.0	99.6	75	125	1.3	20

Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	91.6		80	120		
LFB-MS			0.1	91.4		80	120		

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Account #: 5109 **Client:** Great River Energy

Antimony, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.001							
MB		<0.001							
MS/MSD	108667003		0.4	100.0	101.0	75	125	0.8	20
MS/MSD	108756001		0.4	104.0	103.0	75	125	0.7	20
MS/MSD	108796005		0.4	101.0	99.6	75	125	1.3	20
SPK/SPKD	108796010		0.15	105.0	107.0	75	125	2.3	20
SPK/SPKD	108925002		0.15	105.0	108.0	75	125	2.8	20

Arsenic — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	96.6		80	120		
LFB-MS			0.1	96.5		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	96.5	96.3	75	125	0.3	20
MS/MSD	108756001		0.4	95.7	94.8	75	125	1.0	20
MS/MSD	108796005		0.4	93.1	95.1	75	125	1.8	20

Arsenic, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	96.6		80	120		
LFB-MS			0.1	96.5		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	96.5	96.3	75	125	0.3	20
MS/MSD	108756001		0.4	95.7	94.8	75	125	1.0	20
MS/MSD	108796005		0.4	93.1	95.1	75	125	1.8	20
SPK/SPKD	108796010		0.15	104.0	106.0	75	125	2.0	20
SPK/SPKD	108925002		0.15	105.0	106.0	75	125	0.4	20

Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	99.6		80	120		

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Barium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	99.9	96.7	75	125	3.0	20
MS/MSD	108756001		0.4	111.0	106.0	75	125	3.3	20
MS/MSD	108796005		0.4	100.0	98.9	75	125	1.1	20

Barium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	99.6		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	99.9	96.7	75	125	3.0	20
MS/MSD	108756001		0.4	111.0	106.0	75	125	3.3	20
MS/MSD	108796005		0.4	100.0	98.9	75	125	1.1	20
SPK/SPKD	108796010		0.15	106.0	106.0	75	125	0.1	20
SPK/SPKD	108925002		0.15	102.0	106.0	75	125	3.2	20

Beryllium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.3		80	120		
LFB-MS			0.1	97.8		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108667003		0.4	92.6	91.2	75	125	1.6	20
MS/MSD	108756001		0.4	93.1	94.4	75	125	1.3	20
MS/MSD	108796005		0.4	92.1	92.2	75	125	0.3	20

Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.3		80	120		
LFB-MS			0.1	97.8		80	120		
MB		<0.0005							
MB		<0.0005							

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Beryllium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	108667003		0.4	92.6	91.2	75	125	1.6	20
MS/MSD	108756001		0.4	93.1	94.4	75	125	1.3	20
MS/MSD	108796005		0.4	92.1	92.2	75	125	0.3	20
SPK/SPKD	108796010		0.15	91.5	91.5	75	125	0.0	20
SPK/SPKD	108925002		0.15	92.7	93.1	75	125	0.4	20

Cadmium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	93.2		80	120		
LFB-MS			0.1	93.6		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108667003		0.4	101.0	102.0	75	125	1.2	20
MS/MSD	108756001		0.4	105.0	104.0	75	125	0.7	20
MS/MSD	108796005		0.4	101.0	100.0	75	125	1.0	20

Cadmium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	93.2		80	120		
LFB-MS			0.1	93.6		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108667003		0.4	101.0	102.0	75	125	1.2	20
MS/MSD	108756001		0.4	105.0	104.0	75	125	0.7	20
MS/MSD	108796005		0.4	101.0	100.0	75	125	1.0	20
SPK/SPKD	108796010		0.15	101.0	105.0	75	125	4.5	20
SPK/SPKD	108925002		0.15	102.0	105.0	75	125	3.2	20

Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	101.0		80	120		
MB		<0.002							
MB		<0.002							

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Chromium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	108667003		0.4	94.4	94.0	75	125	0.5	20
MS/MSD	108756001		0.4	95.4	96.5	75	125	1.0	20
MS/MSD	108796005		0.4	91.6	94.6	75	125	3.2	20

Chromium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0		80	120		
LFB-MS			0.1	101.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	94.4	94.0	75	125	0.5	20
MS/MSD	108756001		0.4	95.4	96.5	75	125	1.0	20
MS/MSD	108796005		0.4	91.6	94.6	75	125	3.2	20
SPK/SPKD	108796010		0.15	107.0	106.0	75	125	0.3	20
SPK/SPKD	108925002		0.15	103.0	105.0	75	125	1.5	20

Cobalt — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	95.9	94.4	75	125	1.8	20
MS/MSD	108756001		0.4	95.9	96.3	75	125	0.3	20
MS/MSD	108796005		0.4	92.5	93.8	75	125	1.3	20

Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		80	120		
LFB-MS			0.1	102.0		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	95.9	94.4	75	125	1.8	20
MS/MSD	108756001		0.4	95.9	96.3	75	125	0.3	20

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Account #: 5109 **Client:** Great River Energy

Cobalt, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	108796005		0.4	93.0	94.3	75	125	1.3	20
SPK/SPKD	108796010		0.15	106.0	105.0	75	125	1.1	20
SPK/SPKD	108925002		0.15	104.0	104.0	75	125	0.1	20

Lead — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	96.1		80	120		
LFB-MS			0.1	96.1		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108667003		0.4	105.0	99.4	75	125	5.9	20
MS/MSD	108756001		0.4	103.0	107.0	75	125	3.8	20
MS/MSD	108796005		0.4	105.0	99.0	75	125	6.1	20

Lead, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	96.1		80	120		
LFB-MS			0.1	96.1		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108667003		0.4	105.0	99.4	75	125	5.9	20
MS/MSD	108756001		0.4	103.0	107.0	75	125	3.8	20
MS/MSD	108796005		0.4	105.0	99.0	75	125	6.1	20
SPK/SPKD	108796010		0.15	107.0	108.0	75	125	0.6	20
SPK/SPKD	108925002		0.15	109.0	109.0	75	125	0.3	20

Molybdenum — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	94.7		80	120		
LFB-MS			0.1	96.1		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	96.7	97.3	75	125	0.3	20
MS/MSD	108756001		0.4	96.3	97.3	75	125	1.2	20

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Molybdenum Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	108796005		0.4	96.5	95.0	75	125	1.4	20

Molybdenum, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	94.7		80	120		
LFB-MS			0.1	96.1		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	108667003		0.4	96.7	97.2	75	125	0.3	20
MS/MSD	108756001		0.4	96.3	97.3	75	125	1.2	20
MS/MSD	108796005		0.4	96.5	95.0	75	125	1.4	20
SPK/SPKD	108796010		0.15	109.0	112.0	75	125	2.3	20
SPK/SPKD	108925002		0.15	106.0	110.0	75	125	2.8	20

Selenium Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.4		80	120		
LFB-MS			0.1	94.4		80	120		
MB		<0.005							
MB		<0.005							
MS/MSD	108667003		0.4	97.0	94.5	75	125	2.6	20
MS/MSD	108756001		0.4	102.0	93.6	75	125	8.5	20
MS/MSD	108796005		0.4	93.7	96.4	75	125	2.9	20

Selenium, Dissolved Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.4		80	120		
LFB-MS			0.1	94.4		80	120		
MB		<0.005							
MB		<0.005							
MS/MSD	108667003		0.4	97.0	94.5	75	125	2.6	20
MS/MSD	108756001		0.4	102.0	93.6	75	125	8.5	20
MS/MSD	108796005		0.4	93.7	96.4	75	125	2.9	20
SPK/SPKD	108796010		0.15	99.2	98.5	75	125	0.7	20

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Account #: 5109 **Client:** Great River Energy

Selenium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK/SPKD	108925002		0.15	101.0	101.0	75	125	0.1	20

Thallium — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	98.8		80	120		
LFB-MS			0.1	99.5		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108667003		0.4	98.4	99.7	75	125	1.5	20
MS/MSD	108756001		0.4	101.0	104.0	75	125	2.9	20
MS/MSD	108796005		0.4	107.0	99.9	75	125	6.5	20

Thallium, Dissolved — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	98.8		80	120		
LFB-MS			0.1	99.5		80	120		
MB		<0.0005							
MB		<0.0005							
MS/MSD	108667003		0.4	98.4	99.7	75	125	1.5	20
MS/MSD	108756001		0.4	101.0	104.0	75	125	2.9	20
MS/MSD	108796005		0.4	107.0	99.9	75	125	6.5	20
SPK/SPKD	108796010		0.15	109.0	110.0	75	125	1.1	20
SPK/SPKD	108925002		0.15	111.0	111.0	75	125	0.1	20

Mercury — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	87.8		85	115		
LFB			0.002	86.8		85	115		
MB		<0.0002							
MB		<0.0002							
MS/MSD	108667013		0.002	89.0	87.4	70	130	5.7	20
MS/MSD	108796001		0.002	106.0	106.0	70	130	0.0	20
MS/MSD	108796015		0.002	84.5	83.0	70	130	0.0	20
MS/MSD	108840005		0.002	88.4	91.5	70	130	0.0	20

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Account #: 5109 **Client:** Great River Energy

Alkalinity, Total — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			501	90.8		80	120		
CRM			501	90.7		80	120		
LFB			410	94.6		90	110		
LFB			410	92.4		90	110		
LFB			410	95.2		90	110		
LFB			410	95.9		90	110		
LFB			410	94.3		90	110		
LFB			410	94.8		90	110		
LFB			410	95.4		90	110		
LFB			410	95.4		90	110		
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MB		<20.5							
MS/MSD	108667003		410	84.4	85.1	80	120	0.2	20
MS/MSD	108667009		410	84.8	85.5	80	120	0.3	20
MS/MSD	108691006		410	88.3	87.6	80	120	0.5	20
MS/MSD	108756003		410	69.6	69.9	80	120	0.1	20
MS/MSD	108796008		410	85.0	86.1	80	120	0.4	20
MS/MSD	108925002		410	77.5	77.5	80	120	0.0	20

pH — Units: units

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	99.8					
CRM-PH			6	99.5					
CRM-PH			6	99.3					
CRM-PH			6	99.3					

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Account #: 5109 **Client:** Great River Energy

pH				Units: units					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-PH			6	99.3					
CRM-PH			6	99.8					
CRM-PH			6	99.7					
DUP	108667001							0.5	20
DUP	108667011							0.1	20
DUP	108756001							0.4	20
DUP	108796004							2.1	20
DUP	108925002							1.3	20

Fluoride				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			3.34	105.0		83.83	111.07		
CRM-F			3.34	106.0		83.83	111.07		
LFB-F			0.5	100.0		90	110		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	104.0		90	110		
LFB-F			0.5	106.0		90	110		
LFB-F			0.5	104.0		90	110		
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MB-F		<0.1							
MS/MSD-F	108667007		0.5	98.0	100.0	80	120	0.9	20
MS/MSD-F	108667011		0.5	102.0	104.0	80	120	1.2	20

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Fluoride — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD-F	108756004		0.5	98.0	102.0	80	120	2.3	20
MS/MSD-F	108796010		0.5	112.0	100.0	80	120	7.3	20
MS/MSD-F	108796014		0.5	110.0	102.0	80	120	3.4	20
MS/MSD-F	108925002		0.5	102.0	102.0	80	120	0.0	20

Total Dissolved Solids — Units: mg/L

QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	100.0		90.35	110.33		
CRM			736	99.0		90.35	110.33		
MB		<10							
MB		<10							
DUP	108756003							0.7	20
DUP	108796009							1.9	20
DUP	108835003							2.7	20
DUP	108835004							8.4	20

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Minnesota Valley Testing Laboratories
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(701) 258-9720

Great River Energy
WO: 108796

Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS 2025 Wells
Attn:	Cassie Johnston		Event: Nov 2025
Address:		44 Union Blvd, Suite 300 Lakewood, CO 80228	Sampled By: Jeremy Fley
Phone:			
Email:	CJohnston@GREnergy.com		

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
001	MW- 223	25Nov25	1035	GW	X	X	X	15.69	4024	10.05	28.54	App III, App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radchem, Dissolved and Total for Remainder of Metals) (See Attachments)
002	MW- 224	26Nov25	0939	GW	X	X	X	16.30	2507	8.73	0.46	
003	MW- 225	26Nov25	0958	GW	X	X	X	16.13	4089	8.96	12.49	
004	MW- 226	25Nov25	1252	GW	X	X	X	17.28	2916	6.86	0.00	
005	MW- 227	26Nov25	0858	GW	X	X	X	16.48	2074	7.53	8.70	
006	MW- 228	26Nov25	0842	GW	X	X	X	15.23	2785	9.66	39.76	
007	MW- 229	26Nov25	0825	GW	X	X	X	15.11	4889	9.07	11.78	
008	MW- 230	25Nov25	1144	GW	X	X	X	15.77	1391	7.81	64.31	
009	DUP- 2025	26Nov25	1205	GW	X	X	X	17.71	2085	7.21	66.47	

Comments: Wells installed in 2025

	Relinquished By		Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		26Nov25 1460	Log In Walk In #2	2.6 °C/TMBUS ROI Y/N		26Nov25 1400
2						

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Account #: 5109 **Client:** Great River Energy

Minnesota Valley Testing Laboratories
2616 E. Broadway Ave
Bismarck, ND 58501
(701) 258-9720

Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS 2025 Wells
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: Nov 2025
Address:		Lakewood, CO 80228	Sampled By:
Phone:			
Email:	CJohnston@GREnergy.com		

Sample Information					Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)							Temp (°C)	Spec. Cond.	pH	Turbidity (NTU)	Analysis Required
010	MW- 206	25Nov25	0829	GW	X	X	X							16.49	2150	7.62	8.52	App III, App IV, Iron, Aluminum, Mangangese (Total Only for Mercury and Radchem, Dissolved and Total for Remainder of Metals) (See Attachments)
011	MW- 207	26Nov25	1205	GW	X	X	X							17.71	2085	7.21	66.47	
012	MW- 208	26Nov25	1045	GW	X	X	X							14.97	1188	8.56	1.78	
013	MW- PB1R	25Nov25	1405	GW	X	X	X							15.55	1563	7.41	0.48	
014	MW- 302	25Nov25	1523	GW	X	X	X							16.82	1337	7.82	34.49	
015	FB- 2025	26Nov25	1050	GW	X	X	X							—	—	—	—	
—	MWPB1	25Nov25	1410	GW										Insufficient Volume				

Comments: Wells installed in 2025

Relinquished By			Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		26Nov25 1400	Log-In Walk In #2	2.8 °C/TM BOS ROI Y/N		26Nov25 1400
2						

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Account #: 5109 **Client:** Great River Energy

February 2025 GL21509219.000

Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy

Table 6. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	–	–	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	–	–	Immediately or within 15 minutes
Temperature*	SM 2550 B	–	–	–	Immediately or within 15 minutes
Turbidity*	SM 2130 B	–	–	–	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	–	–	–	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	–	–	–	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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Account #: 5109 **Client:** Great River Energy

Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

wsp

1

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	223
Sampling Personal:	JM, CG

Weather Conditions: Temp: °F Wind: N @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	9.84	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.03	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 7	Sec.
Recover: 58	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25Nov25	1010	Start of Well Purge									
	1015	16.34	3949	10.08	1.89	9.1	8.45	10.85	100.0	0.5	Clear
	1020	15.29	4006	10.09	1.55	0.6	4.16	11.23	100.0	0.5	Clear
	1025	15.83	3950	10.07	1.56	-17.9	6.16	11.41	100.0	0.5	Clear
	1030	15.79	4019	10.06	1.13	-32.0	3.17	11.53	100.0	0.5	Clear
	1035	15.69	4024	10.05	1.13	-43.1	28.54	11.65	100.0	0.5	

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25Nov25	1035	15.69	4024	10.05	1.13	-43.1	28.54				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	224
Sampling Personal:	

Weather Conditions: Temp: 15 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.67	ft
	63	
Depth to Top of Pump:	14.82	ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 58	Sec.
PSI: —	

Bottle List:
1 Liter Raw ~~1 Gal Nitric~~
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25 Nov 25	0952	Start of Well Purge								0.5	
	0957	15.52	2506	8.77	1.74	101.4	1.19	14.08	100.0	~~0.5~~	Clear
	1002	16.68	2414	8.68	3.82	91.0	0.15	Below Pump	100.0	0.5	Clear
		Purged	Dry								
26 Nov 25	0936	Purged	well to	Clear the	Next			12.70			
	0939	16.30	2507	8.73	4.57	109.2	0.46		100.0	0.3	

Well Stabilized? YES (NO) Total Volume Purged: 1.3 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
26 Nov 25	0939	16.30	2507	8.73	4.57	109.2	0.46				Clear

Comments: insufficient well volume to collect full bottle set.

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company: GRE Stanton Station
Event: Nov 2025
Sample ID: 225
Sampling Personal:

Weather Conditions: Temp: 15 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	~~YES~~	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.96	ft
Well Volume:	1.3	L
Depth to Top of Pump:	16.15	ft
Water Level After Sample:	Below Pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 58	Sec.
PSI: —	

Bottle List:
1 Liter Raw ~~1 Gal Nitric~~
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25 Nov 25	1215	Start of Well Purge									
	1220	18.02	4145	8.81	1.25	-23.1	7.45	Below Pump	240.0	1.0	Clear
	~~1225~~	Purged Dry									
	~~1230~~										
	1235										
26 Nov 25	0955	Purged well to		Clear	Line			13.92			
	0958	16.13	4089	8.96	5.14	118.7	12.49	Below Pump	100.0	0.3	Clear

Well Stabilized? YES (NO) Total Volume Purged: 1.3 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
26 Nov 25	0958	16.13	4089	8.96	5.14	118.7	12.49				Clear

Comments: Insufficient volume to collect full bottle set.

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	2269
Sampling Personal:	

Weather Conditions: Temp: 30 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.25	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.30	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	/ "
Sampling Method:	Bladder	/ "
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 8	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25 Nov 25	1227	Start of Well Purge									
	1232	17.00	2987	6.86	0.27	63.1	0.00	13.34	100.0	0.5	Clear
	1237	17.16	2946	6.86	0.25	72.9	0.00	13.32	100.0	0.5	Clear
	1242	17.19	2927	6.86	0.27	79.3	0.00	13.32	100.0	0.5	Clear
	1247	17.23	2963	6.86	0.26	83.3	0.03	13.31	100.0	0.5	Clear
	1252	17.28	2916	6.86	0.24	85.3	0.00	13.30	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
25 Nov 25	1252	17.28	2916	6.86	0.24	85.3	0.00				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	227
Sampling Personal:	JJ

Weather Conditions: Temp: 15 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.46	ft
Well Volume:	2.2	L
Depth to Top of Pump:	15.05	ft
Water Level After Sample:	Below Pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 58	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric 1/3 full
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
25 Nov 25	0927	Start of Well Purge									
	0932	16.47	2783	7.65	1.17	103.1	14.33	12.91	100.0	0.5	Clear
	0937	16.57	2809	7.64	0.69	106.3	15.76	13.85	100.0	0.5	Clear
	0942	16.29	2519	7.67	2.40	112.3	19.23	14.84	100.0	0.5	Clear
	0947	16.23	2001	7.73	5.57	128.1	11.19	Below Pump	100.0	0.5	Clear
		Purged	Dry								
26 Nov 25	0855	Purged	well	to clear	time			11.48			
	0858	16.48	2074	7.53	4.18	107.5	8.70	Below Pump	100.0	0.2	

Well Stabilized? YES NO Total Volume Purged: 2.3 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
26 Nov 25	0858	16.48	2074	7.53	4.18	107.5	8.70				Clear

Comments: insufficient well volume to collect full 1 gal Nitric bottle

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	22B
Sampling Personal:	

Weather Conditions: Temp: 15 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	8.34	ft
Well Volume:	1.39 ~~0.66~~	L
Depth to Top of Pump:	10.60	ft
Water Level After Sample:	Below Pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge:	2 Sec.
Recover:	58 Sec.
PSI:	—

Bottle List:
1 Liter Raw ~~1 Gal Nitric~~
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25 Nov 25	0910	Start of Well Purge									
	0915	14.57	2922	9.66	3.10	21.1	39.41	10.05	100.0	0.5	Clear
	0920	15.86	2859	9.66	2.37	21.5	39.90	Below Pump	100.0	0.5	Clear
		Purged	Dry								
26 Nov 25	0839	Purged	well to	clear				8.98			
	0842	15.23	2785	9.66	5.94	97.2	39.76	Below Pump	100.0	0.3	Clear

Well Stabilized? YES (NO) Total Volume Purged: 1.3 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
26 Nov 25	0842	15.23	2785	9.66	5.94	97.2	39.76				Clear

Comments: insufficient well volume to collect full bottle set

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Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	229
Sampling Personal:	Jerry Klug

Weather Conditions: Temp: 15 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	~~YES~~	NO
Well Labeled?	~~YES~~	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.13	ft
Well volume	0.9	L
Depth to Top of Pump:	14.72	ft
Water Level After Sample:	Below Pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge:	2 Sec.
Recover:	58 Sec.
PSI:	

Bottle List:	
1 Liter Raw	~~1 Gal Nitric~~
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
25 Nov 25	0852	Start of Well Purge									
	0857	17.56	5255	9.34	0.63	-23.7	39.70	15.50	100.0	0.5	Clear
	0902	17.15	4999	9.09	4.84	12.1	12.73	Below Pump	100.0	0.5	Clear
		Purged	Dry								
26 Nov 25	0822	Purged	well to	clear				13.20			
	0825	15.11	4089	9.07	5.81	116.7	11.78	Below Pump	100.0	0.3	Clear

Well Stabilized? YES (NO) Total Volume Purged: 1.3 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
26 Nov 25	0825	15.11	4089	9.07	5.81	116.7	11.78				Clear

Comments: insufficient well volume to collect full bottle set

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	230
Sampling Personal:	JMK

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.66	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	14.03	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	3	Sec.
Recover:	57	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
25 Nov 25	1119	Start of Well Purge									
	1124	16.07	1424	8.14	2.00	-14.2	59.42	13.85	100.0	0.5	Clear
	1129	16.11	1387	7.86	0.63	-52.3	74.26	14.04	100.0	0.5	Clear
	1134	15.86	1389	7.82	0.48	-62.4	37.87	14.03	100.0	0.5	Clear
	1139	15.68	1390	7.82	0.49	-65.6	53.19	14.02	100.0	0.5	Clear
	1144	15.77	1391	7.81	0.51	-69.8	64.31	14.00	100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 Nov 25	1144	15.77	1391	7.81	0.51	-69.8	64.31				Clear

Comments:

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	206
Sampling Personal:	[illegible]

Weather Conditions: Temp: 30 °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	7.12	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	7.86	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 78	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
25 Nov 25	0804	Start of Well Purge									
	0809	16.04	2119	7.57	0.45	10.4	26.91	7.35	200.0	1.0	Clear
	0814	16.31	2131	7.59	0.39	-17.7	13.50	7.62	200.0	1.0	Clear
	0819	16.38	2132	7.60	0.30	-34.9	8.23	7.76	200.0	1.0	Clear
	0824	16.44	2145	7.62	0.38	-44.3	8.76	7.81	200.0	1.0	Clear
	0829	16.49	2150	7.62	0.39	-45.4	8.52	7.85	200.0	1.0	Clear

Well Stabilized? (YES) NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
25 Nov 25	0829	16.49	2150	7.62	0.39	-45.4	8.52				Clear

Comments:	

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Member ACIL

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	209
Sampling Personal:	JMK

Weather Conditions: Temp: 15 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	8.18	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	8.60	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	x2
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
Dup 2025

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
26Nov25	1140	Start of Well Purge									
	1145	17.36	2084	7.24	1.04	-1.6	101.5	8.25	200.0	1.0	Clear
	1150	16.48	2086	7.23	0.89	-3.3	129.9	8.31	200.0	1.0	Slightly Turbid
	1155	17.51	2080	7.23	1.06	-4.8	90.16	8.38	200.0	1.0	Clear
	1200	17.66	2067	7.22	0.72	-9.9	83.33	8.46	200.0	1.0	Clear
	1205	17.71	2085	7.21	0.58	-13.9	66.47	8.55	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
26Nov25	1205	17.71	2085	7.21	0.58	-13.9	66.47				Clear

Comments:	

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Member ACIL

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	208
Sampling Personal:	

Weather Conditions: Temp: 15 °F Wind: N 8 @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.40	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.45	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge:	2 Sec.
Recover:	58 Sec.
PSI:	—

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
26 Nov 25	1020	Start of Well Purge						12.41			
	1025	15.14	1194	8.55	1.52	104.9	1.30	12.40	100.0	0.5	Clear
	1030	15.22	1196	8.55	1.22	104.4	1.88	12.43	100.0	0.5	Clear
	1035	15.19	1206	8.55	1.24	104.2	1.68	12.44	100.0	0.5	Clear
	1040	14.95	1196	8.56	1.36	99.4	0.83	12.45	100.0	0.5	Clear
	1045	14.97	1188	8.56	1.20	97.5	1.78	12.45	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
26 Nov 25	1045	14.97	1188	8.56	1.20	97.5	1.78				Clear

Comments:	Collected Field Blank 2025 @ 1050

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Account #: 5109 **Client:** Great River Energy

Field Datasheet

Groundwater Assessment

2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	PB 1R
Sampling Personal:	

Weather Conditions: Temp: 30 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	25.92	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	26.84	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 3	Sec.
Recover: 57	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
25 Nov 25	1340	Start of Well Purge									
	1345	15.71	1547	7.40	1.30	15.0	3.17	26.33	100.0	0.5	Clear
	1350	15.59	1548	7.40	1.26	13.9	3.01	26.64	100.0	0.5	Clear
	1355	15.62	1559	7.41	1.39	14.2	1.07	26.90	100.0	0.5	Clear
	1400	15.62	1549	7.41	1.26	15.9	1.70	26.89	100.0	0.5	Clear
	1405	15.55	1563	7.41	1.15	15.5	0.48	26.88	100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 Nov 25	1405	15.55	1563	7.41	1.15	15.5	0.48				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	302
Sampling Personal:	

Weather Conditions: Temp: 30 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / ~~Cloudy~~

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.70	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	16.00	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: 57	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
25 Nov 25	1458	Start of Well Purge									
	1503	17.69	1226	7.80	2.03	-42.0	54.9	14.85	200.0	1.0	Clear
	1508	16.94	1327	7.81	1.03	-60.1	228.9	16.62	200.0	1.0	Slightly Turbid (ST)
	1513	16.91	1334	7.81	0.89	-64.0	221.3	16.40	100.0	0.5	ST
	1518	16.83	1324	7.84	0.49	-78.0	75.90	16.32	100.0	0.5	Clear
	1523	16.82	1337	7.82	0.50	-83.7	34.49	16.05	100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 3.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 Nov 25	1523	16.82	1337	7.82	0.50	-83.7	34.49				Clear

Comments:

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Additional data collected from non-program locations - not required by program.

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2616 East Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724
1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	PB1
Sampling Personal:	JMH

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	~~YES~~	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	24.48	ft
Depth to Top of Pump:	25.12	ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge:	Sec.
Recover:	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
		Start of Well Purge									

Well Stabilized? YES NO Total Volume Purged: _____ Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 Nov 25	1410										

Comments: insufficient volume NO SAMPLE

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Member ACIL

Account #: 5109 **Client:** Great River Energy

Sample Condition Checklist

Date: 26NOV25 Time: 1445 Analyst: RC

Work Order #: 108796

Containers Supplied by MVTL: ☒ Yes ☐ No (Designate customer supplied containers as "Other" in container size column)

Comments:

Number of Bottles	Container Size (mL) F-(500) = Filtered	Container Type CG = Clear Glass, P = Plastic, AG = Amber Glass	Preservation	pH	Sample IDs Preservation reagent added Date/Time Analyst	Unique ID of preservation reagent added	Sample pH after preservation	Required for HNO_3 samples only (24 hours later) Sample ID pH Recheck Result Date/Time/Analyst
15	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
15	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
15	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	(125) (250) (500) F-(500) (1000) Other	(CG) (P) (AG) Other	NONE HNO_3 H_2SO_4 NaOH NaOH/ZnAcet HCl	<2 >12				
	Oil and grease	(CG) (P) (AG) Other	HCl	n/a				
	TOC Vials	(G) (AG)	H_3PO_4	n/a				
	DOC Vials	(G) (AG)	None H_3PO_4	n/a				

*All samples requiring analyses performed outside of the Bismarck laboratory (New Ulm and Sub-Contract) are not documented on this form.
*All samples requiring microbiological tests are not documented on this form.

Form #80-910025-2 M:\Documents\FORMS\Approved Templates\Bismarck\Waters\80-910025-2 Sample Condition Checklist Page 1 of 1 Effective Date : 1 July 2024

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Account #: 5109 **Client:** Great River Energy
Workorder: GRE SS 2025 Wells Nov 2025 (108821) **PO:** 8126848

Erik Heinen
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carroll

Claudette Carroll, Lab Manager Bismarck, ND

Analyses performed under Minnesota Department of Health Accreditation conforms to the current TNI standards.

NEW ULM LAB CERTIFICATIONS:
MN LAB # 027-015-125 ND WW/DW # R-040

BISMARCK LAB CERTIFICATIONS:
MN LAB # 038-999-267 ND W/DW # ND-016 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

Workorder Comments

All analytes with dilution factors greater than 1 (displayed in DF column) required dilution due to matrix or high concentration of target analyte unless otherwise noted and reporting limits (RDL column) have been adjusted accordingly.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108821001 **Date Collected:** 11/25/2025 10:35 **Matrix:** Groundwater
Sample ID: MW-223 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108821002 **Date Collected:** 11/25/2025 12:52 **Matrix:** Groundwater
Sample ID: MW-226 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108821003 **Date Collected:** 11/26/2025 08:58 **Matrix:** Groundwater
Sample ID: MW-227 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108821004 **Date Collected:** 11/25/2025 11:44 **Matrix:** Groundwater
Sample ID: MW-230 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108821005 **Date Collected:** 11/26/2025 12:05 **Matrix:** Groundwater
Sample ID: DUP-2025 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID:	108821006	**Date Collected:**	11/25/2025 08:29	**Matrix:**	Groundwater
Sample ID:	MW-206	**Date Received:**	11/26/2025 14:00	**Collector:**	MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Additional data collected from non-program locations - not required by program.

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108821007 **Date Collected:** 11/26/2025 12:05 **Matrix:** Groundwater
Sample ID: MW-207 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID:	108821008	**Date Collected:**	11/26/2025 10:45	**Matrix:**	Groundwater
Sample ID:	MW-208	**Date Received:**	11/26/2025 14:00	**Collector:**	MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108821009 **Date Collected:** 11/25/2025 14:05 **Matrix:** Groundwater
Sample ID: MW-PB1R **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID:	108821010	**Date Collected:**	11/25/2025 15:23	**Matrix:**	Groundwater
Sample ID:	MW-302	**Date Received:**	11/26/2025 14:00	**Collector:**	MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

Analytical Results

Lab ID: 108821011 **Date Collected:** 11/26/2025 10:50 **Matrix:** Groundwater
Sample ID: FB-2025 **Date Received:** 11/26/2025 14:00 **Collector:** MVTL Field Service

Temp @ Receipt (C): Ambient

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/31/2025 09:24	
Radium 228	See Attached			1		12/31/2025 09:24	

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Account #: 5109 **Client:** Great River Energy

ANALYTICAL SUMMARY REPORT

December 30, 2025

Minnesota Valley Testing Laboratories
1126 N Front St
New Ulm, MN 56073-1176

Work Order: C25120008 Quote ID: C15480
Project Name: 108821

Energy Laboratories, Inc. Casper WY received the following 11 samples for Minnesota Valley Testing Laboratories on 12/1/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C25120008-001	108821001, MW-223	11/25/25 10:35	12/01/25	Groundwater	Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total
C25120008-002	108821002, MW-226	11/25/25 12:52	12/01/25	Groundwater	Same As Above
C25120008-003	108821003. MW-227	11/26/25 08:58	12/01/25	Groundwater	Same As Above
C25120008-004	108821004, MW-230	11/25/25 11:44	12/01/25	Groundwater	Same As Above
C25120008-005	108821005, DUP-2025	11/26/25 12:05	12/01/25	Groundwater	Same As Above
C25120008-006	108821006, MW-206	11/25/25 08:29	12/01/25	Groundwater	Same As Above
C25120008-007	108821007, MW-207	11/26/25 12:05	12/01/25	Groundwater	Same As Above
C25120008-008	108821008, MW-208	11/26/25 10:45	12/01/25	Groundwater	Same As Above
C25120008-009	108821009, MW-PB1R	11/25/25 14:05	12/01/25	Groundwater	Same As Above
C25120008-010	108821010, MW-302	11/25/25 15:23	12/01/25	Groundwater	Same As Above
C25120008-011	108821011, FB-2025	11/26/25 10:50	12/01/25	Groundwater	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.

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Account #: 5109 **Client:** Great River Energy

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Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108821
Lab ID: C25120008-001
Client Sample ID: 108821001, MW-223

Report Date: 12/30/25
Collection Date: 11/25/25 10:35
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.05	pCi/L	U			E903.0	12/17/25 14:08 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/17/25 14:08 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/17/25 14:08 / dmr
Radium 228	0.5	pCi/L	U			RA-05	12/12/25 11:03 / jls1
Radium 228 precision (±)	0.5	pCi/L				RA-05	12/12/25 11:03 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/12/25 11:03 / jls1
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	12/18/25 11:40 / dmf
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	12/18/25 11:40 / dmf
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/18/25 11:40 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108821
Lab ID: C25120008-002
Client Sample ID: 108821002, MW-226

Report Date: 12/30/25
Collection Date: 11/25/25 12:52
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.08	pCi/L	U			E903.0	12/17/25 14:08 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/17/25 14:08 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/17/25 14:08 / dmr
Radium 228	0.8	pCi/L	U			RA-05	12/12/25 11:03 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/12/25 11:03 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/12/25 11:03 / jls1
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	12/18/25 11:40 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/18/25 11:40 / dmf
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/18/25 11:40 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108821
Lab ID: C25120008-003
Client Sample ID: 108821003. MW-227

Report Date: 12/30/25
Collection Date: 11/26/25 08:58
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	12/17/25 15:09 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/17/25 15:09 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/17/25 15:09 / dmr
Radium 228	0.8	pCi/L	U			RA-05	12/12/25 11:03 / jls1
Radium 228 precision (±)	0.7	pCi/L				RA-05	12/12/25 11:03 / jls1
Radium 228 MDC	1.1	pCi/L				RA-05	12/12/25 11:03 / jls1
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	12/18/25 11:40 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	12/18/25 11:40 / dmf
Radium 226 + Radium 228 MDC	1.1	pCi/L				A7500-RA	12/18/25 11:40 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108821
Lab ID: C25120008-004
Client Sample ID: 108821004, MW-230

Report Date: 12/30/25
Collection Date: 11/25/25 11:44
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L				E903.0	12/17/25 15:09 / dmr
Radium 226 precision (±)	0.1	pCi/L				E903.0	12/17/25 15:09 / dmr
Radium 226 MDC	0.2	pCi/L				E903.0	12/17/25 15:09 / dmr
Radium 228	0.8	pCi/L	U			RA-05	12/12/25 11:03 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/12/25 11:03 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/12/25 11:03 / jls1
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	12/18/25 11:40 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/18/25 11:40 / dmf
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/18/25 11:40 / dmf

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108821
Lab ID: C25120008-005
Client Sample ID: 108821005, DUP-2025

Report Date: 12/30/25
Collection Date: 11/26/25 12:05
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L				E903.0	12/22/25 13:05 / apt
Radium 226 precision (±)	0.09	pCi/L				E903.0	12/22/25 13:05 / apt
Radium 226 MDC	0.1	pCi/L				E903.0	12/22/25 13:05 / apt
Radium 228	0.03	pCi/L	U			RA-05	12/16/25 11:30 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/23/25 15:45 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108821
Lab ID: C25120008-006
Client Sample ID: 108821006, MW-206

Report Date: 12/30/25
Collection Date: 11/25/25 08:29
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.07	pCi/L	U			E903.0	12/22/25 13:05 / apt
Radium 226 precision (±)	0.09	pCi/L				E903.0	12/22/25 13:05 / apt
Radium 226 MDC	0.1	pCi/L				E903.0	12/22/25 13:05 / apt
Radium 228	0.08	pCi/L	U			RA-05	12/16/25 11:30 / jls1
Radium 228 precision (±)	0.5	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/23/25 15:45 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108821
Lab ID: C25120008-007
Client Sample ID: 108821007, MW-207

Report Date: 12/30/25
Collection Date: 11/26/25 12:05
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	12/22/25 13:05 / apt
Radium 226 precision (±)	0.09	pCi/L				E903.0	12/22/25 13:05 / apt
Radium 226 MDC	0.1	pCi/L				E903.0	12/22/25 13:05 / apt
Radium 228	0.008	pCi/L	U			RA-05	12/16/25 11:30 / jls1
Radium 228 precision (±)	0.5	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/23/25 15:45 / meh

Report Definitions:
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QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108821
Lab ID: C25120008-008
Client Sample ID: 108821008, MW-208

Report Date: 12/30/25
Collection Date: 11/26/25 10:45
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.006	pCi/L	U			E903.0	12/23/25 12:32 / apt
Radium 226 precision (±)	0.08	pCi/L				E903.0	12/23/25 12:32 / apt
Radium 226 MDC	0.1	pCi/L				E903.0	12/23/25 12:32 / apt
Radium 228	-0.2	pCi/L	U			RA-05	12/16/25 11:30 / jls1
Radium 228 precision (±)	0.5	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 precision (±)	0.5	pCi/L				A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/23/25 15:45 / meh

Report Definitions:
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108821
Lab ID: C25120008-009
Client Sample ID: 108821009, MW-PB1R

Report Date: 12/30/25
Collection Date: 11/25/25 14:05
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.007	pCi/L	U			E903.0	12/22/25 15:24 / apt
Radium 226 precision (±)	0.09	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 228	0.3	pCi/L	U			RA-05	12/16/25 11:30 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 228 MDC	1	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	12/23/25 15:45 / meh

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QCL - Quality Control Limit
U - Not detected
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108821
Lab ID: C25120008-010
Client Sample ID: 108821010, MW-302

Report Date: 12/30/25
Collection Date: 11/25/25 15:23
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.05	pCi/L	U			E903.0	12/22/25 15:24 / apt
Radium 226 precision (±)	0.09	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 226 MDC	0.1	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 228	-0.03	pCi/L	U			RA-05	12/16/25 11:30 / jls1
Radium 228 precision (±)	0.5	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 228 MDC	0.9	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	12/23/25 15:45 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories
Project: 108821
Lab ID: C25120008-011
Client Sample ID: 108821011, FB-2025

Report Date: 12/30/25
Collection Date: 11/26/25 10:50
DateReceived: 12/01/25
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	-0.05	pCi/L	U			E903.0	12/22/25 15:24 / apt
Radium 226 precision (±)	0.07	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 226 MDC	0.1	pCi/L				E903.0	12/22/25 15:24 / apt
Radium 228	-0.2	pCi/L	U			RA-05	12/16/25 11:30 / jls1
Radium 228 precision (±)	0.6	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 228 MDC	1	pCi/L				RA-05	12/16/25 11:30 / jls1
Radium 226 + Radium 228	0.5	pCi/L	U			A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	12/23/25 15:45 / meh
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	12/23/25 15:45 / meh

Report Definitions:
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QCL - Quality Control Limit
U - Not detected
MCL - Maximum Contaminant Level
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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25120008 **Report Date:** 12/29/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-11924
Lab ID: LCS-RA226-11924	3	Laboratory Control Sample				Run: TENNELEC-4_251203E			12/17/25 09:46	
Radium 226		9.3	pCi/L		93	70	130			
Radium 226 precision (±)		1.7	pCi/L							
Radium 226 MDC		0.16	pCi/L							
Lab ID: MB-RA226-11924	3	Method Blank				Run: TENNELEC-4_251203E			12/17/25 09:46	
Radium 226		0.004	pCi/L							U
Radium 226 precision (±)		0.08	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Lab ID: C25110766-009FDUP	3	Sample Duplicate				Run: TENNELEC-4_251203E			12/17/25 13:08	
Radium 226		880	pCi/L					0.7	30	
Radium 226 precision (±)		160	pCi/L							
Radium 226 MDC		0.47	pCi/L							
- The RER result is 0.03.										
Method: E903.0										Batch: RA226-11925
Lab ID: LCS-RA226-11925	3	Laboratory Control Sample				Run: TENNELEC-4_251204E			12/22/25 13:05	
Radium 226		9.6	pCi/L		97	70	130			
Radium 226 precision (±)		1.8	pCi/L							
Radium 226 MDC		0.16	pCi/L							
Lab ID: MB-RA226-11925	3	Method Blank				Run: TENNELEC-4_251204E			12/22/25 13:05	
Radium 226		-0.07	pCi/L							U
Radium 226 precision (±)		0.07	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Lab ID: C25120008-011ADUP	3	Sample Duplicate				Run: TENNELEC-4_251204E			12/22/25 15:24	
Radium 226		0.0027	pCi/L					230	30	UR
Radium 226 precision (±)		0.083	pCi/L							
Radium 226 MDC		0.14	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.44.										

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C25120008 **Report Date:** 12/29/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7851
Lab ID: LCS-228-RA226-11924	3	Laboratory Control Sample				Run: TENNELEC-4_251203C				12/12/25 11:03
Radium 228		8.9	pCi/L		102	70	130			
Radium 228 precision (±)		2.7	pCi/L							
Radium 228 MDC		0.93	pCi/L							
Lab ID: MB-RA226-11924	3	Method Blank				Run: TENNELEC-4_251203C				12/12/25 11:03
Radium 228		0.3	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		0.9	pCi/L							
Lab ID: C25110766-009FDUP	3	Sample Duplicate				Run: TENNELEC-4_251203C				12/12/25 11:03
Radium 228		11	pCi/L					24	30	
Radium 228 precision (±)		3.6	pCi/L							
Radium 228 MDC		1.8	pCi/L							
- The RER result is 0.52.										
Method: RA-05										Batch: RA228-7852
Lab ID: LCS-228-RA226-11925	3	Laboratory Control Sample				Run: TENNELEC-4_251204D				12/16/25 11:30
Radium 228		7.5	pCi/L		86	70	130			
Radium 228 precision (±)		2.3	pCi/L							
Radium 228 MDC		1.0	pCi/L							
Lab ID: MB-RA226-11925	3	Method Blank				Run: TENNELEC-4_251204D				12/16/25 11:30
Radium 228		-0.2	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C25120008-011ADUP	3	Sample Duplicate				Run: TENNELEC-4_251204D				12/16/25 11:30
Radium 228		0.10	pCi/L					540	30	UR
Radium 228 precision (±)		0.60	pCi/L							
Radium 228 MDC		1.0	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.39.										

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit
ND - Not detected at the Reporting Limit (RL)
U - Not detected

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Work Order Receipt Checklist

Minnesota Valley Testing Laboratories C25120008

Login completed by: Lorie D. Snider
Reviewed by: lquezada
Reviewed Date: 12/8/2025
Date Received: 12/1/2025
Received by: LDS
Carrier name: UPS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	1.0°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature blank temperature in shipping container 1 was 0.3°C, shipping container 2 was 0.2°C, shipping container 3 was -1.8°C, shipping container 4 was -1.0°C, shipping container 5 was 1.0°C, shipping container 6 was 0.8,

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Work Order Receipt Checklist - Continued

Minnesota Valley Testing Laboratories C25120008

shipping container 7 was -0.5 and shipping container 8 was -1.8. LDS 12/01/25

All samples were received partially frozen. Proceed with partially frozen samples per email with Claudette Carroll on 12/01/25. LDS 12/02/25

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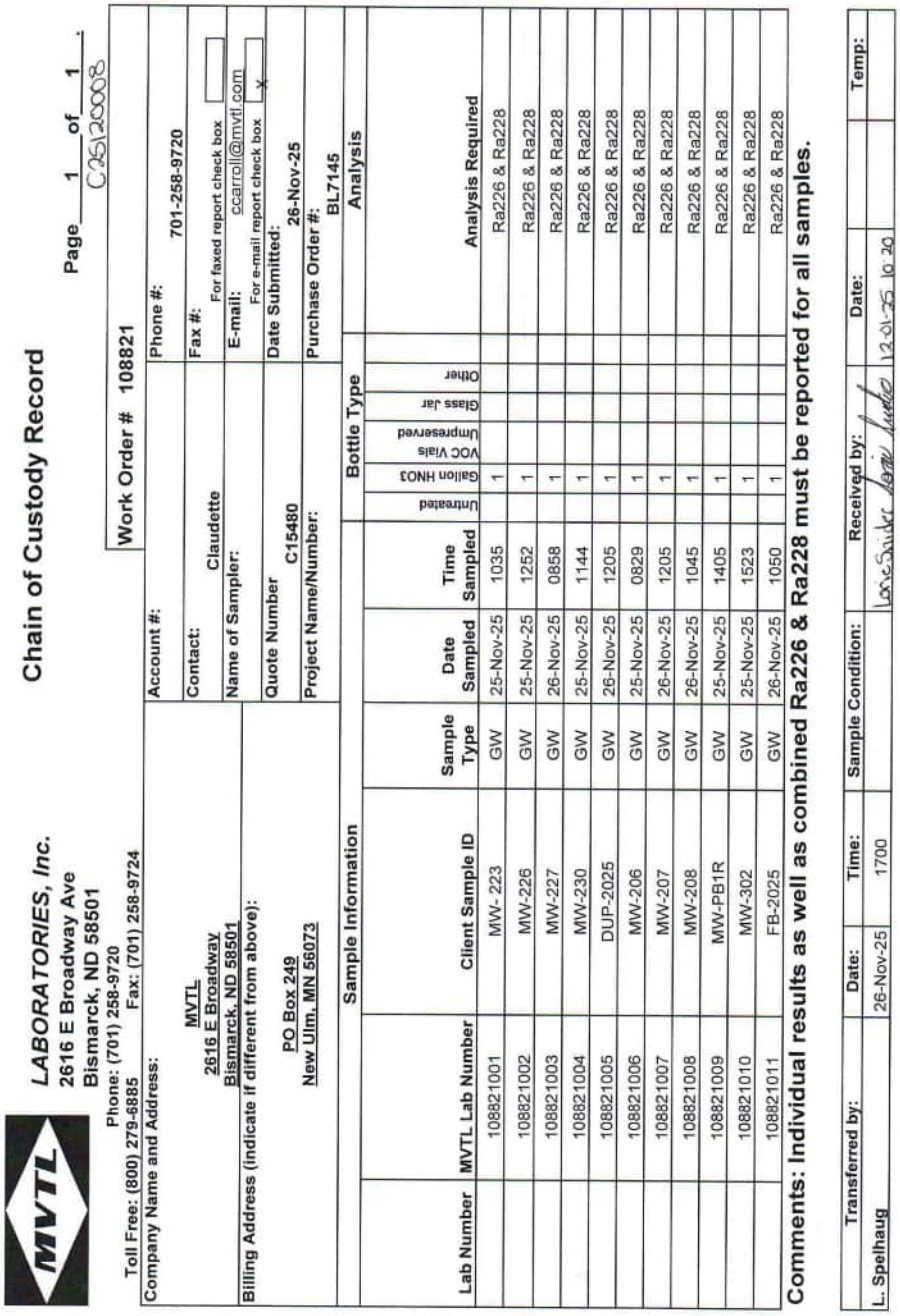
	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

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Chain of Custody Record

Page 1 of 1
C25120008

Work Order # 108821

Company Name and Address: MVTL 2616 E Broadway Bismarck, ND 58501
Billing Address (indicate if different from above): PO Box 249 New Ulm, MN 56073
Account #:
Contact: Claudette
Name of Sampler:
Quote Number C15480
Project Name/Number:
Phone #: 701-258-9720
Fax #: For faxed report check box
E-mail: ccarroll@mvtl.com For e-mail report check box x
Date Submitted: 26-Nov-25
Purchase Order #: BL7145

Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Bottle Type: Unpreserved	Gallon HNO3	VOC Vials Unpreserved	Glass Jar	Other	Analysis: Analysis Required
	108821001	MW- 223	GW	25-Nov-25	1035		1				Ra226 & Ra228
	108821002	MW-226	GW	25-Nov-25	1252		1				Ra226 & Ra228
	108821003	MW-227	GW	26-Nov-25	0858		1				Ra226 & Ra228
	108821004	MW-230	GW	25-Nov-25	1144		1				Ra226 & Ra228
	108821005	DUP-2025	GW	26-Nov-25	1205		1				Ra226 & Ra228
	108821006	MW-206	GW	25-Nov-25	0829		1				Ra226 & Ra228
	108821007	MW-207	GW	26-Nov-25	1205		1				Ra226 & Ra228
	108821008	MW-208	GW	26-Nov-25	1045		1				Ra226 & Ra228
	108821009	MW-PB1R	GW	25-Nov-25	1405		1				Ra226 & Ra228
	108821010	MW-302	GW	25-Nov-25	1523		1				Ra226 & Ra228
	108821011	FB-2025	GW	26-Nov-25	1050		1				Ra226 & Ra228

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples.

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
L. Spelhaug	26-Nov-25	1700		Lorie Snider	12-01-25 10:20	

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Great River Energy
WO: 108821

Chain of Custody Record

Report To:	Great River Energy	CC:	WSP
Attn:	Cassie Johnston		44 Union Blvd, Suite 300
Address:			Lakewood, CO 80228
Phone:			
Email:	CJohnston@GREnergy.com		

Project Name: SS 2025 Wells
Event: Nov 2025
Sampled By:

Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric	Field Readings			Analysis Required
001	MW- 223	25Nov25	1035	GW				X				Radium 226 and 228 Combined
—	MW- 224	26Nov25	0939	GW				~~X~~	insufficient well	volume		
—	MW- 225	26Nov25	0950	GW				~~X~~	insufficient well	volume		
002	MW- 226	25Nov25	1252	GW				X				
003	MW- 227	26Nov25	0858	GW				X	only able to fill	¼ full		
—	MW- 228	26Nov25	0842	GW				~~X~~	insufficient well	volume		
—	MW- 229	26Nov25	0825	GW				~~X~~	insufficient well	volume		
004	MW- 230	25Nov25	1144	GW				X				
005	DUP- 2025			GW				X				

Comments: Wells installed in 2025

	Relinquished By		Sample Condition		Received By	
	Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1		26Nov25 1400	Log In Walk In #2	Ambient		26Nov25 1400
2						

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Chain of Custody Record

Report To:	Great River Energy	CC: WSP	Project Name: SS 2025 Wells
Attn:	Cassie Johnston	44 Union Blvd, Suite 300	Event: Nov 2025
Address:		Lakewood, CO 80228	Sampled By:
Phone:			
Email:	CJohnston@GREnergy.com		

	Sample Information				Sample Containers									Field Readings				
Lab Number	Sample ID	Date	Time	Sample Type	1 Liter Raw	500 mL HNO3	500 mL HNO3 (filtered)	1 Gal Nitric										Analysis Required
006	MW- 206	25 Nov 25	0829	GW				X										Radium 226 and 228 Combined
007	MW- 207	26 Nov 25		GW				X										
008	MW- 208	26 Nov 25	1045	GW				X										
009	MW- PB1R	25 Nov 25	1405	GW				X										
010	MW- 302	25 Nov 25	1523	GW				X										
011	FB- 2025	26 Nov 25	1050	GW				X										

Comments: Wells installed in 2025

Relinquished By		Sample Condition		Received By	
Name	Date/Time	Location	Temp (°C)	Name	Date/Time
1	26 Nov 25 1400	~~Log-In~~ Walk In #2	Ambient		26 Nov 25 1400
2					

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Table 5. Parameter and Analysis Summary - Appendix III Detection Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit	Container [3]	Preservation [4]	Max. Holding Time from Sampling [5]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Chloride	SM 4500 Cl E/11	1.0 mg/L	Plastic	4° ± 2°C	28 days
Fluoride	SM 4500 F E/11	TBD		4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Sulfate	ASTM D516-16	5.0 mg/L		4° ± 2°C	28 days
Total Dissolved Solids	USGS I-1750-85	5.0 mg/L		4° ± 2°C	7 days
Metals (total and dissolved)					
Boron	EPA 6010	0.1	Plastic	HNO_3 to pH<2	6 months
Calcium		1.0			

Notes:
1. Boron, calcium, chloride, fluoride, sulfate, and total dissolved solids are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent methods.
3. Containers and volumes will be specified by the lab.
4. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.

* Additional parameters that are not part of the Appendix III Detection Monitoring list and are collected for informational purposes only.

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February 2025 GL21509219.000

Table 5. Parameter and Analysis Summary - Appendix IV Assessment Monitoring

Parameter [1]	Method Reference [2]	Target Reporting Limit [3]	Container [4]	Preservation [5]	Max. Holding Time from Sampling [6]
Field Parameters					
pH	EPA 9040C	0.1 units	--	--	Immediately or within 15 minutes
Specific Conductance*	LSASDPROC-1010-R7	1.00 umhos/cm	--	--	Immediately or within 15 minutes
Temperature*	SM 2550 B	--	--	--	Immediately or within 15 minutes
Turbidity*	SM 2130 B	--	--	--	Immediately or within 15 minutes
Dissolved Oxygen (DO)*	LSASDPROC-106-R4	--	--	--	Immediately or within 15 minutes
Oxidation-Reduction Potential (ORP)*	LSASDPROC-113-R3	--	--	--	Immediately or within 15 minutes
General Chemistry					
Fluoride	SM 4500 F E/11	TBD	Plastic	4° ± 2°C	28 days
pH (lab)*	SM 4500 H+ B/11	0.1 units		4° ± 2°C	Immediately or within 15 minutes
Metals (total and dissolved)					
Antimony	EPA 6010 / 6020 as applicable	0.001 mg/L	Plastic	HNO_3 to pH<2	6 months
Arsenic		0.002			
Barium		0.002			
Beryllium		0.0005			
Cadmium		0.0005			
Chromium		0.002			
Cobalt		0.002			
Lead		0.0005			
Lithium		0.02			
Molybdenum		0.002			
Selenium		0.002			
Thallium		0.0005			
Mercury	EPA 245.1	0.0002	Plastic	HNO_3 to pH<2	28 days
Radium-226 and 228 combined	EPA 9315 and EPA 9320	1.0 and 2.0 pCi/L	Plastic	HNO_3	6 months

Notes:
1. Fluoride and all metals are tested in the laboratory. Temperature, turbidity, specific conductance, dissolved oxygen, and oxidation-reduction potential are tested in the field and pH is tested in the field and in the laboratory.
2. Or equivalent method.
3. Listed reporting limits are the maximum allowable reporting limits.
4. Containers and volumes will be specified by the lab.
5. Sufficient ice should be placed with the samples in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when the samples arrive, it is necessary to immediately measure the temperature of the samples and confirm that the temperature maximum has not been exceeded.
6. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid.
* Additional parameters that are not part of the Appendix IV Assessment Monitoring list and are collected for informational purposes only.

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2616 East Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724
1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885
www.MVTL.com

Account #: 5109 **Client:** Great River Energy

Table 7: Additional List Parameter and Analysis Summary

Parameter [1]	Method Reference [2]	Reporting Limit	Preparation Method Reference [2]	Sample Container [3]	Required Preservation [4]	Maximum Holding Time from Sampling [5]
General Chemistry						
Total Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Bicarbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Carbonate Alkalinity	SM 2320B	10 mg/L	--	Plastic	≤ 4° C	14 days
Metals (Total and Dissolved)						
Iron	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Magnesium	EPA 6010D	0.2 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Potassium	EPA 6010D	3.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Sodium	EPA 6010D	1.0 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Aluminum	EPA 6010D	0.1 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months
Manganese	EPA 6010D	0.05 mg/L	EPA 3010A	Plastic or Glass	HNO_3 to pH < 2	6 months

Notes:

1. All listed parameters are tested in the laboratory. Listed parameters are to be collected in conjunction with other CCR parameter lists (Table 2 and Table 3).

2. Or equivalent method.
3. Containers and volumes will be specified by the analytical laboratory.
4. In addition to the required preservation for each sample container, sufficient ice should be placed with the sample containers in the shipping container to ensure that ice is still present when the samples arrive at the laboratory. However, even if ice is present when samples arrive, measurement of the temperature of samples immediately upon receipt is necessary to confirm that the 4° C temperature maximum has not been exceeded.
5. Samples should be analyzed as soon as possible following collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid, without the use of qualifiers.

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	223
Sampling Personal:	

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	9.84	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.03	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 7	Sec.
Recover: 56	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
25 Nov 25	1010	Start of Well Purge									
	1015	16.34	3949	10.08	1.89	9.1	8.45	10.85	100.0	0.5	Clear
	1020	15.29	4006	10.09	1.55	0.6	4.16	11.23	100.0	0.5	Clear
	1025	15.83	3950	10.07	1.86	-17.9	6.16	11.41	100.0	0.5	Clear
	1030	15.79	4019	10.06	1.13	-32.0	3.17	11.53	100.0	0.5	Clear
	1035	15.69	4024	10.05	1.13	-43.1	28.54	11.65	100.0	0.5	

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 Nov 25	1035	15.69	4024	10.05	1.13	-43.1	28.54				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	224
Sampling Personal:	

Weather Conditions: Temp: 15 °F Wind: NW @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.67	ft
	13	
Depth to Top of Pump:	14.82	ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 58	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	~~1 Gal Nitric~~
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
25 Nov 25	0952	Start of Well Purge								0.5	
	0957	15.52	2506	8.77	1.74	101.4	1.19	14.08	100.0	~~0.5~~	Clear
	1002	16.68	2414	8.68	3.82	91.0	0.15	Below Pump	100.0	0.5	Clear
		Purged	Dry								
26 Nov 25	0936	Purged	well to	Clear the	Pump			12.70			
	0939	16.30	2507	8.73	4.87	109.2	0.46		100.0	0.3	

Well Stabilized? YES (NO) Total Volume Purged: 1.3 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
26 Nov 25	0939	16.30	2507	8.73	4.87	109.2	0.46				Clear

Comments: Insufficient well volume to collect full bottle set.

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	225
Sampling Personal:	Jerry Ploy

Weather Conditions: Temp: 15 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	~~YES~~	NO
Well Labeled?	~~YES~~	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.96	ft
Well Volume:	1.3	L
Depth to Top of Pump:	16.15	ft
Water Level After Sample:	Below Pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge: 2	Sec.
Recover: 58	Sec.
PSI: —	

Bottle List:
1 Liter Raw ~~1 Gal Nitric~~
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25 Nov 25	1215	Start of Well Purge									
	1220	18.02	4145	8.81	1.25	-23.1	7.45	Below Pump	200.0	1.0	Clear
	~~1825~~	Purged Dry									
	~~17362~~										
	~~4235~~										
26 Nov 25	0955	Purged well to Clear		Time				13.92			
	0958	16.13	4089	8.96	5.14	118.7	12.49	Below Pump	200.0	0.3	Clear

Well Stabilized? YES (NO) Total Volume Purged: 1.3 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
26 Nov 25	0958	16.13	4089	8.96	5.14	118.7	12.49				Clear

Comments: Insufficient volume to collect full bottleset.

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	2269
Sampling Personal:	JTH

Weather Conditions: Temp: 30 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.25	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	13.30	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	1"
Sampling Method:	Bladder	1"
Dedicated Equipment?	YES	NO

Control Settings:	
Purge:	2 Sec.
Recover:	8 Sec.
PSI:	—

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
25 Nov 25	1227	Start of Well Purge									clear, slightly turbid, turbid
	1232	17.00	2987	6.86	0.27	63.1	0.00	13.34	100.0	0.5	Clear
	1237	17.16	2946	6.86	0.25	72.9	0.00	13.32	100.0	0.5	Clear
	1242	17.19	2927	6.86	0.27	79.8	0.00	13.32	100.0	0.5	Clear
	1247	17.23	2963	6.86	0.26	83.3	0.03	13.31	100.0	0.5	Clear
	1252	17.28	2916	6.86	0.24	85.3	0.00	13.30	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 Nov 25	1252	17.28	2916	6.86	0.24	85.3	0.00				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company: GRE Stanton Station
Event: Nov 2025
Sample ID: 227
Sampling Personal: [illegible]

Weather Conditions: Temp: 15 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	11.46	ft
Well Volume:	2.2	L
Depth to Top of Pump:	15.05	ft
Water Level After Sample:	Below Pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:
Purge: 2 Sec.
Recover: 58 Sec.
PSI: —

Bottle List:
1 Liter Raw
500mL Nitric
500mL Nitric (filtered)
1 Gal Nitric 1 Full

Duplicate Sample?
YES / NO
Duplicate Sample ID: —

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25 Nov 25	0927	Start of Well Purge									
	0932	16.47	2783	7.65	1.17	103.1	14.33	12.91	100.0	0.5	Clear
	0937	16.57	2809	7.64	0.69	106.3	15.98	13.85	100.0	0.5	Clear
	0942	16.29	2519	7.67	2.40	112.3	19.23	14.84	100.0	0.5	clear
	0947	16.23	2001	7.73	5.57	128.1	11.19	Below Pump	100.0	0.5	Clear
	—	Purged Dry									
26 Nov 25	0855	Purged well		to clear	time			11.48			
	0858	16.48	2074	7.53	4.18	107.5	8.70	Below Pump	100.0	0.3	

Well Stabilized? YES NO Total Volume Purged: 2.3 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
26 Nov 25	0858	16.48	2074	7.53	4.18	107.5	8.70				Clear

Comments: insufficient well volume to collect full 1 gal Nitric bottle

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	22B
Sampling Personal:	JMK

Weather Conditions: Temp: 15 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	8.34	ft
Well Volume:	1.79 ~~2.6~~	L
Depth to Top of Pump:	10.60	ft
Water Level After Sample:	Below Pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	2	Sec.
Recover:	58	Sec.
PSI:	—	

Bottle List:
1 Liter Raw ~~1 Gal Nitric~~
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25 Nov 25	0910	Start of Well Purge									
	0915	14.57	2922	9.66	3.10	21.1	39.41	10.05	100.0	0.5	Clear
	0920	15.06	2859	9.66	2.37	21.5	39.90	Below Pump	100.0	0.5	Clear
		Purged	Dry								
26 Nov 25	0839	Purged	well to	clear line				8.98			
	0842	15.23	2785	9.66	5.94	97.2	39.76	Below Pump	100.0	0.3	Clear

Well Stabilized? YES (NO) Total Volume Purged: 1.3 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
26 Nov 25	0842	15.23	2785	9.66	5.94	97.2	39.76				Clear

Comments: insufficient well volume to collect full bottle set

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	229
Sampling Personal:	Jerry Klyn

Weather Conditions: Temp: 15 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	~~YES~~	NO
Well Labeled?	~~YES~~	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.13	ft
Well Volume	0.9	L
Depth to Top of Pump:	14.72	ft
Water Level After Sample:	Below Pump	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:	
Purge:	2 Sec.
Recover:	58 Sec.
PSI:	—

Bottle List:
1 Liter Raw ~~1-Gal Nitric~~
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25 Nov 25	0852	Start of Well Purge									
	0857	17.56	5255	9.34	0.63	-23.7	39.70	15.50	100.0	0.5	Clear
	0902	17.15	4999	9.09	4.84	12.1	12.73	Below Pump	100.0	0.5	Clear
		Purged Dry									
26 Nov 25	0822	Purged well to clear			Time			13.20			
	0825	15.11	4089	9.07	5.81	116.7	11.78	Below Pump	100.0	0.3	Clear
	Well Stabilized?		YES	(NO)				Total Volume Purged:		1.3	Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
26 Nov 25	0825	15.11	4089	9.07	5.81	116.7	11.78				Clear

Comments: insufficient well volume to collect full bottle set

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MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	230
Sampling Personal:	JMH

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	13.66	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	14.03	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:		
Purge:	3	Sec.
Recover:	57	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25 Nov 25	1119	Start of Well Purge									
	1124	16.07	1424	8.14	2.00	-14.2	59.42	13.85	100.0	0.5	Clear
	1129	16.11	1387	7.86	0.63	-52.3	74.26	14.04	100.0	0.5	Clear
	1134	15.86	1389	7.82	0.48	-62.4	37.87	14.03	100.0	0.5	Clear
	1139	15.68	1390	7.82	0.49	-65.6	53.19	14.02	100.0	0.5	Clear
	1144	15.77	1391	7.81	0.51	-69.8	64.31	14.00	100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
25 Nov 25	1144	15.77	1391	7.81	0.51	-69.8	64.31				Clear

Comments:	

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www.MVTL.com

Member ACIL

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	206
Sampling Personal:	[illegible]

Weather Conditions: Temp: 30 °F Wind: W @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	7.12	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	7.86	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:		
Purge:	2	Sec.
Recover:	28	Sec.
PSI:	—	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
25 Nov 25	0804	Start of Well Purge									
	0809	16.04	2119	7.57	0.45	10.4	26.91	7.35	200.0	1.0	Clear
	0814	16.31	2131	7.59	0.39	-17.7	13.50	7.62	200.0	1.0	Clear
	0819	16.38	2132	7.60	0.30	-34.9	8.23	7.76	200.0	1.0	Clear
	0824	16.44	2145	7.62	0.38	-44.3	8.76	7.81	200.0	1.0	Clear
	0829	16.49	2150	7.62	0.39	-45.4	8.52	7.85	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 Nov 25	0829	16.49	2150	7.62	0.39	-45.4	8.52				Clear

Comments:

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Member ACIL

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	20[illegible]
Sampling Personal:	[illegible]

Weather Conditions: Temp: 15 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	8.18	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	8.60	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 28	Sec.
PSI:	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	x2
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
Dup 2025

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
26Nov25	1140	Start of Well Purge									
	1145	17.36	2084	7.24	1.04	-1.6	101.5	8.25	200.0	1.0	Clear
	1150	16.48	2086	7.23	0.89	-3.3	129.9	8.31	200.0	1.0	Slightly Turbid
	1155	17.51	2080	7.23	1.06	-4.8	90.16	8.38	200.0	1.0	Clear
	1200	17.66	2067	7.22	0.72	-9.9	83.33	8.46	200.0	1.0	Clear
	1205	17.71	2085	7.21	0.58	-13.9	66.47	8.55	200.0	1.0	Clear

Well Stabilized? YES NO Total Volume Purged: 5.0 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
26Nov25	1205	17.71	2085	7.21	0.58	-13.9	66.47				Clear

Comments:	

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Member ACIL

Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	208
Sampling Personal:	[illegible]

Weather Conditions: Temp: 15 °F Wind: N 8 @ 8-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.40	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	12.45	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 2	Sec.
Recover: 58	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
											clear, slightly turbid, turbid
26 Nov 25	1020	Start of Well Purge						12.41			
	1025	15.14	1194	8.55	1.52	104.9	1.30	~~12.40~~	100.0	0.5	Clear
	1030	15.22	1196	8.55	1.22	104.4	1.68	12.43	100.0	0.5	Clear
	1035	15.19	1206	8.55	1.24	104.2	1.68	12.44	100.0	0.5	Clear
	1040	14.95	1196	8.56	1.36	99.4	0.83	12.45	100.0	0.5	Clear
	1045	14.97	1188	8.56	1.20	97.5	1.78	12.45	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
26 Nov 25	1045	14.97	1188	8.56	1.20	97.5	1.78				Clear

Comments: Collected Field Blank 2025 @ 1050

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company: GRE Stanton Station
Event: Nov 2025
Sample ID: PB 1 R
Sampling Personal:

Weather Conditions: Temp: 30 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / (Cloudy)

WELL INFORMATION

Well Locked?	(YES)	NO
Well Labeled?	(YES)	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	25.92	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	26.89	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	(YES)	NO

Control Settings:
Purge: 3 Sec.
Recover: 57 Sec.
PSI: —

Bottle List:
1 Liter Raw
500mL Nitric
500mL Nitric (filtered)
1 Gal Nitric

Duplicate Sample?
YES (NO)
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect. clear, slightly turbid, turbid
25 Nov 25	1340	Start of Well Purge									
	1345	15.71	1547	7.40	1.30	15.0	3.17	26.33	100.0	0.5	Clear
	1350	15.59	1548	7.40	1.36	13.9	3.01	26.64	100.0	0.5	Clear
	1355	15.62	1559	7.41	1.39	14.2	1.07	26.90	100.0	0.5	Clear
	1400	15.62	1549	7.41	1.26	15.9	1.70	26.89	100.0	0.5	Clear
	1405	15.55	1563	7.41	1.15	15.5	0.48	26.88	100.0	0.5	Clear

Well Stabilized? (YES) NO Total Volume Purged: 2.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
25 Nov 25	1405	15.55	1563	7.41	1.15	15.5	0.48				Clear

Comments:

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	302
Sampling Personal:	

Weather Conditions: Temp: 30 °F Wind: N @ 5-10 Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	12.70	ft
Depth to Top of Pump:	—	ft
Water Level After Sample:	16.00	ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge: 3	Sec.
Recover: 57	Sec.
PSI: —	

Bottle List:	
1 Liter Raw	1 Gal Nitric
500mL Nitric	
500mL Nitric (filtered)	

Duplicate Sample?
YES / NO
Duplicate Sample ID:
—

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment Clarity, Color, Odor, Ect.
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		clear, slightly turbid, turbid
25 Nov 25	1458	Start of Well Purge									
	1503	17.69	1226	7.80	2.03	-42.0	54.9	14.85	200.0	1.0	Clear
	1508	16.94	1327	7.81	1.03	-60.1	228.9	16.62	200.0	1.0	Slightly Turbid (ST)
	1513	16.91	1334	7.81	0.89	-64.0	221.3	16.40	100.0	0.5	ST
	1518	16.83	1324	7.84	0.49	-78.0	75.90	16.32	100.0	0.5	Clear
	1523	16.82	1337	7.82	0.50	-83.7	34.49	16.05	100.0	0.5	Clear

Well Stabilized? YES NO Total Volume Purged: 3.5 Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment Clarity, Color, Odor, Ect.
25 Nov 25	1523	16.82	1337	7.82	0.50	-83.7	34.49				Clear

Comments:	

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Account #: 5109 **Client:** Great River Energy

MVTL
2616 E. Broadway Ave, Bismarck, ND
Phone: (701) 258-9720

Field Datasheet

Groundwater Assessment

Company:	GRE Stanton Station
Event:	Nov 2025
Sample ID:	PB1
Sampling Personal:	

Weather Conditions: Temp: °F Wind: @ Precip: Sunny / Partly Cloudy / Cloudy

WELL INFORMATION

Well Locked?	YES	NO
Well Labeled?	YES	NO
Repairs Necessary?		
Casing Diameter:	2"	
Water Level Before Purge:	24.48	ft
Depth to Top of Pump:	25.12	ft
Water Level After Sample:		ft
Measurement Method:	Electric Water Level Indicator	

SAMPLING INFORMATION

Purging Method:	Bladder	
Sampling Method:	Bladder	
Dedicated Equipment?	YES	NO

Control Settings:	
Purge:	Sec.
Recover:	Sec.
PSI:	

Bottle List:
1 Liter Raw 1 Gal Nitric
500mL Nitric
500mL Nitric (filtered)

Duplicate Sample?
YES / NO
Duplicate Sample ID:

FIELD READINGS

Stabilization Parameters (3 Consecutive)		Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level	Pumping Rate	Liters Removed	Appearance or Comment
Purge Date	Time	±0.3°	±3%	±0.1				(ft)	mL/Min		Clarity, Color, Odor, Ect.
		Start of Well Purge									clear, slightly turbid, turbid

Well Stabilized? YES NO Total Volume Purged: _____ Liters

Sample Date	Time	Temp. (°C)	Spec. Cond.	pH	DO (mg/L)	ORP (mV)	Turbidity (NTU)				Appearance or Comment
											Clarity, Color, Odor, Ect.
25 Nov 25	1410										

Comments: insufficient volume NO SAMPLE

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APPENDIX C

Detection Monitoring Comparative Statistics

Table 1: MW-6B (Background, Sidegradient) Detection Monitoring Parameters Comparative Statistical Analysis

		Statistical Method	Statistical Limit	Q4 2024 Result	CUSUM Value	Within Compliance?	Q2 2025 Result	CUSUM Value	Within Compliance?
Detection Monitoring Analytes	**Units**			**18-Nov-24**			**23-Jun-25**		
Boron, Total	mg/L	CUSUM	0.41	0.30	0.33	Yes	0.33	0.33	Yes
Calcium, Total	mg/L	CUSUM	41.7	26.4	29.3	Yes	24.6	29.3	Yes
Chloride	mg/L	CUSUM	19.8	15.9	45.1	No - Ongoing Verified SSI	No Sample	--	No Sample - Assumed Ongoing Verified SSI
Fluoride	mg/L	CUSUM	0.64	0.57	0.56	Yes	0.54	0.56	Yes
pH, Field-Measured	s.u.	CUSUM	7.19, 8.03	7.62	7.61, 7.81	Yes	7.80	7.61, 7.97	Yes
Sulfate	mg/L	CUSUM	442	430	440	Yes	357	428	Yes
Total Dissolved Solids	mg/L	CUSUM	1147	1070	1051	Yes	1060	1051	Yes

Notes:
mg/L, milligrams per liter
s.u., standard units for pH
CUSUM: Parametric Shewhart-CUSUM Control Chart
Statistical limit for fluoride was deseasonalized and may vary slightly between events.

Table 2: MW-7A (Background, Upgradient) Detection Monitoring Parameters Comparative Statistical Analysis

		Statistical Method	Statistical Limit	Q4 2024 Result	CUSUM Value	Within Compliance?	Q4 2024 Resample	CUSUM Value	Within Compliance?	Q2 2025 Result	CUSUM Value	Within Compliance?	Q2 2025 Resample	CUSUM Value	Within Compliance?
Detection Monitoring Analytes	**Units**			**18-Nov-24**			**17-Mar-25**			**23-Jun-25**			**15-Oct-25**		
Boron, Total	mg/L	CUSUM	1.36	0.66	0.70	Yes	--	--	--	0.66	0.70	Yes	--	--	--
Calcium, Total	mg/L	CUSUM	521	429	428	Yes	--	--	--	463	439.8	Yes	--	--	--
Chloride	mg/L	CUSUM	63.0	39.7	41.6	Yes	--	--	--	No Sample	--	No Sample - See Text	--	--	--
Fluoride	mg/L	CUSUM	0.66	0.57	0.54	Yes	--	--	--	0.50	0.54	Yes	--	--	--
pH, Field-Measured	s.u.	CUSUM	6.83, 7.57	7.26	7.20, 7.50	Yes	7.31	--	Collected For Information Only - Not Tested Statistically	7.43	7.20, 7.65	No - Potential Exceedance	7.31	7.20, 7.53	Yes - Prior Result was a False Positive
Sulfate	mg/L	CUSUM	13706	10800	10454	Yes	--	--	--	11200	10454	Yes	--	--	--
Total Dissolved Solids	mg/L	CUSUM	18675	17100	18966	No - Potential Exceedance	17200	19066	No - Verified SSI	17900	21047	No - Ongoing Verified SSI	--	--	--

Notes:
mg/L, milligrams per liter
s.u., standard units for pH
CUSUM: Parametric Shewhart-CUSUM Control Chart
Statistical limit for fluoride was deseasonalized and may vary slightly between events.

Table 3: MW-7B (Background, Upgradient) Detection Monitoring Parameters Comparative Statistical Analysis

		Statistical Method	Statistical Limit	Q4 2024 Result	CUSUM Value	Within Compliance?	Q2 2025 Result	CUSUM Value	Within Compliance?
Detection Monitoring Analytes	**Units**			**18-Nov-24**			**23-Jun-25**		
Boron, Total	mg/L	CUSUM	0.54	0.43	0.43	Yes	0.44	0.43	Yes
Calcium, Total	mg/L	CUSUM	21.2	16.6	18.9	Yes	18.0	18.9	Yes
Chloride	mg/L	CUSUM	14.1	11.3	40.2	No - Ongoing Verified SSI	No Sample	--	No Sample - Assumed Ongoing Verified SSI
Fluoride	mg/L	CUSUM	0.70	0.62	0.66	Yes	0.59	0.63	Yes
pH, Field-Measured	s.u.	CUSUM	7.18, 8.06	7.68	7.62, 8.01	Yes	7.76	7.62, 7.97	Yes
Sulfate	mg/L	CUSUM	446	276	309	Yes	301	309	Yes
Total Dissolved Solids	mg/L	CUSUM	1324	1020	1040	Yes	1120	1049	Yes

Notes:
mg/L, milligrams per liter
s.u., standard units for pH
CUSUM: Parametric Shewhart-CUSUM Control Chart

Table 4: MW-8B (Background, Upgradient) Detection Monitoring Parameters Comparative Statistical Analysis

		Statistical Method	Statistical Limit	Q4 2024 Result	CUSUM Value	Within Compliance?	Q2 2025 Result	CUSUM Value	Within Compliance?
Detection Monitoring Analytes	**Units**			**18-Nov-24**			**23-Jun-25**		
Boron, Total	mg/L	CUSUM	0.54	0.33	0.31	Yes	0.28	0.31	Yes
Calcium, Total	mg/L	CUSUM	112.7	83.2	84.5	Yes	93.9	86.9	Yes
Chloride	mg/L	CUSUM	20.0	11.8	11.3	Yes	No Sample	--	No Sample - See Text
Fluoride	mg/L	CUSUM	0.46	0.28	0.25	Yes	0.20	0.25	Yes
pH, Field-Measured	s.u.	CUSUM	7.10, 7.65	7.31	7.37, 7.41	Yes	7.39	7.37, 7.37	Yes
Sulfate	mg/L	CUSUM	848	330	367	Yes	265	367	Yes
Total Dissolved Solids	mg/L	CUSUM	1846	971	1000	Yes	849	1000	Yes

Notes:
mg/L, milligrams per liter
s.u., standard units for pH
CUSUM: Parametric Shewhart-CUSUM Control Chart

Table 5: MW-105 (Background, Upgradient) Detection Monitoring Parameters Comparative Statistical Analysis

		Statistical Method	Statistical Limit	Q4 2024 Result	CUSUM Value	Within Compliance?	Q2 2025 Result	CUSUM Value	Within Compliance?
Detection Monitoring Analytes	**Units**			**18-Nov-24**			**23-Jun-25**		
Boron, Total	mg/L	CUSUM	0.47	0.34	0.36	Yes	0.33	0.36	Yes
Calcium, Total	mg/L	CUSUM	84.0	36.7	50.9	Yes	41.9	50.9	Yes
Chloride	mg/L	CUSUM	66.8	8.8	19.7	Yes	No Sample	--	No Sample - See Text
Fluoride	mg/L	CUSUM	1.22	0.98	0.95	Yes	0.88	0.95	Yes
pH, Field-Measured	s.u.	CUSUM	7.47, 7.98	7.77	7.73, 7.90	Yes	7.82	7.73, 7.96	Yes
Sulfate	mg/L	CUSUM	2028	378	916	Yes	386	916	Yes
Total Dissolved Solids	mg/L	CUSUM	3095	1190	1838	Yes	1320	1844	Yes

Notes:
mg/L, milligrams per liter
s.u., standard units for pH
CUSUM: Parametric Shewhart-CUSUM Control Chart
Statistical limit for fluoride was deseasonalized when setting the baseline and may vary slightly between events.
Statistical limit for field-measured pH was deseasonalized when setting the baseline and may vary slightly between events.
Statistical limit for total dissolved solids was deseasonalized when setting the baseline and may vary slightly between events.

Table 6: MW-9N (Downgradient, Bottom Ash Landfill) Detection Monitoring Parameters Comparative Statistical Analysis

		Statistical Method	Statistical Limit	Q4 2024 Result	CUSUM Value	Within Compliance?	Q2 2025 Result	CUSUM Value	Within Compliance?
Detection Monitoring Analytes	**Units**			**18-Nov-24**			**23-Jun-25**		
Boron, Total	mg/L	CUSUM	3.67	2.85	2.68	Yes	2.5	2.68	Yes
Calcium, Total	mg/L	CUSUM	94.4	83.9	167.1	No - Ongoing Verified SSI	84	169.3	No - Ongoing Verified SSI
Chloride	mg/L	CUSUM	22.0	25.7	159.3	No - Ongoing Verified SSI	No Sample	--	No Sample - Assumed Ongoing Verified SSI
Fluoride	mg/L	CUSUM	0.69	0.76	1.92	No - Ongoing Verified SSI	0.71	2.12	No - Ongoing Verified SSI
pH, Field-Measured	s.u.	CUSUM	6.65, 7.32	7.16	6.99, 8.00	No - Ongoing Verified SSI	7.03	6.99, 8.12	No - Ongoing Verified SSI
Sulfate	mg/L	CUSUM	1685	1400	1299	Yes	1110	1282	Yes
Total Dissolved Solids	mg/L	CUSUM	3394	3070	3859	No - Ongoing Verified SSI	2850	3762	No - Ongoing Verified SSI

Notes:
mg/L, milligrams per liter
s.u., standard units for pH
CUSUM: Parametric Shewhart-CUSUM Control Chart

Table 7: MW-102 (Downgradient, Bottom Ash Landfill) Detection Monitoring Parameters Comparative Statistical Analysis

		Statistical Method	Statistical Limit	Q4 2024 Result	CUSUM Value	Within Compliance?	Q2 2025 Result	CUSUM Value	Within Compliance?
Detection Monitoring Analytes	**Units**			**18-Nov-24**			**23-Jun-25**		
Boron, Total	mg/L	CUSUM	2.89	0.42	1.90	Yes	0.43	1.90	Yes
Calcium, Total	mg/L	CUSUM	106.3	60.5	63.0	Yes	61.6	63.0	Yes
Chloride	mg/L	CUSUM	23.1	15.2	16.4	Yes	No Sample	--	No Sample - See Text
Fluoride	mg/L	CUSUM	1.20	0.48	0.69	Yes	0.48	0.69	Yes
pH, Field-Measured	s.u.	CUSUM	6.95, 7.85	7.63	7.40, 8.55	No - Ongoing Verified SSI	7.51	7.40, 8.68	No - Ongoing Verified SSI
Sulfate	mg/L	CUSUM	1592	565	1008	Yes	578	1008	Yes
Total Dissolved Solids	mg/L	NP-PL	2410	1360	--	Yes	1440	--	Yes

Notes:
mg/L, milligrams per liter
s.u., standard units for pH
NP-PL: Non-Parametric Prediction Limit
CUSUM: Parametric Shewhart-CUSUM Control Chart

Table 8: MW-103 (Downgradient, Bottom Ash Landfill) Detection Monitoring Parameters Comparative Statistical Analysis

		Statistical Method	Statistical Limit	Q4 2024 Result	CUSUM Value	Within Compliance?	Q2 2025 Result	CUSUM Value	Within Compliance?
Detection Monitoring Analytes	**Units**			**18-Nov-24**			**23-Jun-25**		
Boron, Total	mg/L	CUSUM	1.33	1.40	4.15	No - Ongoing Verified SSI	0.98	3.94	No - Ongoing Verified SSI
Calcium, Total	mg/L	CUSUM	34.5	33.0	80.5	No - Ongoing Verified SSI	32.3	88.9	No - Ongoing Verified SSI
Chloride	mg/L	CUSUM	18.7	17.1	69.8	No - Ongoing Verified SSI	No Sample	--	No Sample - Assumed Ongoing Verified SSI
Fluoride	mg/L	CUSUM	0.33	0.48	2.88	No - Ongoing Verified SSI	0.27	2.83	No - Ongoing Verified SSI
pH, Field-Measured	s.u.	CUSUM	8.89, 9.47	8.80	7.36, 9.18	No - Ongoing Verified SSI	8.84	6.95, 9.18	No - Ongoing Verified SSI
Sulfate	mg/L	CUSUM	961	847	2047	No - Ongoing Verified SSI	693	2022	No - Ongoing Verified SSI
Total Dissolved Solids	mg/L	CUSUM	1948	1950	4102	No - Ongoing Verified SSI	1810	4102	No - Ongoing Verified SSI

Notes:
mg/L, milligrams per liter
s.u., standard units for pH
CUSUM: Parametric Shewhart-CUSUM Control Chart

Table 9: MW-201 (Downgradient, Bottom Ash Impoundment) Detection Monitoring Parameters Comparative Statistical Analysis

		Statistical Method	Statistical Limit	Q4 2024 Result	CUSUM Value	Within Compliance?	Q2 2025 Result	CUSUM Value	Within Compliance?
Detection Monitoring Analytes	**Units**			**20-Nov-24**			**24-Jun-25**		
Boron, Total	mg/L	CUSUM	2.44	1.67	1.67	Yes	1.43	1.67	Yes
Calcium, Total	mg/L	CUSUM	123	96.7	100.8	Yes	103	101	Yes
Chloride	mg/L	CUSUM	21.9	18.1	19.3	Yes	No Sample	--	No Sample - See Text
Fluoride	mg/L	CUSUM	1.11	0.82	0.81	Yes	0.77	0.81	Yes
pH, Field-Measured	s.u.	CUSUM	7.09, 7.75	7.55	7.42, 7.48	Yes	7.43	7.42, 7.42	Yes
Sulfate	mg/L	CUSUM	1484	1190	1157	Yes	1120	1099	Yes
Total Dissolved Solids	mg/L	CUSUM	2377	2230	2185	Yes	2230	2195	Yes

Notes:
mg/L, milligrams per liter
s.u., standard units for pH
CUSUM: Parametric Shewhart-CUSUM Control Chart

Table 10: MW-202 (Downgradient, Bottom Ash Impoundment) Detection Monitoring Parameters Comparative Statistical Analysis

		Statistical Method	Statistical Limit	Q4 2024 Result	CUSUM Value	Within Compliance?	Q4 2024 Resample	CUSUM Value	Within Compliance?	Q4 2024 Resample	CUSUM Value	Within Compliance?	Q2 2025 Result	CUSUM Value	Within Compliance?
Detection Monitoring Analytes	**Units**			**20-Nov-24**			**19-Mar-25**			**21-Mar-25**			**24-Jun-25**		
Boron, Total	mg/L	CUSUM	2.13	2.10	2.21	No - Potential Exceedance	--	--	--	1.74	1.85	Yes - Prior Result Was a	1.72	1.79	Yes
Calcium, Total	mg/L	CUSUM	228	202	208	Yes	--	--	--	--	--	--	191	213	Yes
Chloride	mg/L	CUSUM	17.5	12.5	13.0	Yes	--	--	--	--	--	--	No Sample	--	No Sample - See Text
Fluoride	mg/L	CUSUM	0.24	0.13	0.16	Yes	--	--	--	--	--	--	0.12	0.16	Yes
pH, Field-Measured	s.u.	CUSUM	6.85, 7.62	7.28	7.23, 7.23	Yes	7.25	--	Collected For Information Only - Not Tested Statistically	7.21	--	Collected For Information Only - Not Tested Statistically	7.17	7.23, 7.23	Yes
Sulfate	mg/L	CUSUM	725	654	735	No - Potential Exceedance	580	661	Yes - Prior Result Was a False Positive	--	--	--	579	656	Yes
Total Dissolved Solids	mg/L	CUSUM	1697	1530	1512	Yes	--	--	--	--	--	--	1530	1535	Yes

Notes:
mg/L, milligrams per liter
s.u., standard units for pH
CUSUM: Parametric Shewhart-CUSUM Control Chart

Table 11: MW-203 (Downgradient, Bottom Ash Impoundment) Detection Monitoring Parameters Comparative Statistical Analysis

		Statistical Method	Statistical Limit	Q4 2024 Result	CUSUM Value	Within Compliance?	Q2 2025 Result	CUSUM Value	Within Compliance?
Detection Monitoring Analytes	**Units**			**20-Nov-24**			**24-Jun-25**		
Boron, Total	mg/L	CUSUM	2.06	1.84	5.98	No - Ongoing Verified SSI	2.41	6.90	No - Ongoing Verified SSI
Calcium, Total	mg/L	CUSUM	124.8	17.9	50.2	Yes	36.6	50.2	Yes
Chloride	mg/L	CUSUM	50.9	14.8	26.0	Yes	No Sample	--	No Sample - See Text
Fluoride	mg/L	CUSUM	1.27	0.88	0.84	Yes	0.75	0.84	Yes
pH, Field-Measured	s.u.	CUSUM	6.86, 10.66	9.55	8.76, 9.13	Yes	8.51	8.76, 8.91	Yes
Sulfate	mg/L	CUSUM	706	507	3618	No - Ongoing Verified SSI	1010	4168	No - Ongoing Verified SSI
Total Dissolved Solids	mg/L	CUSUM	1793	1660	6889	No - Ongoing Verified SSI	2470	7830	No - Ongoing Verified SSI

Notes:
mg/L, milligrams per liter
s.u., standard units for pH
CUSUM: Parametric Shewhart-CUSUM Control Chart

APPENDIX D

Assessment Monitoring Comparative Statistics

Table D1-1: Appendix IV Comparative Statistics, MW-9N (Downgradient, Bottom Ash Landfill), Q4 2024

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/16/2021	11/18/2024	13	11	85%	N/A	N/A	Non-Parametric	0.0010	0.0011	Yes
Arsenic, Total	mg/L	0.01	3/16/2021	11/18/2024	13	13	100%	N/A	N/A	Non-Parametric	0.0020	0.0020	Yes
Barium, Total	mg/L	2	3/16/2021	11/18/2024	13	0	0%	None	Normal	Parametric	0.0586	0.0732	Yes
Beryllium, Total	mg/L	0.004	3/16/2021	11/18/2024	13	13	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/16/2021	11/18/2024	13	12	92%	N/A	N/A	Non-Parametric	0.0005	0.0007	Yes
Chromium, Total	mg/L	0.1	3/16/2021	11/18/2024	13	12	92%	N/A	N/A	Non-Parametric	0.0020	0.0024	Yes
Cobalt, Total	mg/L	0.006	3/16/2021	11/18/2024	13	0	0%	None	Natural Log	Parametric	0.0032	0.0061	Yes
Fluoride	mg/L	4	3/16/2021	11/18/2024	13	0	0%	None	Normal	Parametric	0.67	0.71	Yes
Lead, Total	mg/L	0.015	3/16/2021	11/18/2024	13	13	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Lithium, Total	mg/L	0.325	3/16/2021	11/18/2024	13	0	0%	None	Normal	Parametric	0.0490	0.0536	Yes
Mercury, Total	mg/L	0.002	3/16/2021	11/18/2024	13	12	92%	N/A	N/A	Non-Parametric	0.0002	0.0003	Yes
Molybdenum, Total	mg/L	0.1	3/16/2021	11/18/2024	13	0	0%	None	Square Root	Parametric	0.0505	0.0626	Yes
Radium-226 + Radium-228	pCi/L	5	3/16/2021	11/18/2024	13	0	0%	None	Normal	Parametric	0.945	1.686	Yes
Selenium, Total	mg/L	0.05	3/16/2021	11/18/2024	13	0	0%	None	Normal	Parametric	0.0125	0.0170	Yes
Thallium, Total	mg/L	0.002	3/16/2021	11/18/2024	13	13	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

Table D1-2: Appendix IV Comparative Statistics, MW-102 (Downgradient, Bottom Ash Landfill), Q4 2024

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/16/2021	11/18/2024	13	13	100%	N/A	N/A	Non-Parametric	0.0010	0.0010	Yes
Arsenic, Total	mg/L	0.01	3/16/2021	11/18/2024	13	13	100%	N/A	N/A	Non-Parametric	0.0020	0.0020	Yes
Barium, Total	mg/L	2	3/16/2021	11/18/2024	13	0	0%	None	Non-Normal	Non-Parametric	0.0257	0.0343	Yes
Beryllium, Total	mg/L	0.004	3/16/2021	11/18/2024	13	13	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/16/2021	11/18/2024	13	13	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Chromium, Total	mg/L	0.1	3/16/2021	11/18/2024	13	13	100%	N/A	N/A	Non-Parametric	0.0020	0.0020	Yes
Cobalt, Total	mg/L	0.006	3/16/2021	11/18/2024	13	8	62%	N/A	N/A	Non-Parametric	0.0020	0.0023	Yes
Fluoride	mg/L	4	3/16/2021	11/18/2024	13	0	0%	None	Normal	Parametric	0.48	0.50	Yes
Lead, Total	mg/L	0.015	3/16/2021	11/18/2024	13	12	92%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Lithium, Total	mg/L	0.325	3/16/2021	11/18/2024	13	0	0%	Decreasing trend significant at 99% confidence level	Normal	Confidence Band Around Trend Line	0.0508	0.0584	Yes
Mercury, Total	mg/L	0.002	3/16/2021	11/18/2024	13	12	92%	N/A	N/A	Non-Parametric	0.0002	0.0003	Yes
Molybdenum, Total	mg/L	0.1	3/16/2021	11/18/2024	13	0	0%	None	Normal	Parametric	0.0199	0.0228	Yes
Radium-226 + Radium-228	pCi/L	5	3/16/2021	11/18/2024	13	0	0%	None	Normal	Parametric	0.788	1.354	Yes
Selenium, Total	mg/L	0.05	3/16/2021	11/18/2024	13	13	100%	N/A	N/A	Non-Parametric	0.0050	0.0050	Yes
Thallium, Total	mg/L	0.002	3/16/2021	11/18/2024	13	13	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

Table D1-3: Appendix IV Comparative Statistics, MW-103 (Downgradient, Bottom Ash Landfill), Q4 2024

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/16/2021	11/18/2024	13	13	100%	N/A	N/A	Non-Parametric	0.0010	0.0010	Yes
Arsenic, Total	mg/L	0.01	3/16/2021	11/18/2024	13	0	0%	None	Normal	Parametric	0.0132	0.0159	No
Barium, Total	mg/L	2	3/16/2021	11/18/2024	13	0	0%	None	Normal	Parametric	0.0541	0.0623	Yes
Beryllium, Total	mg/L	0.004	3/16/2021	11/18/2024	13	13	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/16/2021	11/18/2024	13	13	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Chromium, Total	mg/L	0.1	3/16/2021	11/18/2024	13	12	92%	N/A	N/A	Non-Parametric	0.0020	0.0024	Yes
Cobalt, Total	mg/L	0.006	3/16/2021	11/18/2024	13	12	92%	N/A	N/A	Non-Parametric	0.0020	0.0022	Yes
Fluoride	mg/L	4	3/16/2021	11/18/2024	13	0	0%	None	Normal	Parametric	0.3666	0.4534	Yes
Lead, Total	mg/L	0.015	3/16/2021	11/18/2024	13	0	0%	None	Cube Root	Parametric	0.0014	0.0022	Yes
Lithium, Total	mg/L	0.325	3/16/2021	11/18/2024	13	0	0%	None	Normal	Parametric	0.0246	0.0297	Yes
Mercury, Total	mg/L	0.002	3/16/2021	11/18/2024	13	13	100%	N/A	N/A	Non-Parametric	0.0002	0.0002	Yes
Molybdenum, Total	mg/L	0.1	3/16/2021	11/18/2024	13	0	0%	None	Normal	Parametric	0.0464	0.0559	Yes
Radium-226 + Radium-228	pCi/L	5	3/16/2021	11/18/2024	13	0	0%	None	Normal	Parametric	0.804	1.614	Yes
Selenium, Total	mg/L	0.05	3/16/2021	11/18/2024	13	1	8%	None	Normal	Parametric	0.0086	0.0119	Yes
Thallium, Total	mg/L	0.002	3/16/2021	11/18/2024	13	13	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

Table D1-4: Appendix IV Comparative Statistics, MW-201 (Downgradient, Bottom Ash Impoundment), Q4 2024

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0010	0.0010	Yes
Arsenic, Total	mg/L	0.01	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0020	0.0020	Yes
Barium, Total	mg/L	2	3/28/2024	11/20/2024	4	0	0%	None	Normal	Parametric	0.0146	0.0209	Yes
Beryllium, Total	mg/L	0.004	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Chromium, Total	mg/L	0.1	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0020	0.0020	Yes
Cobalt, Total	mg/L	0.006	3/28/2024	11/20/2024	4	3	75%	None	N/A	Non-Parametric	0.0020	0.0022	Yes
Fluoride	mg/L	4	3/28/2024	11/20/2024	4	0	0%	None	Normal	Parametric	0.73	0.82	Yes
Lead, Total	mg/L	0.015	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Lithium, Total	mg/L	0.325	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0200	0.0200	Yes
Mercury, Total	mg/L	0.002	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0002	0.0002	Yes
Molybdenum, Total	mg/L	0.1	3/28/2024	11/20/2024	4	0	0%	None	Normal	Parametric	0.1488	0.2076	No
Radium-226 + Radium-228	pCi/L	5	3/28/2024	11/20/2024	4	0	0%	None	Normal	Parametric	0.4	1.1	Yes
Selenium, Total	mg/L	0.05	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0050	0.0050	Yes
Thallium, Total	mg/L	0.002	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

Table D1-5: Appendix IV Comparative Statistics, MW-202 (Downgradient, Bottom Ash Impoundment), Q4 2024

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0010	0.0010	Yes
Arsenic, Total	mg/L	0.01	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0020	0.0020	Yes
Barium, Total	mg/L	2	3/28/2024	11/20/2024	4	0	0%	None	Normal	Parametric	0.0501	0.0747	Yes
Beryllium, Total	mg/L	0.004	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Chromium, Total	mg/L	0.1	3/28/2024	11/20/2024	4	0	0%	None	Normal	Parametric	0.0035	0.0058	Yes
Cobalt, Total	mg/L	0.006	3/28/2024	11/20/2024	4	0	0%	None	Normal	Parametric	0.0026	0.0038	Yes
Fluoride	mg/L	4	3/28/2024	11/20/2024	4	0	0%	None	Non-Normal	Non-Parametric	0.12	0.13	Yes
Lead, Total	mg/L	0.015	3/28/2024	11/20/2024	4	0	0%	None	Normal	Parametric	0.0008	0.0018	Yes
Lithium, Total	mg/L	0.325	3/28/2024	11/20/2024	4	0	0%	None	Normal	Parametric	0.0222	0.0255	Yes
Mercury, Total	mg/L	0.002	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0002	0.0002	Yes
Molybdenum, Total	mg/L	0.1	3/28/2024	11/20/2024	4	0	0%	None	Normal	Parametric	0.0028	0.0040	Yes
Radium-226 + Radium-228	pCi/L	5	3/28/2024	11/20/2024	4	0	0%	None	Cube Root	Parametric	0.5	1.8	Yes
Selenium, Total	mg/L	0.05	3/28/2024	11/20/2024	4	0	0%	None	Normal	Parametric	0.0066	0.0078	Yes
Thallium, Total	mg/L	0.002	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

Table D1-6: Appendix IV Comparative Statistics, MW-203 (Downgradient, Bottom Ash Impoundment, Q4 2024

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/28/2024	11/20/2024	4	2	50%	None	Normal	Parametric	0.0009	0.0015	Yes
Arsenic, Total	mg/L	0.01	3/28/2024	11/20/2024	4	0	0%	None	Normal	Parametric	0.0076	0.0340	Yes
Barium, Total	mg/L	2	3/28/2024	11/20/2024	4	0	0%	None	Non-Normal	Non-Parametric	0.0405	0.0822	Yes
Beryllium, Total	mg/L	0.004	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/28/2024	11/20/2024	4	2	50%	None	Normal	Parametric	0.0005	0.0007	Yes
Chromium, Total	mg/L	0.1	3/28/2024	11/20/2024	4	2	50%	None	Non-Normal	Non-Parametric	0.0020	0.0041	Yes
Cobalt, Total	mg/L	0.006	3/28/2024	11/20/2024	4	0	0%	None	Normal	Parametric	0.0021	0.0045	Yes
Fluoride	mg/L	4	3/28/2024	11/20/2024	4	0	0%	None	Normal	Parametric	0.57	0.88	Yes
Lead, Total	mg/L	0.015	3/28/2024	11/20/2024	4	0	0%	None	Normal	Parametric	0.0017	0.0086	Yes
Lithium, Total	mg/L	0.325	3/28/2024	11/20/2024	4	3	75%	N/A	N/A	Non-Parametric	0.0200	0.0289	Yes
Mercury, Total	mg/L	0.002	3/28/2024	11/20/2024	4	3	75%	N/A	N/A	Non-Parametric	0.0002	0.0002	Yes
Molybdenum, Total	mg/L	0.1	3/28/2024	11/20/2024	4	0	0%	None	Normal	Parametric	0.0434	0.0731	Yes
Radium-226 + Radium-228	pCi/L	5	3/28/2024	11/20/2024	4	0	0%	None	Normal	Parametric	0.7	2.5	Yes
Selenium, Total	mg/L	0.05	3/28/2024	11/20/2024	4	3	75%	N/A	N/A	Non-Parametric	0.0050	0.0087	Yes
Thallium, Total	mg/L	0.002	3/28/2024	11/20/2024	4	4	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

Table D2-1: Appendix IV Comparative Statistics, MW-9N (Downgradient, Bottom Ash Landfill), Q1 2025

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/16/2021	3/20/2025	14	12	86%	N/A	N/A	Non-Parametric	0.0010	0.0011	Yes
Arsenic, Total	mg/L	0.01	3/16/2021	3/20/2025	14	14	100%	N/A	N/A	Non-Parametric	0.0020	0.0020	Yes
Barium, Total	mg/L	2	3/16/2021	3/20/2025	14	0	0%	None	Normal	Parametric	0.0581	0.0718	Yes
Beryllium, Total	mg/L	0.004	3/16/2021	3/20/2025	14	14	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/16/2021	3/20/2025	14	13	93%	N/A	N/A	Non-Parametric	0.0005	0.0007	Yes
Chromium, Total	mg/L	0.1	3/16/2021	3/20/2025	14	13	93%	N/A	N/A	Non-Parametric	0.0020	0.0024	Yes
Cobalt, Total	mg/L	0.006	3/16/2021	3/20/2025	14	0	0%	None	Non-normal	Non-Parametric	0.0028	0.0070	Yes
Fluoride	mg/L	4	3/16/2021	3/20/2025	14	0	0%	None	Normal	Parametric	0.67	0.70	Yes
Lead, Total	mg/L	0.015	3/16/2021	3/20/2025	14	14	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Lithium, Total	mg/L	0.325	3/16/2021	3/20/2025	14	0	0%	Decreasing trend significant at 99% confidence level	Normal	Confidence Band Around Trend Line	0.0402	0.0503	Yes
Mercury, Total	mg/L	0.002	3/16/2021	3/20/2025	14	13	93%	N/A	N/A	Non-Parametric	0.0002	0.0003	Yes
Molybdenum, Total	mg/L	0.1	3/16/2021	3/20/2025	14	0	0%	None	Cube Root	Parametric	0.0497	0.0610	Yes
Radium-226 + Radium-228	pCi/L	5	3/16/2021	3/20/2025	14	0	0%	None	Normal	Parametric	0.923	1.619	Yes
Selenium, Total	mg/L	0.05	3/16/2021	3/20/2025	14	0	0%	None	Normal	Parametric	0.0122	0.0165	Yes
Thallium, Total	mg/L	0.002	3/16/2021	3/20/2025	14	14	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

Table D2-2: Appendix IV Comparative Statistics, MW-102 (Downgradient, Bottom Ash Landfill), Q1 2025

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/16/2021	3/20/2025	14	14	100%	N/A	N/A	Non-Parametric	0.0010	0.0010	Yes
Arsenic, Total	mg/L	0.01	3/16/2021	3/20/2025	14	14	100%	N/A	N/A	Non-Parametric	0.0020	0.0020	Yes
Barium, Total	mg/L	2	3/16/2021	3/20/2025	14	0	0%	None	Non-Normal	Non-Parametric	0.0257	0.0343	Yes
Beryllium, Total	mg/L	0.004	3/16/2021	3/20/2025	14	14	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/16/2021	3/20/2025	14	14	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Chromium, Total	mg/L	0.1	3/16/2021	3/20/2025	14	14	100%	N/A	N/A	Non-Parametric	0.0020	0.0020	Yes
Cobalt, Total	mg/L	0.006	3/16/2021	3/20/2025	14	9	64%	N/A	N/A	Non-Parametric	0.0020	0.0023	Yes
Fluoride	mg/L	4	3/16/2021	3/20/2025	14	0	0%	None	Normal	Parametric	0.48	0.49	Yes
Lead, Total	mg/L	0.015	3/16/2021	3/20/2025	14	13	93%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Lithium, Total	mg/L	0.325	3/16/2021	3/20/2025	14	0	0%	Decreasing trend significant at 99% confidence level	Normal	Confidence Band Around Trend Line	0.0509	0.0569	Yes
Mercury, Total	mg/L	0.002	3/16/2021	3/20/2025	14	13	93%	N/A	N/A	Non-Parametric	0.0002	0.0003	Yes
Molybdenum, Total	mg/L	0.1	3/16/2021	3/20/2025	14	0	0%	None	Normal	Parametric	0.0196	0.0225	Yes
Radium-226 + Radium-228	pCi/L	5	3/16/2021	3/20/2025	14	0	0%	None	Normal	Parametric	0.781	1.309	Yes
Selenium, Total	mg/L	0.05	3/16/2021	3/20/2025	14	14	100%	N/A	N/A	Non-Parametric	0.0050	0.0050	Yes
Thallium, Total	mg/L	0.002	3/16/2021	3/20/2025	14	14	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

Table D2-3: Appendix IV Comparative Statistics, MW-103 (Downgradient, Bottom Ash Landfill), Q1 2025

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/16/2021	3/20/2025	14	14	100%	N/A	N/A	Non-Parametric	0.0010	0.0010	Yes
Arsenic, Total	mg/L	0.01	3/16/2021	3/20/2025	14	0	0%	None	Normal	Parametric	0.0127	0.0156	No
Barium, Total	mg/L	2	3/16/2021	3/20/2025	14	0	0%	None	Normal	Parametric	0.0551	0.0651	Yes
Beryllium, Total	mg/L	0.004	3/16/2021	3/20/2025	14	14	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/16/2021	3/20/2025	14	14	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Chromium, Total	mg/L	0.1	3/16/2021	3/20/2025	14	13	93%	N/A	N/A	Non-Parametric	0.0020	0.0024	Yes
Cobalt, Total	mg/L	0.006	3/16/2021	3/20/2025	14	13	93%	N/A	N/A	Non-Parametric	0.0020	0.0022	Yes
Fluoride	mg/L	4	3/16/2021	3/20/2025	14	0	0%	None	Normal	Parametric	0.35	0.44	Yes
Lead, Total	mg/L	0.015	3/16/2021	3/20/2025	14	0	0%	None	Non-normal	Non-Parametric	0.0012	0.0022	Yes
Lithium, Total	mg/L	0.325	3/16/2021	3/20/2025	14	0	0%	None	Normal	Parametric	0.0252	0.0313	Yes
Mercury, Total	mg/L	0.002	3/16/2021	3/20/2025	14	14	100%	N/A	N/A	Non-Parametric	0.0002	0.0002	Yes
Molybdenum, Total	mg/L	0.1	3/16/2021	3/20/2025	14	0	0%	None	Normal	Parametric	0.0436	0.0548	Yes
Radium-226 + Radium-228	pCi/L	5	3/16/2021	3/20/2025	14	0	0%	None	Normal	Parametric	0.795	1.551	Yes
Selenium, Total	mg/L	0.05	3/16/2021	3/20/2025	14	2	14%	None	Normal	Parametric	0.0079	0.0115	Yes
Thallium, Total	mg/L	0.002	3/16/2021	3/20/2025	14	14	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

Table D2-4: Appendix IV Comparative Statistics, MW-201 (Downgradient, Bottom Ash Impoundment), Q1 2025

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/28/2024	3/19/2025	5	5	100%	N/A	N/A	Non-Parametric	0.0010	0.0010	Yes
Arsenic, Total	mg/L	0.01	3/28/2024	3/19/2025	5	5	100%	N/A	N/A	Non-Parametric	0.0020	0.0020	Yes
Barium, Total	mg/L	2	3/28/2024	3/19/2025	5	0	0%	None	Normal	Parametric	0.0154	0.0198	Yes
Beryllium, Total	mg/L	0.004	3/28/2024	3/19/2025	5	5	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/28/2024	3/19/2025	5	5	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Chromium, Total	mg/L	0.1	3/28/2024	3/19/2025	5	5	100%	N/A	N/A	Non-Parametric	0.0020	0.0020	Yes
Cobalt, Total	mg/L	0.006	3/28/2024	3/19/2025	5	4	80%	N/A	N/A	Non-Parametric	0.0020	0.0022	Yes
Fluoride	mg/L	4	3/28/2024	3/19/2025	5	0	0%	None	Normal	Parametric	0.73	0.80	Yes
Lead, Total	mg/L	0.015	3/28/2024	3/19/2025	5	5	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Lithium, Total	mg/L	0.325	3/28/2024	3/19/2025	5	5	100%	N/A	N/A	Non-Parametric	0.0200	0.0200	Yes
Mercury, Total	mg/L	0.002	3/28/2024	3/19/2025	5	5	100%	N/A	N/A	Non-Parametric	0.0002	0.0002	Yes
Molybdenum, Total	mg/L	0.1	3/28/2024	3/19/2025	5	0	0%	None	Normal	Parametric	0.1522	0.1966	No
Radium-226 + Radium-228	pCi/L	5	3/28/2024	3/19/2025	5	0	0%	None	Normal	Parametric	0.482	0.998	Yes
Selenium, Total	mg/L	0.05	3/28/2024	3/19/2025	5	5	100%	N/A	N/A	Non-Parametric	0.0050	0.0050	Yes
Thallium, Total	mg/L	0.002	3/28/2024	3/19/2025	5	5	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

Table D2-5: Appendix IV Comparative Statistics, MW-202 (Downgradient, Bottom Ash Impoundment), Q1 2025

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/28/2024	3/19/2025	5	5	100%	N/A	N/A	Non-Parametric	0.0010	0.0010	Yes
Arsenic, Total	mg/L	0.01	3/28/2024	3/19/2025	5	4	80%	N/A	N/A	Non-Parametric	0.0020	0.0040	Yes
Barium, Total	mg/L	2	3/28/2024	3/19/2025	5	0	0%	None	Square Root	Parametric	0.0463	0.1145	Yes
Beryllium, Total	mg/L	0.004	3/28/2024	3/19/2025	5	5	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/28/2024	3/19/2025	5	5	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Chromium, Total	mg/L	0.1	3/28/2024	3/19/2025	5	0	0%	None	Square Root	Parametric	0.0031	0.0097	Yes
Cobalt, Total	mg/L	0.006	3/28/2024	3/19/2025	5	0	0%	None	Square Root	Parametric	0.0025	0.0054	Yes
Fluoride	mg/L	4	3/28/2024	3/19/2025	5	0	0%	None	Non-Normal	Non-Parametric	0.12	0.13	Yes
Lead, Total	mg/L	0.015	3/28/2024	3/19/2025	5	0	0%	None	Square Root	Parametric	0.0008	0.0031	Yes
Lithium, Total	mg/L	0.325	3/28/2024	3/19/2025	5	0	0%	None	Normal	Parametric	0.0226	0.0269	Yes
Mercury, Total	mg/L	0.002	3/28/2024	3/19/2025	5	5	100%	N/A	N/A	Non-Parametric	0.0002	0.0002	Yes
Molybdenum, Total	mg/L	0.1	3/28/2024	3/19/2025	5	0	0%	None	Non-Normal	Non-Parametric	0.0029	0.0039	Yes
Radium-226 + Radium-228	pCi/L	5	3/28/2024	3/19/2025	5	0	0%	None	Normal	Parametric	0.387	2.653	Yes
Selenium, Total	mg/L	0.05	3/28/2024	3/19/2025	5	0	0%	None	Normal	Parametric	0.0068	0.0076	Yes
Thallium, Total	mg/L	0.002	3/28/2024	3/19/2025	5	5	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

Table D2-6: Appendix IV Comparative Statistics, MW-203 (Downgradient, Bottom Ash Impoundment), Q1 2025

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/28/2024	3/19/2025	5	2	40%	None	Square Root	Parametric	0.0010	0.0014	Yes
Arsenic, Total	mg/L	0.01	3/28/2024	3/19/2025	5	0	0%	None	Normal	Parametric	0.0125	0.0318	No
Barium, Total	mg/L	2	3/28/2024	3/19/2025	5	0	0%	None	Non-Normal	Non-Parametric	0.0403	0.0822	Yes
Beryllium, Total	mg/L	0.004	3/28/2024	3/19/2025	5	5	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/28/2024	3/19/2025	5	2	40%	None	Normal	Parametric	0.0005	0.0007	Yes
Chromium, Total	mg/L	0.1	3/28/2024	3/19/2025	5	2	40%	None	Non-Normal	Non-Parametric	0.0020	0.0041	Yes
Cobalt, Total	mg/L	0.006	3/28/2024	3/19/2025	5	0	0%	None	Normal	Parametric	0.0026	0.0042	Yes
Fluoride	mg/L	4	3/28/2024	3/19/2025	5	0	0%	None	Normal	Parametric	0.63	0.87	Yes
Lead, Total	mg/L	0.015	3/28/2024	3/19/2025	5	0	0%	None	x^5	Parametric	0.0045	0.0077	Yes
Lithium, Total	mg/L	0.325	3/28/2024	3/19/2025	5	4	80%	N/A	N/A	Non-Parametric	0.0200	0.0289	Yes
Mercury, Total	mg/L	0.002	3/28/2024	3/19/2025	5	4	80%	N/A	N/A	Non-Parametric	0.0002	0.0002	Yes
Molybdenum, Total	mg/L	0.1	3/28/2024	3/19/2025	5	0	0%	None	Normal	Parametric	0.0486	0.0699	Yes
Radium-226 + Radium-228	pCi/L	5	3/28/2024	3/19/2025	5	0	0%	None	Normal	Parametric	0.853	2.147	Yes
Selenium, Total	mg/L	0.05	3/28/2024	3/19/2025	5	3	60%	N/A	N/A	Non-Parametric	0.0050	0.0087	Yes
Thallium, Total	mg/L	0.002	3/28/2024	3/19/2025	5	5	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

Table D3-1: Appendix IV Comparative Statistics, MW-9N (Downgradient, Bottom Ash Landfill), Q2 2025

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/16/2021	6/23/2025	15	13	87%	N/A	N/A	Non-Parametric	0.0010	0.0011	Yes
Arsenic, Total	mg/L	0.01	3/16/2021	6/23/2025	15	15	100%	N/A	N/A	Non-Parametric	0.0020	0.0020	Yes
Barium, Total	mg/L	2	3/16/2021	6/23/2025	15	0	0%	None	Normal	Parametric	0.0578	0.0707	Yes
Beryllium, Total	mg/L	0.004	3/16/2021	6/23/2025	15	15	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/16/2021	6/23/2025	15	14	93%	N/A	N/A	Non-Parametric	0.0005	0.0007	Yes
Chromium, Total	mg/L	0.1	3/16/2021	6/23/2025	15	14	93%	N/A	N/A	Non-Parametric	0.0020	0.0024	Yes
Cobalt, Total	mg/L	0.006	3/16/2021	6/23/2025	15	0	0%	None	Non-normal	Non-Parametric	0.0028	0.0070	Yes
Fluoride	mg/L	4	3/16/2021	6/23/2025	15	0	0%	None	Normal	Parametric	0.67	0.70	Yes
Lead, Total	mg/L	0.015	3/16/2021	6/23/2025	15	15	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Lithium, Total	mg/L	0.325	3/16/2021	6/23/2025	15	0	0%	Decreasing trend significant at 99% confidence level	Normal	Confidence Band Around Trend Line	0.0391	0.0499	Yes
Mercury, Total	mg/L	0.002	3/16/2021	6/23/2025	15	14	93%	N/A	N/A	Non-Parametric	0.0002	0.0003	Yes
Molybdenum, Total	mg/L	0.1	3/16/2021	6/23/2025	15	0	0%	None	Natural Log	Parametric	0.0493	0.0595	Yes
Radium-226 + Radium-228	pCi/L	5	3/16/2021	6/23/2025	15	0	0%	None	Normal	Parametric	0.903	1.561	Yes
Selenium, Total	mg/L	0.05	3/16/2021	6/23/2025	15	0	0%	None	Square Root	Parametric	0.0119	0.0158	Yes
Thallium, Total	mg/L	0.002	3/16/2021	6/23/2025	15	15	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

Table D3-2: Appendix IV Comparative Statistics, MW-102 (Downgradient, Bottom Ash Landfill), Q2 2025

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/16/2021	6/23/2025	15	15	100%	N/A	N/A	Non-Parametric	0.0010	0.0010	Yes
Arsenic, Total	mg/L	0.01	3/16/2021	6/23/2025	15	15	100%	N/A	N/A	Non-Parametric	0.0020	0.0020	Yes
Barium, Total	mg/L	2	3/16/2021	6/23/2025	15	0	0%	None	Non-Normal	Non-Parametric	0.0257	0.0343	Yes
Beryllium, Total	mg/L	0.004	3/16/2021	6/23/2025	15	15	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/16/2021	6/23/2025	15	15	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Chromium, Total	mg/L	0.1	3/16/2021	6/23/2025	15	15	100%	N/A	N/A	Non-Parametric	0.0020	0.0020	Yes
Cobalt, Total	mg/L	0.006	3/16/2021	6/23/2025	15	10	67%	N/A	N/A	Non-Parametric	0.0020	0.0023	Yes
Fluoride	mg/L	4	3/16/2021	6/23/2025	15	0	0%	None	Normal	Parametric	0.48	0.49	Yes
Lead, Total	mg/L	0.015	3/16/2021	6/23/2025	15	14	93%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Lithium, Total	mg/L	0.325	3/16/2021	6/23/2025	15	0	0%	Decreasing trend significant at 99% confidence level	Normal	Confidence Band Around Trend Line	0.0506	0.0560	Yes
Mercury, Total	mg/L	0.002	3/16/2021	6/23/2025	15	14	93%	N/A	N/A	Non-Parametric	0.0002	0.0003	Yes
Molybdenum, Total	mg/L	0.1	3/16/2021	6/23/2025	15	0	0%	None	Normal	Parametric	0.0197	0.0223	Yes
Radium-226 + Radium-228	pCi/L	5	3/16/2021	6/23/2025	15	0	0%	None	Normal	Parametric	0.815	1.309	Yes
Selenium, Total	mg/L	0.05	3/16/2021	6/23/2025	15	15	100%	N/A	N/A	Non-Parametric	0.0050	0.0050	Yes
Thallium, Total	mg/L	0.002	3/16/2021	6/23/2025	15	15	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

Table D3-3: Appendix IV Comparative Statistics, MW-103 (Downgradient, Bottom Ash Landfill), Q2 2025

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/16/2021	6/24/2025	15	15	100%	N/A	N/A	Non-Parametric	0.0010	0.0010	Yes
Arsenic, Total	mg/L	0.01	3/16/2021	6/24/2025	15	0	0%	None	Normal	Parametric	0.0123	0.0153	No
Barium, Total	mg/L	2	3/16/2021	6/24/2025	15	0	0%	None	Normal	Parametric	0.0562	0.0691	Yes
Beryllium, Total	mg/L	0.004	3/16/2021	6/24/2025	15	15	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/16/2021	6/24/2025	15	15	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Chromium, Total	mg/L	0.1	3/16/2021	6/24/2025	15	14	93%	N/A	N/A	Non-Parametric	0.0020	0.0024	Yes
Cobalt, Total	mg/L	0.006	3/16/2021	6/24/2025	15	14	93%	N/A	N/A	Non-Parametric	0.0020	0.0022	Yes
Fluoride	mg/L	4	3/16/2021	6/24/2025	15	0	0%	None	Normal	Parametric	0.34	0.43	Yes
Lead, Total	mg/L	0.015	3/16/2021	6/24/2025	15	0	0%	None	Square Root	Parametric	0.0013	0.0021	Yes
Lithium, Total	mg/L	0.325	3/16/2021	6/24/2025	15	0	0%	None	Normal	Parametric	0.0259	0.0323	Yes
Mercury, Total	mg/L	0.002	3/16/2021	6/24/2025	15	15	100%	N/A	N/A	Non-Parametric	0.0002	0.0002	Yes
Molybdenum, Total	mg/L	0.1	3/16/2021	6/24/2025	15	0	0%	None	Normal	Parametric	0.0416	0.0535	Yes
Radium-226 + Radium-228	pCi/L	5	3/16/2021	6/24/2025	15	0	0%	None	Normal	Parametric	0.885	1.731	Yes
Selenium, Total	mg/L	0.05	3/16/2021	6/24/2025	15	3	20%	None	Normal	Parametric	0.0082	0.0112	Yes
Thallium, Total	mg/L	0.002	3/16/2021	6/24/2025	15	15	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

Table D3-4: Appendix IV Comparative Statistics, MW-201 (Downgradient, Bottom Ash Impoundment), Q2 2025

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/28/2024	6/24/2025	6	6	100%	N/A	N/A	Non-Parametric	0.0010	0.0010	Yes
Arsenic, Total	mg/L	0.01	3/28/2024	6/24/2025	6	6	100%	N/A	N/A	Non-Parametric	0.0020	0.0020	Yes
Barium, Total	mg/L	2	3/28/2024	6/24/2025	6	0	0%	None	Normal	Parametric	0.0157	0.0192	Yes
Beryllium, Total	mg/L	0.004	3/28/2024	6/24/2025	6	6	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/28/2024	6/24/2025	6	6	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Chromium, Total	mg/L	0.1	3/28/2024	6/24/2025	6	6	100%	N/A	N/A	Non-Parametric	0.0020	0.0020	Yes
Cobalt, Total	mg/L	0.006	3/28/2024	6/24/2025	6	5	83%	N/A	N/A	Non-Parametric	0.0020	0.0022	Yes
Fluoride	mg/L	4	3/28/2024	6/24/2025	6	0	0%	None	Normal	Parametric	0.74	0.79	Yes
Lead, Total	mg/L	0.015	3/28/2024	6/24/2025	6	6	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Lithium, Total	mg/L	0.325	3/28/2024	6/24/2025	6	6	100%	N/A	N/A	Non-Parametric	0.0200	0.0200	Yes
Mercury, Total	mg/L	0.002	3/28/2024	6/24/2025	6	6	100%	N/A	N/A	Non-Parametric	0.0002	0.0002	Yes
Molybdenum, Total	mg/L	0.1	3/28/2024	6/24/2025	6	0	0%	None	Normal	Parametric	0.1562	0.1906	No
Radium-226 + Radium-228	pCi/L	5	3/28/2024	6/24/2025	6	0	0%	None	Cube Root	Parametric	0.505	0.885	Yes
Selenium, Total	mg/L	0.05	3/28/2024	6/24/2025	6	6	100%	N/A	N/A	Non-Parametric	0.0050	0.0050	Yes
Thallium, Total	mg/L	0.002	3/28/2024	6/24/2025	6	6	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

Table D3-5: Appendix IV Comparative Statistics, MW-202 (Downgradient, Bottom Ash Impoundment), Q2 2025

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/28/2024	6/24/2025	6	6	100%	N/A	N/A	Non-Parametric	0.0010	0.0010	Yes
Arsenic, Total	mg/L	0.01	3/28/2024	6/24/2025	6	5	83%	N/A	N/A	Non-Parametric	0.0020	0.0040	Yes
Barium, Total	mg/L	2	3/28/2024	6/24/2025	6	0	0%	None	Natural Log	Parametric	0.0495	0.0971	Yes
Beryllium, Total	mg/L	0.004	3/28/2024	6/24/2025	6	6	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/28/2024	6/24/2025	6	6	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Chromium, Total	mg/L	0.1	3/28/2024	6/24/2025	6	0	0%	None	Natural Log	Parametric	0.0037	0.0080	Yes
Cobalt, Total	mg/L	0.006	3/28/2024	6/24/2025	6	0	0%	None	Cube Root	Parametric	0.0028	0.0049	Yes
Fluoride	mg/L	4	3/28/2024	6/24/2025	6	0	0%	None	Non-Normal	Non-Parametric	0.12	0.13	Yes
Lead, Total	mg/L	0.015	3/28/2024	6/24/2025	6	0	0%	None	Square Root	Parametric	0.0008	0.0027	Yes
Lithium, Total	mg/L	0.325	3/28/2024	6/24/2025	6	0	0%	None	Normal	Parametric	0.0223	0.0262	Yes
Mercury, Total	mg/L	0.002	3/28/2024	6/24/2025	6	6	100%	N/A	N/A	Non-Parametric	0.0002	0.0002	Yes
Molybdenum, Total	mg/L	0.1	3/28/2024	6/24/2025	6	0	0%	None	Non-Normal	Non-Parametric	0.0029	0.0039	Yes
Radium-226 + Radium-228	pCi/L	5	3/28/2024	6/24/2025	6	0	0%	None	Natural Log	Parametric	0.625	1.956	Yes
Selenium, Total	mg/L	0.05	3/28/2024	6/24/2025	6	0	0%	None	Normal	Parametric	0.0064	0.0076	Yes
Thallium, Total	mg/L	0.002	3/28/2024	6/24/2025	6	6	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

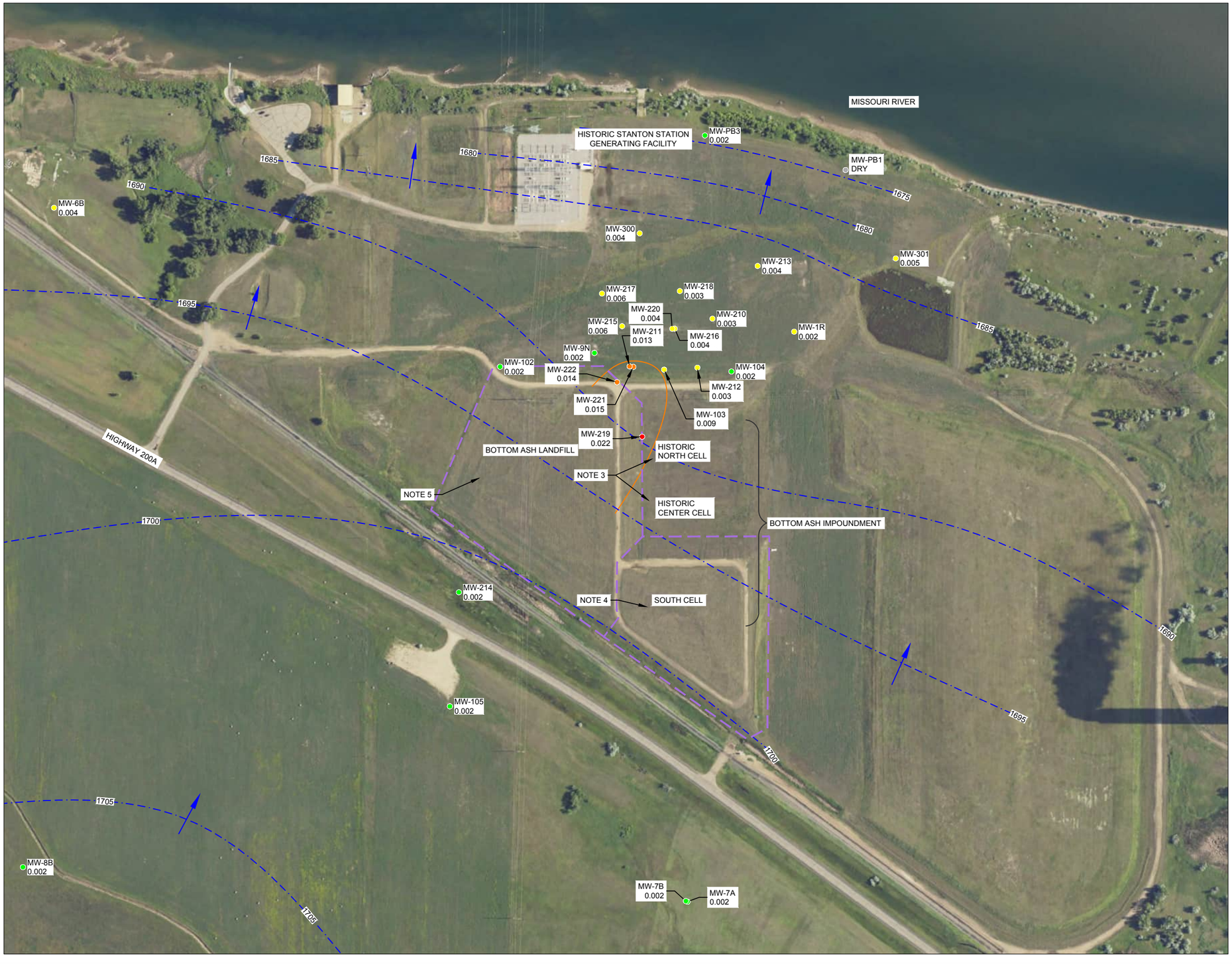
Table D3-6: Appendix IV Comparative Statistics, MW-203 (Downgradient, Bottom Ash Impoundment), Q2 2025

Parameter	Units	GWPS	First AM Sample	Most Recent AM Sample	Number of Samples	Number of Non-Detects	Percent of Non-Detects	Trends	Data Distribution	Type of Confidence Interval	Lower Confidence Limit	Upper Confidence Limit	Confidence Interval Within Compliance?
Appendix IV													
Antimony, Total	mg/L	0.006	3/28/2024	6/24/2025	6	2	33%	None	Square Root	Parametric	0.0010	0.0013	Yes
Arsenic, Total	mg/L	0.01	3/28/2024	6/24/2025	6	0	0%	None	Normal	Parametric	0.0122	0.0286	No
Barium, Total	mg/L	2	3/28/2024	6/24/2025	6	0	0%	None	Non-Normal	Non-Parametric	0.0403	0.0822	Yes
Beryllium, Total	mg/L	0.004	3/28/2024	6/24/2025	6	6	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes
Cadmium, Total	mg/L	0.005	3/28/2024	6/24/2025	6	3	50%	None	Non-Normal	Non-Parametric	0.0005	0.0008	Yes
Chromium, Total	mg/L	0.1	3/28/2024	6/24/2025	6	3	50%	None	Non-Normal	Non-Parametric	0.0020	0.0041	Yes
Cobalt, Total	mg/L	0.006	3/28/2024	6/24/2025	6	1	17%	None	Normal	Parametric	0.0024	0.0039	Yes
Fluoride	mg/L	4	3/28/2024	6/24/2025	6	0	0%	None	Normal	Parametric	0.65	0.84	Yes
Lead, Total	mg/L	0.015	3/28/2024	6/24/2025	6	0	0%	None	Square Root	Parametric	0.0023	0.0073	Yes
Lithium, Total	mg/L	0.325	3/28/2024	6/24/2025	6	4	67%	N/A	N/A	Non-Parametric	0.0200	0.0289	Yes
Mercury, Total	mg/L	0.002	3/28/2024	6/24/2025	6	5	83%	N/A	N/A	Non-Parametric	0.0002	0.0002	Yes
Molybdenum, Total	mg/L	0.1	3/28/2024	6/24/2025	6	0	0%	None	Normal	Parametric	0.0494	0.0666	Yes
Radium-226 + Radium-228	pCi/L	5	3/28/2024	6/24/2025	6	0	0%	None	Normal	Parametric	0.800	1.934	Yes
Selenium, Total	mg/L	0.05	3/28/2024	6/24/2025	6	4	67%	N/A	N/A	Non-Parametric	0.0050	0.0087	Yes
Thallium, Total	mg/L	0.002	3/28/2024	6/24/2025	6	6	100%	N/A	N/A	Non-Parametric	0.0005	0.0005	Yes

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
AM: Assessment Monitoring
Trends were tested at α = 99%. Statistically significant trends are reported at α = 99%.
N/A: Not applicable - trends and normality were not tested for parameters with greater than 50% non-detects.
None: No statistically significant trends were identified.
A discussion of the calculation of lower and upper confidence intervals is provided in-text.
Only datasets where both the upper and lower confidence intervals exceed the GWPS are considered outside of compliance.

APPENDIX E

Bottom Ash Landfill Arsenic Plume Delineation Figures



LEGEND - Q1 2025 TOTAL ARSENIC

- RESULT ND < 0.002
- RESULT 0.002 TO < 0.01
- RESULT 0.01 TO < 0.02
- RESULT > 0.02
- CLOSED BOTTOM ASH LANDFILL/IMPOUNDMENT FOOTPRINT
- GENERAL DIRECTION OF GROUNDWATER FLOW
- GROUNDWATER CONTOURS AND ELEVATIONS

NOTE(S)

1. AERIAL IMAGERY OBTAINED FROM UNITED STATES DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURE IMAGERY PROGRAM, 2023.
2. GROUNDWATER CONTOURS ARE BASED ON MARCH 2025 ELEVATION INFORMATION FROM THE SHOWN MONITORING WELLS, AS WELL AS MONITORING WELLS AND PIEZOMETERS NOT SHOWN.
3. THE NORTH AND CENTER CELLS OF THE BOTTOM ASH IMPOUNDMENT WERE CLOSED BY REMOVAL OF WASTE AND LINER.
4. THE SOUTH CELL OF THE BOTTOM ASH IMPOUNDMENT WAS CLOSED WITH A FINAL COVER OVER PLACED WASTE.
5. THE BOTTOM ASH LANDFILL WAS CLOSED BY CONSOLIDATION OF PLACED WASTE INTO A SMALLER FOOTPRINT AND CONSTRUCTION OF A FINAL COVER.
6. TOTAL ARSENIC RESULTS ARE FROM Q1 2025 SAMPLING EVENT.
7. ALL CONCENTRATION AREAS ARE FOR VISUAL PURPOSES. THESE ARE ESTIMATIONS BASED ON THE Q1 2025 SAMPLING EVENT.

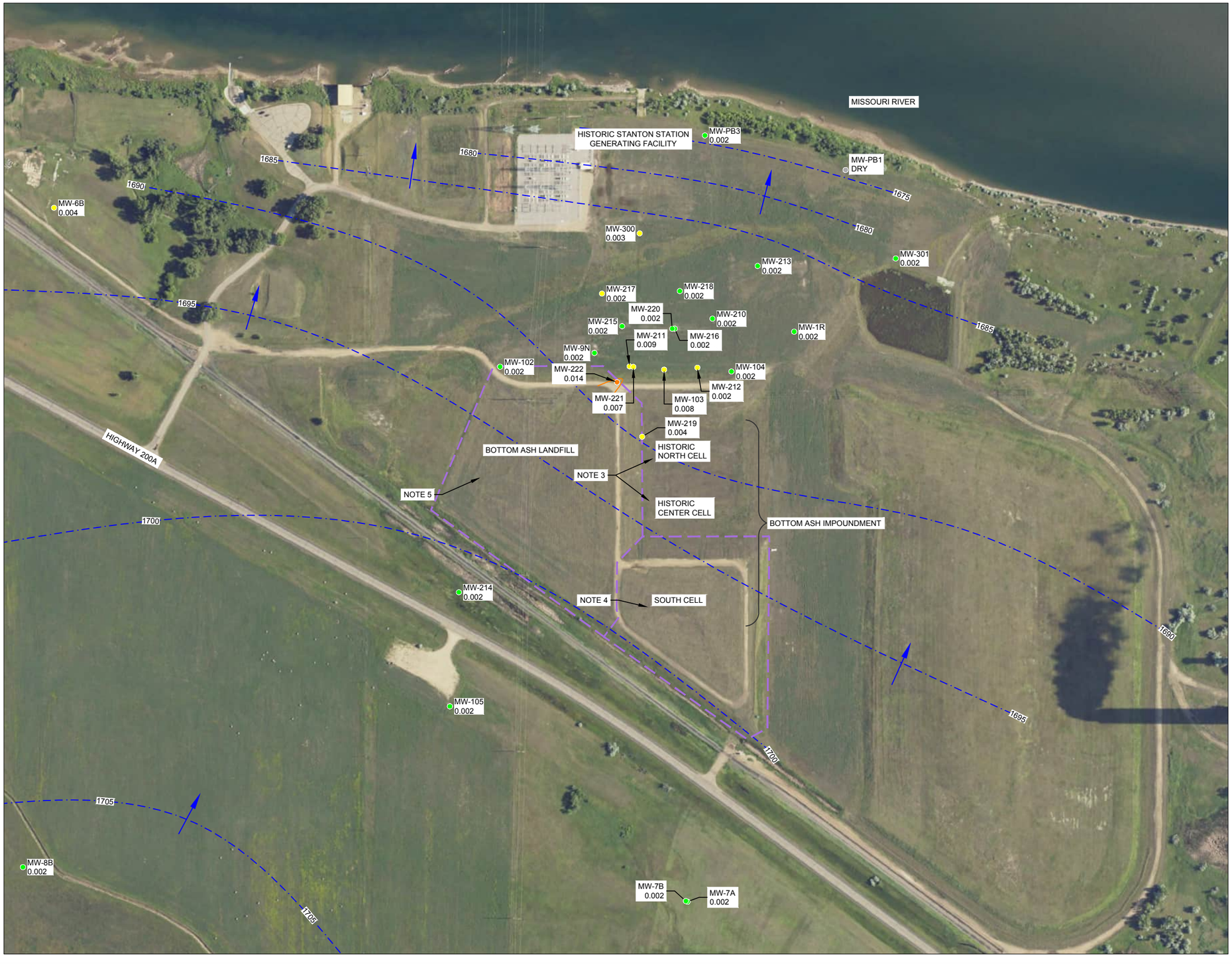
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1" = 200' FEET

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Q1 2025 TOTAL ARSENIC CONCENTRATIONS
GREAT RIVER ENERGY - STANTON STATION

FIGURE 1

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LEGEND - Q1 2025 DISSOLVED ARSENIC

- RESULT ND < 0.002
- RESULT 0.002 TO < 0.01
- RESULT 0.01 TO < 0.02
- RESULT > 0.02
- CLOSED BOTTOM ASH LANDFILL/IMPOUNDMENT FOOTPRINT
- GENERAL DIRECTION OF GROUNDWATER FLOW
- GROUNDWATER CONTOURS AND ELEVATIONS

NOTE(S)

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7. ALL CONCENTRATION AREAS ARE FOR VISUAL PURPOSES. THESE ARE ESTIMATIONS BASED ON THE Q1 2025 SAMPLING EVENT.

N

0 200 400
1" = 200' FEET

wsp

Q1 2025 DISSOLVED ARSENIC CONCENTRATIONS
GREAT RIVER ENERGY - STANTON STATION

FIGURE 2

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LEGEND - Q2 2025 TOTAL ARSENIC

- RESULT ND < 0.002
- RESULT 0.002 TO < 0.01
- RESULT 0.01 TO < 0.02
- RESULT > 0.02
- CLOSED BOTTOM ASH LANDFILL/IMPOUNDMENT FOOTPRINT
- GENERAL DIRECTION OF GROUNDWATER FLOW
- GROUNDWATER CONTOURS AND ELEVATIONS

NOTE(S)

1. AERIAL IMAGERY OBTAINED FROM UNITED STATES DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURE IMAGERY PROGRAM, 2023.
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6. TOTAL ARSENIC RESULTS ARE FROM Q2 2025 SAMPLING EVENT.
7. ALL CONCENTRATION AREAS ARE FOR VISUAL PURPOSES. THESE ARE ESTIMATIONS BASED ON THE Q2 2025 SAMPLING EVENT.

N

0 200 400
1" = 200' FEET

wsp

Q2 2025 TOTAL ARSENIC CONCENTRATIONS
GREAT RIVER ENERGY - STANTON STATION

FIGURE 3

Path: \\corp.pbwan.net\US\Central\Data\US\LK109\acad\GREAT RIVER ENERGY\STANTON\99_PROJECTS\215092\9\Annual Monitoring Reports\ | File Name: 215092\9_2025_WQ-StantonNDDEQ_Q2_TotalAs.dwg



LEGEND - Q2 2025 DISSOLVED ARSENIC

- RESULT ND < 0.002
- RESULT 0.002 TO < 0.01
- RESULT 0.01 TO < 0.02
- RESULT > 0.02
- CLOSED BOTTOM ASH LANDFILL/IMPOUNDMENT FOOTPRINT
- GENERAL DIRECTION OF GROUNDWATER FLOW
- GROUNDWATER CONTOURS AND ELEVATIONS

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7. ALL CONCENTRATION AREAS ARE FOR VISUAL PURPOSES. THESE ARE ESTIMATIONS BASED ON THE Q2 2025 SAMPLING EVENT.



0 200 400
1" = 200' FEET

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Q2 2025 DISSOLVED ARSENIC CONCENTRATIONS
GREAT RIVER ENERGY - STANTON STATION

FIGURE 4

Path: \\corp.pbwan.net\US\Central\Data\US\LK109\acad\GREAT RIVER ENERGY\STANTON\99_PROJECTS\215092\19\Annual Monitoring Reports\ | File Name: 215092\19_2025_WQ-StantonNDDEQ_Q2_Dissolved



LEGEND - Q4 2025 TOTAL ARSENIC

- RESULT ND < 0.002
- RESULT 0.002 TO < 0.01
- RESULT 0.01 TO < 0.02
- RESULT > 0.02
- CLOSED BOTTOM ASH LANDFILL/IMPOUNDMENT FOOTPRINT
- GENERAL DIRECTION OF GROUNDWATER FLOW
- GROUNDWATER CONTOURS AND ELEVATIONS

NOTE(S)

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6. TOTAL ARSENIC RESULTS ARE FROM Q4 2025 SAMPLING EVENT.
7. ALL CONCENTRATION AREAS ARE FOR VISUAL PURPOSES. THESE ARE ESTIMATIONS BASED ON THE Q4 2025 SAMPLING EVENT.

N

0 200 400
1" = 200' FEET

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Q4 2025 TOTAL ARSENIC CONCENTRATIONS
GREAT RIVER ENERGY - STANTON STATION

FIGURE 5

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LEGEND - Q4 2025 DISSOLVED ARSENIC

- RESULT ND < 0.002
- RESULT 0.002 TO < 0.01
- RESULT 0.01 TO < 0.02
- RESULT > 0.02
- CLOSED BOTTOM ASH LANDFILL/IMPOUNDMENT FOOTPRINT
- GENERAL DIRECTION OF GROUNDWATER FLOW
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7. ALL CONCENTRATION AREAS ARE FOR VISUAL PURPOSES. THESE ARE ESTIMATIONS BASED ON THE Q4 2025 SAMPLING EVENT.



0 200 400
1" = 200' FEET

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Q4 2025 DISSOLVED ARSENIC CONCENTRATIONS
GREAT RIVER ENERGY - STANTON STATION

FIGURE 6

Path: \\corp.pbwan.net\US\Central\Data\USLK100\acad\GREAT RIVER ENERGY\STANTON\99_PROJECTS\21509219\Annual Monitoring Reports\ | File Name: 21509219_2025_WO-StantonNDDEQ_Q4_DissolvedAs.dwg

APPENDIX F

Phase 2 Chemical Injection Bench-Scale Testing

terrasystems

January 26, 2026

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TERRA SYSTEMS FINAL REPORT TO WSP FOR GREAT RIVER ENERGY COAL ASH RESIDUE PHASE II TREATABILITY STUDY VERSION 2

1.0 INTRODUCTION

Coal ash residue landfill may generate anaerobic conditions which allow metals such as arsenic to accumulate to levels above regulatory limits. This bench-scale treatability evaluated conditions to precipitate arsenic for two groundwaters, MW-103 and MW-211, and associated soils. The groundwater protection standards (GWPS) targets are 0.0060 mg/L antimony, 0.010 mg/L arsenic, 2 mg/L barium, 0.0040 mg/L beryllium, 0.005 mg/L cadmium, 0.1 mg/L chromium, 0.0060 mg/L cobalt, 0.015 mg/L lead, 0.325 mg/L lithium, 0.1 mg/L molybdenum, and 0.050 mg/L selenium.

2.0 BENCH-SCALE STUDY

The objective of the bench-scale study was to evaluate the appropriate in situ remediation technology for arsenic:

- Identify the feasibility of As in-situ remediation by buffer (sodium bicarbonate).
- Identify the feasibility of As in-situ remediation by ferrous sulfate heptahydrate addition.
- Identify the feasibility of As in-situ remediation by ferrous sulfate heptahydrate and sodium bicarbonate addition.
- Determine Identify the feasibility of As in-situ remediation by Ferroblack Fe+ ferrous sulfide addition.
- the design parameters including reagent dosage and demand.

2.1 Bench-scale Groundwater and Soil Collection

Groundwater and soil samples were collected from the two locations, MW-103 and MW-211. On June 18, 23.2 kg of soil from BH103R and 25.0 kg of soil from BH211R were received at Terra Systems (TS). On June 24, 2025 20.1 kg of groundwater from MW-103 and 20.0 kg of groundwater from MW-211 were received. The samples were delivered on ice to the TS under a chain of custody.

2.2 Baseline Characterization

At the beginning of the bench-scale treatability test, the baseline characterization was performed to verify contaminant concentrations in the samples. The groundwater samples were homogenized to the extent possible. The homogenized groundwater samples were analyzed for:

- total antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, iron, lead, lithium, manganese, molybdenum, and selenium by SW 6020B
- dissolved antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, iron, lead, lithium, manganese, molybdenum, and selenium by SW 6020B
- total alkalinity by SM20 2320B-2011
- sulfide by SM4500 S2 D-2011
- total organic carbon by EPA 415.1
- ferrous iron by Standard Methods 3500 Fe B
- sulfate by EPA 300.0

The soil samples were analyzed for total antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, iron, lead, lithium, manganese, molybdenum, and selenium by SW 6020B and percent moisture.

In addition, soil and groundwater slurries were prepared with 770 g groundwater and 920 g soil for MW-103 and MW-211. These samples were analyzed for:

- total antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, iron, lead, lithium, manganese, molybdenum, and selenium by SW 6020B
- dissolved antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, iron, lead, lithium, manganese, molybdenum, and selenium by SW 6020B

Eurofins Lancaster Laboratories Environmental (ELLE) conducted the analyses. TS measured pH, ORP, dissolved oxygen (DO), specific conductivity (SC), bicarbonate alkalinity, total hardness, ferrous iron, and sulfide by using calibrated meters and Hach procedures.

2.3 Initial Characterization Results

Table 1 presents the results of the initial characterization of the groundwaters, soils, and slurries of groundwater and soil.

For MW-103, TS found that the groundwater had a pH of 8.7 SU, ORP of 205 mV, dissolved oxygen (DO) of 8.3 mg/L, specific conductivity of 1,744 µS/cm, bicarbonate alkalinity of 960 mg/L as CaCO3, hardness of 360 mg/L as CaCO3, ferrous iron of <0.05 mg/L, total iron of 1.6 mg/L, and 0.01 mg/L sulfide. ELLE found 540 mg/L total alkalinity, sulfate of 760 mg/L, <0.10 mg/L sulfide, <0.05 mg/L ferrous iron, total organic carbon (TOC) of 8.8-8.9 mg/L. Many metals were detected as J values which are below the method calibration range but above the minimum detectable concentration. The only metal that exceeded the GWPS was total arsenic at 0.011 mg/L (GWPS = 0.010 mg/L). The following total metals were not detected: beryllium, cadmium, and chromium. Trace levels (<0.0010 mg/L) of total antimony, cobalt, and lead were detected. A low level (0.0010 to 0.010 mg/L) of total selenium was also detected. Moderate levels (0.010 to 0.1 mg/L) of total cobalt, iron, lithium, manganese, and molybdenum were detected. High levels (>0.1 mg/L) of barium and boron were detected. The following dissolved metals were not detected: beryllium, cadmium, chromium, and lithium. Trace levels (<0.0010 mg/L) of dissolved

antimony, cobalt, and lead were detected. Low levels (0.0010 to 0.010 mg/L) of dissolved arsenic (below the GWPS), barium, and selenium were also detected. Moderate levels (0.010 to 0.1 mg/L) of barium, iron, manganese, and molybdenum were found. Dissolved boron was not analyzed.

The following metals were detected in the MW-103 soil: 7.6 mg/kg arsenic, 130 mg/kg barium, 0.65 mg/kg beryllium, 13 mg/kg boron, 22 mg/kg chromium, 7.3 mg/kg cobalt, 17,000 mg/kg iron, 8.8 mg/kg lead, 11 mg/kg lithium, 290 mg/kg manganese, 1.0 mg/kg molybdenum, and 11.2% moisture.

In the soil slurry with MW-103 groundwater and soil, the following total metals exceeded the GWPS: antimony (0.0080 mg/L), arsenic (0.27 mg/L), barium (7.7 mg/L), beryllium (0.041 mg/L), cadmium (0.024 mg/L), chromium (0.89 mg/L), cobalt (0.50 mg/L), lead (0.55 mg/L), and lithium (0.59 mg/L). It is likely that some of the soil was carried over to the total analyses as dissolved metals were below the GWPS except for molybdenum (0.12 mg/L). Dissolved arsenic was 0.0019 J mg/L.

For MW-211, TS found that the groundwater had a pH of 8.1 SU, ORP of 212 mV, DO of 5.3 mg/L, specific conductivity of 1,679 µS/cm, bicarbonate alkalinity of 720 mg/L as CaCO3, hardness of 600 mg/L as CaCO3, ferrous iron of <0.05 mg/L, total iron of 1.7 mg/L, and 0.02 mg/L sulfide. ELLE found 540 mg/L total alkalinity, sulfate of 780 mg/L, <0.10 mg/L sulfide, <0.05 mg/L ferrous iron, and total organic carbon (TOC) of 6.4-6.6 mg/L. The only metal that exceeded the GWPS was total arsenic at 0.013 mg/L. The following total metals were not detected: antimony, beryllium, cadmium, chromium, lead, lithium, and selenium. Trace levels (<0.0010 mg/L) of total cobalt were detected. Moderate levels (0.01 to 0.10 mg/L) of total iron, lithium, manganese, and molybdenum. Elevated levels (>0.10 mg/L) of total barium, boron, and manganese were found. The following dissolved metals were not detected: antimony, beryllium, cadmium, chromium, lead, lithium, and selenium. A trace level (<0.0010 mg/L) of dissolved cobalt was detected. Low levels (0.0010 to 0.010 mg/L) of dissolved arsenic (below GWPS) was detected. Moderate levels (0.010 to 0.1 mg/L) of dissolved barium, iron, and molybdenum were also detected. Dissolved manganese was 0.60 mg/L. Dissolved boron was not analyzed.

The following metals were detected in the MW-211 soil: 7.8 mg/kg arsenic, 110 mg/kg barium, 0.39 J mg/kg beryllium, 8.2 J mg/kg boron, 14 mg/kg chromium, 5.2 mg/kg cobalt, 13,000 mg/kg iron, 5.5 mg/kg lead, 7.0 mg/kg lithium, 220 mg/kg manganese, 0.56 J mg/kg molybdenum, and 15.0% moisture.

In the soil slurry with MW-211 groundwater and soil, the following total metals exceeded the GWPS: antimony (0.0180 mg/L), arsenic (0.83 mg/L), barium (20 mg/L), beryllium (0.061 mg/L), cadmium (0.032 mg/L), chromium (1.4 mg/L), cobalt (1.1 mg/L), lead (1.1 mg/L), lithium (1.2 mg/L), and selenium (0.059 mg/L). It is likely that some of the soil was carried over to the total analyses as all dissolved metals were below the GWPS. Dissolved arsenic was 0.0043 mg/L.

terrasystems

Table 1. Initial Characterization Results

Terra Systems		GWPS	MW-103 GW	MW-103 Soil + GW	MW-211 GW	MW-211 Soil + GW			MW-103 Soil	MW-211 Soil
pH	SU		8.7		8.1					
ORP	mV		205		212					
DO	mg/L		8.3		5.3					
Specific Conductivity	mS/cm		1744		1679					
Bicarbonate Alkalinity	mg/L as CaCO3		960		720					
Hardness	mg/L as CaCO3		360		600					
Ferrous iron	mg/L		<0.05		<0.05					
Total Iron	mg/L		1.6		1.7					
Sulfide	mg/L		0.01		0.02					
ELLE										
Total Alkalinity	mg/L as CaCO3		540		540					
Sulfate	mg/L		760		780					
Sulfide	mg/L		<0.10		<0.10					
Ferrous Iron	mg/L		<0.050		<0.050					
Total Organic Carbon	mg/L		8.8-8.9		6.4-6.6					
Total Antimony	mg/L	0.006	0.00032 J	**0.0080 J**	<0.00020	**0.018**		mg/kg	<1.3	<1.6
Total Arsenic	mg/L	0.010	**0.011**	**0.37**	**0.013**	**0.93**		mg/kg	7.6	7.8
Total Barium	mg/L	2	0.10	**7.7**	0.11	**20**		mg/kg	130	110
Total Beryllium	mg/L	0.004	<0.00012	**0.041**	<0.00012	**0.061**		mg/kg	0.65	0.39 J J
Total Boron	mg/L		1.0	2.2	1.4	1.3		mg/kg	13 J	8.2 J
Total Cadmium	mg/L	0.005	<0.00015	**0.024**	<0.00015	**0.032**		mg/kg	<0.078	<0.093
Total Chromium	mg/L	0.1	<0.00055	**0.89**	<0.00055	**1.4**		mg/kg	22	14
Total Cobalt	mg/L	0.0060	0.00069	**0.50**	0.00056	**1.1**		mg/kg	7.3	5.2
Total Iron	mg/L		0.051	890	0.060	2000		mg/kg	17000	13000
Total Lead	mg/L	0.015	0.00065	**0.55**	<0.00012	**1.1**		mg/kg	8.8	5.5
Total Lithium	mg/L	0.325	0.060 J	**0.59**	<0.055	**1.2**		mg/kg	11	7.0
Total Manganese	mg/L		0.074	21	0.61	42		mg/kg	280	220
Total Molybdenum	mg/L	0.1	0.021	0.076	0.018	0.086		mg/kg	1.0	0.56 J
Total Selenium	mg/L	0.050	0.0033	0.0097 J	<0.00028	**0.059**		mg/kg	<1.2	<1.4
Moisture								%	11.2	15.0
Dissolved Antimony	mg/L	0.006	0.00032 J	0.00063 J	<0.00021	0.0011				
Dissolved Arsenic	mg/L	0.010	0.0080	0.0019 J	0.0091	0.0043				
Dissolved Barium	mg/L	2	0.095	0.031	0.098	0.092				
Dissolved Beryllium	mg/L	0.004	<0.00012	<0.00012	<0.00012	<0.00012				
Dissolved Boron	mg/L			1.9		1.7				
Dissolved Cadmium	mg/L	0.005	<0.00016	<0.00016	<0.00016	<0.00016				
Dissolved Chromium	mg/L	0.1	<0.00057	0.0041	<0.00057	0.0018 J				
Dissolved Cobalt	mg/L	0.0060	0.00064	0.00044 J	0.00054	0.0030				
Dissolved Iron	mg/L		0.038 J	0.076	0.047 J	2.2				
Dissolved Lead	mg/L	0.015	0.00059	0.0054	<0.00012	0.0044				
Dissolved Lithium	mg/L	0.325	<0.057	0.039 J	<0.057	0.019 J				
Dissolved Manganese	mg/L		0.073	0.0067	0.60	0.59				
Dissolved Molybdenum	mg/L	0.1	0.018	**0.12**	0.017	0.080				
Dissolved Selenium	mg/L	0.050	0.0034	0.0048	<0.00029	0.0063				
j	J Value, compound detected above method detection limit but below method calibration levels									
0.011	Exceeds GWPS									
<0.057	Detection limit exceeds GWPS									

2.4 MW-103 Screening

Screening studies were conducted in 250 mL bottles with 150 mL of deaerated MW-103 groundwater (sparged with nitrogen for 15 minutes) and 180 g soil (Table 2). The dissolved oxygen levels, pH, and ORP were measured using calibrated dissolved oxygen, pH, and ORP meters after 1, 2, 3, and 7 days were measured. The withdrawn volume was replaced and glass marbles added so there is no headspace. The results from these tests were provided to WSP along with the initial characterization results.

2.4.1 Control

In the Control, the DO increased from 1.2 mg/L on Day 0 to 4.7 mg/L on Day 7. The pH remained 8.4 SU. The ORP ranged from 201 to 213 mV. Specific conductivity ranged from 1,301 to 1,831 µS/cm.

2.4.2 Sodium Bicarbonate Buffer

Sodium bicarbonate was introduced at loadings of 2, 5.0, and 10.0 g/L. The DO ranged between 1.1 and 6.0 mg/L. The pH ranged from 8.1 to 8.8 SU with little difference between the 2, 5, and 10 g/L $NaHCO_3$ loadings. The ORP ranged from 207 to 233 mV. The specific conductivity increased at the higher $NaHCO_3$ loadings to a maximum of 6,230 µS/cm.

2.4.3 Ferrous Sulfate Heptahydrate

Ferrous sulfate heptahydrate was introduced at loadings of 1.0, 2.0, 5.0 and 10 g/L. The DO ranged between 0.5 and 0.8 mg/L. The pH ranged from 6.3 to 7.6 SU with lower pHs at the higher $FeSO_4$-$7H_2O$ loadings. The ORP ranged from 197 to 254 mV. The specific conductivity increased at the higher $FeSO_4$-$7H_2O$ loadings.

2.4.4 Ferrous Sulfate Heptahydrate and Sodium Bicarbonate

Ferrous sulfate heptahydrate was introduced at loadings of 1.0, 2.0, 5.0 and 10 g/L and each bottle also received 5 g/L sodium bicarbonate. The DO was 0.5 mg/L. The pH ranged from 6.2 to 7.7 SU with lower pHs at the higher $FeSO_4$-$7H_2O$ loadings. The addition of 5 g/L $NaHCO_3$ increased the pH slightly over the corresponding $FeSO_4$-$7H_2O$ loadings without the buffer. The ORP ranged from 189 to 245 mV. There was little difference in the specific conductivity between the different loadings of $FeSO_4$-$7H_2O$ due to the sodium bicarbonate.

2.4.5 Ferroblack

Ferroblack was introduced at loadings of 2.0, 5.0, and 10 g/L. The DO ranged between 0.5 and 0.7 mg/L. The pH ranged from 8.2 to 9.4 SU with higher pHs at the higher Ferroblack loadings. The ORP ranged from 183 to 219 mV. The specific conductivity increased at the higher Ferroblack loadings.

2.5 MW-211 Screening

Screening studies were conducted in 250 mL bottles with 150 mL of deaerated MW-211 groundwater (sparged with nitrogen for 15 minutes) and 180 g soil (Table 3).

2.5.1 Control

The control DO ranged from 3.3 to 7.4 mg/L. The pH ranged from 7.9 to 8.6 SU. The ORP ranged from 193 to 222 mV. Specific conductivity ranged from 1,557 to 2,950 /cm.

2.4.2 Sodium Bicarbonate Buffer

Sodium bicarbonate was introduced at loadings of 2.0, 5.0, and 10. 0 g/L. The DO ranged between 0.8 and 7.1 mg/L. The pH ranged from 7.5 to 8.1 SU with little difference between the 2, 5, and 10 g/L $NaHCO_3$ loadings. The ORP ranged from 198 to 238 mV. The specific conductivity increased at the higher $NaHCO_3$ loadings.

2.4.3 Ferrous Sulfate Heptahydrate

Ferrous sulfate heptahydrate were introduced at loadings of 1.0, 2.0, 5.0 and 10 g/L. The DO ranged between 0.5 and 4.5 mg/L. The pH ranged from 6.4 to 7.8 SU with lower pHs at the higher $FeSO_4$-$7H_2O$ loadings. The ORP ranged from 198 to 265 mV. The specific conductivity ranged from 670 to 2,330 /cm.

2.4.4 Ferrous Sulfate Heptahydrate and Sodium Bicarbonate

Ferrous sulfate heptahydrate was introduced at loadings of 1.0, 2.0, 5.0 and 10 g/L and each bottle also received 5 g/L sodium bicarbonate. The DO ranged between 0.5 and 2.1 mg/L. The pH ranged from 6.0 to 7.4 SU with lower pHs at the higher $FeSO_4$-$7H_2O$ loadings. The addition of 5 g/L $NaHCO_3$ increased the pH slightly over the corresponding $FeSO_4$-$7H_2O$ loading without the buffer. The ORP ranged from 169 to 287 mV. There was little difference in the specific conductivity.

2.4.5 Ferroblack

Ferroblack were introduced at loadings of 2.0, 5.0, and 10 g/L. The DO ranged between 0.5 and 5.4 mg/L. The pH ranged from 7.9 to 8.9 SU with higher pHs at the higher Ferroblack loadings. The ORP ranged from 186 to 273 mV. The specific conductivity increased at the higher Ferroblack loadings.

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Table 2. MW-103 Titrations

Treatment	GW	Soil	NaHCO3	FeSO4-7H2O	Ferro-black	NaHCO3	FeSO4-7H2O	Ferr0-black	Time	DO	pH	ORP	Spec. Cond.
	g	g	g	g	g	g/L	g/L	g/L	Days	mg/L	SU	mV	uS/cm
Control	150	180							0	1.2	8.4	201	1301
									1	2.9	8.4	209	1691
									3	4.4	8.4	213	1831
									7	4.7	8.4	207	1624
2 g/L NaHCO3	150	180	0.30			2.0			0	3.7	8.3	214	3820
									1	2.7	8.4	220	2890
									3	4.3	8.5	223	3040
									7	6.0	8.8	216	3020
5 g/L NaHCO3	150	180	0.75			5.0			0	1.9	8.1	221	4370
									1	1.8	8.1	224	4210
									3	1.5	8.3	227	4650
									7	3.0	8.6	207	4700
10 g/L NaHCO3	150	180	1.50			10.0			0	2.1	8.1	228	5480
									1	2.2	8.1	230	5550
									3	1.1	8.2	233	6230
									7	1.8	8.6	217	5960
1.0 g/L FeSO4	150	180		0.15			1.0		0	0.6	7.1	235	1454
									1	0.8	7.2	230	2270
									3	0.5	7.2	237	1874
									7	0.6	7.6	207	2230
2.0 g/L FeSO4	150	180		0.3			2.0		0	0.6	6.5	221	1467
									1	0.6	6.7	237	1725
									3	0.5	6.8	229	2480
									7	0.6	7.0	213	2480
5.0 g/L FeSO4	150	180		0.75			5.0		0	0.5	6.3	251	1314
									1	0.5	6.4	254	1509
									3	0.5	6.4	231	1551
									7	0.5	6.5	197	1620
10.0 g/L FeSO4	150	180		1.5			10.0		0	0.5	6.2	245	1422
									1	0.5	6.2	238	1600
									3	0.5	6.2	230	3220
									7	0.5	6.3	189	3230
5 g/L NaHCO3	150	180	0.75	0.3		5.0	2.0		0	0.5	7.0	226	4070
2.0 g/L FeSO4									1	0.5	6.9	239	3800
									3	0.5	7.2	229	4440
									7	0.5	7.7	191	3820
5 g/L NaHCO3	150	180	0.75	0.75		5.0	5.0		0	0.5	6.6	237	4230
5.0 g/L FeSO4									1	0.5	6.6	235	4330
									3	0.5	6.7	228	4550
									7	0.5	7.0	201	4280
5 g/L NaHCO3	150	180	0.75	1.5		5.0	10.0		0	0.5	6.4	218	4620
10.0 g/L FeSO4									1	0.5	6.2	227	4380
									3	0.5	6.3	220	4650
									7	0.5	6.4	192	4310
2 g/L FB	150	180			0.3			2.0	0	0.7	8.5	212	1820
									1	0.5	8.4	219	1870
									3	0.5	8.3	212	1958
									7	0.5	8.2	185	1966
5 g/L FB	150	180			0.75			5.0	0	0.5	8.9	195	1824
									1	0.5	8.6	201	1891
									3	0.5	8.5	203	2590
									7	0.5	8.6	183	2360
10 g/L FB	150	180			1.5			10.0	0	0.5	9.4	200	2850
									1	0.5	8.9	205	2710
									3	0.5	8.8	205	2840
									7	0.5	8.4	184	2570

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Table 3. MW-211 Titrations

Treatment	GW	Soil	NaHCO3	FeSO4-7H2O	Ferro-black	NaHCO3	FeSO4-7H2O	Ferr0-black	0	7.4	8.6	208	1698
	g	g	g	g	g	g/L	g/L	g/L	1	3.4	8.1	222	1557
Control	150	180							3	3.3	7.9	211	2950
									7	5.4	8.3	193	1826
									0	7.1	8.0	216	3070
									1	3.9	7.9	218	2950
2 g/L NaHCO3	150	180	0.30			2.0			3	1.8	7.9	221	2810
									7	0.8	8.1	198	2690
									0	6.0	7.8	219	4240
									1		7.6	234	3610
5 g/L NaHCO3	150	180	0.75			5.0			3	3.0	7.5	226	4110
									7	2.3	7.7	199	3500
									0	6.7	7.6	224	5710
									1	3.4	7.5	238	5140
10 g/L NaHCO3	150	180	1.50			10.0			3	3.7	7.6	236	5760
									7	2.3	7.9	204	5680
									0	1.7	6.9	221	1281
									1	1.7	7.1	240	1481
1.0 g/L FeSO4	150	180		0.15			1.0		3	3.3	7.5	257	1573
									7	2.8	7.8	204	1730
									0	1.2	7.3	218	670
									1	1.4	6.9	235	1632
2.0 g/L FeSO4	150	180		0.3			2.0		3	4.5	6.9	257	1643
									7	4.1	7.7	198	2330
									0	0.8	6.6	232	1266
									1	0.5	6.5	243	1457
5.0 g/L FeSO4	150	180		0.75			5.0		3	0.6	6.4	265	1613
									7	0.6	6.6	218	1765
									0	0.6	6.2	232	1280
									1	0.6	6.2	249	1518
10.0 g/L FeSO4	150	180		1.5			10.0		3	0.7	6.1	272	1511
									7	0.6	6.0	229	1572
									0	0.5	6.9	169	4190
									1	1.6	7.3	250	4030
5 g/L NaHCO3	150	180	0.75	0.3		5.0	2.0		3	2.1	7.4	278	3860
2.0 g/L FeSO4									7	1.8	6.8	231	4080
									0	0.6	7.1	203	4190
									1	0.8	6.8	247	4040
5 g/L NaHCO3	150	180	0.75	0.75		5.0	5.0		3	1.4	6.8	280	4280
5.0 g/L FeSO4									7	2.1	7.2	230	3750
									0	0.5	6.9	205	3860
									1	0.6	6.5	268	4020
5 g/L NaHCO3	150	180	0.75	1.5		5.0	10.0		3	0.5	6.4	287	4410
10.0 g/L FeSO4									7	1.0	6.6	244	4050
									0	0.5	8.4	196	1523
									1	4.0	8.0	250	1593
2 g/L FB	150	180			0.3			2.0	3	4.4	8.0	273	1811
									7	1.6	7.9	238	1680
									0	0.5	8.5	190	1737
									1	0.9	8.0	245	1842
5 g/L FB	150	180			0.75			5.0	3	1.9	8.1	265	1738
									7	0.5	8.1	232	1835
									0	0.5	8.9	186	1927
									1	3.1	8.3	248	1900
10 g/L FB	150	180			1.5			10.0	3	1.7	8.2	269	2440
									7	5.4	8.3	236	1998
									0	7.4	8.6	208	1698
									1	3.4	8.1	222	1557

3.0 BATCH TESTS

Groundwater was sparged with nitrogen for 15 minutes. The batch tests were done in 1,280 mL bottles with about 770 g groundwater and 920 g soil (a volumetric ratio of 60:40 groundwater to soil with a density of 1.8 g/cm^3). Three loadings of Prochem sodium bicarbonate (Lot 12012), four loadings of ferrous sulfate heptahydrate (Prochem Lot 53831), three loadings of Prochem ferrous sulfate heptahydrate with 5 g/L Prochem sodium bicarbonate, three loadings of Ferroblack Fe+, and a control were prepared for each groundwater and soil. The reagent loadings were based upon the screening tests and chosen in consultation with WSP. The dissolved oxygen levels, pH, and ORP were measured using calibrated dissolved oxygen, pH, ORP, and specific conductivity meters in samples collected on Days 0 and 7. The bottles were sacrificed and the DO, pH, ORP, and specific conductivity were conducted by TS using calibrated meters. In addition, aqueous samples for following parameters were collected to be analyzed by ELLE:

- total antimony, arsenic, barium, beryllium, boron, cadmium, cobalt, chromium, iron, lead, lithium, manganese, molybdenum, and selenium by SW 6020B
- dissolved antimony, arsenic, barium, beryllium, boron, cadmium, cobalt, chromium, iron, lead, lithium, manganese, molybdenum, and selenium by SW 6020B
- alkalinity by SM20 2320B-2011
- sulfide by SM4500 S2 D-2011
- total organic carbon by EPA 415//1
- ferrous iron by Standard Methods 3500 Fe B
- sulfate by EPA 300.0

Table 4 presents the metals content of the reagents after dilution in distilled water from previous studies. The 10 g/L solutions of the Prochem Sodium Bicarbonate had detectable dissolved boron (0.282 mg/L), dissolved barium (0.0362 mg/L), dissolved cadmium (0.0059 mg/L in one sample and not detected in a second sample), dissolved iron (0.030 J mg/L), 0.000741 mg/L lead, and 0.028 mg/L dissolved manganese. The only total metal detected was 0.022 mg/L manganese. The Prochem Ferrous Sulfate heptahydrate diluted to 10 g/L had 2,750 mg/L sulfate, 0.396 J mg/L dissolved boron, 0.00115 J mg/L dissolved barium, 0.0178 mg/L dissolved cobalt (exceeds GWPS), 0.0536 mg/L dissolved chromium, 2,020 mg/L dissolved iron, 0.000889 mg/L dissolved molybdenum, 0.000283 mg/L J dissolved lead, and 0.000324 mg/L J selenium. Total metals were not analyzed. The Ferroblack Fe+ supplied by Redox Solutions for this study has not been analyzed.

Table 4. Reagents

Sample		GWPS	10 g/L Prochem Sodium Bicarbonate	10 g/L Prochem Sodium Bicarbonate	10 g/L Prochem Ferrous Sulfate Heptahydrate
Sulfate	mg/L		<5		2750
Dissolved As	mg/L	0.010	<0.00070	<0.016	<0.00070
Dissolved B	mg/L		0.282		0.396 J
Dissolved Ba	mg/L	2	0.0362		0.00115 J
Dissolved Be	mg/L	0.004	<0.000123	<0.0010	<0.000123
Dissolved Cd	mg/L	0.0050	<0.000156	**0.0059**	<0.000156
Dissolved Co	mg/L	0.0060	<0.000161	<0.0015	**0.0178**
Dissolved Cr	mg/L	0.10	<0.000567		0.0536
Dissolved Fe	mg/L		0.030 J		2020
Dissolved Li	mg/L	0.325	<0.0113	<0.011	<0.0113
Dissolved Mn	mg/L			0.028	
Dissolved Mo	mg/L	0.1	<0.000134	<0.0021	0.000889
Dissolved Pb	mg/L	0.015	0.000741		0.000283 J
Dissolved Sb	mg/L	0.0060	<0.000206		<0.000206
Dissolved Se	mg/L	0.050	<0.000286	<0.016	0.000324 J
Total As	mg/L	0.010		<0.016	
Total Be	mg/L	0.004		<0.0010	
Total Cd	mg/L	0.0050		<0.0010	
Total Co	mg/L	0.006		<0.0015	
Total Fe	mg/L			<0.080	
Total Li	mg/L	0.040		<0.011	
Total Mn	mg/L			0.022	
Total Mo	mg/L	0.1		<0.0020	
Total Se	mg/L	0.050		<0.016	

3.1 MW-103 Field Results

Table 5 presents the field parameters for MW-103. Table 6 shows the sulfide, total alkalinity, sulfate, dissolved and total antimony, arsenic, barium, beryllium, boron, cadmium, cobalt, chromium, iron, lead, lithium, manganese, molybdenum, and selenium. Dissolved and total antimony, barium, beryllium, cadmium, chromium, lithium, lead, molybdenum, and selenium were never detected above their GWPS. Total manganese was detected in the blank associated with several treatments for MW-103. There was no GWPS for boron, iron, or manganese.

3.1.1 Control

The control DO ranged from 6.5 to 7.8 mg/L. The pH was 8.5 SU. The ORP ranged from 26 to 131 mV. Specific conductivity ranged from 2,537 to 2,761 µS/cm.

No detectable sulfide or TOC was measured with a total alkalinity of 820 mg/L as $CaCO_3$. Sulfate was 790 mg/L. All dissolved and total metals were below their respective GWPS.

3.1.2 Sodium Bicarbonate Buffer

Sodium bicarbonate was introduced at loadings of 2, 5.0, and 10.0 g/L. The DO ranged between 5.3 and 7.2 mg/L. The pH ranged from 8.2 to 8.6 SU with little difference between the 2, 5, and 10 g/L $NaHCO_3$ loadings. The ORP ranged from 55 to 157 mV with lower ORPs on Day 7. The specific conductivity increased at the higher $NaHCO_3$ loadings.

No detectable sulfide was found. The maximum TOC was 13 mg/L in the 2 g/L $NaHCO_3$ treatment and not detected in the other treatments. Sulfate ranged from 750 to 810 mg/L. Total alkalinity increased from 1,100 to 5,100 mg/L as $CaCO_3$. All dissolved and total metals were below their respective GWPS except for Arsenic (0.014 mg/L dissolved and 0.015 mg/L total) at

the highest $NaHCO_3$ loading. Dissolved and total arsenic increased as the sodium bicarbonate loadings increased.

3.1.3 Ferrous Sulfate Heptahydrate

Ferrous sulfate heptahydrate were introduced at loadings of 1.0, 2.2, 5.1 and 9.5 g/L. The DO ranged between 1.1 and 5.8 mg/L. The pH ranged from 6.1 to 7.8 SU with lower pHs at the higher $FeSO_4$-$7H_2O$ loadings. The ORP ranged from -156 to 108 mV with negative ORP is most treatments. The specific conductivity ranged from 2,961 to 4,464 µS/cm.

No detectable sulfide was found. TOC was not detected. Sulfate ranged from 1,300 to 3,600 mg/L. Total alkalinity decreased from 370 to 200 mg/L as $CaCO_3$. All dissolved metals were below their respective GWPS except for Co (0.043 to 0.10 mg/L) at the three higher $FeSO_4$-$7H_2O$ loadings. Total metals were below their respective GWPS except for Co (0.110 to 0.20 mg/L) at the two highest $FeSO_4$-$7H_2O$ loadings. The ferrous sulfate heptahydrate contributed cobalt or created conditions where cobalt came into solution from the soil. Detection limits for total arsenic, total beryllium, total cadmium, and total antimony in the 10 g/L $FeSO_4$-$7H_2O$ loading exceeded their GWPS likely due to matrix interferences.

3.1.4 Ferrous Sulfate Heptahydrate and Sodium Bicarbonate

Ferrous sulfate heptahydrate was introduced at loadings of 2.0, 5.0 and 10 g/L. Each bottle also received 5.0 g/L sodium bicarbonate. The DO ranged between 0.7 and 6.8 mg/L. The pH ranged from 6.1 to 7.4 SU with lower pHs at the higher $FeSO_4$-$7H_2O$ loadings. The addition of 5 g/L $NaHCO_3$ increased the pH slightly over the corresponding $FeSO_4$-$7H_2O$ loading without the buffer. The ORP ranged from -236 to 54 mV. There was somewhat higher specific conductivity with the higher $FeSO_4$-$7H_2O$ loadings.

No detectable sulfide was found. TOC was only detected at 12 mg/L in the lowest $FeSO_4$-$7H_2O$ and $NaHCO_3$ treatment. Sulfate ranged from 1,400 to 3,600 mg/L. Total alkalinity decreased from 3,000 to 1,700 mg/L as $CaCO_3$ with increased ferrous sulfate loadings. All dissolved metals were below their respective GWPS except for Co (0.018 to 0.040 mg/L) at the two higher $FeSO_4$-$7H_2O$ loadings. Total metals were below their respective GWPS except for Co (0.042 mg/L) at the highest $FeSO_4$-$7H_2O$ loading. The ferrous sulfate heptahydrate contributed cobalt or created conditions where cobalt came into solution from the soil.

3.1.5 Ferroblack

Ferroblack were introduced at loadings of 5.9, 10.1, and 15.2 g/L. The DO ranged between 2.5 and 5.7 mg/L. The pH ranged from 8.3 to 9.1 SU with higher pHs at the higher Ferroblack loadings. The ORP ranged from -64to 22 mV. The specific conductivity increased at the higher Ferroblack loadings.

No detectable sulfide was found. TOC was only detected at 7.4 to 8.9 mg/L in the lower two Ferroblack treatments. Sulfate ranged from 1,200 to 1,800 mg/L. Total alkalinity increased from 1,200 to 1,800 mg/L as $CaCO_3$. All dissolved and total metals were below their respective GWPS.

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Table 5. MW-103 Batch Field Parameters

Treatment		Control		2 g/L NaHCO3		5 g/L NaHCO3		10 g/L NaHCO3		1.0 g/L FeSO4		2.0 g/L FeSO4		5.0 g/L FeSO4		10.0 g/L FeSO4	
Groundwater	g	770.0		770.0		770.0		770.0		770.0		769.5		769.9		770.2	
Soil	g	920.0		920.0		920.0		920.0		920.0		920.1		920.2		919.7	
NaHCO3	g			1.54		3.85		7.70									
FeSO4-7H2O	g									0.77		1.7		3.9		7.3	
Ferroblack	g																
NaHCO3	g/L			2.0		5.0		10.0									
FeSO4-7H2O	g/L									1.0		2.2		5.1		9.5	
Ferroblack	g/L																
Time	Days	0	7	0	7	0	7	0	7	0	7	0	7	0	7	0	7
DO	mg/L	6.5	7.8	6.3	7.2	6.4	7.0	5.3	6.2	3.2	5.8	1.8	4.7	1.1	1.8	1.3	1.6
pH	SU	8.5	8.5	8.3	8.4	8.3	8.4	8.2	8.6	7.1	7.8	6.8	7.1	6.6	6.1	6.4	6.1
ORP	mV	131	26	146	55	155	63	157	69	-119	108	-137	-58	-156	-21	-143	-54
Spec. Cond.	uS/cm	2537	2761	4023	4110	6256	6376	9632	10470	2961	3469	3206	3514	4086	4464	5543	6206

Treatment		5 g/L NaHCO3 2.0 g/L FeSO4		5 g/L NaHCO3 5.0 g/L FeSO4		5 g/L NaHCO3 10.0 g/L FeSO4		5 g/L FB		10 g/L FB		15 g/L FB	
Groundwater	g	770.2		770.6		770.5		761.7		769.4		770.0	
Soil	g	919.8		919.9		920.3		920.1		919.8		919.9	
NaHCO3	g	3.85		3.85		3.85							
FeSO4-7H2O	g	1.54		3.85		7.7							
Ferroblack	g							4.5		7.8		11.7	
NaHCO3	g/L	5.0		5.0		5.0							
FeSO4-7H2O	g/L	2.0		5.0		10.0							
Ferroblack	g/L							5.9		10.1		15.2	
Time	Days	0	7	0	7	0	7	0	7	0	7	0	7
DO	mg/L	0.8	3.5	6.8	2.3	0.7	2.3	2.5	4.5	4.0	5.7	3.9	4.9
pH	SU	7.3	7.4	7.1	7.0	6.9	6.5	8.8	8.3	8.9	8.4	9.1	8.4
ORP	mV	-230	-127	-236	-112	-218	-95	-19	-64	7	-16	22	8
Spec. Cond.	uS/cm	6734	7191	7129	7602	8285	8325	3111	3436	3818	3827	3805	4310

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Table 6. MW-103 Batch Metals and Others

Treatment		GWPS	Control	2 g/L NaHCO3	5 g/L NaHCO3	10 g/L NaHCO3	1.0 g/L FeSO4	2.0 g/L FeSO4	5.0 g/L FeSO4	10.0 g/L FeSO4	2.0 g/L FeSO4 5 g/L NaHCO3	5.0 g/L FeSO4 5 g/L NaHCO3	10.0 g/L FeSO4 5 g/L NaHCO3	5 g/L FB	10 g/L FB	15 g/L FB
Time	Days		7	7	7	7	7	7	7	7	7	7	7	7	7	7
Sulfide	mg/L		<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
Total Alk.	mg/L as CaCO3		820	1100	2500	5100	1500	370	370	200	3000	2500	1700	1200	1300	1800
TOC	mg/L		<13	13	<13	<25	<50	<25	<5	<13	12	<13	<13	7.4	8.9	<13
Sulfate	mg/L		790	770	750	810	1000	1300	2300	3600	1400	2200	3600	1200	1500	1800
Dis As	mg/L	0.010	0.0046	0.0034	0.0075	**0.014**	<0.00070	<0.00070	<0.00070	<0.00070	<0.00070	<0.00070	0.0010 J	0.0027	<0.00070	0.00083 J
Dis Ba	mg/L	2	0.029	0.031	0.048	0.077	0.096	0.082	0.059	0.046	0.089	0.046	0.043	0.057	0.071	0.069
Dis B	mg/L		1.5	1.6	1.6	1.5	1.3	1.3	1.2	1.3	1.3	1.2	1.2	1.1	1.0	1.0
Dis Be	mg/L	0.004	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012
Dis Cd	mg/L	0.005	<0.00016	<0.00016	<0.00016	<0.00016	<0.00016	0.00017 J	<0.00016	<0.00016	<0.00016	<0.00016	<0.00016	<0.00016	<0.00016	<0.00016
Dis Cr	mg/L	0.1	0.0034	0.0042	0.0043	0.00076 J	<0.00057	<0.00057	<0.00057	<0.00057	<0.00057	<0.00057	<0.00057	<0.00057	<0.00057	<0.00057
Dis Co	mg/L	0.0060	0.00047 J	0.00057	0.00060	0.0013	0.0049	**0.043**	**0.100**	**0.180**	0.0056	**0.018**	**0.040**	0.00061	0.00061	0.00072
Dis Fe	mg/L		<0.021	<0.021	0.031 J	0.030	<0.021	10.0	260	920	0.14	18	200	0.049 J	0.021 J	<0.021
Dis Li	mg/L	0.325	0.037 J	0.036 J	0.026 J	<0.11	0.041 J	0.046 J	<0.23	<0.23	<0.23	<0.23	0.060 J	<0.057	<0.057	<0.057
Dis Mn	mg/L		0.0015 J	0.012	0.0029	0.025	2.6	6.7	13	22	1.8	1.2	2.6	0.10	0.23	0.26
Dis Mo	mg/L	0.1	0.086	0.081	0.066	0.052	0.025	0.0043	0.00031 J	<0.00021	0.022	0.012	0.0058	0.061	0.060	0.057
Dis Pb	mg/L	0.015	<0.00012	<0.00012	<0.00012	0.00021 J	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	0.00012 J	<0.00012
Dis Sb	mg/L	0.006	0.00049 J	0.0009 J	0.00088 J	0.0011	0.00033 J	<0.00021	<0.00021	<0.00021	0.00022 J	<0.00021	0.00037 J	0.00070 J	0.00047 J	0.00056 J
Dis Se	mg/L	0.050	0.0042	0.0045	0.0059	0.0076	0.0020	0.0018	0.0017	0.0018	0.0021	0.0019	0.0022	0.0028	0.0023	0.0023
Tot As	mg/L	0.010	0.0047	0.0042	0.0076	**0.015**	0.0008 J	<0.00068	0.00098 J	<0.068	0.00070 J	0.00079 J	<0.0068	0.0030	0.0012 J	0.00082 J
Tot Ba	mg/L	2	0.031	0.035	0.047	0.094	0.10	0.076	0.085	<0.075	0.10	0.065	0.046	0.069	0.080	0.076
Tot B	mg/L		1.4	1.5	1.5	1.5	1.3	1.3	1.4	1.4	0.14	1.4	1.4	1.1	1.1	1.1
Tot Be	mg/L	0.004	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.012	<0.00012	<0.00012	<0.0012	<0.00012	<0.00012	<0.00012
Tot Cd	mg/L	0.005	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	0.00019 J	0.00057	<0.015	<0.00015	<0.00015	<0.0015	<0.00015	<0.00015	<0.00015
Tot Cr	mg/L	0.1	0.0043	0.0053	0.0046	0.0015 J	0.00092 J	<0.00055	0.0023	<0.055	<0.00055	0.00080 J	<0.0055	<0.00055	0.0087	<0.00055
Tot Co	mg/L	0.032	0.00075	0.00077	0.00066	0.0015	0.0051	0.041	**0.110**	**0.200**	0.0062	0.019	**0.042**	0.00078	0.00087	0.00079
Tot Fe	mg/L		0.71	0.77	0.23	0.40	0.73	12	280	980	0.50	23	210	0.24	0.48	0.27
Tot Li	mg/L	0.325	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	0.074 J	<0.011	0.051	0.058	0.020 J	<0.11	<0.11
Tot Mn	mg/L		0.0020	0.045 B	0.0065	0.029	2.6 B	6.7 B	13 B	22 B	1.9 B	1.3	2.6	0.12	0.25 B	0.26 B
Tot Mo	mg/L	0.1	0.091	0.082	0.066	0.059	0.025	0.0045	0.00075	<0.020	0.024	0.013	0.0070	0.066	0.062	0.059
Tot Pb	mg/L	0.015	0.00045 J	0.00073	0.00022 J	0.00035 J	0.00027 J	0.00018 J	0.0010	<0.012	0.00024 J	0.00047 J	<0.0012	0.00016 J	0.00040 J	0.00014 J
Tot Sb	mg/L	0.006	0.00080 J	0.00077 J	0.00080 J	0.0010	0.00050 J	<0.00020	<0.00020	<0.020	0.00047 J	<0.0020	<0.00020	0.00069 J	0.00086 J	0.00070 J
Tot Se	mg/L	0.050	0.0045	0.0039	0.0050	0.0062	0.0023	0.0017	0.0020	<0.028	0.0018	0.0019	<0.0028	0.0028	0.0025	0.0023

0.0032 J J Value, compound detected above method detection limit but below method calibration levels
B – compound detected in blank associated with samples
0.011 Exceeds GWPS
<0.057 Detection limit exceeds GWPS

3.2 MW-211 Results

Table 7 presents the field parameters for MW-211. Table 8 shows the sulfide, total alkalinity, sulfate, dissolved and total antimony, arsenic, barium, beryllium, boron, cadmium, cobalt, chromium, iron, lead, lithium, manganese, molybdenum, and selenium. Dissolved and total antimony, barium, beryllium, cadmium, chromium, lithium, lead, molybdenum, and selenium were never detected above their GWPS.

3.2.1 Control

The control DO ranged from 5.2 to 5.7 mg/L, pH from 7.7 to 8.2 SU, ORP from 128 to 175 mV, and specific conductivity from 2,629 to 2,807 µS/cm.

No detectable sulfide was measured, the TOC was 11 mg/L, and total alkalinity of 500 mg/L as $CaCO_3$. Sulfate was 770 mg/L. All dissolved and total metals were below their respective GWPS.

3.2.2 Sodium Bicarbonate Buffer

Sodium bicarbonate was introduced at loadings of 2.4, 5.2, and 9.7 g/L. The DO ranged between 4.9 and 5.8 mg/L. The pH ranged from 8.0 to 8.3 SU with little difference between the 2.4, 5.2, and 9.7 g/L $NaHCO_3$ loadings. The ORP ranged from 124 to 172 mV with lower ORPs on Day 0. The specific conductivity increased at the higher $NaHCO_3$ loadings.

No detectable sulfide was found. The TOC ranged from 8.8 J to <25 mg/L.. Sulfate ranged from 770 to 830 mg/L. Total alkalinity increased from 1,300 to 4,900 mg/L as $CaCO_3$. All dissolved and total metals were below their respective GWPS except for Arsenic (0.011 J mg/L dissolved and 0.010 mg/L total) at the highest $NaHCO_3$ loading. Dissolved and total arsenic increased as the sodium bicarbonate loadings increased.

3.2.3 Ferrous Sulfate Heptahydrate

Ferrous sulfate heptahydrate were introduced at loadings of 1.2, 1.8, 4.9, and 12.3 g/L. The DO ranged between 1.4 and 5.9 mg/L. The pH ranged from 6.5 to 7.4 SU with lower pHs at the higher $FeSO_4$-$7H_2O$ loadings. The ORP ranged from -147 to 197 mV with negative ORP is most treatments. The specific conductivity ranged from 2,927 to 4,196 µS/cm.

No detectable sulfide was found. TOC was 6.9 mg/L at the 1.2 g/L loading and non-detect at the other loadings. Sulfate ranged from 1,000 to 2,100 mg/L. Total alkalinity decreased from 430 to <26 mg/L as $CaCO_3$. All dissolved metals were below their respective GWPS except for Co (0.0078 to 0.061 mg/L). Total metals were below their respective GWPS except for Co (0.0087 to 0.064 mg/L). Dissolved and total cobalt increased with the ferrous sulfate heptahydrate loading. The ferrous sulfate heptahydrate contributed cobalt or created conditions where cobalt came into solution from the soil.

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3.2.4 Ferrous Sulfate Heptahydrate and Sodium Bicarbonate

Ferrous sulfate heptahydrate was introduced at loadings of 2.0, 5.0 and 10 g/L. Each bottle also received 5.0 g/L sodium bicarbonate. The DO ranged between 1.0 and 4.4 mg/L. The pH ranged from 6.4 to 7.3 SU with lower pHs at the higher $FeSO_4$-$7H_2O$ loadings. The addition of 5 g/L $NaHCO_3$ increased the pH slightly over the corresponding $FeSO_4$-$7H_2O$ loading without the

buffer. The ORP ranged from -253 to 70 mV. There was somewhat higher specific conductivity with the higher $FeSO_4$-$7H_2O$ loadings.

No detectable sulfide was found. TOC was not detected. Sulfate ranged from 1,300 to 3,300 mg/L. Total alkalinity decreased from 2,200 to 810 mg/L as $CaCO_3$ as the pH decreased. All dissolved metals were below their respective GWPS except for Co (0.013 to 0.037 mg/L) at the two higher $FeSO_4$-$7H_2O$ loadings. Total metals were below their respective GWPS except for Co (0.014 to 0.039 mg/L) at the two higher $FeSO_4$-$7H_2O$ loadings. The ferrous sulfate heptahydrate contributed cobalt or created conditions where cobalt came into solution from the soil.

3.2.5 Ferroblack

Ferroblack were introduced at loadings of 5.1, 9.9, and 15.5 g/L. The DO ranged between 3.5 and 5.5 mg/L. The pH ranged from 7.6 to 8.7 SU with higher pHs at the higher Ferroblack loadings. The ORP ranged from -190 to 104 mV. The specific conductivity increased at the higher Ferroblack loadings.

No detectable sulfide was found. TOC was detected at 7.4 to 7.9 mg/L. Sulfate ranged from 1,000 to 1,500 mg/L. Total alkalinity ranged from 490 to 510 mg/L as $CaCO_3$. All dissolved and total metals were below their respective GWPS.

4.0 CONCLUSIONS

The following conclusions can be reached from these treatability studies:

- Total arsenic ranged from 0.011 mg/L to 0.013 mg/L in the initial samples of the groundwater and from 0.37 to 0.93 mg/L in the initial samples of the groundwater and soil (potentially due to carryover of soil). All of these concentrations exceeded the GWPS of 0.010 mg/L. Dissolved arsenic ranged from 0.0080 mg/L to 0.0091 mg/L in the initial samples of the groundwater and from 0.0019 to 0.0043 mg/L in the initial samples of the groundwater and soil; all were below the GWPS. Under the incubation conditions employed in these tests, the controls and all treatments except 10 g/L $NaHCO_3$ for MW-103 and MW-211 had dissolved and total arsenic below the GWPS. Increasing the sodium bicarbonate loadings generally resulted in higher dissolved and total arsenic levels. Sodium bicarbonate does not appear to be an appropriate reagent for in situ application to treat arsenic.
- The Prochem ferrous sulfate heptahydrate increased dissolved and total cobalt in many of the treatments for MW-103 and MW-211. Only the treatments with 2 g/L ferrous sulfate heptahydrate and 5 g/L sodium bicarbonate had cobalt below the GWPS in both the MW-103 and MW-211 groundwater and soil treatments. The ferrous sulfate contained cobalt and/or created conditions where it was mobilized from the soil.
- The Controls and the Ferroblack Fe+ treatments had no metals above the GWPS. Aeration to precipitate arsenic or addition of Ferroblack Fe+ would seem the most appropriate treatments for arsenic at this site.

Please let me know if you have any questions about this final report.

Sincerely,
TERRA SYSTEMS, INC.

Michael D. Lee, Ph.D.
Vice-President Research and Development

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Table 7. MW-211 Batch Field Parameters

Treatment		Control		2 g/L NaHCO3		5 g/L NaHCO3		10 g/L NaHCO3		1.0 g/L FeSO4		2.0 g/L FeSO4		5.0 g/L FeSO4		10.0 g/L FeSO4	
Groundwater	g	769.9		765.6		770.0		770.1		770.0		770.0		770.2		769.3	
Soil	g	920		920.5		920.2		919.9		920.2		920.1		920.2		915.3	
NaHCO3	g			1.80		4.0		7.50									
FeSO4-7H2O	g									0.9		1.4		3.8		9.5	
Ferroblack	g																
NaHCO3	g/L			2.4		5.2		9.7									
FeSO4-7H2O	g/L									1.2		1.8		4.9		12.3	
Ferroblack	g/L																
Time	Days	0	7	0	7	0	7	0	7	0	7	0	7	0	7	0	7
DO	mg/L	5.2	5.7	5.5	5.4	5.3	4.9	5.8	5.6	2.3	5.9	2.4	3.1	1.4	2.1	2.3	2.6
pH	SU	8.2	7.7	8.3	8.0	8.2	8.0	8.1	8.2	7.0	7.4	6.8	6.9	6.6	6.5	6.6	6.4
ORP	mV	128	175	124	170	127	172	131	164	-147	197	-136	-79	-137	-63	-144	-70
Spec. Cond.	uS/cm	2629	2807	4075	4290	6032	6276	10130	10350	2927	3156	3178	3449	3796	4196	3892	4330

Treatment		5 g/L NaHCO3 2.0 g/L FeSO4		5 g/L NaHCO3 5.0 g/L FeSO4		5 g/L NaHCO3 10.0 g/L FeSO4		5 g/L FB		10 g/L FB		15 g/L FB	
Groundwater	g	770.2		767.1		770.1		770.1		768.4		767.8	
Soil	g	920.0		919.8		919.9		920.2		920.1		920.2	
NaHCO3	g	3.85		3.85		3.85							
FeSO4-7H2O	g	1.54		3.85		7.7							
Ferroblack	g							3.9		7.6		11.9	
NaHCO3	g/L	5.0		5.0		5.0							
FeSO4-7H2O	g/L	2.0		5.0		10.0							
Ferroblack	g/L							5.1		9.9		15.5	
Time	Days	0	7	0	7	0	7	0	7	0	7	0	7
DO	mg/L	1.8	4.4	1.6	3.5	1.0	2.5	3.5	5.2	4.6	5.4	3.8	5.5
pH	SU	7.2	7.3	7.1	7.0	7.0	6.7	8.0	7.6	8.5	8.1	8.7	8.3
ORP	mV	-226	-87	-243	-113	-253	-104	-190	-108	-137	104	-87	104
Spec. Cond.	uS/cm	6141	6823	6790	7268	7635	8096	3167	3457	3630	3881	4064	4357

Table 8. MW-211 Batch Metals and Others

Treatment		GWPS	Control	2 g/L NaHCO3	5 g/L NaHCO3	10 g/L NaHCO3	1.0 g/L FeSO4	2.0 g/L FeSO4	5.0 g/L FeSO4	10.0 g/L FeSO4	2.0 g/L FeSO4 5 g/L NaHCO3	5.0 g/L FeSO4 5 g/L NaHCO3	10.0 g/L FeSO4 5 g/L NaHCO3	5 g/L FB	10 g/L FB	15 g/L FB
Time	Days		7	7	7	7	7	7	7	7	7	7	7	7	7	7
Sulfide	mg/L		<0.10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	<0.10	<0.10	<0.50	<0.50
Total Alk.	mg/L as CaCO3		500	1300	2500	4900	430	380	30 J	<26	2200	1700	810	510	500	490
TOC	mg/L		11	10	8.8 J	<25	6.9	<25	<5.0	<13	<13	<13	<13	7.4	7.9	7.5
Sulfate	mg/L		770	770	830	820	1000	1200	2100	2000	1300	2100	3300	1000	1400	1500
Dis As	mg/L	0.010	<0.0070	<0.0070	<0.0070	**0.011 J**	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070
Dis Ba	mg/L	2	0.050	0.056	0.062	0.078	0.073	0.075	0.050	0.055	0.087	0.046	0.042	0.068	0.079	0.061
Dis Be	mg/L	0.004	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012
Dis Cd	mg/L	0.005	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Dis Cr	mg/L	0.1	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057
Dis Co	mg/L	0.0060	<0.0016	<0.0016	<0.0016	0.0019 J	**0.0078**	**0.025**	**0.057**	**0.061**	0.0034 J	**0.013**	**0.037**	<0.0016	<0.0016	<0.0016
Dis Fe	mg/L		<0.21	<0.21	<0.21	<0.21	<0.21	15	180	240	<0.21	14	210	<0.21	<0.21	<0.21
Dis Li	mg/L	0.325	<0.011	<0.057	<0.011	<0.011	<0.057	0.057 J	<0.057	<0.057	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011
Dis Mn	mg/L		0.30	0.11	0.110	0.070	2.5	5.0	9.2	9.5	0.80	1.1	2.40	0.440	0.410	0.280
Dis Mo	mg/L	0.1	0.062	0.080	0.071	0.059	0.013	0.0031 J	<0.0021	<0.0021	0.017	0.0058	0.0030 J	0.041	0.052	0.046
Dis Pb	mg/L	0.015	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012
Dis Sb	mg/L	0.006	<0.0021	<0.0021	<0.0021	<0.0021	<0.0021	<0.0021	<0.0021	<0.0021	<0.0021	<0.0021	<0.0021	<0.0021	<0.0021	<0.0021
Dis Se	mg/L	0.050	0.0040 J	0.0031 J	0.0044 J	0.0037 J	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	0.0041 J	0.0032 J
Tot As	mg/L	0.010	0.0060	0.0042	0.0089 J	**0.010**	<0.0034	<0.0034	<0.0034	<0.0034	<0.0068	<0.0068	<0.0068	<0.0034	<0.0034	<0.0034
Tot Ba	mg/L	2	0.056	0.057	0.076	0.081	0.098	0.087	0.075	0.057	0.099	0.054	0.040	0.072	0.082	0.078
Tot B	mg/L		1.5	1.6	1.8	1.7	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.4	1.5	1.4
Tot Be	mg/L	0.004	<0.00012	<0.00012	<0.0012	0.00013 J	<0.00060	<0.00060	<0.00060	<0.00060	<0.0012	<0.0012	<0.0012	<0.00060	<0.00060	<0.00060
Tot Cd	mg/L	0.005	<0.00015	<0.00015	<0.0015	<0.00015	<0.00076	<0.00076	<0.00076	0.0010 J	<0.0015	<0.0015	<0.0015	<0.00076	<0.00076	<0.00076
Tot Cr	mg/L	0.1	<0.00055	<0.00055	<0.0055	<0.00055	<0.0028	<0.0028	<0.0028	<0.0028	<0.0055	<0.0055	<0.0055	<0.0028	<0.0028	<0.0028
Tot Co	mg/L	0.0060	0.0012	0.00076	0.0025 J	0.0016	**0.0087**	**0.027**	**0.060**	**0.064**	0.0046 J	**0.014**	**0.039**	0.0012 J	0.0016 J	0.0013 J
Tot Fe	mg/L		0.25	0.17	0.23 J	0.17	4.1	19	200	260	4.4	29	220	0.71	1.6	1.1
Tot Li	mg/L	0.325	<0.055	<0.055	<0.011	<0.011	<0.055	<0.055	<0.055	<0.055	<0.011	<0.011	<0.055	<0.055	<0.011	<0.011
Tot Mn	mg/L		0.31	0.091	0.140	0.060	2.60	5.30	9.6	9.9	0.910	1.40	2.50	0.460	0.440	0.320
Tot Mo	mg/L	0.1	0.061	0.074	0.075	0.057	0.016	0.0041	0.0026	0.0017 J	0.020	0.0060	0.0044 J	0.042	0.052	0.046
Tot Pb	mg/L	0.015	0.00019 J	<0.00012	<0.0012	0.00017 J	<0.00060	<0.00060	0.0012 J	0.00078 J	<0.0012	<0.0012	<0.0012	<0.00060	0.0011 J	<0.00060
Tot Sb	mg/L	0.006	0.00091 J	0.00078 J	0.0033 J	0.00088 J	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0020	<0.0020	<0.0010	<0.0010	<0.0010
Tot Se	mg/L	0.050	0.0037	0.0041	0.0070 J	0.0042	<0.0014	<0.0014	<0.0014	<0.0014	<0.0028	<0.0028	<0.0028	0.0021 J	0.0023 J	0.0028 J

0.0032 J - Value, compound detected above method detection limit but below method calibration levels

0.011 Exceeds GWPS

<0.057 Detection limit exceeds GWPS

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Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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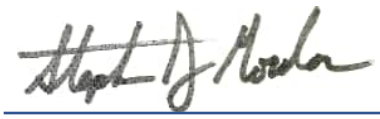


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Definitions/Glossary

Client: Terra Systems Inc
Job ID: 410-230305-1
Project/Site: WSP GRE Stanton ND Phase II

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail

Metals

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
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
cn	Refer to Case Narrative for further detail
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
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.
☼	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

Job Narrative
410-230305-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/25/2025 5:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.1°C.

HPLC/IC
Method 300_ORGFM_28D: (ICV 410-664820/7) is compliant under method criteria for sulfate. The software does not display the data to the whole number as is listed in the method. When applying the evaluation to a whole number of 10%D, the QC passes the criteria.

Method 300_ORGFM_28D: The ICV is compliant under method criteria for Sulfate. The software does not display the data to the whole number as is listed in the method. When applying the evaluation to a whole number of 10%D, the QC passes the criteria.

MW-103 IC (410-230305-1) and MW-211 IC (410-230305-2)

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

Metals
Method 6010D - Dissolved: The following samples were diluted due to the nature of the sample matrix: MW-103 IC (410-230305-1) and MW-211 IC (410-230305-2). 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
Method SM4500_S2_D - Dissolved: The following samples were received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: MW-103 IC (410-230305-1) and MW-211 IC (410-230305-2).

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

Detection Summary

Client: Terra Systems Inc
Project/Site: WSP GRE Stanton ND Phase II

Job ID: 410-230305-1

Client Sample ID: MW-103 IC — Lab Sample ID: 410-230305-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	760	cn	150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.0		0.050	0.012	mg/L	1		6010D	Total Recoverable
Lithium	0.060	J	0.25	0.055	mg/L	5		6010D	Total Recoverable
Antimony	0.32	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Arsenic	11		2.0	0.68	ug/L	1		6020B	Total Recoverable
Barium	100		2.0	0.75	ug/L	1		6020B	Total Recoverable
Cobalt	0.69		0.50	0.16	ug/L	1		6020B	Total Recoverable
Iron	51		50	20	ug/L	1		6020B	Total Recoverable
Lead	0.65		0.50	0.12	ug/L	1		6020B	Total Recoverable
Manganese	74		2.0	0.95	ug/L	1		6020B	Total Recoverable
Molybdenum	21		0.50	0.20	ug/L	1		6020B	Total Recoverable
Selenium	3.3		1.0	0.28	ug/L	1		6020B	Total Recoverable
Antimony	0.32	J	1.0	0.21	ug/L	1		6020B	Dissolved
Arsenic	8.0		2.1	0.70	ug/L	1		6020B	Dissolved
Barium	95		2.1	0.77	ug/L	1		6020B	Dissolved
Cobalt	0.64		0.52	0.16	ug/L	1		6020B	Dissolved
Iron	38	J	52	21	ug/L	1		6020B	Dissolved
Lead	0.59		0.52	0.12	ug/L	1		6020B	Dissolved
Manganese	73		2.1	0.98	ug/L	1		6020B	Dissolved
Molybdenum	18		0.52	0.21	ug/L	1		6020B	Dissolved
Selenium	3.4		1.0	0.29	ug/L	1		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	540		16	5.2	mg/L	2		2320B-2011	Total/NA
Total Organic Carbon	8.8		1.0	0.50	mg/L	1		415.1	Total/NA
TOC Result 3	8.9		1.0	0.50	mg/L	1		415.1	Total/NA

Client Sample ID: MW-211 IC — Lab Sample ID: 410-230305-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	780	cn	150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.4		0.050	0.012	mg/L	1		6010D	Total Recoverable
Arsenic	13		2.0	0.68	ug/L	1		6020B	Total Recoverable
Barium	110		2.0	0.75	ug/L	1		6020B	Total Recoverable
Cobalt	0.56		0.50	0.16	ug/L	1		6020B	Total Recoverable
Iron	60		50	20	ug/L	1		6020B	Total Recoverable
Manganese	610		2.0	0.95	ug/L	1		6020B	Total Recoverable
Molybdenum	18		0.50	0.20	ug/L	1		6020B	Total Recoverable
Arsenic	9.1		2.1	0.70	ug/L	1		6020B	Dissolved
Barium	98		2.1	0.77	ug/L	1		6020B	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-211 IC (Continued)

Lab Sample ID: 410-230305-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.54		0.52	0.16	ug/L	1		6020B	Dissolved
Iron	47	J	52	21	ug/L	1		6020B	Dissolved
Manganese	600		2.1	0.98	ug/L	1		6020B	Dissolved
Molybdenum	17		0.52	0.21	ug/L	1		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	540		16	5.2	mg/L	2		2320B-2011	Total/NA
Total Organic Carbon	6.4		1.0	0.50	mg/L	1		415.1	Total/NA
TOC Result 3	6.6		1.0	0.50	mg/L	1		415.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-103 IC

Date Collected: 06/25/25 08:00
Date Received: 06/25/25 17:30

Lab Sample ID: 410-230305-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**760**	**cn**	150	50	mg/L			07/09/25 08:24	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.0**		0.050	0.012	mg/L		07/03/25 22:05	07/08/25 16:56	1
Lithium	**0.060**	**J**	0.25	0.055	mg/L		07/03/25 22:05	07/08/25 17:05	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.057	cn	0.26	0.057	mg/L		07/03/25 21:24	07/08/25 22:09	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.32**	**J**	1.0	0.20	ug/L		07/03/25 22:05	07/07/25 20:05	1
Arsenic	**11**		2.0	0.68	ug/L		07/03/25 22:05	07/07/25 20:05	1
Barium	**100**		2.0	0.75	ug/L		07/03/25 22:05	07/07/25 20:05	1
Beryllium	<0.12		0.50	0.12	ug/L		07/03/25 22:05	07/07/25 20:05	1
Cadmium	<0.15		0.50	0.15	ug/L		07/03/25 22:05	07/07/25 20:05	1
Chromium	<0.55		2.0	0.55	ug/L		07/03/25 22:05	07/07/25 20:05	1
Cobalt	**0.69**		0.50	0.16	ug/L		07/03/25 22:05	07/07/25 20:05	1
Iron	**51**		50	20	ug/L		07/03/25 22:05	07/07/25 20:05	1
Lead	**0.65**		0.50	0.12	ug/L		07/03/25 22:05	07/07/25 20:05	1
Manganese	**74**		2.0	0.95	ug/L		07/03/25 22:05	07/07/25 20:05	1
Molybdenum	**21**		0.50	0.20	ug/L		07/03/25 22:05	07/07/25 20:05	1
Selenium	**3.3**		1.0	0.28	ug/L		07/03/25 22:05	07/07/25 20:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.32**	**J**	1.0	0.21	ug/L		07/15/25 04:00	07/15/25 15:39	1
Arsenic	**8.0**		2.1	0.70	ug/L		07/15/25 04:00	07/15/25 15:39	1
Barium	**95**		2.1	0.77	ug/L		07/15/25 04:00	07/15/25 15:39	1
Beryllium	<0.12		0.52	0.12	ug/L		07/15/25 04:00	07/15/25 15:39	1
Cadmium	<0.16		0.52	0.16	ug/L		07/15/25 04:00	07/15/25 15:39	1
Chromium	<0.57		2.1	0.57	ug/L		07/15/25 04:00	07/15/25 15:39	1
Cobalt	**0.64**		0.52	0.16	ug/L		07/15/25 04:00	07/15/25 15:39	1
Iron	**38**	**J**	52	21	ug/L		07/15/25 04:00	07/15/25 15:39	1
Lead	**0.59**		0.52	0.12	ug/L		07/15/25 04:00	07/15/25 15:39	1
Manganese	**73**		2.1	0.98	ug/L		07/15/25 04:00	07/15/25 15:39	1
Molybdenum	**18**		0.52	0.21	ug/L		07/15/25 04:00	07/15/25 15:39	1
Selenium	**3.4**		1.0	0.29	ug/L		07/15/25 04:00	07/15/25 15:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**540**		16	5.2	mg/L			07/09/25 08:33	2
Ferrous Iron (SM 3500 Fe B-2011)	<0.050	HF F1	0.10	0.050	mg/L			07/08/25 13:23	1
Total Organic Carbon (EPA 415.1)	**8.8**		1.0	0.50	mg/L			07/04/25 13:38	1
TOC Result 3 (EPA 415.1)	**8.9**		1.0	0.50	mg/L			07/04/25 13:38	1

Client Sample ID: MW-103 IC
Lab Sample ID: 410-230305-1
Date Collected: 06/25/25 08:00
Matrix: Water
Date Received: 06/25/25 17:30

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10	H cn	0.30	0.10	mg/L		07/07/25 16:45	07/07/25 16:55	1

Client Sample ID: MW-211 IC
Lab Sample ID: 410-230305-2
Date Collected: 06/25/25 08:30
Matrix: Water
Date Received: 06/25/25 17:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**780**	**cn**	150	50	mg/L			07/09/25 08:55	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.4**		0.050	0.012	mg/L		07/03/25 22:05	07/08/25 17:00	1
Lithium	<0.055		0.25	0.055	mg/L		07/03/25 22:05	07/08/25 17:08	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.057	cn	0.26	0.057	mg/L		07/03/25 21:24	07/08/25 22:06	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.20		1.0	0.20	ug/L		07/03/25 22:05	07/07/25 20:07	1
Arsenic	**13**		2.0	0.68	ug/L		07/03/25 22:05	07/07/25 20:07	1
Barium	**110**		2.0	0.75	ug/L		07/03/25 22:05	07/07/25 20:07	1
Beryllium	<0.12		0.50	0.12	ug/L		07/03/25 22:05	07/07/25 20:07	1
Cadmium	<0.15		0.50	0.15	ug/L		07/03/25 22:05	07/07/25 20:07	1
Chromium	<0.55		2.0	0.55	ug/L		07/03/25 22:05	07/07/25 20:07	1
Cobalt	**0.56**		0.50	0.16	ug/L		07/03/25 22:05	07/07/25 20:07	1
Iron	**60**		50	20	ug/L		07/03/25 22:05	07/07/25 20:07	1
Lead	<0.12		0.50	0.12	ug/L		07/03/25 22:05	07/07/25 20:07	1
Manganese	**610**		2.0	0.95	ug/L		07/03/25 22:05	07/07/25 20:07	1
Molybdenum	**18**		0.50	0.20	ug/L		07/03/25 22:05	07/07/25 20:07	1
Selenium	<0.28		1.0	0.28	ug/L		07/03/25 22:05	07/07/25 20:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.21		1.0	0.21	ug/L		07/15/25 04:00	07/15/25 15:35	1
Arsenic	**9.1**		2.1	0.70	ug/L		07/15/25 04:00	07/15/25 15:35	1
Barium	**98**		2.1	0.77	ug/L		07/15/25 04:00	07/15/25 15:35	1
Beryllium	<0.12		0.52	0.12	ug/L		07/15/25 04:00	07/15/25 15:35	1
Cadmium	<0.16		0.52	0.16	ug/L		07/15/25 04:00	07/15/25 15:35	1
Chromium	<0.57		2.1	0.57	ug/L		07/15/25 04:00	07/15/25 15:35	1
Cobalt	**0.54**		0.52	0.16	ug/L		07/15/25 04:00	07/15/25 15:35	1
Iron	**47**	**J**	52	21	ug/L		07/15/25 04:00	07/15/25 15:35	1
Lead	<0.12		0.52	0.12	ug/L		07/15/25 04:00	07/15/25 15:35	1
Manganese	**600**		2.1	0.98	ug/L		07/15/25 04:00	07/15/25 15:35	1
Molybdenum	**17**		0.52	0.21	ug/L		07/15/25 04:00	07/15/25 15:35	1
Selenium	<0.29		1.0	0.29	ug/L		07/15/25 04:00	07/15/25 15:35	1

Client: Terra Systems Inc
Job ID: 410-230305-1
Project/Site: WSP GRE Stanton ND Phase II

Client Sample ID: MW-211 IC
Lab Sample ID: 410-230305-2
Date Collected: 06/25/25 08:30
Matrix: Water
Date Received: 06/25/25 17:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**540**		16	5.2	mg/L			07/09/25 08:40	2
Ferrous Iron (SM 3500 Fe B-2011)	<0.050	HF	0.10	0.050	mg/L			07/08/25 13:23	1
Total Organic Carbon (EPA 415.1)	**6.4**		1.0	0.50	mg/L			07/04/25 13:57	1
TOC Result 3 (EPA 415.1)	**6.6**		1.0	0.50	mg/L			07/04/25 13:57	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10	H cn	0.30	0.10	mg/L		07/07/25 16:45	07/07/25 16:55	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-668397/5
Matrix: Water
Analysis Batch: 668397

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.50		1.5	0.50	mg/L			07/09/25 03:55	1

Lab Sample ID: LCS 410-668397/3
Matrix: Water
Analysis Batch: 668397

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	7.50	7.44		mg/L		99	90 - 110

Lab Sample ID: LCSD 410-668397/4
Matrix: Water
Analysis Batch: 668397

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	7.50	7.43		mg/L		99	90 - 110	0	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-667092/1-A
Matrix: Water
Analysis Batch: 668923

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 667092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.052	0.011	mg/L		07/03/25 21:24	07/08/25 21:09	1

Lab Sample ID: LCS 410-667092/2-A
Matrix: Water
Analysis Batch: 668923

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.500	0.508		mg/L		102	88 - 113

Lab Sample ID: MB 410-667103/1-A
Matrix: Water
Analysis Batch: 668523

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 667103

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.012		0.050	0.012	mg/L		07/03/25 22:05	07/08/25 17:23	1
Lithium	<0.011		0.050	0.011	mg/L		07/03/25 22:05	07/08/25 17:23	1

Lab Sample ID: LCS 410-667103/2-A
Matrix: Water
Analysis Batch: 668523

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 667103

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.522		mg/L		104	83 - 119
Lithium	0.500	0.520		mg/L		104	88 - 113

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-671187/1-A
Matrix: Water
Analysis Batch: 671778

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 671187

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.21		1.0	0.21	ug/L		07/15/25 04:00	07/15/25 18:16	1
Arsenic	<0.70		2.1	0.70	ug/L		07/15/25 04:00	07/15/25 18:16	1
Barium	<0.77		2.1	0.77	ug/L		07/15/25 04:00	07/15/25 18:16	1
Beryllium	<0.12		0.52	0.12	ug/L		07/15/25 04:00	07/15/25 18:16	1
Cadmium	<0.16		0.52	0.16	ug/L		07/15/25 04:00	07/15/25 18:16	1
Chromium	<0.57		2.1	0.57	ug/L		07/15/25 04:00	07/15/25 18:16	1
Cobalt	<0.16		0.52	0.16	ug/L		07/15/25 04:00	07/15/25 18:16	1
Iron	<21		52	21	ug/L		07/15/25 04:00	07/15/25 18:16	1
Lead	<0.12		0.52	0.12	ug/L		07/15/25 04:00	07/15/25 18:16	1
Manganese	<0.98		2.1	0.98	ug/L		07/15/25 04:00	07/15/25 18:16	1
Molybdenum	<0.21		0.52	0.21	ug/L		07/15/25 04:00	07/15/25 18:16	1
Selenium	<0.29		1.0	0.29	ug/L		07/15/25 04:00	07/15/25 18:16	1

Lab Sample ID: LCS 410-671187/2-A
Matrix: Water
Analysis Batch: 671778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 671187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	100		ug/L		100	85 - 115
Arsenic	500	493		ug/L		99	86 - 111
Barium	500	505		ug/L		101	86 - 114
Beryllium	50.0	52.9		ug/L		106	80 - 120
Cadmium	50.0	49.1		ug/L		98	86 - 114
Chromium	500	503		ug/L		101	84 - 113
Cobalt	500	487		ug/L		97	85 - 112
Iron	5000	4940		ug/L		99	84 - 114
Lead	50.0	50.1		ug/L		100	86 - 114
Manganese	500	495		ug/L		99	84 - 113
Molybdenum	50.0	49.0		ug/L		98	83 - 115
Selenium	100	98.8		ug/L		99	86 - 111

Lab Sample ID: MB 410-667103/1-A
Matrix: Water
Analysis Batch: 667960

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 667103

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.20		1.0	0.20	ug/L		07/03/25 22:05	07/07/25 16:19	1
Arsenic	<0.68		2.0	0.68	ug/L		07/03/25 22:05	07/07/25 16:19	1
Barium	<0.75		2.0	0.75	ug/L		07/03/25 22:05	07/07/25 16:19	1
Beryllium	<0.12		0.50	0.12	ug/L		07/03/25 22:05	07/07/25 16:19	1
Cadmium	<0.15		0.50	0.15	ug/L		07/03/25 22:05	07/07/25 16:19	1
Chromium	<0.55		2.0	0.55	ug/L		07/03/25 22:05	07/07/25 16:19	1
Cobalt	<0.16		0.50	0.16	ug/L		07/03/25 22:05	07/07/25 16:19	1
Iron	<20		50	20	ug/L		07/03/25 22:05	07/07/25 16:19	1
Lead	<0.12		0.50	0.12	ug/L		07/03/25 22:05	07/07/25 16:19	1
Manganese	<0.95		2.0	0.95	ug/L		07/03/25 22:05	07/07/25 16:19	1
Molybdenum	<0.20		0.50	0.20	ug/L		07/03/25 22:05	07/07/25 16:19	1
Selenium	<0.28		1.0	0.28	ug/L		07/03/25 22:05	07/07/25 16:19	1

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

Lab Sample ID: LCS 410-667103/2-A
Matrix: Water
Analysis Batch: 667960

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 667103

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	102		ug/L		102	85 - 115
Arsenic	500	509		ug/L		102	86 - 111
Barium	500	513		ug/L		103	86 - 114
Beryllium	50.0	53.7		ug/L		107	80 - 120
Cadmium	50.0	51.1		ug/L		102	86 - 114
Chromium	500	509		ug/L		102	84 - 113
Cobalt	500	523		ug/L		105	85 - 112
Iron	5000	5220		ug/L		104	84 - 114
Lead	50.0	51.5		ug/L		103	86 - 114
Manganese	500	520		ug/L		104	84 - 113
Molybdenum	50.0	53.3		ug/L		107	83 - 115
Selenium	100	91.3		ug/L		91	86 - 111

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-668832/128
Matrix: Water
Analysis Batch: 668832

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<2.6		8.0	2.6	mg/L			07/09/25 07:42	1

Lab Sample ID: LCS 410-668832/129
Matrix: Water
Analysis Batch: 668832

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 to pH 4.5	189	182		mg/L		97	80 - 110

Method: 3500 Fe B-2011 - Iron, Ferrous and Ferric

Lab Sample ID: MB 410-668299/14
Matrix: Water
Analysis Batch: 668299

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron	<0.050		0.10	0.050	mg/L			07/08/25 13:23	1

Lab Sample ID: LCS 410-668299/13
Matrix: Water
Analysis Batch: 668299

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ferrous Iron	1.00	0.992		mg/L		99	90 - 110

Method: 3500 Fe B-2011 - Iron, Ferrous and Ferric (Continued)

Lab Sample ID: MRL 410-668299/10
Matrix: Water
Analysis Batch: 668299

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Ferrous Iron			0.100	0.0999		mg/L		100	50 - 150		

Lab Sample ID: 410-230305-1 MS
Matrix: Water
Analysis Batch: 668299

Client Sample ID: MW-103 IC
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ferrous Iron	<0.050	HF F1	0.100	1.09	F1	mg/L		1092	90 - 110		

Lab Sample ID: 410-230305-1 MSD
Matrix: Water
Analysis Batch: 668299

Client Sample ID: MW-103 IC
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ferrous Iron	<0.050	HF F1	0.100	1.11	F1	mg/L		1109	90 - 110	2	10

Lab Sample ID: 410-230305-1 DU
Matrix: Water
Analysis Batch: 668299

Client Sample ID: MW-103 IC
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Ferrous Iron	<0.050	HF F1		<0.050		mg/L				NC	10

Method: 415.1 - TOC

Lab Sample ID: MB 410-667486/7
Matrix: Water
Analysis Batch: 667486

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<0.50		1.0	0.50	mg/L			07/04/25 05:34	1
TOC Result 3	<0.50		1.0	0.50	mg/L			07/04/25 05:34	1

Lab Sample ID: LCS 410-667486/6
Matrix: Water
Analysis Batch: 667486

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			50.0	47.7		mg/L		95	90 - 110		
TOC Result 3			50.0	48.0		mg/L		96	90 - 110		

Lab Sample ID: MRL 410-667486/1
Matrix: Water
Analysis Batch: 667486

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			1.00	1.11		mg/L		111	50 - 150		
TOC Result 3			1.00	1.12		mg/L		112			

Client: Terra Systems Inc
Project/Site: WSP GRE Stanton ND Phase II

Job ID: 410-230305-1

Method: 4500 S2 D-2011 - Sulfide, Total

Lab Sample ID: MB 410-667784/4
Matrix: Water
Analysis Batch: 667784

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<0.10		0.30	0.10	mg/L			07/07/25 15:20	1

Lab Sample ID: LCS 410-667784/5
Matrix: Water
Analysis Batch: 667784

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	1.00	0.922		mg/L		92	84 - 116

Lab Sample ID: MRL 410-667784/6
Matrix: Water
Analysis Batch: 667784

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	0.295	0.305		mg/L		103	50 - 150

HPLC/IC

Analysis Batch: 668397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230305-1	MW-103 IC	Total/NA	Water	EPA 300.0 R2.1	
410-230305-2	MW-211 IC	Total/NA	Water	EPA 300.0 R2.1	
MB 410-668397/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-668397/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-668397/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 667092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230305-1	MW-103 IC	Dissolved	Water	Non-Digest Prep	
410-230305-2	MW-211 IC	Dissolved	Water	Non-Digest Prep	
MB 410-667092/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-667092/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Prep Batch: 667103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230305-1	MW-103 IC	Total Recoverable	Water	3005A	
410-230305-2	MW-211 IC	Total Recoverable	Water	3005A	
MB 410-667103/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-667103/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 667960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230305-1	MW-103 IC	Total Recoverable	Water	6020B	667103
410-230305-2	MW-211 IC	Total Recoverable	Water	6020B	667103
MB 410-667103/1-A	Method Blank	Total Recoverable	Water	6020B	667103
LCS 410-667103/2-A	Lab Control Sample	Total Recoverable	Water	6020B	667103

Analysis Batch: 668523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230305-1	MW-103 IC	Total Recoverable	Water	6010D	667103
410-230305-1	MW-103 IC	Total Recoverable	Water	6010D	667103
410-230305-2	MW-211 IC	Total Recoverable	Water	6010D	667103
410-230305-2	MW-211 IC	Total Recoverable	Water	6010D	667103
MB 410-667103/1-A	Method Blank	Total Recoverable	Water	6010D	667103
LCS 410-667103/2-A	Lab Control Sample	Total Recoverable	Water	6010D	667103

Analysis Batch: 668923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230305-1	MW-103 IC	Dissolved	Water	6010D	667092
410-230305-2	MW-211 IC	Dissolved	Water	6010D	667092
MB 410-667092/1-A	Method Blank	Total/NA	Water	6010D	667092
LCS 410-667092/2-A	Lab Control Sample	Total/NA	Water	6010D	667092

Prep Batch: 671187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230305-1	MW-103 IC	Dissolved	Water	Non-Digest Prep	
410-230305-2	MW-211 IC	Dissolved	Water	Non-Digest Prep	
MB 410-671187/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-671187/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Metals

Analysis Batch: 671778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230305-1	MW-103 IC	Dissolved	Water	6020B	671187
410-230305-2	MW-211 IC	Dissolved	Water	6020B	671187
MB 410-671187/1-A	Method Blank	Total/NA	Water	6020B	671187
LCS 410-671187/2-A	Lab Control Sample	Total/NA	Water	6020B	671187

General Chemistry

Analysis Batch: 667486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230305-1	MW-103 IC	Total/NA	Water	415.1	
410-230305-2	MW-211 IC	Total/NA	Water	415.1	
MB 410-667486/7	Method Blank	Total/NA	Water	415.1	
LCS 410-667486/6	Lab Control Sample	Total/NA	Water	415.1	
MRL 410-667486/1	Lab Control Sample	Total/NA	Water	415.1	

Analysis Batch: 667784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230305-1	MW-103 IC	Dissolved	Water	4500 S2 D-2011	667838
410-230305-2	MW-211 IC	Dissolved	Water	4500 S2 D-2011	667838
MB 410-667784/4	Method Blank	Total/NA	Water	4500 S2 D-2011	
LCS 410-667784/5	Lab Control Sample	Total/NA	Water	4500 S2 D-2011	
MRL 410-667784/6	Lab Control Sample	Total/NA	Water	4500 S2 D-2011	

Prep Batch: 667838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230305-1	MW-103 IC	Dissolved	Water	SM 4500 S2 B	
410-230305-2	MW-211 IC	Dissolved	Water	SM 4500 S2 B	

Analysis Batch: 668299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230305-1	MW-103 IC	Total/NA	Water	3500 Fe B-2011	
410-230305-2	MW-211 IC	Total/NA	Water	3500 Fe B-2011	
MB 410-668299/14	Method Blank	Total/NA	Water	3500 Fe B-2011	
LCS 410-668299/13	Lab Control Sample	Total/NA	Water	3500 Fe B-2011	
MRL 410-668299/10	Lab Control Sample	Total/NA	Water	3500 Fe B-2011	
410-230305-1 MS	MW-103 IC	Total/NA	Water	3500 Fe B-2011	
410-230305-1 MSD	MW-103 IC	Total/NA	Water	3500 Fe B-2011	
410-230305-1 DU	MW-103 IC	Total/NA	Water	3500 Fe B-2011	

Analysis Batch: 668832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230305-1	MW-103 IC	Total/NA	Water	2320B-2011	
410-230305-2	MW-211 IC	Total/NA	Water	2320B-2011	
MB 410-668832/128	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-668832/129	Lab Control Sample	Total/NA	Water	2320B-2011	

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-230305-1
Project/Site: WSP GRE Stanton ND Phase II

Client Sample ID: MW-103 IC
Lab Sample ID: 410-230305-1
Date Collected: 06/25/25 08:00
Matrix: Water
Date Received: 06/25/25 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	668397	PYC6	ELLE	07/09/25 08:24
Dissolved	Prep	Non-Digest Prep			667092	RFN5	ELLE	07/03/25 21:24
Dissolved	Analysis	6010D		5	668923	T8CQ	ELLE	07/08/25 22:09
Total Recoverable	Prep	3005A			667103	UAMX	ELLE	07/03/25 22:05
Total Recoverable	Analysis	6010D		1	668523	T8CQ	ELLE	07/08/25 16:56
Total Recoverable	Prep	3005A			667103	UAMX	ELLE	07/03/25 22:05
Total Recoverable	Analysis	6010D		5	668523	T8CQ	ELLE	07/08/25 17:05
Dissolved	Prep	Non-Digest Prep			671187	UAMX	ELLE	07/15/25 04:00
Dissolved	Analysis	6020B		1	671778	I9IN	ELLE	07/15/25 15:39
Total Recoverable	Prep	3005A			667103	UAMX	ELLE	07/03/25 22:05
Total Recoverable	Analysis	6020B		1	667960	I9IN	ELLE	07/07/25 20:05
Total/NA	Analysis	2320B-2011		2	668832	DI9Q	ELLE	07/09/25 08:33
Total/NA	Analysis	3500 Fe B-2011		1	668299	JCG7	ELLE	07/08/25 13:23
Total/NA	Analysis	415.1		1	667486	P684	ELLE	07/04/25 13:38
Dissolved	Prep	SM 4500 S2 B			667838	USE1	ELLE	07/07/25 16:45
Dissolved	Analysis	4500 S2 D-2011		1	667784	USE1	ELLE	07/07/25 16:55

Client Sample ID: MW-211 IC
Lab Sample ID: 410-230305-2
Date Collected: 06/25/25 08:30
Matrix: Water
Date Received: 06/25/25 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	668397	PYC6	ELLE	07/09/25 08:55
Dissolved	Prep	Non-Digest Prep			667092	RFN5	ELLE	07/03/25 21:24
Dissolved	Analysis	6010D		5	668923	T8CQ	ELLE	07/08/25 22:06
Total Recoverable	Prep	3005A			667103	UAMX	ELLE	07/03/25 22:05
Total Recoverable	Analysis	6010D		1	668523	T8CQ	ELLE	07/08/25 17:00
Total Recoverable	Prep	3005A			667103	UAMX	ELLE	07/03/25 22:05
Total Recoverable	Analysis	6010D		5	668523	T8CQ	ELLE	07/08/25 17:08
Dissolved	Prep	Non-Digest Prep			671187	UAMX	ELLE	07/15/25 04:00
Dissolved	Analysis	6020B		1	671778	I9IN	ELLE	07/15/25 15:35
Total Recoverable	Prep	3005A			667103	UAMX	ELLE	07/03/25 22:05
Total Recoverable	Analysis	6020B		1	667960	I9IN	ELLE	07/07/25 20:07
Total/NA	Analysis	2320B-2011		2	668832	DI9Q	ELLE	07/09/25 08:40
Total/NA	Analysis	3500 Fe B-2011		1	668299	JCG7	ELLE	07/08/25 13:23
Total/NA	Analysis	415.1		1	667486	P684	ELLE	07/04/25 13:57
Dissolved	Prep	SM 4500 S2 B			667838	USE1	ELLE	07/07/25 16:45
Dissolved	Analysis	4500 S2 D-2011		1	667784	USE1	ELLE	07/07/25 16:55

Laboratory References:
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-230305-1
Project/Site: WSP GRE Stanton ND Phase II

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-26
A2LA	Dept. of Energy	0001.01	11-30-26
A2LA	ISO/IEC 17025	0001.01	11-30-26
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-26
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-09-25
California	State	2792	01-31-26
Colorado	State	PA00009	06-30-26
Connecticut	State	PH-0746	06-30-27
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	07-01-26
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	01-31-26
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-25
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	11-30-26
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-26
Maine	State	2019012	03-12-27
Maryland	State	100	06-30-26
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26
Minnesota	NELAP	042-999-487	12-31-25
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	01-01-26
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	01-10-26
New Jersey	NELAP	PA011	06-30-26
New York	NELAP	10670	04-01-26
North Carolina (DW)	State	42705	07-31-25
North Carolina (WW/SW)	State	521	12-31-25
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	08-31-25
Oregon	NELAP	PA200001	09-11-25
Pennsylvania	NELAP	36-00037	01-31-26
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-25
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-25
Virginia	NELAP	460182	06-14-26
Washington	State	C457	04-11-26

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-230305-1
Project/Site: WSP GRE Stanton ND Phase II

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
West Virginia (DW)	State	9906 C	03-31-26
West Virginia DEP	State	055	07-31-25
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	11-30-26

Method Summary

Client: Terra Systems Inc
Project/Site: WSP GRE Stanton ND Phase II

Job ID: 410-230305-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010D	Metals (ICP)	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
3500 Fe B-2011	Iron, Ferrous and Ferric	SM	ELLE
415.1	TOC	EPA	ELLE
4500 S2 D-2011	Sulfide, Total	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
SM 4500 S2 B	Sulfide, Separation of Soluble and Insoluble	SM	ELLE

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:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Terra Systems Inc
Project/Site: WSP GRE Stanton ND Phase II

Job ID: 410-230305-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-230305-1	MW-103 IC	Water	06/25/25 08:00	06/25/25 17:30
410-230305-2	MW-211 IC	Water	06/25/25 08:30	06/25/25 17:30

E is Request/Chain of Custody

410-230305 Chain of Custody

eurofins | Lancaster Laboratories Environmental

Sample # _____

Client: Terra Systems, Inc. B			
Project Name/#: WSP GRE Stanton ND Phase II	Site ID #: Stanton ND		
Project Manager: Michael D. Lee	P.O. #: 242214 6/25/; 25-25		
Sampler: Gregory Maccarone	PWSID #:		
Phone #: 302-798-9553	Quote #: 41022082		
State where samples were collected: ND	For Compliance: Yes ☐ No ☑		

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Water	Other:	Total # of Containers	Analyses Requested: Preservation Codes: N	N	-	B	P	HCL					For Lab Use Only: SF #: _____ SCR #: _____ Remarks
						Tissue ☐ Sediment ☐	Ground ☑ Potable ☐	Surface ☐ NPDES ☐		Dis (ff)Sb, As, Fe, Ba, Be, B, Cd, Co, Cr, Pb,Li, Mn,Mo, Se by 60	Total Sb, As, Ba,Be , B, Cd, Co, Cr, Fe, Pb, Li, Mn, Mo, and Se	Alkalinity 2320B-2011	Total Sulfide 4500 S2 D-2011	total organic carbon by EPA 415//1	ferrous iron by Standard Methods 3500 Fe B	sulfate by EPA 300.0				
MW-103 IC	6/25/2025	8:00		X		X		7	X	X	X	X	X	X	X				ff= field filtered
MW-211 IC	6/25/2025	8:30		X		X		7	X	X	X	X	X	X	X				

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Turnaround Time Requested (TAT) (please check): Standard ☐ Rush ☑
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 7/9/25

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: mlee@terrasystems.net

Phone: 302-798-9553

Data Package Options (please check if required)

Type I (Validation/non-CLP)	MA MCP	
Type III (Reduced non-CLP)	CT RCP	
Type VI (Raw Data Only)	TX TRRP-13	
NJ DKQP	NYSDEC Category	A or B

EDD Required? Yes ☐ No ☑ If yes, format: _____

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Gregory Maccarone	6/25	12:03	Pete Karafa	6-25	12:03
2	Pete Karafa	6-25	17:15			
3						
4						
5						

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt _____ °C

Login Sample Receipt Checklist

Client: Terra Systems Inc

Job Number: 410-230305-1

Login Number: 230305
List Number: 1
Creator: Sears, Kristin M

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

ANALYTICAL REPORT

PREPARED FOR

Attn: Dr. Michael D Lee
Terra Systems Inc
130 Hickman Road
Suite 1
Claymont, Delaware 19703

Generated 8/1/2025 9:38:34 AM

JOB DESCRIPTION

WSP GRE Stanton SD Phase II

JOB NUMBER

410-232932-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

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.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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Authorized for release by
Stephen Gordon, Senior Project Manager
Stephen.Gordon@et.eurofinsus.com
(412)525-0071

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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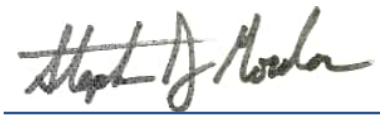


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Definitions/Glossary

Client: Terra Systems Inc
Job ID: 410-232932-1
Project/Site: WSP GRE Stanton SD Phase II

Qualifiers

Metals

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Job Narrative
410-232932-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 7/18/2025 5:27 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C.

Receipt Exceptions
The Chain-of-Custody (COC) was improperly completed. Sample matrix is soil. COC lists sample matrix as water.

Metals
Method 6010D - Total Recoverable: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of 7: MW-211 Soil + GW IC (410-232932-3). The sample(s) were preserved to the appropriate pH in the laboratory.
This does not meet regulatory requirements.

Method 6010D - Total Recoverable: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of 5: MW-103 Soil + GW IC (410-232932-1). The sample(s) were preserved to the appropriate pH in the laboratory.
This does not meet regulatory requirements.

Method 6010D - Total Recoverable: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: MW-103 Soil + GW IC (410-232932-1). The reporting limits (RLs) have been adjusted proportionately.

Method 6020B - Total Recoverable: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: MW-103 Soil + GW IC (410-232932-1). The reporting limits (RLs) have been adjusted proportionately.

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

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

Detection Summary

Client: Terra Systems Inc
Project/Site: WSP GRE Stanton SD Phase II

Job ID: 410-232932-1

Client Sample ID: MW-103 Soil + GW IC — Lab Sample ID: 410-232932-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2.2	cn	0.50	0.12	mg/L	1		6010D	Total Recoverable
Lithium	0.59	cn	0.50	0.11	mg/L	1		6010D	Total Recoverable
Lithium	0.039	J	0.052	0.011	mg/L	1		6010D	Dissolved
Boron	1.9		0.052	0.012	mg/L	1		6010D	Dissolved
Antimony	8.0	J cn	10	2.0	ug/L	1		6020B	Total Recoverable
Arsenic	370	cn	20	6.8	ug/L	1		6020B	Total Recoverable
Barium	7700	cn	20	7.5	ug/L	1		6020B	Total Recoverable
Beryllium	41	cn	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cadmium	24	cn	5.0	1.5	ug/L	1		6020B	Total Recoverable
Chromium	890	cn	20	5.5	ug/L	1		6020B	Total Recoverable
Cobalt	500	cn	5.0	1.6	ug/L	1		6020B	Total Recoverable
Iron	890000	cn	500	200	ug/L	1		6020B	Total Recoverable
Lead	550	cn	5.0	1.2	ug/L	1		6020B	Total Recoverable
Manganese	21000	cn	20	9.5	ug/L	1		6020B	Total Recoverable
Molybdenum	76	cn	5.0	2.0	ug/L	1		6020B	Total Recoverable
Selenium	9.7	J cn	10	2.8	ug/L	1		6020B	Total Recoverable
Antimony	0.63	J	1.0	0.21	ug/L	1		6020B	Dissolved
Arsenic	1.9	J	2.1	0.70	ug/L	1		6020B	Dissolved
Barium	31		2.1	0.77	ug/L	1		6020B	Dissolved
Chromium	4.1		2.1	0.57	ug/L	1		6020B	Dissolved
Cobalt	0.44	J	0.52	0.16	ug/L	1		6020B	Dissolved
Iron	76		52	21	ug/L	1		6020B	Dissolved
Lead	5.4		0.52	0.12	ug/L	1		6020B	Dissolved
Manganese	6.7		2.1	0.98	ug/L	1		6020B	Dissolved
Molybdenum	120		0.52	0.21	ug/L	1		6020B	Dissolved
Selenium	4.8		1.0	0.29	ug/L	1		6020B	Dissolved

Client Sample ID: MW-103 Soil — Lab Sample ID: 410-232932-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.6		3.9	1.1	mg/Kg	1	☼	6010D	Total/NA
Barium	130		0.39	0.12	mg/Kg	1	☼	6010D	Total/NA
Beryllium	0.65		0.39	0.078	mg/Kg	1	☼	6010D	Total/NA
Boron	13	J	16	2.3	mg/Kg	1	☼	6010D	Total/NA
Chromium	22		1.2	0.47	mg/Kg	1	☼	6010D	Total/NA
Cobalt	7.3		0.39	0.11	mg/Kg	1	☼	6010D	Total/NA
Iron	17000		16	6.2	mg/Kg	1	☼	6010D	Total/NA
Lead	8.8		1.2	0.47	mg/Kg	1	☼	6010D	Total/NA
Lithium	11		3.9	1.6	mg/Kg	1	☼	6010D	Total/NA
Manganese	280		0.78	0.31	mg/Kg	1	☼	6010D	Total/NA
Molybdenum	1.0		0.78	0.20	mg/Kg	1	☼	6010D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Terra Systems Inc
Project/Site: WSP GRE Stanton SD Phase II

Job ID: 410-232932-1

Client Sample ID: MW-211 Soil + GW IC — Lab Sample ID: 410-232932-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1.3	cn	0.50	0.12	mg/L	1		6010D	Total Recoverable
Lithium	1.2	cn	0.50	0.11	mg/L	1		6010D	Total Recoverable
Lithium	0.019	J	0.052	0.011	mg/L	1		6010D	Dissolved
Boron	1.7		0.052	0.012	mg/L	1		6010D	Dissolved
Antimony	18	cn	10	2.0	ug/L	1		6020B	Total Recoverable
Arsenic	930	cn	20	6.8	ug/L	1		6020B	Total Recoverable
Barium	20000	cn	200	75	ug/L	10		6020B	Total Recoverable
Beryllium	61	cn	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cadmium	32	cn	5.0	1.5	ug/L	1		6020B	Total Recoverable
Chromium	1400	cn	20	5.5	ug/L	1		6020B	Total Recoverable
Cobalt	1100	cn	5.0	1.6	ug/L	1		6020B	Total Recoverable
Iron	2000000	cn	5000	2000	ug/L	10		6020B	Total Recoverable
Lead	1100	cn	5.0	1.2	ug/L	1		6020B	Total Recoverable
Manganese	42000	^2 cn	20	9.5	ug/L	1		6020B	Total Recoverable
Molybdenum	86	cn	5.0	2.0	ug/L	1		6020B	Total Recoverable
Selenium	59	cn	10	2.8	ug/L	1		6020B	Total Recoverable
Antimony	1.1		1.0	0.21	ug/L	1		6020B	Dissolved
Arsenic	4.3		2.1	0.70	ug/L	1		6020B	Dissolved
Barium	92		2.1	0.77	ug/L	1		6020B	Dissolved
Chromium	1.8	J	2.1	0.57	ug/L	1		6020B	Dissolved
Cobalt	3.0		0.52	0.16	ug/L	1		6020B	Dissolved
Iron	2200		52	21	ug/L	1		6020B	Dissolved
Lead	4.4		0.52	0.12	ug/L	1		6020B	Dissolved
Manganese	590		2.1	0.98	ug/L	1		6020B	Dissolved
Molybdenum	80		0.52	0.21	ug/L	1		6020B	Dissolved
Selenium	6.3		1.0	0.29	ug/L	1		6020B	Dissolved

Client Sample ID: MW-211 Soil — Lab Sample ID: 410-232932-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.8		4.7	1.3	mg/Kg	1	☼	6010D	Total/NA
Barium	110		0.47	0.14	mg/Kg	1	☼	6010D	Total/NA
Beryllium	0.39	J	0.47	0.093	mg/Kg	1	☼	6010D	Total/NA
Boron	8.2	J	19	2.8	mg/Kg	1	☼	6010D	Total/NA
Chromium	14		1.4	0.56	mg/Kg	1	☼	6010D	Total/NA
Cobalt	5.2		0.47	0.14	mg/Kg	1	☼	6010D	Total/NA
Iron	13000		19	7.5	mg/Kg	1	☼	6010D	Total/NA
Lead	5.5		1.4	0.56	mg/Kg	1	☼	6010D	Total/NA
Lithium	7.0		4.7	1.9	mg/Kg	1	☼	6010D	Total/NA
Manganese	220		0.93	0.37	mg/Kg	1	☼	6010D	Total/NA
Molybdenum	0.56	J	0.93	0.24	mg/Kg	1	☼	6010D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-103 Soil + GW IC

Lab Sample ID: 410-232932-1
Date Collected: 07/18/25 08:00
Matrix: Water
Date Received: 07/18/25 17:27

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.2	cn	0.50	0.12	mg/L		07/29/25 23:50	07/30/25 12:49	1
Lithium	0.59	cn	0.50	0.11	mg/L		07/29/25 23:50	07/30/25 12:49	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.039	J	0.052	0.011	mg/L		07/28/25 12:24	07/30/25 00:57	1
Boron	1.9		0.052	0.012	mg/L		07/28/25 12:24	07/30/25 00:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	8.0	J cn	10	2.0	ug/L		07/29/25 23:50	07/30/25 20:15	1
Arsenic	370	cn	20	6.8	ug/L		07/29/25 23:50	07/30/25 20:15	1
Barium	7700	cn	20	7.5	ug/L		07/29/25 23:50	07/30/25 20:15	1
Beryllium	41	cn	5.0	1.2	ug/L		07/29/25 23:50	07/30/25 20:15	1
Cadmium	24	cn	5.0	1.5	ug/L		07/29/25 23:50	07/30/25 20:15	1
Chromium	890	cn	20	5.5	ug/L		07/29/25 23:50	07/30/25 20:15	1
Cobalt	500	cn	5.0	1.6	ug/L		07/29/25 23:50	07/30/25 20:15	1
Iron	890000	cn	500	200	ug/L		07/29/25 23:50	07/30/25 20:15	1
Lead	550	cn	5.0	1.2	ug/L		07/29/25 23:50	07/30/25 20:15	1
Manganese	21000	cn	20	9.5	ug/L		07/29/25 23:50	07/30/25 20:15	1
Molybdenum	76	cn	5.0	2.0	ug/L		07/29/25 23:50	07/30/25 20:15	1
Selenium	9.7	J cn	10	2.8	ug/L		07/29/25 23:50	07/30/25 21:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.63	J	1.0	0.21	ug/L		07/28/25 12:24	07/28/25 17:57	1
Arsenic	1.9	J	2.1	0.70	ug/L		07/28/25 12:24	07/28/25 17:57	1
Barium	31		2.1	0.77	ug/L		07/28/25 12:24	07/28/25 17:57	1
Beryllium	<0.12		0.52	0.12	ug/L		07/28/25 12:24	07/28/25 17:57	1
Cadmium	<0.16		0.52	0.16	ug/L		07/28/25 12:24	07/28/25 17:57	1
Chromium	4.1		2.1	0.57	ug/L		07/28/25 12:24	07/28/25 17:57	1
Cobalt	0.44	J	0.52	0.16	ug/L		07/28/25 12:24	07/28/25 17:57	1
Iron	76		52	21	ug/L		07/28/25 12:24	07/28/25 17:57	1
Lead	5.4		0.52	0.12	ug/L		07/28/25 12:24	07/28/25 17:57	1
Manganese	6.7		2.1	0.98	ug/L		07/28/25 12:24	07/28/25 17:57	1
Molybdenum	120		0.52	0.21	ug/L		07/28/25 12:24	07/28/25 17:57	1
Selenium	4.8		1.0	0.29	ug/L		07/28/25 12:24	07/28/25 17:57	1

Client Sample ID: MW-103 Soil

Lab Sample ID: 410-232932-2
Date Collected: 07/18/25 08:10
Matrix: Solid
Date Received: 07/18/25 17:27
Percent Solids: 88.8

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.3		3.9	1.3	mg/Kg	☼	07/28/25 04:54	07/30/25 21:18	1
Arsenic	7.6		3.9	1.1	mg/Kg	☼	07/28/25 04:54	07/30/25 21:18	1
Barium	130		0.39	0.12	mg/Kg	☼	07/28/25 04:54	07/30/25 21:18	1
Beryllium	0.65		0.39	0.078	mg/Kg	☼	07/28/25 04:54	07/30/25 21:18	1
Boron	13	J	16	2.3	mg/Kg	☼	07/28/25 04:54	07/30/25 21:18	1
Cadmium	<0.078		0.39	0.078	mg/Kg	☼	07/28/25 04:54	07/30/25 21:18	1
Chromium	22		1.2	0.47	mg/Kg	☼	07/28/25 04:54	07/30/25 21:18	1

Client Sample ID: MW-103 Soil
Lab Sample ID: 410-232932-2

Date Collected: 07/18/25 08:10
Matrix: Solid
Date Received: 07/18/25 17:27
Percent Solids: 88.8

Method: SW846 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	7.3		0.39	0.11	mg/Kg	☼	07/28/25 04:54	07/30/25 21:18	1
Iron	17000		16	6.2	mg/Kg	☼	07/28/25 04:54	07/30/25 21:18	1
Lead	8.8		1.2	0.47	mg/Kg	☼	07/28/25 04:54	07/30/25 21:18	1
Lithium	11		3.9	1.6	mg/Kg	☼	07/28/25 04:54	07/30/25 21:18	1
Manganese	280		0.78	0.31	mg/Kg	☼	07/28/25 04:54	07/30/25 21:18	1
Molybdenum	1.0		0.78	0.20	mg/Kg	☼	07/28/25 04:54	07/30/25 21:18	1
Selenium	<1.2		3.9	1.2	mg/Kg	☼	07/28/25 04:54	07/30/25 21:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	11.2		1.0	1.0	%			07/25/25 09:26	1

Client Sample ID: MW-211 Soil + GW IC
Lab Sample ID: 410-232932-3

Date Collected: 07/18/25 08:15
Matrix: Water
Date Received: 07/18/25 17:27

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.3	cn	0.50	0.12	mg/L		07/30/25 21:00	08/01/25 04:26	1
Lithium	1.2	cn	0.50	0.11	mg/L		07/30/25 21:00	08/01/25 04:26	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.019	J	0.052	0.011	mg/L		07/28/25 12:24	07/30/25 00:26	1
Boron	1.7		0.052	0.012	mg/L		07/28/25 12:24	07/30/25 00:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	18	cn	10	2.0	ug/L		07/30/25 21:00	07/31/25 20:21	1
Arsenic	930	cn	20	6.8	ug/L		07/30/25 21:00	07/31/25 20:21	1
Barium	20000	cn	200	75	ug/L		07/30/25 21:00	07/31/25 20:37	10
Beryllium	61	cn	5.0	1.2	ug/L		07/30/25 21:00	07/31/25 20:21	1
Cadmium	32	cn	5.0	1.5	ug/L		07/30/25 21:00	07/31/25 20:21	1
Chromium	1400	cn	20	5.5	ug/L		07/30/25 21:00	07/31/25 20:21	1
Cobalt	1100	cn	5.0	1.6	ug/L		07/30/25 21:00	07/31/25 20:21	1
Iron	2000000	cn	5000	2000	ug/L		07/30/25 21:00	07/31/25 20:37	10
Lead	1100	cn	5.0	1.2	ug/L		07/30/25 21:00	07/31/25 20:21	1
Manganese	42000	^2 cn	20	9.5	ug/L		07/30/25 21:00	07/31/25 20:21	1
Molybdenum	86	cn	5.0	2.0	ug/L		07/30/25 21:00	07/31/25 20:21	1
Selenium	59	cn	10	2.8	ug/L		07/30/25 21:00	07/31/25 20:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.1		1.0	0.21	ug/L		07/28/25 12:24	07/28/25 17:54	1
Arsenic	4.3		2.1	0.70	ug/L		07/28/25 12:24	07/28/25 17:54	1
Barium	92		2.1	0.77	ug/L		07/28/25 12:24	07/28/25 17:54	1
Beryllium	<0.12		0.52	0.12	ug/L		07/28/25 12:24	07/28/25 17:54	1
Cadmium	<0.16		0.52	0.16	ug/L		07/28/25 12:24	07/28/25 17:54	1
Chromium	1.8	J	2.1	0.57	ug/L		07/28/25 12:24	07/28/25 17:54	1
Cobalt	3.0		0.52	0.16	ug/L		07/28/25 12:24	07/28/25 17:54	1
Iron	2200		52	21	ug/L		07/28/25 12:24	07/28/25 17:54	1

Client Sample ID: MW-211 Soil + GW IC

Lab Sample ID: 410-232932-3
Date Collected: 07/18/25 08:15
Matrix: Water
Date Received: 07/18/25 17:27

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.4		0.52	0.12	ug/L		07/28/25 12:24	07/28/25 17:54	1
Manganese	590		2.1	0.98	ug/L		07/28/25 12:24	07/28/25 17:54	1
Molybdenum	80		0.52	0.21	ug/L		07/28/25 12:24	07/28/25 17:54	1
Selenium	6.3		1.0	0.29	ug/L		07/28/25 12:24	07/28/25 17:54	1

Client Sample ID: MW-211 Soil

Lab Sample ID: 410-232932-4
Date Collected: 07/18/25 08:25
Matrix: Solid
Date Received: 07/18/25 17:27
Percent Solids: 85.0

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.6		4.7	1.6	mg/Kg	☼	07/28/25 04:54	07/30/25 21:34	1
Arsenic	7.8		4.7	1.3	mg/Kg	☼	07/28/25 04:54	07/30/25 21:34	1
Barium	110		0.47	0.14	mg/Kg	☼	07/28/25 04:54	07/30/25 21:34	1
Beryllium	0.39	J	0.47	0.093	mg/Kg	☼	07/28/25 04:54	07/30/25 21:34	1
Boron	8.2	J	19	2.8	mg/Kg	☼	07/28/25 04:54	07/30/25 21:34	1
Cadmium	<0.093		0.47	0.093	mg/Kg	☼	07/28/25 04:54	07/30/25 21:34	1
Chromium	14		1.4	0.56	mg/Kg	☼	07/28/25 04:54	07/30/25 21:34	1
Cobalt	5.2		0.47	0.14	mg/Kg	☼	07/28/25 04:54	07/30/25 21:34	1
Iron	13000		19	7.5	mg/Kg	☼	07/28/25 04:54	07/30/25 21:34	1
Lead	5.5		1.4	0.56	mg/Kg	☼	07/28/25 04:54	07/30/25 21:34	1
Lithium	7.0		4.7	1.9	mg/Kg	☼	07/28/25 04:54	07/30/25 21:34	1
Manganese	220		0.93	0.37	mg/Kg	☼	07/28/25 04:54	07/30/25 21:34	1
Molybdenum	0.56	J	0.93	0.24	mg/Kg	☼	07/28/25 04:54	07/30/25 21:34	1
Selenium	<1.4		4.7	1.4	mg/Kg	☼	07/28/25 04:54	07/30/25 21:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	15.0		1.0	1.0	%			07/25/25 09:26	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-676050/1-A
Matrix: Water
Analysis Batch: 678041

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 676050

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.052	0.011	mg/L		07/28/25 12:24	07/29/25 23:31	1
Boron	<0.012		0.052	0.012	mg/L		07/28/25 12:24	07/29/25 23:31	1

Lab Sample ID: LCS 410-676050/2-A
Matrix: Water
Analysis Batch: 678041

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 676050

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.500	0.486		mg/L		97	88 - 113
Boron	0.500	0.508		mg/L		102	83 - 119

Lab Sample ID: MB 410-676853/1-A
Matrix: Solid
Analysis Batch: 678618

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 676853

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.7		5.0	1.7	mg/Kg		07/28/25 04:54	07/30/25 20:25	1
Arsenic	<1.4		5.0	1.4	mg/Kg		07/28/25 04:54	07/30/25 20:25	1
Barium	<0.15		0.50	0.15	mg/Kg		07/28/25 04:54	07/30/25 20:25	1
Beryllium	<0.10		0.50	0.10	mg/Kg		07/28/25 04:54	07/30/25 20:25	1
Cadmium	<0.10		0.50	0.10	mg/Kg		07/28/25 04:54	07/30/25 20:25	1
Chromium	<0.60		1.5	0.60	mg/Kg		07/28/25 04:54	07/30/25 20:25	1
Cobalt	<0.15		0.50	0.15	mg/Kg		07/28/25 04:54	07/30/25 20:25	1
Iron	<8.0		20	8.0	mg/Kg		07/28/25 04:54	07/30/25 20:25	1
Lead	<0.60		1.5	0.60	mg/Kg		07/28/25 04:54	07/30/25 20:25	1
Lithium	<2.0		5.0	2.0	mg/Kg		07/28/25 04:54	07/30/25 20:25	1
Manganese	<0.40		1.0	0.40	mg/Kg		07/28/25 04:54	07/30/25 20:25	1
Molybdenum	<0.26		1.0	0.26	mg/Kg		07/28/25 04:54	07/30/25 20:25	1
Selenium	<1.5		5.0	1.5	mg/Kg		07/28/25 04:54	07/30/25 20:25	1
Boron	<3.0		20	3.0	mg/Kg		07/28/25 04:54	07/30/25 20:25	1

Lab Sample ID: LCS 410-676853/2-A
Matrix: Solid
Analysis Batch: 678649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 676853

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	10.0	9.73		mg/Kg		97	80 - 120
Arsenic	50.0	48.2		mg/Kg		96	87 - 113
Barium	50.0	49.8		mg/Kg		100	90 - 111
Beryllium	5.00	5.25		mg/Kg		105	90 - 113
Cadmium	5.00	5.36		mg/Kg		107	90 - 110
Chromium	50.0	49.3		mg/Kg		99	90 - 113
Cobalt	50.0	52.2		mg/Kg		104	90 - 110
Iron	500	488		mg/Kg		98	89 - 111
Lead	5.00	5.13		mg/Kg		103	85 - 117
Lithium	50.0	47.2		mg/Kg		94	89 - 110
Manganese	50.0	52.5		mg/Kg		105	90 - 111
Molybdenum	5.00	4.97		mg/Kg		99	88 - 112
Selenium	10.0	9.16		mg/Kg		92	80 - 119

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 410-676853/2-A
Matrix: Solid
Analysis Batch: 678649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 676853

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	50.0	48.2		mg/Kg		96	80 - 120

Lab Sample ID: MB 410-678009/1-A
Matrix: Water
Analysis Batch: 678102

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 678009

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.050	0.011	mg/L		07/29/25 23:50	07/30/25 06:36	1
Boron	<0.012		0.050	0.012	mg/L		07/29/25 23:50	07/30/25 06:36	1

Lab Sample ID: LCS 410-678009/2-A
Matrix: Water
Analysis Batch: 678102

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 678009

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.500	0.538		mg/L		108	88 - 113
Boron	0.500	0.532		mg/L		106	83 - 119

Lab Sample ID: MB 410-678331/1-A
Matrix: Water
Analysis Batch: 679270

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 678331

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.050	0.011	mg/L		07/30/25 21:00	08/01/25 04:42	1
Boron	<0.012		0.050	0.012	mg/L		07/30/25 21:00	08/01/25 04:42	1

Lab Sample ID: LCS 410-678331/2-A
Matrix: Water
Analysis Batch: 679270

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 678331

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.500	0.507		mg/L		101	88 - 113
Boron	0.500	0.538		mg/L		108	83 - 119

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-676050/1-A
Matrix: Water
Analysis Batch: 677424

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 676050

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.21		1.0	0.21	ug/L		07/28/25 12:24	07/28/25 18:14	1
Arsenic	<0.70		2.1	0.70	ug/L		07/28/25 12:24	07/28/25 18:14	1
Barium	<0.77		2.1	0.77	ug/L		07/28/25 12:24	07/28/25 18:14	1
Beryllium	<0.12		0.52	0.12	ug/L		07/28/25 12:24	07/28/25 18:14	1
Cadmium	<0.16		0.52	0.16	ug/L		07/28/25 12:24	07/28/25 18:14	1
Chromium	<0.57		2.1	0.57	ug/L		07/28/25 12:24	07/28/25 18:14	1
Cobalt	<0.16		0.52	0.16	ug/L		07/28/25 12:24	07/28/25 18:14	1
Iron	<21		52	21	ug/L		07/28/25 12:24	07/28/25 18:14	1
Lead	<0.12		0.52	0.12	ug/L		07/28/25 12:24	07/28/25 18:14	1

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

Lab Sample ID: MB 410-676050/1-A
Matrix: Water
Analysis Batch: 677424

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 676050

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.98		2.1	0.98	ug/L		07/28/25 12:24	07/28/25 18:14	1
Molybdenum	<0.21		0.52	0.21	ug/L		07/28/25 12:24	07/28/25 18:14	1
Selenium	<0.29		1.0	0.29	ug/L		07/28/25 12:24	07/28/25 18:14	1

Lab Sample ID: LCS 410-676050/2-A
Matrix: Water
Analysis Batch: 677424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 676050

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	93.1		ug/L		93	85 - 115
Arsenic	500	490		ug/L		98	86 - 111
Barium	500	467		ug/L		93	86 - 114
Beryllium	50.0	51.3		ug/L		103	80 - 120
Cadmium	50.0	48.3		ug/L		97	86 - 114
Chromium	500	509		ug/L		102	84 - 113
Cobalt	500	500		ug/L		100	85 - 112
Iron	5000	5060		ug/L		101	84 - 114
Lead	50.0	49.7		ug/L		99	86 - 114
Manganese	500	500		ug/L		100	84 - 113
Molybdenum	50.0	47.6		ug/L		95	83 - 115
Selenium	100	98.6		ug/L		99	86 - 111

Lab Sample ID: MB 410-678009/1-A
Matrix: Water
Analysis Batch: 678574

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 678009

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.20		1.0	0.20	ug/L		07/29/25 23:50	07/30/25 16:15	1
Arsenic	<0.68		2.0	0.68	ug/L		07/29/25 23:50	07/30/25 16:15	1
Barium	<0.75		2.0	0.75	ug/L		07/29/25 23:50	07/30/25 16:15	1
Beryllium	<0.12		0.50	0.12	ug/L		07/29/25 23:50	07/30/25 16:15	1
Cadmium	<0.15		0.50	0.15	ug/L		07/29/25 23:50	07/30/25 16:15	1
Chromium	<0.55		2.0	0.55	ug/L		07/29/25 23:50	07/30/25 16:15	1
Cobalt	<0.16		0.50	0.16	ug/L		07/29/25 23:50	07/30/25 16:15	1
Iron	<20		50	20	ug/L		07/29/25 23:50	07/30/25 16:15	1
Lead	<0.12		0.50	0.12	ug/L		07/29/25 23:50	07/30/25 16:15	1
Manganese	<0.95		2.0	0.95	ug/L		07/29/25 23:50	07/30/25 16:15	1
Molybdenum	<0.20		0.50	0.20	ug/L		07/29/25 23:50	07/30/25 16:15	1
Selenium	<0.28		1.0	0.28	ug/L		07/29/25 23:50	07/30/25 16:15	1

Lab Sample ID: LCS 410-678009/2-A
Matrix: Water
Analysis Batch: 678574

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 678009

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	106		ug/L		106	85 - 115
Arsenic	500	525		ug/L		105	86 - 111
Barium	500	525		ug/L		105	86 - 114
Beryllium	50.0	52.0		ug/L		104	80 - 120

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

Lab Sample ID: LCS 410-678009/2-A
Matrix: Water
Analysis Batch: 678574

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 678009

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	50.0	52.9		ug/L		106	86 - 114
Chromium	500	535		ug/L		107	84 - 113
Cobalt	500	530		ug/L		106	85 - 112
Iron	5000	5390		ug/L		108	84 - 114
Lead	50.0	53.4		ug/L		107	86 - 114
Manganese	500	526		ug/L		105	84 - 113
Molybdenum	50.0	52.5		ug/L		105	83 - 115
Selenium	100	101		ug/L		101	86 - 111

Lab Sample ID: MB 410-678331/1-A
Matrix: Water
Analysis Batch: 679201

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 678331

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.20		1.0	0.20	ug/L		07/30/25 21:00	07/31/25 19:15	1
Arsenic	<0.68		2.0	0.68	ug/L		07/30/25 21:00	07/31/25 19:15	1
Barium	<0.75		2.0	0.75	ug/L		07/30/25 21:00	07/31/25 19:15	1
Beryllium	<0.12		0.50	0.12	ug/L		07/30/25 21:00	07/31/25 19:15	1
Cadmium	<0.15		0.50	0.15	ug/L		07/30/25 21:00	07/31/25 19:15	1
Chromium	<0.55		2.0	0.55	ug/L		07/30/25 21:00	07/31/25 19:15	1
Cobalt	<0.16		0.50	0.16	ug/L		07/30/25 21:00	07/31/25 19:15	1
Iron	<20		50	20	ug/L		07/30/25 21:00	07/31/25 19:15	1
Lead	<0.12		0.50	0.12	ug/L		07/30/25 21:00	07/31/25 19:15	1
Manganese	<0.95		2.0	0.95	ug/L		07/30/25 21:00	07/31/25 19:15	1
Molybdenum	<0.20		0.50	0.20	ug/L		07/30/25 21:00	07/31/25 19:15	1
Selenium	<0.28		1.0	0.28	ug/L		07/30/25 21:00	07/31/25 19:15	1

Lab Sample ID: LCS 410-678331/2-A
Matrix: Water
Analysis Batch: 679201

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 678331

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	102		ug/L		102	85 - 115
Arsenic	500	508		ug/L		102	86 - 111
Barium	500	501		ug/L		100	86 - 114
Beryllium	50.0	52.3		ug/L		105	80 - 120
Cadmium	50.0	51.8		ug/L		104	86 - 114
Chromium	500	499		ug/L		100	84 - 113
Cobalt	500	510		ug/L		102	85 - 112
Iron	5000	5190		ug/L		104	84 - 114
Lead	50.0	51.9		ug/L		104	86 - 114
Manganese	500	496		ug/L		99	84 - 113
Molybdenum	50.0	51.2		ug/L		102	83 - 115
Selenium	100	99.0		ug/L		99	86 - 111

Metals

Prep Batch: 676050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-232932-1	MW-103 Soil + GW IC	Dissolved	Water	Non-Digest Prep	
410-232932-3	MW-211 Soil + GW IC	Dissolved	Water	Non-Digest Prep	
MB 410-676050/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-676050/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Prep Batch: 676853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-232932-2	MW-103 Soil	Total/NA	Solid	3050B	
410-232932-4	MW-211 Soil	Total/NA	Solid	3050B	
MB 410-676853/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-676853/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 677424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-232932-1	MW-103 Soil + GW IC	Dissolved	Water	6020B	676050
410-232932-3	MW-211 Soil + GW IC	Dissolved	Water	6020B	676050
MB 410-676050/1-A	Method Blank	Total/NA	Water	6020B	676050
LCS 410-676050/2-A	Lab Control Sample	Total/NA	Water	6020B	676050

Prep Batch: 678009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-232932-1	MW-103 Soil + GW IC	Total Recoverable	Water	3005A	
MB 410-678009/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-678009/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 678041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-232932-1	MW-103 Soil + GW IC	Dissolved	Water	6010D	676050
410-232932-3	MW-211 Soil + GW IC	Dissolved	Water	6010D	676050
MB 410-676050/1-A	Method Blank	Total/NA	Water	6010D	676050
LCS 410-676050/2-A	Lab Control Sample	Total/NA	Water	6010D	676050

Analysis Batch: 678102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-678009/1-A	Method Blank	Total Recoverable	Water	6010D	678009
LCS 410-678009/2-A	Lab Control Sample	Total Recoverable	Water	6010D	678009

Prep Batch: 678331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-232932-3	MW-211 Soil + GW IC	Total Recoverable	Water	3005A	
MB 410-678331/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-678331/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 678473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-232932-1	MW-103 Soil + GW IC	Total Recoverable	Water	6010D	678009

Analysis Batch: 678574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-232932-1	MW-103 Soil + GW IC	Total Recoverable	Water	6020B	678009
MB 410-678009/1-A	Method Blank	Total Recoverable	Water	6020B	678009

Metals (Continued)

Analysis Batch: 678574 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-678009/2-A	Lab Control Sample	Total Recoverable	Water	6020B	678009

Analysis Batch: 678608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-232932-1	MW-103 Soil + GW IC	Total Recoverable	Water	6020B	678009

Analysis Batch: 678618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-232932-2	MW-103 Soil	Total/NA	Solid	6010D	676853
410-232932-4	MW-211 Soil	Total/NA	Solid	6010D	676853
MB 410-676853/1-A	Method Blank	Total/NA	Solid	6010D	676853

Analysis Batch: 678649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-676853/2-A	Lab Control Sample	Total/NA	Solid	6010D	676853

Analysis Batch: 679201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-232932-3	MW-211 Soil + GW IC	Total Recoverable	Water	6020B	678331
410-232932-3	MW-211 Soil + GW IC	Total Recoverable	Water	6020B	678331
MB 410-678331/1-A	Method Blank	Total Recoverable	Water	6020B	678331
LCS 410-678331/2-A	Lab Control Sample	Total Recoverable	Water	6020B	678331

Analysis Batch: 679270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-232932-3	MW-211 Soil + GW IC	Total Recoverable	Water	6010D	678331
MB 410-678331/1-A	Method Blank	Total Recoverable	Water	6010D	678331
LCS 410-678331/2-A	Lab Control Sample	Total Recoverable	Water	6010D	678331

General Chemistry

Analysis Batch: 676262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-232932-2	MW-103 Soil	Total/NA	Solid	Moisture	
410-232932-4	MW-211 Soil	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-232932-1
Project/Site: WSP GRE Stanton SD Phase II

Client Sample ID: MW-103 Soil + GW IC
Lab Sample ID: 410-232932-1
Date Collected: 07/18/25 08:00
Matrix: Water
Date Received: 07/18/25 17:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	Non-Digest Prep			676050	RFN5	ELLE	07/28/25 12:24
Dissolved	Analysis	6010D		1	678041	MT26	ELLE	07/30/25 00:57
Total Recoverable	Prep	3005A			678009	UAMX	ELLE	07/29/25 23:50
Total Recoverable	Analysis	6010D		1	678473	T8CQ	ELLE	07/30/25 12:49
Dissolved	Prep	Non-Digest Prep			676050	RFN5	ELLE	07/28/25 12:24
Dissolved	Analysis	6020B		1	677424	I9IN	ELLE	07/28/25 17:57
Total Recoverable	Prep	3005A			678009	UAMX	ELLE	07/29/25 23:50
Total Recoverable	Analysis	6020B		1	678608	I9IN	ELLE	07/30/25 21:16
Total Recoverable	Prep	3005A			678009	UAMX	ELLE	07/29/25 23:50
Total Recoverable	Analysis	6020B		1	678574	I9IN	ELLE	07/30/25 20:15

Client Sample ID: MW-103 Soil
Lab Sample ID: 410-232932-2
Date Collected: 07/18/25 08:10
Matrix: Solid
Date Received: 07/18/25 17:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	676262	E5GC	ELLE	07/25/25 09:26

Client Sample ID: MW-103 Soil
Lab Sample ID: 410-232932-2
Date Collected: 07/18/25 08:10
Matrix: Solid
Date Received: 07/18/25 17:27
Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			676853	UJL8	ELLE	07/28/25 04:54
Total/NA	Analysis	6010D		1	678618	T8CQ	ELLE	07/30/25 21:18

Client Sample ID: MW-211 Soil + GW IC
Lab Sample ID: 410-232932-3
Date Collected: 07/18/25 08:15
Matrix: Water
Date Received: 07/18/25 17:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	Non-Digest Prep			676050	RFN5	ELLE	07/28/25 12:24
Dissolved	Analysis	6010D		1	678041	MT26	ELLE	07/30/25 00:26
Total Recoverable	Prep	3005A			678331	UAMX	ELLE	07/30/25 21:00
Total Recoverable	Analysis	6010D		1	679270	MT26	ELLE	08/01/25 04:26
Dissolved	Prep	Non-Digest Prep			676050	RFN5	ELLE	07/28/25 12:24
Dissolved	Analysis	6020B		1	677424	I9IN	ELLE	07/28/25 17:54
Total Recoverable	Prep	3005A			678331	UAMX	ELLE	07/30/25 21:00
Total Recoverable	Analysis	6020B		1	679201	LHF4	ELLE	07/31/25 20:21
Total Recoverable	Prep	3005A			678331	UAMX	ELLE	07/30/25 21:00
Total Recoverable	Analysis	6020B		10	679201	LHF4	ELLE	07/31/25 20:37

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-232932-1
Project/Site: WSP GRE Stanton SD Phase II

Client Sample ID: MW-211 Soil
Lab Sample ID: 410-232932-4
Date Collected: 07/18/25 08:25
Matrix: Solid
Date Received: 07/18/25 17:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	676262	E5GC	ELLE	07/25/25 09:26

Client Sample ID: MW-211 Soil
Lab Sample ID: 410-232932-4
Date Collected: 07/18/25 08:25
Matrix: Solid
Date Received: 07/18/25 17:27
Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			676853	UJL8	ELLE	07/28/25 04:54
Total/NA	Analysis	6010D		1	678618	T8CQ	ELLE	07/30/25 21:34

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-232932-1
Project/Site: WSP GRE Stanton SD Phase II

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-26
A2LA	Dept. of Energy	0001.01	11-30-26
A2LA	ISO/IEC 17025	0001.01	11-30-26
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-26
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-09-25
California	State	2792	01-31-26
Colorado	State	PA00009	06-30-26
Connecticut	State	PH-0746	06-30-27
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	07-01-26
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	01-31-26
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-25
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	11-30-26
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-26
Maine	State	2019012	03-12-27
Maryland	State	100	06-30-26
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26
Minnesota	NELAP	042-999-487	12-31-25
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	01-01-26
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	01-10-26
New Jersey	NELAP	PA011	06-30-26
New York	NELAP	10670	04-01-26
North Carolina (DW)	State	42705	07-31-26
North Carolina (WW/SW)	State	521	12-31-25
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	08-31-25
Oregon	NELAP	PA200001	09-11-25
Pennsylvania	NELAP	36-00037	01-31-26
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-25
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-25
Virginia	NELAP	460182	06-14-26
Washington	State	C457	04-11-26

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-232932-1
Project/Site: WSP GRE Stanton SD Phase II

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
West Virginia (DW)	State	9906 C	03-31-26
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	11-30-26

Method Summary

Client: Terra Systems Inc
Job ID: 410-232932-1
Project/Site: WSP GRE Stanton SD Phase II

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3050B	Preparation, Metals	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Terra Systems Inc
Job ID: 410-232932-1
Project/Site: WSP GRE Stanton SD Phase II

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-232932-1	MW-103 Soil + GW IC	Water	07/18/25 08:00	07/18/25 17:27
410-232932-2	MW-103 Soil	Solid	07/18/25 08:10	07/18/25 17:27
410-232932-3	MW-211 Soil + GW IC	Water	07/18/25 08:15	07/18/25 17:27
410-232932-4	MW-211 Soil	Solid	07/18/25 08:25	07/18/25 17:27

Environmental Analysis Request

410-232932 Chain of Custody

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Acct. # _____ Group # _____ Sample # _____

Client: Terra Systems, Inc.			
Project Name/#: WSP GRE Stanton ND Phase II	Site ID #: Stanton ND		
Project Manager: Michael D. Lee	P.O. #: 251114 7/18/25		
Sampler: Gregory Maccarone	PWSID #:		
Phone #: 302-798-9553	Quote #: 41022082		
State where samples were collected: ___ SD	For Compliance: Yes ☑ No ☑		

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Water	Matrix: Other:	Total # of Containers	Analyses Requested: Preservation Codes N	N	-	B	P	HCL	Remarks
									Ds (f) Sb, As, Fe, Ba, Be, B, Cd, Co, Cr, Pb, Li, Mn, Mo, Se by 6020B ICP/MS	Total Sb, As, Ba, Be , B, Cd, Co, Cr, Fe, Pb, Li, Mn, Mo, and Se	Total Sb, As, Ba, Be , B, Cd, Co, Cr, Fe, Pb, Li, Mn, Mo, Se & % Moistur				
MW-103 Soil + GW IC	7/18/2025	8:00		X		X		2	X	X					ff= field filtered
MW-103 Soil	7/18/2025	8:10		X		X		1			x				
MW-211 Soil + GW IC	7/18/2025	8:15		X		X		2	X	X					
MW-211 Soil	7/18/2025	8:25		X		X		1			x				

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

For Lab Use Only: SF #: _____ SCR #: _____

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 8/1/25

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: mlee@terrasystems.net

Phone: 302-798-9553

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type VI (Raw Data Only)	☐	TX TRRP-13	☐
NJ DKQP	☐	NYSDEC Category	☐ A or ☐ B

EDD Required? Yes ☐ No ☑ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Michael Lee	7/18/25	10:20	[signature]	7/18/25	1020
[signature]	7/18/25	1727			
			[signature]	7/18/25	1727

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 2.1, 1.6 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 7045 0216

BR

KAM

Login Sample Receipt Checklist

Client: Terra Systems Inc

Job Number: 410-232932-1

Login Number: 232932

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Reynolds, Benjamin

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	Not present.
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

Sample Preservation Checks (performed by the laboratory)

Question	Answer	Comment
Did the sample containers checked meet expected preservation conditions?	False	Refer to Job Narrative for details.

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Dr. Michael D Lee
Terra Systems Inc
130 Hickman Road
Suite 1
Claymont, Delaware 19703

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JOB DESCRIPTION

WSP GRE Stanton SD CCR Phase II

JOB NUMBER

410-239099-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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9/18/2025 2:53:48 PM

Authorized for release by
Stephen Gordon, Senior Project Manager
Stephen.Gordon@et.eurofinsus.com
(412)525-0071

Eurofins Lancaster Laboratories Environment Testing, LLC

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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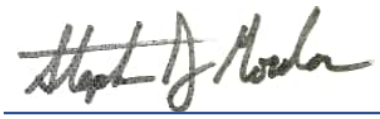


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Definitions/Glossary

Client: Terra Systems Inc
Job ID: 410-239099-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
cn	Refer to Case Narrative for further detail
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
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Job Narrative
410-239099-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 8/26/2025 6:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C.

Receipt Exceptions
The COC is marked for Ferrous Iron 415.1, which is the TOC method. There are no Ferrous Iron Containers, so it was assumed that analyses name was listed in error and it was not scheduled for analysis. MW-103 Control (410-239099-1), MW-103 2 g/L NaHCO3 (410-239099-2), MW-103 5 g/L NaHCO3 (410-239099-3), MW-103 10 g/L NaHCO3 (410-239099-4), MW-103 1 g/L FeSO4-7H2O (410-239099-5), MW-103 2 g/L FeSO4-7H2O (410-239099-6), MW-103 5 g/L FeSO4-7H2O (410-239099-7), MW-103 10 g/L FeSO4-7H2O (410-239099-8), MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O (410-239099-9), MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O (410-239099-10), MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O (410-239099-11), MW-103 5 g/L FB (410-239099-12), MW-103 10 g/L FB (410-239099-13) and MW-103 15 g/L FB (410-239099-14)

Per email clarification on 8/28, the client mistakenly submitted bottles with phosphoric acid instead of HCL for ferrous iron analysis by SM3500_FE_B. The method and preservative were mislabeled on the COC and bottle labels. The lab can only run this analysis with HCL preservative, so the analysis was canceled.

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

Metals
Method 6010D - Dissolved: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of 7: MW-103 10 g/L NaHCO3 (410-239099-4). The sample(s) were preserved to the appropriate pH in the laboratory.
This does not meet regulatory requirements.

Method 6010D - Dissolved: The following samples were diluted due to the nature of the sample matrix: MW-103 5 g/L FeSO4-7H2O (410-239099-7), MW-103 10 g/L FeSO4-7H2O (410-239099-8), MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O (410-239099-9), MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O (410-239099-10), MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O (410-239099-11), MW-103 5 g/L FB (410-239099-12), MW-103 10 g/L FB (410-239099-13) and MW-103 15 g/L FB (410-239099-14). Elevated reporting limits (RLs) are provided.

Method 6010D - Dissolved: The following sample was diluted due to the nature of the sample matrix: MW-103 10 g/L NaHCO3 (410-239099-4). Elevated reporting limits (RLs) are provided.

Method 6010D - Total Recoverable: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of 7: MW-103 10 g/L NaHCO3 (410-239099-4). The sample(s) were preserved to the appropriate pH in the laboratory.
This does not meet regulatory requirements.

Method 6020B - Total Recoverable: The following sample was diluted due to the nature of the sample matrix: MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O (410-239099-11). 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

Method 2320B: Elevated reporting limits are provided for the following samples due to insufficient sample provided for analysis: MW-103 5 g/L FeSO4-7H2O (410-239099-7) and MW-103 10 g/L FeSO4-7H2O (410-239099-8).

Method 415.1: The reference method requires samples to be preserved to a pH of <2. The following samples were received with insufficient preservation at a pH of 3: MW-103 2 g/L FeSO4-7H2O (410-239099-6), MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O (410-239099-9) and MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O (410-239099-11). The sample(s) were preserved to the appropriate pH in the laboratory.
This does not meet regulatory requirements.

Method 415.1: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of 6: MW-103 Control (410-239099-1). The sample(s) were preserved to the appropriate pH in the laboratory.
This does not meet regulatory requirements.

Method 415.1: The reference method requires samples to be preserved to a pH of <2. The following samples were received with insufficient preservation at a pH of 7: MW-103 10 g/L NaHCO3 (410-239099-4) and MW-103 1 g/L FeSO4-7H2O (410-239099-5). The sample(s) were preserved to the appropriate pH in the laboratory.
This does not meet regulatory requirements.

Method 415.1: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of 3: MW-103 5 g/L FB (410-239099-12). The sample(s) were preserved to the appropriate pH in the laboratory.
This does not meet regulatory requirements.

Method 415.1: The following samples were diluted due to the nature of the sample matrix: MW-103 Control (410-239099-1), MW-103 5 g/L NaHCO3 (410-239099-3), MW-103 10 g/L NaHCO3 (410-239099-4), MW-103 1 g/L FeSO4-7H2O (410-239099-5), MW-103 2 g/L FeSO4-7H2O (410-239099-6), MW-103 5 g/L FeSO4-7H2O (410-239099-7), MW-103 10 g/L FeSO4-7H2O (410-239099-8), MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O (410-239099-10), MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O (410-239099-11) and MW-103 15 g/L FB (410-239099-14). Elevated reporting limits (RLs) are provided.

Method SM4500_S2_D - Dissolved: Elevated reporting limits are provided for the following samples due to insufficient sample provided for preparation: MW-103 10 g/L NaHCO3 (410-239099-4) and MW-103 15 g/L FB (410-239099-14).

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

Detection Summary

Client: Terra Systems Inc
Job ID: 410-239099-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Client Sample ID: MW-103 Control — Lab Sample ID: 410-239099-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	790		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.4		0.50	0.12	mg/L	10		6010D	Total Recoverable
Lithium	0.037	J	0.052	0.011	mg/L	1		6010D	Dissolved
Boron	1.5		0.052	0.012	mg/L	1		6010D	Dissolved
Antimony	0.80	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Arsenic	4.7		2.0	0.68	ug/L	1		6020B	Total Recoverable
Barium	31		2.0	0.75	ug/L	1		6020B	Total Recoverable
Chromium	4.3		2.0	0.55	ug/L	1		6020B	Total Recoverable
Cobalt	0.75		0.50	0.16	ug/L	1		6020B	Total Recoverable
Iron	710		50	20	ug/L	1		6020B	Total Recoverable
Lead	0.45	J	0.50	0.12	ug/L	1		6020B	Total Recoverable
Manganese	2.0		2.0	0.95	ug/L	1		6020B	Total Recoverable
Molybdenum	91		0.50	0.20	ug/L	1		6020B	Total Recoverable
Selenium	4.5		1.0	0.28	ug/L	1		6020B	Total Recoverable
Antimony	0.49	J	1.0	0.21	ug/L	1		6020B	Dissolved
Arsenic	4.6		2.1	0.70	ug/L	1		6020B	Dissolved
Barium	29		2.1	0.77	ug/L	1		6020B	Dissolved
Chromium	3.4		2.1	0.57	ug/L	1		6020B	Dissolved
Cobalt	0.47	J	0.52	0.16	ug/L	1		6020B	Dissolved
Manganese	1.5	J	2.1	0.98	ug/L	1		6020B	Dissolved
Molybdenum	86		0.52	0.21	ug/L	1		6020B	Dissolved
Selenium	4.2		1.0	0.29	ug/L	1		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	820		400	130	mg/L	50		2320B-2011	Total/NA

Client Sample ID: MW-103 2 g/L NaHCO3 — Lab Sample ID: 410-239099-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	770		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.5		0.50	0.12	mg/L	10		6010D	Total Recoverable
Lithium	0.036	J	0.052	0.011	mg/L	1		6010D	Dissolved
Boron	1.6		0.052	0.012	mg/L	1		6010D	Dissolved
Antimony	0.77	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Arsenic	4.2		2.0	0.68	ug/L	1		6020B	Total Recoverable
Barium	35		2.0	0.75	ug/L	1		6020B	Total Recoverable
Chromium	5.3		2.0	0.55	ug/L	1		6020B	Total Recoverable
Cobalt	0.77		0.50	0.16	ug/L	1		6020B	Total Recoverable
Iron	770		50	20	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-103 2 g/L NaHCO3 (Continued) — Lab Sample ID: 410-239099-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.73		0.50	0.12	ug/L	1		6020B	Total Recoverable
Manganese	45	B	2.0	0.95	ug/L	1		6020B	Total Recoverable
Molybdenum	82		0.50	0.20	ug/L	1		6020B	Total Recoverable
Selenium	3.9		1.0	0.28	ug/L	1		6020B	Total Recoverable
Antimony	0.90	J	1.0	0.21	ug/L	1		6020B	Dissolved
Arsenic	3.4		2.1	0.70	ug/L	1		6020B	Dissolved
Barium	31		2.1	0.77	ug/L	1		6020B	Dissolved
Chromium	4.2		2.1	0.57	ug/L	1		6020B	Dissolved
Cobalt	0.57		0.52	0.16	ug/L	1		6020B	Dissolved
Manganese	12		2.1	0.98	ug/L	1		6020B	Dissolved
Molybdenum	81		0.52	0.21	ug/L	1		6020B	Dissolved
Selenium	4.5		1.0	0.29	ug/L	1		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	1100		80	26	mg/L	10		2320B-2011	Total/NA
Total Organic Carbon	13		10	5.0	mg/L	10		415.1	Total/NA
TOC Result 3	13		10	5.0	mg/L	10		415.1	Total/NA

Client Sample ID: MW-103 5 g/L NaHCO3 — Lab Sample ID: 410-239099-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	750		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.5		0.50	0.12	mg/L	10		6010D	Total Recoverable
Lithium	0.026	J	0.052	0.011	mg/L	1		6010D	Dissolved
Boron	1.6		0.052	0.012	mg/L	1		6010D	Dissolved
Antimony	0.80	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Arsenic	7.6		2.0	0.68	ug/L	1		6020B	Total Recoverable
Barium	47		2.0	0.75	ug/L	1		6020B	Total Recoverable
Chromium	4.6		2.0	0.55	ug/L	1		6020B	Total Recoverable
Cobalt	0.66		0.50	0.16	ug/L	1		6020B	Total Recoverable
Iron	230		50	20	ug/L	1		6020B	Total Recoverable
Lead	0.22	J	0.50	0.12	ug/L	1		6020B	Total Recoverable
Manganese	6.5		2.0	0.95	ug/L	1		6020B	Total Recoverable
Molybdenum	66		0.50	0.20	ug/L	1		6020B	Total Recoverable
Selenium	5.0		1.0	0.28	ug/L	1		6020B	Total Recoverable
Antimony	0.88	J	1.0	0.21	ug/L	1		6020B	Dissolved
Arsenic	7.5		2.1	0.70	ug/L	1		6020B	Dissolved
Barium	48		2.1	0.77	ug/L	1		6020B	Dissolved
Chromium	4.3		2.1	0.57	ug/L	1		6020B	Dissolved
Cobalt	0.60		0.52	0.16	ug/L	1		6020B	Dissolved
Iron	31	J	52	21	ug/L	1		6020B	Dissolved
Manganese	2.9		2.1	0.98	ug/L	1		6020B	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-103 5 g/L NaHCO3 (Continued) — Lab Sample ID: 410-239099-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	66		0.52	0.21	ug/L	1		6020B	Dissolved
Selenium	5.9		1.0	0.29	ug/L	1		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	2500		400	130	mg/L	50		2320B-2011	Total/NA

Client Sample ID: MW-103 10 g/L NaHCO3 — Lab Sample ID: 410-239099-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	810		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.5	cn	0.050	0.012	mg/L	1		6010D	Total Recoverable
Boron	1.5	cn	0.052	0.012	mg/L	1		6010D	Dissolved
Antimony	1.0	cn	1.0	0.20	ug/L	1		6020B	Total Recoverable
Arsenic	15	cn	2.0	0.68	ug/L	1		6020B	Total Recoverable
Barium	94	cn	2.0	0.75	ug/L	1		6020B	Total Recoverable
Chromium	1.5	J cn	2.0	0.55	ug/L	1		6020B	Total Recoverable
Cobalt	1.5	cn	0.50	0.16	ug/L	1		6020B	Total Recoverable
Iron	400	cn	50	20	ug/L	1		6020B	Total Recoverable
Lead	0.35	J cn	0.50	0.12	ug/L	1		6020B	Total Recoverable
Manganese	29	cn	2.0	0.95	ug/L	1		6020B	Total Recoverable
Molybdenum	59	cn	0.50	0.20	ug/L	1		6020B	Total Recoverable
Selenium	6.2	cn	1.0	0.28	ug/L	1		6020B	Total Recoverable
Antimony	1.1	cn	1.0	0.21	ug/L	1		6020B	Dissolved
Arsenic	14	cn	2.1	0.70	ug/L	1		6020B	Dissolved
Barium	77	cn	2.1	0.77	ug/L	1		6020B	Dissolved
Chromium	0.76	J cn	2.1	0.57	ug/L	1		6020B	Dissolved
Cobalt	1.3	cn	0.52	0.16	ug/L	1		6020B	Dissolved
Iron	30	J cn	52	21	ug/L	1		6020B	Dissolved
Lead	0.21	J cn	0.52	0.12	ug/L	1		6020B	Dissolved
Manganese	25	cn	2.1	0.98	ug/L	1		6020B	Dissolved
Molybdenum	52	cn	0.52	0.21	ug/L	1		6020B	Dissolved
Selenium	7.6	cn	1.0	0.29	ug/L	1		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	5100		400	130	mg/L	50		2320B-2011	Total/NA

Client Sample ID: MW-103 1 g/L FeSO4-7H2O — Lab Sample ID: 410-239099-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1000		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.3		0.50	0.12	mg/L	10		6010D	Total Recoverable
Lithium	0.041	J	0.052	0.011	mg/L	1		6010D	Dissolved
Boron	1.3		0.052	0.012	mg/L	1		6010D	Dissolved
Antimony	0.50	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Arsenic	0.80	J	2.0	0.68	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-103 1 g/L FeSO4-7H2O (Continued) — Lab Sample ID: 410-239099-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	100		2.0	0.75	ug/L	1		6020B	Total Recoverable
Chromium	0.92	J	2.0	0.55	ug/L	1		6020B	Total Recoverable
Cobalt	5.1		0.50	0.16	ug/L	1		6020B	Total Recoverable
Iron	730		50	20	ug/L	1		6020B	Total Recoverable
Lead	0.27	J	0.50	0.12	ug/L	1		6020B	Total Recoverable
Manganese	2600	B	2.0	0.95	ug/L	1		6020B	Total Recoverable
Molybdenum	25		0.50	0.20	ug/L	1		6020B	Total Recoverable
Selenium	2.3		1.0	0.28	ug/L	1		6020B	Total Recoverable
Antimony	0.33	J	1.0	0.21	ug/L	1		6020B	Dissolved
Barium	96		2.1	0.77	ug/L	1		6020B	Dissolved
Cobalt	4.9		0.52	0.16	ug/L	1		6020B	Dissolved
Manganese	2600		2.1	0.98	ug/L	1		6020B	Dissolved
Molybdenum	25		0.52	0.21	ug/L	1		6020B	Dissolved
Selenium	2.0		1.0	0.29	ug/L	1		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	1500		400	130	mg/L	50		2320B-2011	Total/NA

Client Sample ID: MW-103 2 g/L FeSO4-7H2O — Lab Sample ID: 410-239099-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1300		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.3		0.50	0.12	mg/L	10		6010D	Total Recoverable
Lithium	0.046	J	0.052	0.011	mg/L	1		6010D	Dissolved
Boron	1.3		0.052	0.012	mg/L	1		6010D	Dissolved
Barium	76		2.0	0.75	ug/L	1		6020B	Total Recoverable
Cadmium	0.19	J	0.50	0.15	ug/L	1		6020B	Total Recoverable
Cobalt	41		0.50	0.16	ug/L	1		6020B	Total Recoverable
Iron	12000		50	20	ug/L	1		6020B	Total Recoverable
Lead	0.18	J	0.50	0.12	ug/L	1		6020B	Total Recoverable
Manganese	6700	B	2.0	0.95	ug/L	1		6020B	Total Recoverable
Molybdenum	4.5		0.50	0.20	ug/L	1		6020B	Total Recoverable
Selenium	1.7		1.0	0.28	ug/L	1		6020B	Total Recoverable
Barium	82		2.1	0.77	ug/L	1		6020B	Dissolved
Cadmium	0.17	J	0.52	0.16	ug/L	1		6020B	Dissolved
Cobalt	43		0.52	0.16	ug/L	1		6020B	Dissolved
Iron	10000		52	21	ug/L	1		6020B	Dissolved
Manganese	6700		21	9.8	ug/L	10		6020B	Dissolved
Molybdenum	4.3		0.52	0.21	ug/L	1		6020B	Dissolved
Selenium	1.8		1.0	0.29	ug/L	1		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	370		80	26	mg/L	10		2320B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Terra Systems Inc
Job ID: 410-239099-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Client Sample ID: MW-103 5 g/L FeSO4-7H2O — Lab Sample ID: 410-239099-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	2300		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.4		0.50	0.12	mg/L	10		6010D	Total Recoverable
Boron	1.2		0.052	0.012	mg/L	1		6010D	Dissolved
Arsenic	0.98	J	2.0	0.68	ug/L	1		6020B	Total Recoverable
Barium	85		2.0	0.75	ug/L	1		6020B	Total Recoverable
Cadmium	0.57		0.50	0.15	ug/L	1		6020B	Total Recoverable
Chromium	2.3		2.0	0.55	ug/L	1		6020B	Total Recoverable
Cobalt	110		0.50	0.16	ug/L	1		6020B	Total Recoverable
Iron	280000		50	20	ug/L	1		6020B	Total Recoverable
Lead	1.0		0.50	0.12	ug/L	1		6020B	Total Recoverable
Manganese	13000	B	2.0	0.95	ug/L	1		6020B	Total Recoverable
Molybdenum	0.75		0.50	0.20	ug/L	1		6020B	Total Recoverable
Selenium	2.0		1.0	0.28	ug/L	1		6020B	Total Recoverable
Barium	59	cn	2.1	0.77	ug/L	1		6020B	Dissolved
Cobalt	100	cn	0.52	0.16	ug/L	1		6020B	Dissolved
Iron	260000	cn	260	100	ug/L	5		6020B	Dissolved
Manganese	13000	cn	10	4.9	ug/L	5		6020B	Dissolved
Molybdenum	0.31	J cn	0.52	0.21	ug/L	1		6020B	Dissolved
Selenium	1.7	cn	1.0	0.29	ug/L	1		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	370	J cn	400	130	mg/L	50		2320B-2011	Total/NA

Client Sample ID: MW-103 10 g/L FeSO4-7H2O — Lab Sample ID: 410-239099-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	3600		300	100	mg/L	200		EPA 300.0 R2.1	Total/NA
Boron	1.4		0.25	0.060	mg/L	5		6010D	Total Recoverable
Lithium	0.074	J	0.25	0.055	mg/L	5		6010D	Total Recoverable
Boron	1.3	cn	1.0	0.25	mg/L	20		6010D	Dissolved
Cobalt	200		50	16	ug/L	100		6020B	Total Recoverable
Iron	980000		5000	2000	ug/L	100		6020B	Total Recoverable
Manganese	22000	B	200	95	ug/L	100		6020B	Total Recoverable
Barium	46	cn	2.1	0.77	ug/L	1		6020B	Dissolved
Cobalt	180	cn	0.52	0.16	ug/L	1		6020B	Dissolved
Iron	920000	cn	520	210	ug/L	10		6020B	Dissolved
Manganese	22000	cn	21	9.8	ug/L	10		6020B	Dissolved
Selenium	1.8	cn	1.0	0.29	ug/L	1		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	200	J cn	400	130	mg/L	50		2320B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Terra Systems Inc
Job ID: 410-239099-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Client Sample ID: MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O — Lab Sample ID: 410-239099-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1400		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	0.14		0.050	0.012	mg/L	1		6010D	Total Recoverable
Boron	1.3		0.052	0.012	mg/L	1		6010D	Dissolved
Antimony	0.47	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Arsenic	0.70	J	2.0	0.68	ug/L	1		6020B	Total Recoverable
Barium	100		2.0	0.75	ug/L	1		6020B	Total Recoverable
Cobalt	6.2		0.50	0.16	ug/L	1		6020B	Total Recoverable
Iron	500		50	20	ug/L	1		6020B	Total Recoverable
Lead	0.24	J	0.50	0.12	ug/L	1		6020B	Total Recoverable
Manganese	1900	B	2.0	0.95	ug/L	1		6020B	Total Recoverable
Molybdenum	24		0.50	0.20	ug/L	1		6020B	Total Recoverable
Selenium	1.8		1.0	0.28	ug/L	1		6020B	Total Recoverable
Antimony	0.22	J cn	1.0	0.21	ug/L	1		6020B	Dissolved
Barium	89	cn	2.1	0.77	ug/L	1		6020B	Dissolved
Cobalt	5.6	cn	0.52	0.16	ug/L	1		6020B	Dissolved
Iron	140	cn	52	21	ug/L	1		6020B	Dissolved
Manganese	1800	cn	2.1	0.98	ug/L	1		6020B	Dissolved
Molybdenum	22	cn	0.52	0.21	ug/L	1		6020B	Dissolved
Selenium	2.1	cn	1.0	0.29	ug/L	1		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	3000		400	130	mg/L	50		2320B-2011	Total/NA
Total Organic Carbon	12	cn	10	5.0	mg/L	10		415.1	Total/NA
TOC Result 3	12	cn	10	5.0	mg/L	10		415.1	Total/NA

Client Sample ID: MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O — Lab Sample ID: 410-239099-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	2200		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.4		0.050	0.012	mg/L	1		6010D	Total Recoverable
Lithium	0.051		0.050	0.011	mg/L	1		6010D	Total Recoverable
Boron	1.2		0.052	0.012	mg/L	1		6010D	Dissolved
Arsenic	0.79	J	2.0	0.68	ug/L	1		6020B	Total Recoverable
Barium	65		2.0	0.75	ug/L	1		6020B	Total Recoverable
Chromium	0.80	J	2.0	0.55	ug/L	1		6020B	Total Recoverable
Cobalt	19		0.50	0.16	ug/L	1		6020B	Total Recoverable
Iron	23000		50	20	ug/L	1		6020B	Total Recoverable
Lead	0.47	J	0.50	0.12	ug/L	1		6020B	Total Recoverable
Manganese	1300		2.0	0.95	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O (Continued)
Lab Sample ID: 410-239099-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	13		0.50	0.20	ug/L	1		6020B	Total Recoverable
Selenium	1.9		1.0	0.28	ug/L	1		6020B	Total Recoverable
Barium	46	cn	2.1	0.77	ug/L	1		6020B	Dissolved
Cobalt	18	cn	0.52	0.16	ug/L	1		6020B	Dissolved
Iron	18000	cn	52	21	ug/L	1		6020B	Dissolved
Manganese	1200	cn	2.1	0.98	ug/L	1		6020B	Dissolved
Molybdenum	12	cn	0.52	0.21	ug/L	1		6020B	Dissolved
Selenium	1.9	cn	1.0	0.29	ug/L	1		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	2500		400	130	mg/L	50		2320B-2011	Total/NA

Client Sample ID: MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	3600		300	100	mg/L	200		EPA 300.0 R2.1	Total/NA
Boron	1.4	cn	0.050	0.012	mg/L	1		6010D	Total Recoverable
Lithium	0.058	cn	0.050	0.011	mg/L	1		6010D	Total Recoverable
Lithium	0.060	J cn	0.26	0.057	mg/L	5		6010D	Dissolved
Boron	1.2		0.052	0.012	mg/L	1		6010D	Dissolved
Barium	46	cn	20	7.5	ug/L	10		6020B	Total Recoverable
Cobalt	42	cn	5.0	1.6	ug/L	10		6020B	Total Recoverable
Iron	210000	cn	500	200	ug/L	10		6020B	Total Recoverable
Manganese	2600	cn	20	9.5	ug/L	10		6020B	Total Recoverable
Molybdenum	7.0	cn	5.0	2.0	ug/L	10		6020B	Total Recoverable
Antimony	0.37	J cn	1.0	0.21	ug/L	1		6020B	Dissolved
Arsenic	1.0	J cn	2.1	0.70	ug/L	1		6020B	Dissolved
Barium	43	cn	2.1	0.77	ug/L	1		6020B	Dissolved
Cobalt	40	cn	0.52	0.16	ug/L	1		6020B	Dissolved
Iron	200000	cn	260	100	ug/L	5		6020B	Dissolved
Manganese	2600	cn	2.1	0.98	ug/L	1		6020B	Dissolved
Molybdenum	5.8	cn	0.52	0.21	ug/L	1		6020B	Dissolved
Selenium	2.2	J cn	5.2	1.4	ug/L	5		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	1700		400	130	mg/L	50		2320B-2011	Total/NA

Client Sample ID: MW-103 5 g/L FB
Lab Sample ID: 410-239099-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1200		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.1		0.050	0.012	mg/L	1		6010D	Total Recoverable
Lithium	0.020	J	0.050	0.011	mg/L	1		6010D	Total Recoverable
Boron	1.1		0.052	0.012	mg/L	1		6010D	Dissolved
Antimony	0.69	J	1.0	0.20	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-103 5 g/L FB (Continued)
Lab Sample ID: 410-239099-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.0		2.0	0.68	ug/L	1		6020B	Total Recoverable
Barium	69		2.0	0.75	ug/L	1		6020B	Total Recoverable
Cobalt	0.78		0.50	0.16	ug/L	1		6020B	Total Recoverable
Iron	240		50	20	ug/L	1		6020B	Total Recoverable
Lead	0.16	J	0.50	0.12	ug/L	1		6020B	Total Recoverable
Manganese	120		2.0	0.95	ug/L	1		6020B	Total Recoverable
Molybdenum	66		0.50	0.20	ug/L	1		6020B	Total Recoverable
Selenium	2.8		1.0	0.28	ug/L	1		6020B	Total Recoverable
Antimony	0.70	J cn	1.0	0.21	ug/L	1		6020B	Dissolved
Arsenic	2.7	cn	2.1	0.70	ug/L	1		6020B	Dissolved
Barium	57	cn	2.1	0.77	ug/L	1		6020B	Dissolved
Cobalt	0.61	cn	0.52	0.16	ug/L	1		6020B	Dissolved
Iron	49	J cn	52	21	ug/L	1		6020B	Dissolved
Manganese	100	cn	2.1	0.98	ug/L	1		6020B	Dissolved
Molybdenum	61	cn	0.52	0.21	ug/L	1		6020B	Dissolved
Selenium	2.8	cn	1.0	0.29	ug/L	1		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	1200		400	130	mg/L	50		2320B-2011	Total/NA
Total Organic Carbon	7.4	cn	5.0	2.5	mg/L	5		415.1	Total/NA
TOC Result 3	7.5	cn	5.0	2.5	mg/L	5		415.1	Total/NA

Client Sample ID: MW-103 10 g/L FB
Lab Sample ID: 410-239099-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1500		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.1		0.50	0.12	mg/L	10		6010D	Total Recoverable
Boron	1.0		0.052	0.012	mg/L	1		6010D	Dissolved
Antimony	0.86	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Arsenic	1.2	J	2.0	0.68	ug/L	1		6020B	Total Recoverable
Barium	80		2.0	0.75	ug/L	1		6020B	Total Recoverable
Chromium	1.4	J	2.0	0.55	ug/L	1		6020B	Total Recoverable
Cobalt	0.87		0.50	0.16	ug/L	1		6020B	Total Recoverable
Iron	480		50	20	ug/L	1		6020B	Total Recoverable
Lead	0.40	J	0.50	0.12	ug/L	1		6020B	Total Recoverable
Manganese	250	B	2.0	0.95	ug/L	1		6020B	Total Recoverable
Molybdenum	62		0.50	0.20	ug/L	1		6020B	Total Recoverable
Selenium	2.5		1.0	0.28	ug/L	1		6020B	Total Recoverable
Antimony	0.47	J cn	1.0	0.21	ug/L	1		6020B	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-103 10 g/L FB (Continued)
Lab Sample ID: 410-239099-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	71	cn	2.1	0.77	ug/L	1		6020B	Dissolved
Cobalt	0.61	cn	0.52	0.16	ug/L	1		6020B	Dissolved
Iron	21	J cn	52	21	ug/L	1		6020B	Dissolved
Lead	0.12	J cn	0.52	0.12	ug/L	1		6020B	Dissolved
Manganese	230	cn	2.1	0.98	ug/L	1		6020B	Dissolved
Molybdenum	60	cn	0.52	0.21	ug/L	1		6020B	Dissolved
Selenium	2.3	cn	1.0	0.29	ug/L	1		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	1300		400	130	mg/L	50		2320B-2011	Total/NA
Total Organic Carbon	9.0		5.0	2.5	mg/L	5		415.1	Total/NA
TOC Result 3	8.9		5.0	2.5	mg/L	5		415.1	Total/NA

Client Sample ID: MW-103 15 g/L FB
Lab Sample ID: 410-239099-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1800		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.1		0.50	0.12	mg/L	10		6010D	Total Recoverable
Boron	1.0		0.052	0.012	mg/L	1		6010D	Dissolved
Antimony	0.70	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Arsenic	0.82	J	2.0	0.68	ug/L	1		6020B	Total Recoverable
Barium	76		2.0	0.75	ug/L	1		6020B	Total Recoverable
Cobalt	0.79		0.50	0.16	ug/L	1		6020B	Total Recoverable
Iron	270		50	20	ug/L	1		6020B	Total Recoverable
Lead	0.14	J	0.50	0.12	ug/L	1		6020B	Total Recoverable
Manganese	260	B	2.0	0.95	ug/L	1		6020B	Total Recoverable
Molybdenum	59		0.50	0.20	ug/L	1		6020B	Total Recoverable
Selenium	2.3		1.0	0.28	ug/L	1		6020B	Total Recoverable
Antimony	0.56	J cn	1.0	0.21	ug/L	1		6020B	Dissolved
Arsenic	0.83	J cn	2.1	0.70	ug/L	1		6020B	Dissolved
Barium	69	cn	2.1	0.77	ug/L	1		6020B	Dissolved
Cobalt	0.72	cn	0.52	0.16	ug/L	1		6020B	Dissolved
Manganese	260	cn	2.1	0.98	ug/L	1		6020B	Dissolved
Molybdenum	57	cn	0.52	0.21	ug/L	1		6020B	Dissolved
Selenium	2.3	cn	1.0	0.29	ug/L	1		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	1800		400	130	mg/L	50		2320B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-103 Control
Lab Sample ID: 410-239099-1
Date Collected: 08/25/25 10:00
Matrix: Water
Date Received: 08/26/25 18:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**790**		150	50	mg/L			09/15/25 18:25	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.4**		0.50	0.12	mg/L		09/08/25 06:30	09/11/25 19:19	10
Lithium	<0.11		0.50	0.11	mg/L		09/08/25 06:30	09/11/25 19:19	10

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.037**	**J**	0.052	0.011	mg/L		09/08/25 23:15	09/10/25 05:06	1
Boron	**1.5**		0.052	0.012	mg/L		09/08/25 23:15	09/10/25 05:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.80**	**J**	1.0	0.20	ug/L		09/08/25 06:30	09/10/25 18:47	1
Arsenic	**4.7**		2.0	0.68	ug/L		09/08/25 06:30	09/10/25 18:47	1
Barium	**31**		2.0	0.75	ug/L		09/08/25 06:30	09/10/25 18:47	1
Beryllium	<0.12		0.50	0.12	ug/L		09/08/25 06:30	09/10/25 18:47	1
Cadmium	<0.15		0.50	0.15	ug/L		09/08/25 06:30	09/10/25 18:47	1
Chromium	**4.3**		2.0	0.55	ug/L		09/08/25 06:30	09/10/25 18:47	1
Cobalt	**0.75**		0.50	0.16	ug/L		09/08/25 06:30	09/10/25 18:47	1
Iron	**710**		50	20	ug/L		09/08/25 06:30	09/10/25 18:47	1
Lead	**0.45**	**J**	0.50	0.12	ug/L		09/08/25 06:30	09/10/25 18:47	1
Manganese	**2.0**		2.0	0.95	ug/L		09/11/25 21:00	09/15/25 19:25	1
Molybdenum	**91**		0.50	0.20	ug/L		09/08/25 06:30	09/10/25 18:47	1
Selenium	**4.5**		1.0	0.28	ug/L		09/08/25 06:30	09/10/25 18:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.49**	**J**	1.0	0.21	ug/L		09/08/25 23:15	09/09/25 11:01	1
Arsenic	**4.6**		2.1	0.70	ug/L		09/08/25 23:15	09/09/25 11:01	1
Barium	**29**		2.1	0.77	ug/L		09/08/25 23:15	09/09/25 11:01	1
Beryllium	<0.12		0.52	0.12	ug/L		09/08/25 23:15	09/09/25 11:01	1
Cadmium	<0.16		0.52	0.16	ug/L		09/08/25 23:15	09/09/25 11:01	1
Chromium	**3.4**		2.1	0.57	ug/L		09/08/25 23:15	09/09/25 11:01	1
Cobalt	**0.47**	**J**	0.52	0.16	ug/L		09/08/25 23:15	09/09/25 11:01	1
Iron	<21		52	21	ug/L		09/08/25 23:15	09/09/25 11:01	1
Lead	<0.12		0.52	0.12	ug/L		09/08/25 23:15	09/09/25 11:01	1
Manganese	**1.5**	**J**	2.1	0.98	ug/L		09/08/25 23:15	09/09/25 11:01	1
Molybdenum	**86**		0.52	0.21	ug/L		09/08/25 23:15	09/09/25 11:01	1
Selenium	**4.2**		1.0	0.29	ug/L		09/08/25 23:15	09/09/25 11:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**820**		400	130	mg/L			09/03/25 15:37	50
Total Organic Carbon (EPA 415.1)	<13	cn	25	13	mg/L			09/07/25 06:51	25
TOC Result 3 (EPA 415.1)	<13	cn	25	13	mg/L			09/07/25 06:51	25

Client Sample ID: MW-103 Control
Lab Sample ID: 410-239099-1
Date Collected: 08/25/25 10:00
Matrix: Water
Date Received: 08/26/25 18:30

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10		0.30	0.10	mg/L		08/28/25 09:14	08/28/25 10:59	1

Client Sample ID: MW-103 2 g/L NaHCO3
Lab Sample ID: 410-239099-2
Date Collected: 08/25/25 10:15
Matrix: Water
Date Received: 08/26/25 18:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**770**		150	50	mg/L			09/16/25 15:07	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.5**		0.50	0.12	mg/L		09/08/25 06:30	09/11/25 20:08	10
Lithium	<0.11		0.50	0.11	mg/L		09/08/25 06:30	09/11/25 20:08	10

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.036**	**J**	0.052	0.011	mg/L		09/08/25 23:15	09/10/25 05:03	1
Boron	**1.6**		0.052	0.012	mg/L		09/08/25 23:15	09/10/25 05:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.77**	**J**	1.0	0.20	ug/L		09/08/25 06:30	09/10/25 19:00	1
Arsenic	**4.2**		2.0	0.68	ug/L		09/08/25 06:30	09/10/25 19:00	1
Barium	**35**		2.0	0.75	ug/L		09/08/25 06:30	09/10/25 19:00	1
Beryllium	<0.12		0.50	0.12	ug/L		09/08/25 06:30	09/10/25 19:00	1
Cadmium	<0.15		0.50	0.15	ug/L		09/08/25 06:30	09/10/25 19:00	1
Chromium	**5.3**		2.0	0.55	ug/L		09/08/25 06:30	09/10/25 19:00	1
Cobalt	**0.77**		0.50	0.16	ug/L		09/08/25 06:30	09/10/25 19:00	1
Iron	**770**		50	20	ug/L		09/08/25 06:30	09/10/25 19:00	1
Lead	**0.73**		0.50	0.12	ug/L		09/08/25 06:30	09/10/25 19:00	1
Manganese	**45**	**B**	2.0	0.95	ug/L		09/08/25 06:30	09/10/25 19:00	1
Molybdenum	**82**		0.50	0.20	ug/L		09/08/25 06:30	09/10/25 19:00	1
Selenium	**3.9**		1.0	0.28	ug/L		09/08/25 06:30	09/10/25 19:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.90**	**J**	1.0	0.21	ug/L		09/08/25 23:15	09/09/25 10:50	1
Arsenic	**3.4**		2.1	0.70	ug/L		09/08/25 23:15	09/09/25 10:50	1
Barium	**31**		2.1	0.77	ug/L		09/08/25 23:15	09/09/25 10:50	1
Beryllium	<0.12		0.52	0.12	ug/L		09/08/25 23:15	09/09/25 10:50	1
Cadmium	<0.16		0.52	0.16	ug/L		09/08/25 23:15	09/09/25 10:50	1
Chromium	**4.2**		2.1	0.57	ug/L		09/08/25 23:15	09/09/25 10:50	1
Cobalt	**0.57**		0.52	0.16	ug/L		09/08/25 23:15	09/09/25 10:50	1
Iron	<21		52	21	ug/L		09/08/25 23:15	09/09/25 10:50	1
Lead	<0.12		0.52	0.12	ug/L		09/08/25 23:15	09/09/25 10:50	1
Manganese	**12**		2.1	0.98	ug/L		09/08/25 23:15	09/09/25 10:50	1
Molybdenum	**81**		0.52	0.21	ug/L		09/08/25 23:15	09/09/25 10:50	1
Selenium	**4.5**		1.0	0.29	ug/L		09/08/25 23:15	09/09/25 10:50	1

Client Sample ID: MW-103 2 g/L NaHCO3

Lab Sample ID: 410-239099-2

Date Collected: 08/25/25 10:15

Matrix: Water

Date Received: 08/26/25 18:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	1100		80	26	mg/L			09/03/25 14:03	10
Total Organic Carbon (EPA 415.1)	13		10	5.0	mg/L			09/07/25 08:34	10
TOC Result 3 (EPA 415.1)	13		10	5.0	mg/L			09/07/25 08:34	10

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10		0.30	0.10	mg/L		08/28/25 09:15	08/28/25 10:59	1

Client Sample ID: MW-103 5 g/L NaHCO3

Lab Sample ID: 410-239099-3

Date Collected: 08/25/25 10:30

Matrix: Water

Date Received: 08/26/25 18:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	750		150	50	mg/L			09/15/25 17:37	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.5		0.50	0.12	mg/L		09/08/25 06:30	09/11/25 19:49	10
Lithium	<0.11		0.50	0.11	mg/L		09/08/25 06:30	09/11/25 19:49	10

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.026	J	0.052	0.011	mg/L		09/08/25 23:15	09/10/25 05:00	1
Boron	1.6		0.052	0.012	mg/L		09/08/25 23:15	09/10/25 05:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.80	J	1.0	0.20	ug/L		09/08/25 06:30	09/10/25 18:56	1
Arsenic	7.6		2.0	0.68	ug/L		09/08/25 06:30	09/10/25 18:56	1
Barium	47		2.0	0.75	ug/L		09/08/25 06:30	09/10/25 18:56	1
Beryllium	<0.12		0.50	0.12	ug/L		09/08/25 06:30	09/10/25 18:56	1
Cadmium	<0.15		0.50	0.15	ug/L		09/08/25 06:30	09/10/25 18:56	1
Chromium	4.6		2.0	0.55	ug/L		09/08/25 06:30	09/10/25 18:56	1
Cobalt	0.66		0.50	0.16	ug/L		09/08/25 06:30	09/10/25 18:56	1
Iron	230		50	20	ug/L		09/08/25 06:30	09/10/25 18:56	1
Lead	0.22	J	0.50	0.12	ug/L		09/08/25 06:30	09/10/25 18:56	1
Manganese	6.5		2.0	0.95	ug/L		09/11/25 21:00	09/15/25 19:22	1
Molybdenum	66		0.50	0.20	ug/L		09/08/25 06:30	09/10/25 18:56	1
Selenium	5.0		1.0	0.28	ug/L		09/08/25 06:30	09/10/25 18:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.88	J	1.0	0.21	ug/L		09/08/25 23:15	09/09/25 10:48	1
Arsenic	7.5		2.1	0.70	ug/L		09/08/25 23:15	09/09/25 10:48	1
Barium	48		2.1	0.77	ug/L		09/08/25 23:15	09/09/25 10:48	1
Beryllium	<0.12		0.52	0.12	ug/L		09/08/25 23:15	09/09/25 10:48	1
Cadmium	<0.16		0.52	0.16	ug/L		09/08/25 23:15	09/09/25 10:48	1
Chromium	4.3		2.1	0.57	ug/L		09/08/25 23:15	09/09/25 10:48	1
Cobalt	0.60		0.52	0.16	ug/L		09/08/25 23:15	09/09/25 10:48	1

Client Sample ID: MW-103 5 g/L NaHCO3

Lab Sample ID: 410-239099-3

Date Collected: 08/25/25 10:30

Matrix: Water

Date Received: 08/26/25 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**31**	**J**	52	21	ug/L		09/08/25 23:15	09/09/25 10:48	1
Lead	<0.12		0.52	0.12	ug/L		09/08/25 23:15	09/09/25 10:48	1
Manganese	**2.9**		2.1	0.98	ug/L		09/08/25 23:15	09/09/25 10:48	1
Molybdenum	**66**		0.52	0.21	ug/L		09/08/25 23:15	09/09/25 10:48	1
Selenium	**5.9**		1.0	0.29	ug/L		09/08/25 23:15	09/09/25 10:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**2500**		400	130	mg/L			09/03/25 16:51	50
Total Organic Carbon (EPA 415.1)	<13	cn	25	13	mg/L			09/07/25 09:00	25
TOC Result 3 (EPA 415.1)	<13	cn	25	13	mg/L			09/07/25 09:00	25

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10		0.30	0.10	mg/L		08/28/25 09:15	08/28/25 10:59	1

Client Sample ID: MW-103 10 g/L NaHCO3

Lab Sample ID: 410-239099-4

Date Collected: 08/25/25 10:45

Matrix: Water

Date Received: 08/26/25 18:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**810**		150	50	mg/L			09/16/25 15:59	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.5**	**cn**	0.050	0.012	mg/L		09/09/25 07:00	09/10/25 03:32	1
Lithium	<0.11	cn	0.50	0.11	mg/L		09/09/25 07:00	09/11/25 00:55	10

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.11	cn	0.52	0.11	mg/L		09/10/25 12:15	09/12/25 21:15	10
Boron	**1.5**	**cn**	0.052	0.012	mg/L		09/10/25 12:15	09/12/25 03:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**1.0**	**cn**	1.0	0.20	ug/L		09/09/25 07:00	09/09/25 17:43	1
Arsenic	**15**	**cn**	2.0	0.68	ug/L		09/09/25 07:00	09/09/25 17:43	1
Barium	**94**	**cn**	2.0	0.75	ug/L		09/09/25 07:00	09/09/25 17:43	1
Beryllium	<0.12	cn	0.50	0.12	ug/L		09/09/25 07:00	09/09/25 17:43	1
Cadmium	<0.15	cn	0.50	0.15	ug/L		09/09/25 07:00	09/09/25 17:43	1
Chromium	**1.5**	**J cn**	2.0	0.55	ug/L		09/09/25 07:00	09/09/25 17:43	1
Cobalt	**1.5**	**cn**	0.50	0.16	ug/L		09/09/25 07:00	09/09/25 17:43	1
Iron	**400**	**cn**	50	20	ug/L		09/09/25 07:00	09/09/25 17:43	1
Lead	**0.35**	**J cn**	0.50	0.12	ug/L		09/09/25 07:00	09/09/25 17:43	1
Manganese	**29**	**cn**	2.0	0.95	ug/L		09/09/25 07:00	09/09/25 17:43	1
Molybdenum	**59**	**cn**	0.50	0.20	ug/L		09/09/25 07:00	09/09/25 17:43	1
Selenium	**6.2**	**cn**	1.0	0.28	ug/L		09/09/25 07:00	09/09/25 17:43	1

Client Sample ID: MW-103 10 g/L NaHCO3

Lab Sample ID: 410-239099-4

Date Collected: 08/25/25 10:45

Matrix: Water

Date Received: 08/26/25 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**1.1**	**cn**	1.0	0.21	ug/L		09/10/25 12:15	09/11/25 18:06	1
Arsenic	**14**	**cn**	2.1	0.70	ug/L		09/10/25 12:15	09/11/25 18:06	1
Barium	**77**	**cn**	2.1	0.77	ug/L		09/10/25 12:15	09/11/25 18:06	1
Beryllium	<0.12	cn	0.52	0.12	ug/L		09/10/25 12:15	09/11/25 18:06	1
Cadmium	<0.16	cn	0.52	0.16	ug/L		09/10/25 12:15	09/11/25 18:06	1
Chromium	**0.76**	**J cn**	2.1	0.57	ug/L		09/10/25 12:15	09/11/25 18:06	1
Cobalt	**1.3**	**cn**	0.52	0.16	ug/L		09/10/25 12:15	09/11/25 18:06	1
Iron	**30**	**J cn**	52	21	ug/L		09/10/25 12:15	09/11/25 18:06	1
Lead	**0.21**	**J cn**	0.52	0.12	ug/L		09/10/25 12:15	09/11/25 18:06	1
Manganese	**25**	**cn**	2.1	0.98	ug/L		09/10/25 12:15	09/11/25 18:06	1
Molybdenum	**52**	**cn**	0.52	0.21	ug/L		09/10/25 12:15	09/11/25 18:06	1
Selenium	**7.6**	**cn**	1.0	0.29	ug/L		09/10/25 12:15	09/11/25 18:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**5100**		400	130	mg/L			09/03/25 15:51	50
Total Organic Carbon (EPA 415.1)	<25	cn	50	25	mg/L			09/07/25 09:27	50
TOC Result 3 (EPA 415.1)	<25	cn	50	25	mg/L			09/07/25 09:27	50

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.50	cn	1.5	0.50	mg/L		08/28/25 09:15	08/28/25 10:59	5

Client Sample ID: MW-103 1 g/L FeSO4-7H2O

Lab Sample ID: 410-239099-5

Date Collected: 08/25/25 11:00

Matrix: Water

Date Received: 08/26/25 18:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1000**		150	50	mg/L			09/15/25 22:13	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.3**		0.50	0.12	mg/L		09/08/25 06:30	09/11/25 20:14	10
Lithium	<0.11		0.50	0.11	mg/L		09/08/25 06:30	09/11/25 20:14	10

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.041**	**J**	0.052	0.011	mg/L		09/08/25 23:15	09/10/25 05:09	1
Boron	**1.3**		0.052	0.012	mg/L		09/08/25 23:15	09/10/25 05:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.50**	**J**	1.0	0.20	ug/L		09/08/25 06:30	09/10/25 19:12	1
Arsenic	**0.80**	**J**	2.0	0.68	ug/L		09/08/25 06:30	09/10/25 19:12	1
Barium	**100**		2.0	0.75	ug/L		09/08/25 06:30	09/10/25 19:12	1
Beryllium	<0.12		0.50	0.12	ug/L		09/08/25 06:30	09/10/25 19:12	1
Cadmium	<0.15		0.50	0.15	ug/L		09/08/25 06:30	09/10/25 19:12	1
Chromium	**0.92**	**J**	2.0	0.55	ug/L		09/08/25 06:30	09/10/25 19:12	1
Cobalt	**5.1**		0.50	0.16	ug/L		09/08/25 06:30	09/10/25 19:12	1

Client Sample ID: MW-103 1 g/L FeSO4-7H2O

Lab Sample ID: 410-239099-5

Date Collected: 08/25/25 11:00

Matrix: Water

Date Received: 08/26/25 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	730		50	20	ug/L		09/08/25 06:30	09/10/25 19:12	1
Lead	0.27	J	0.50	0.12	ug/L		09/08/25 06:30	09/10/25 19:12	1
Manganese	2600	B	2.0	0.95	ug/L		09/08/25 06:30	09/10/25 19:12	1
Molybdenum	25		0.50	0.20	ug/L		09/08/25 06:30	09/10/25 19:12	1
Selenium	2.3		1.0	0.28	ug/L		09/08/25 06:30	09/10/25 19:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.33	J	1.0	0.21	ug/L		09/08/25 23:15	09/09/25 11:05	1
Arsenic	<0.70		2.1	0.70	ug/L		09/08/25 23:15	09/09/25 11:05	1
Barium	96		2.1	0.77	ug/L		09/08/25 23:15	09/09/25 11:05	1
Beryllium	<0.12		0.52	0.12	ug/L		09/08/25 23:15	09/09/25 11:05	1
Cadmium	<0.16		0.52	0.16	ug/L		09/08/25 23:15	09/09/25 11:05	1
Chromium	<0.57		2.1	0.57	ug/L		09/08/25 23:15	09/09/25 11:05	1
Cobalt	4.9		0.52	0.16	ug/L		09/08/25 23:15	09/09/25 11:05	1
Iron	<21		52	21	ug/L		09/08/25 23:15	09/09/25 11:05	1
Lead	<0.12		0.52	0.12	ug/L		09/08/25 23:15	09/09/25 11:05	1
Manganese	2600		2.1	0.98	ug/L		09/08/25 23:15	09/09/25 11:05	1
Molybdenum	25		0.52	0.21	ug/L		09/08/25 23:15	09/09/25 11:05	1
Selenium	2.0		1.0	0.29	ug/L		09/08/25 23:15	09/09/25 11:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	1500		400	130	mg/L			09/03/25 16:44	50
Total Organic Carbon (EPA 415.1)	<50	cn	100	50	mg/L			09/07/25 10:45	100
TOC Result 3 (EPA 415.1)	<50	cn	100	50	mg/L			09/07/25 10:45	100

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10		0.30	0.10	mg/L		08/28/25 09:15	08/28/25 10:59	1

Client Sample ID: MW-103 2 g/L FeSO4-7H2O

Lab Sample ID: 410-239099-6

Date Collected: 08/25/25 11:15

Matrix: Water

Date Received: 08/26/25 18:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1300		150	50	mg/L			09/15/25 20:25	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.3		0.50	0.12	mg/L		09/08/25 06:30	09/11/25 20:21	10
Lithium	<0.11		0.50	0.11	mg/L		09/08/25 06:30	09/11/25 20:21	10

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.046	J	0.052	0.011	mg/L		09/08/25 23:15	09/10/25 05:12	1
Boron	1.3		0.052	0.012	mg/L		09/08/25 23:15	09/10/25 05:12	1

Client Sample ID: MW-103 2 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-6

Date Collected: 08/25/25 11:15
Matrix: Water
Date Received: 08/26/25 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.20		1.0	0.20	ug/L		09/08/25 06:30	09/10/25 19:16	1
Arsenic	<0.68		2.0	0.68	ug/L		09/08/25 06:30	09/10/25 19:16	1
Barium	**76**		2.0	0.75	ug/L		09/08/25 06:30	09/10/25 19:16	1
Beryllium	<0.12		0.50	0.12	ug/L		09/08/25 06:30	09/10/25 19:16	1
Cadmium	**0.19**	**J**	0.50	0.15	ug/L		09/08/25 06:30	09/10/25 19:16	1
Chromium	<0.55		2.0	0.55	ug/L		09/08/25 06:30	09/10/25 19:16	1
Cobalt	**41**		0.50	0.16	ug/L		09/08/25 06:30	09/10/25 19:16	1
Iron	**12000**		50	20	ug/L		09/08/25 06:30	09/10/25 19:16	1
Lead	**0.18**	**J**	0.50	0.12	ug/L		09/08/25 06:30	09/10/25 19:16	1
Manganese	**6700**	**B**	2.0	0.95	ug/L		09/08/25 06:30	09/10/25 19:16	1
Molybdenum	**4.5**		0.50	0.20	ug/L		09/08/25 06:30	09/10/25 19:16	1
Selenium	**1.7**		1.0	0.28	ug/L		09/08/25 06:30	09/10/25 19:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.21		1.0	0.21	ug/L		09/08/25 23:15	09/09/25 11:07	1
Arsenic	<0.70		2.1	0.70	ug/L		09/08/25 23:15	09/09/25 11:07	1
Barium	**82**		2.1	0.77	ug/L		09/08/25 23:15	09/09/25 11:07	1
Beryllium	<0.12		0.52	0.12	ug/L		09/08/25 23:15	09/09/25 11:07	1
Cadmium	**0.17**	**J**	0.52	0.16	ug/L		09/08/25 23:15	09/09/25 11:07	1
Chromium	<0.57		2.1	0.57	ug/L		09/08/25 23:15	09/09/25 11:07	1
Cobalt	**43**		0.52	0.16	ug/L		09/08/25 23:15	09/09/25 11:07	1
Iron	**10000**		52	21	ug/L		09/08/25 23:15	09/09/25 11:07	1
Lead	<0.12		0.52	0.12	ug/L		09/08/25 23:15	09/09/25 11:07	1
Manganese	**6700**		21	9.8	ug/L		09/08/25 23:15	09/09/25 16:17	10
Molybdenum	**4.3**		0.52	0.21	ug/L		09/08/25 23:15	09/09/25 11:07	1
Selenium	**1.8**		1.0	0.29	ug/L		09/08/25 23:15	09/09/25 11:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**370**		80	26	mg/L			09/03/25 13:57	10
Total Organic Carbon (EPA 415.1)	<25	cn	50	25	mg/L			09/07/25 11:12	50
TOC Result 3 (EPA 415.1)	<25	cn	50	25	mg/L			09/07/25 11:12	50

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10		0.30	0.10	mg/L		08/28/25 09:15	08/28/25 12:04	1

Client Sample ID: MW-103 5 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-7

Date Collected: 08/25/25 11:30
Matrix: Water
Date Received: 08/26/25 18:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**2300**		150	50	mg/L			09/15/25 20:49	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.4**		0.50	0.12	mg/L		09/08/25 06:30	09/11/25 18:56	10
Lithium	<0.11		0.50	0.11	mg/L		09/08/25 06:30	09/11/25 18:56	10

Client Sample ID: MW-103 5 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-7

Date Collected: 08/25/25 11:30
Matrix: Water
Date Received: 08/26/25 18:30

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.23	cn	1.0	0.23	mg/L		09/10/25 08:30	09/10/25 17:38	20
Boron	**1.2**		0.052	0.012	mg/L		09/10/25 08:30	09/10/25 17:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.20		1.0	0.20	ug/L		09/08/25 06:30	09/10/25 19:23	1
Arsenic	**0.98**	**J**	2.0	0.68	ug/L		09/08/25 06:30	09/10/25 19:23	1
Barium	**85**		2.0	0.75	ug/L		09/08/25 06:30	09/10/25 19:23	1
Beryllium	<0.12		0.50	0.12	ug/L		09/08/25 06:30	09/10/25 19:23	1
Cadmium	**0.57**		0.50	0.15	ug/L		09/08/25 06:30	09/10/25 19:23	1
Chromium	**2.3**		2.0	0.55	ug/L		09/08/25 06:30	09/10/25 19:23	1
Cobalt	**110**		0.50	0.16	ug/L		09/08/25 06:30	09/10/25 19:23	1
Iron	**280000**		50	20	ug/L		09/08/25 06:30	09/10/25 19:23	1
Lead	**1.0**		0.50	0.12	ug/L		09/08/25 06:30	09/10/25 19:23	1
Manganese	**13000**	**B**	2.0	0.95	ug/L		09/08/25 06:30	09/10/25 19:23	1
Molybdenum	**0.75**		0.50	0.20	ug/L		09/08/25 06:30	09/10/25 19:23	1
Selenium	**2.0**		1.0	0.28	ug/L		09/08/25 06:30	09/10/25 19:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.21	cn	1.0	0.21	ug/L		09/10/25 08:30	09/10/25 23:20	1
Arsenic	<0.70	cn	2.1	0.70	ug/L		09/10/25 08:30	09/10/25 23:20	1
Barium	**59**	**cn**	2.1	0.77	ug/L		09/10/25 08:30	09/10/25 23:20	1
Beryllium	<0.12	cn	0.52	0.12	ug/L		09/10/25 08:30	09/10/25 23:20	1
Cadmium	<0.16	cn	0.52	0.16	ug/L		09/10/25 08:30	09/11/25 21:26	1
Chromium	<0.57	cn	2.1	0.57	ug/L		09/10/25 08:30	09/10/25 23:20	1
Cobalt	**100**	**cn**	0.52	0.16	ug/L		09/10/25 08:30	09/10/25 23:20	1
Iron	**260000**	**cn**	260	100	ug/L		09/10/25 08:30	09/10/25 23:23	5
Lead	<0.12	cn	0.52	0.12	ug/L		09/10/25 08:30	09/10/25 23:20	1
Manganese	**13000**	**cn**	10	4.9	ug/L		09/10/25 08:30	09/10/25 23:23	5
Molybdenum	**0.31**	**J cn**	0.52	0.21	ug/L		09/10/25 08:30	09/10/25 23:20	1
Selenium	**1.7**	**cn**	1.0	0.29	ug/L		09/10/25 08:30	09/10/25 23:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**370**	**J cn**	400	130	mg/L			09/03/25 16:36	50
Total Organic Carbon (EPA 415.1)	<5.0	cn	10	5.0	mg/L			09/07/25 11:39	10
TOC Result 3 (EPA 415.1)	<5.0	cn	10	5.0	mg/L			09/07/25 11:39	10

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10		0.30	0.10	mg/L		08/28/25 09:15	08/28/25 12:04	1

Client Sample ID: MW-103 10 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-8

Date Collected: 08/25/25 11:45
Matrix: Water
Date Received: 08/26/25 18:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**3600**		300	100	mg/L			09/16/25 19:16	200

Client Sample ID: MW-103 10 g/L FeSO4-7H2O

Lab Sample ID: 410-239099-8

Date Collected: 08/25/25 11:45

Matrix: Water

Date Received: 08/26/25 18:30

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.4**		0.25	0.060	mg/L		09/08/25 06:30	09/11/25 20:24	5
Lithium	**0.074**	**J**	0.25	0.055	mg/L		09/08/25 06:30	09/11/25 20:24	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.23	cn	1.0	0.23	mg/L		09/10/25 08:30	09/10/25 17:45	20
Boron	**1.3**	**cn**	1.0	0.25	mg/L		09/10/25 08:30	09/10/25 17:45	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<20		100	20	ug/L		09/08/25 06:30	09/10/25 19:21	100
Arsenic	<68		200	68	ug/L		09/08/25 06:30	09/10/25 19:21	100
Barium	<75		200	75	ug/L		09/08/25 06:30	09/10/25 19:21	100
Beryllium	<12		50	12	ug/L		09/08/25 06:30	09/10/25 19:21	100
Cadmium	<15		50	15	ug/L		09/08/25 06:30	09/10/25 19:21	100
Chromium	<55		200	55	ug/L		09/08/25 06:30	09/10/25 19:21	100
Cobalt	**200**		50	16	ug/L		09/08/25 06:30	09/10/25 19:21	100
Iron	**980000**		5000	2000	ug/L		09/08/25 06:30	09/10/25 19:21	100
Lead	<12		50	12	ug/L		09/08/25 06:30	09/10/25 19:21	100
Manganese	**22000**	**B**	200	95	ug/L		09/08/25 06:30	09/10/25 19:21	100
Molybdenum	<20		50	20	ug/L		09/08/25 06:30	09/10/25 19:21	100
Selenium	<28		100	28	ug/L		09/08/25 06:30	09/10/25 19:21	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.21	cn	1.0	0.21	ug/L		09/10/25 08:30	09/10/25 23:25	1
Arsenic	<0.70	cn	2.1	0.70	ug/L		09/10/25 08:30	09/10/25 23:25	1
Barium	**46**	**cn**	2.1	0.77	ug/L		09/10/25 08:30	09/10/25 23:25	1
Beryllium	<0.12	cn	0.52	0.12	ug/L		09/10/25 08:30	09/10/25 23:25	1
Cadmium	<0.16	cn	0.52	0.16	ug/L		09/10/25 08:30	09/11/25 21:37	1
Chromium	<0.57	cn	2.1	0.57	ug/L		09/10/25 08:30	09/10/25 23:25	1
Cobalt	**180**	**cn**	0.52	0.16	ug/L		09/10/25 08:30	09/10/25 23:25	1
Iron	**920000**	**cn**	520	210	ug/L		09/10/25 08:30	09/10/25 23:27	10
Lead	<0.12	cn	0.52	0.12	ug/L		09/10/25 08:30	09/10/25 23:25	1
Manganese	**22000**	**cn**	21	9.8	ug/L		09/10/25 08:30	09/10/25 23:27	10
Molybdenum	<0.21	cn	0.52	0.21	ug/L		09/10/25 08:30	09/10/25 23:25	1
Selenium	**1.8**	**cn**	1.0	0.29	ug/L		09/10/25 08:30	09/10/25 23:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**200**	**J cn**	400	130	mg/L			09/03/25 15:30	50
Total Organic Carbon (EPA 415.1)	<13	cn	25	13	mg/L			09/07/25 12:06	25
TOC Result 3 (EPA 415.1)	<13	cn	25	13	mg/L			09/07/25 12:06	25

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10		0.30	0.10	mg/L		08/28/25 09:15	08/28/25 12:04	1

Client Sample ID: MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-9
Date Collected: 08/25/25 12:30
Matrix: Water
Date Received: 08/26/25 18:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1400**		150	50	mg/L			09/16/25 15:46	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.14**		0.050	0.012	mg/L		09/08/25 06:30	09/11/25 20:18	1
Lithium	<0.011		0.050	0.011	mg/L		09/08/25 06:30	09/11/25 20:18	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.23	cn	1.0	0.23	mg/L		09/10/25 08:30	09/10/25 17:51	20
Boron	**1.3**		0.052	0.012	mg/L		09/10/25 08:30	09/10/25 17:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.47**	**J**	1.0	0.20	ug/L		09/08/25 06:30	09/10/25 19:14	1
Arsenic	**0.70**	**J**	2.0	0.68	ug/L		09/08/25 06:30	09/10/25 19:14	1
Barium	**100**		2.0	0.75	ug/L		09/08/25 06:30	09/10/25 19:14	1
Beryllium	<0.12		0.50	0.12	ug/L		09/08/25 06:30	09/10/25 19:14	1
Cadmium	<0.15		0.50	0.15	ug/L		09/08/25 06:30	09/10/25 19:14	1
Chromium	<0.55		2.0	0.55	ug/L		09/08/25 06:30	09/10/25 19:14	1
Cobalt	**6.2**		0.50	0.16	ug/L		09/08/25 06:30	09/10/25 19:14	1
Iron	**500**		50	20	ug/L		09/08/25 06:30	09/10/25 19:14	1
Lead	**0.24**	**J**	0.50	0.12	ug/L		09/08/25 06:30	09/10/25 19:14	1
Manganese	**1900**	**B**	2.0	0.95	ug/L		09/08/25 06:30	09/10/25 19:14	1
Molybdenum	**24**		0.50	0.20	ug/L		09/08/25 06:30	09/10/25 19:14	1
Selenium	**1.8**		1.0	0.28	ug/L		09/08/25 06:30	09/10/25 19:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.22**	**J cn**	1.0	0.21	ug/L		09/10/25 08:30	09/10/25 23:29	1
Arsenic	<0.70	cn	2.1	0.70	ug/L		09/10/25 08:30	09/10/25 23:29	1
Barium	**89**	**cn**	2.1	0.77	ug/L		09/10/25 08:30	09/10/25 23:29	1
Beryllium	<0.12	cn	0.52	0.12	ug/L		09/10/25 08:30	09/10/25 23:29	1
Cadmium	<0.16	cn	0.52	0.16	ug/L		09/10/25 08:30	09/11/25 21:40	1
Chromium	<0.57	cn	2.1	0.57	ug/L		09/10/25 08:30	09/10/25 23:29	1
Cobalt	**5.6**	**cn**	0.52	0.16	ug/L		09/10/25 08:30	09/10/25 23:29	1
Iron	**140**	**cn**	52	21	ug/L		09/10/25 08:30	09/10/25 23:29	1
Lead	<0.12	cn	0.52	0.12	ug/L		09/10/25 08:30	09/10/25 23:29	1
Manganese	**1800**	**cn**	2.1	0.98	ug/L		09/10/25 08:30	09/10/25 23:29	1
Molybdenum	**22**	**cn**	0.52	0.21	ug/L		09/10/25 08:30	09/10/25 23:29	1
Selenium	**2.1**	**cn**	1.0	0.29	ug/L		09/10/25 08:30	09/10/25 23:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**3000**		400	130	mg/L			09/03/25 16:22	50
Total Organic Carbon (EPA 415.1)	**12**	**cn**	10	5.0	mg/L			09/07/25 12:33	10
TOC Result 3 (EPA 415.1)	**12**	**cn**	10	5.0	mg/L			09/07/25 12:33	10

Client Sample ID: MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-9

Date Collected: 08/25/25 12:30
Matrix: Water
Date Received: 08/26/25 18:30

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10		0.30	0.10	mg/L		08/28/25 09:15	08/28/25 12:04	1

Client Sample ID: MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-10

Date Collected: 08/25/25 12:45
Matrix: Water
Date Received: 08/26/25 18:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**2200**		150	50	mg/L			09/16/25 13:20	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.4**		0.050	0.012	mg/L		09/03/25 21:00	09/04/25 12:45	1
Lithium	**0.051**		0.050	0.011	mg/L		09/03/25 21:00	09/04/25 12:45	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.23	cn	1.0	0.23	mg/L		09/10/25 08:30	09/10/25 17:58	20
Boron	**1.2**		0.052	0.012	mg/L		09/10/25 08:30	09/10/25 17:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.20		1.0	0.20	ug/L		09/03/25 21:00	09/04/25 09:38	1
Arsenic	**0.79**	**J**	2.0	0.68	ug/L		09/03/25 21:00	09/04/25 09:38	1
Barium	**65**		2.0	0.75	ug/L		09/03/25 21:00	09/04/25 09:38	1
Beryllium	<0.12		0.50	0.12	ug/L		09/03/25 21:00	09/04/25 09:38	1
Cadmium	<0.15		0.50	0.15	ug/L		09/03/25 21:00	09/04/25 09:38	1
Chromium	**0.80**	**J**	2.0	0.55	ug/L		09/03/25 21:00	09/04/25 09:38	1
Cobalt	**19**		0.50	0.16	ug/L		09/03/25 21:00	09/04/25 09:38	1
Iron	**23000**		50	20	ug/L		09/03/25 21:00	09/04/25 09:38	1
Lead	**0.47**	**J**	0.50	0.12	ug/L		09/03/25 21:00	09/04/25 09:38	1
Manganese	**1300**		2.0	0.95	ug/L		09/03/25 21:00	09/04/25 09:38	1
Molybdenum	**13**		0.50	0.20	ug/L		09/03/25 21:00	09/04/25 09:38	1
Selenium	**1.9**		1.0	0.28	ug/L		09/03/25 21:00	09/04/25 09:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.21	cn	1.0	0.21	ug/L		09/10/25 08:30	09/10/25 23:31	1
Arsenic	<0.70	cn	2.1	0.70	ug/L		09/10/25 08:30	09/10/25 23:31	1
Barium	**46**	**cn**	2.1	0.77	ug/L		09/10/25 08:30	09/10/25 23:31	1
Beryllium	<0.12	cn	0.52	0.12	ug/L		09/10/25 08:30	09/10/25 23:31	1
Cadmium	<0.16	cn	0.52	0.16	ug/L		09/10/25 08:30	09/11/25 21:42	1
Chromium	<0.57	cn	2.1	0.57	ug/L		09/10/25 08:30	09/10/25 23:31	1
Cobalt	**18**	**cn**	0.52	0.16	ug/L		09/10/25 08:30	09/10/25 23:31	1
Iron	**18000**	**cn**	52	21	ug/L		09/10/25 08:30	09/10/25 23:31	1
Lead	<0.12	cn	0.52	0.12	ug/L		09/10/25 08:30	09/10/25 23:31	1
Manganese	**1200**	**cn**	2.1	0.98	ug/L		09/10/25 08:30	09/10/25 23:31	1
Molybdenum	**12**	**cn**	0.52	0.21	ug/L		09/10/25 08:30	09/10/25 23:31	1
Selenium	**1.9**	**cn**	1.0	0.29	ug/L		09/10/25 08:30	09/11/25 21:42	1

Client Sample ID: MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-10

Date Collected: 08/25/25 12:45
Matrix: Water
Date Received: 08/26/25 18:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**2500**		400	130	mg/L			09/03/25 16:16	50
Total Organic Carbon (EPA 415.1)	<13	cn	25	13	mg/L			09/07/25 12:59	25
TOC Result 3 (EPA 415.1)	<13	cn	25	13	mg/L			09/07/25 12:59	25

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10		0.30	0.10	mg/L		08/28/25 09:15	08/28/25 12:04	1

Client Sample ID: MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-11

Date Collected: 08/25/25 13:00
Matrix: Water
Date Received: 08/26/25 18:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**3600**		300	100	mg/L			09/16/25 16:26	200

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.4**	**cn**	0.050	0.012	mg/L		09/05/25 21:00	09/09/25 00:28	1
Lithium	**0.058**	**cn**	0.050	0.011	mg/L		09/05/25 21:00	09/09/25 00:28	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.060**	**J cn**	0.26	0.057	mg/L		09/10/25 08:30	09/10/25 16:35	5
Boron	**1.2**		0.052	0.012	mg/L		09/10/25 08:30	09/10/25 16:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.0	cn	10	2.0	ug/L		09/05/25 21:00	09/09/25 14:32	10
Arsenic	<6.8	cn	20	6.8	ug/L		09/05/25 21:00	09/09/25 14:32	10
Barium	**46**	**cn**	20	7.5	ug/L		09/05/25 21:00	09/09/25 14:32	10
Beryllium	<1.2	cn	5.0	1.2	ug/L		09/05/25 21:00	09/09/25 14:32	10
Cadmium	<1.5	cn	5.0	1.5	ug/L		09/05/25 21:00	09/09/25 14:32	10
Chromium	<5.5	cn	20	5.5	ug/L		09/05/25 21:00	09/09/25 14:32	10
Cobalt	**42**	**cn**	5.0	1.6	ug/L		09/05/25 21:00	09/09/25 14:32	10
Iron	**210000**	**cn**	500	200	ug/L		09/05/25 21:00	09/09/25 14:32	10
Lead	<1.2	cn	5.0	1.2	ug/L		09/05/25 21:00	09/09/25 14:32	10
Manganese	**2600**	**cn**	20	9.5	ug/L		09/05/25 21:00	09/09/25 14:32	10
Molybdenum	**7.0**	**cn**	5.0	2.0	ug/L		09/05/25 21:00	09/09/25 14:32	10
Selenium	<2.8	cn	10	2.8	ug/L		09/05/25 21:00	09/09/25 14:32	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.37**	**J cn**	1.0	0.21	ug/L		09/10/25 08:30	09/10/25 22:32	1
Arsenic	**1.0**	**J cn**	2.1	0.70	ug/L		09/10/25 08:30	09/10/25 22:32	1
Barium	**43**	**cn**	2.1	0.77	ug/L		09/10/25 08:30	09/10/25 22:32	1
Beryllium	<0.12	cn	0.52	0.12	ug/L		09/10/25 08:30	09/10/25 22:32	1
Cadmium	<0.16	cn	0.52	0.16	ug/L		09/10/25 08:30	09/11/25 21:18	1
Chromium	<0.57	cn	2.1	0.57	ug/L		09/10/25 08:30	09/10/25 22:32	1
Cobalt	**40**	**cn**	0.52	0.16	ug/L		09/10/25 08:30	09/10/25 22:32	1

Client Sample ID: MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-11

Date Collected: 08/25/25 13:00
Matrix: Water
Date Received: 08/26/25 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**200000**	**cn**	260	100	ug/L		09/10/25 08:30	09/10/25 22:34	5
Lead	<0.12	cn	0.52	0.12	ug/L		09/10/25 08:30	09/10/25 22:32	1
Manganese	**2600**	**cn**	2.1	0.98	ug/L		09/10/25 08:30	09/10/25 22:32	1
Molybdenum	**5.8**	**cn**	0.52	0.21	ug/L		09/10/25 08:30	09/10/25 22:32	1
Selenium	**2.2**	**J cn**	5.2	1.4	ug/L		09/10/25 08:30	09/10/25 22:34	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**1700**		400	130	mg/L			09/03/25 15:58	50
Total Organic Carbon (EPA 415.1)	<13	cn	25	13	mg/L			09/07/25 16:24	25
TOC Result 3 (EPA 415.1)	<13	cn	25	13	mg/L			09/07/25 16:24	25

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10		0.30	0.10	mg/L		08/28/25 09:15	08/28/25 12:04	1

Client Sample ID: MW-103 5 g/L FB
Lab Sample ID: 410-239099-12

Date Collected: 08/25/25 13:15
Matrix: Water
Date Received: 08/26/25 18:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1200**		150	50	mg/L			09/16/25 13:09	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.1**		0.050	0.012	mg/L		09/03/25 21:00	09/04/25 12:42	1
Lithium	**0.020**	**J**	0.050	0.011	mg/L		09/03/25 21:00	09/04/25 12:42	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.057	cn	0.26	0.057	mg/L		09/10/25 08:30	09/10/25 16:38	5
Boron	**1.1**		0.052	0.012	mg/L		09/10/25 08:30	09/10/25 16:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.69**	**J**	1.0	0.20	ug/L		09/03/25 21:00	09/04/25 09:35	1
Arsenic	**3.0**		2.0	0.68	ug/L		09/03/25 21:00	09/04/25 09:35	1
Barium	**69**		2.0	0.75	ug/L		09/03/25 21:00	09/04/25 09:35	1
Beryllium	<0.12		0.50	0.12	ug/L		09/03/25 21:00	09/04/25 09:35	1
Cadmium	<0.15		0.50	0.15	ug/L		09/03/25 21:00	09/04/25 09:35	1
Chromium	<0.55		2.0	0.55	ug/L		09/03/25 21:00	09/04/25 09:35	1
Cobalt	**0.78**		0.50	0.16	ug/L		09/03/25 21:00	09/04/25 09:35	1
Iron	**240**		50	20	ug/L		09/03/25 21:00	09/04/25 09:35	1
Lead	**0.16**	**J**	0.50	0.12	ug/L		09/03/25 21:00	09/04/25 09:35	1
Manganese	**120**		2.0	0.95	ug/L		09/03/25 21:00	09/04/25 09:35	1
Molybdenum	**66**		0.50	0.20	ug/L		09/03/25 21:00	09/04/25 09:35	1
Selenium	**2.8**		1.0	0.28	ug/L		09/03/25 21:00	09/04/25 09:35	1

Client Sample ID: MW-103 5 g/L FB
Lab Sample ID: 410-239099-12

Date Collected: 08/25/25 13:15
Matrix: Water
Date Received: 08/26/25 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.70	J cn	1.0	0.21	ug/L		09/10/25 08:30	09/10/25 22:36	1
Arsenic	2.7	cn	2.1	0.70	ug/L		09/10/25 08:30	09/10/25 22:36	1
Barium	57	cn	2.1	0.77	ug/L		09/10/25 08:30	09/10/25 22:36	1
Beryllium	<0.12	cn	0.52	0.12	ug/L		09/10/25 08:30	09/10/25 22:36	1
Cadmium	<0.16	cn	0.52	0.16	ug/L		09/10/25 08:30	09/11/25 21:20	1
Chromium	<0.57	cn	2.1	0.57	ug/L		09/10/25 08:30	09/10/25 22:36	1
Cobalt	0.61	cn	0.52	0.16	ug/L		09/10/25 08:30	09/10/25 22:36	1
Iron	49	J cn	52	21	ug/L		09/10/25 08:30	09/10/25 22:36	1
Lead	<0.12	cn	0.52	0.12	ug/L		09/10/25 08:30	09/10/25 22:36	1
Manganese	100	cn	2.1	0.98	ug/L		09/10/25 08:30	09/10/25 22:36	1
Molybdenum	61	cn	0.52	0.21	ug/L		09/10/25 08:30	09/10/25 22:36	1
Selenium	2.8	cn	1.0	0.29	ug/L		09/10/25 08:30	09/10/25 22:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	1200		400	130	mg/L			09/03/25 16:30	50
Total Organic Carbon (EPA 415.1)	7.4	cn	5.0	2.5	mg/L			09/07/25 16:50	5
TOC Result 3 (EPA 415.1)	7.5	cn	5.0	2.5	mg/L			09/07/25 16:50	5

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10		0.30	0.10	mg/L		08/28/25 09:15	08/28/25 12:04	1

Client Sample ID: MW-103 10 g/L FB
Lab Sample ID: 410-239099-13

Date Collected: 08/25/25 13:30
Matrix: Water
Date Received: 08/26/25 18:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1500		150	50	mg/L			09/16/25 16:39	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.1		0.50	0.12	mg/L		09/08/25 06:30	09/11/25 20:11	10
Lithium	<0.11		0.50	0.11	mg/L		09/08/25 06:30	09/11/25 20:11	10

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.057	cn	0.26	0.057	mg/L		09/10/25 08:30	09/10/25 18:59	5
Boron	1.0		0.052	0.012	mg/L		09/10/25 08:30	09/10/25 18:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.86	J	1.0	0.20	ug/L		09/08/25 06:30	09/10/25 19:02	1
Arsenic	1.2	J	2.0	0.68	ug/L		09/08/25 06:30	09/10/25 19:02	1
Barium	80		2.0	0.75	ug/L		09/08/25 06:30	09/10/25 19:02	1
Beryllium	<0.12		0.50	0.12	ug/L		09/08/25 06:30	09/10/25 19:02	1
Cadmium	<0.15		0.50	0.15	ug/L		09/08/25 06:30	09/10/25 19:02	1
Chromium	1.4	J	2.0	0.55	ug/L		09/08/25 06:30	09/10/25 19:02	1
Cobalt	0.87		0.50	0.16	ug/L		09/08/25 06:30	09/10/25 19:02	1

Client Sample ID: MW-103 10 g/L FB
Lab Sample ID: 410-239099-13

Date Collected: 08/25/25 13:30
Matrix: Water
Date Received: 08/26/25 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	480		50	20	ug/L		09/08/25 06:30	09/10/25 19:02	1
Lead	0.40	J	0.50	0.12	ug/L		09/08/25 06:30	09/10/25 19:02	1
Manganese	250	B	2.0	0.95	ug/L		09/08/25 06:30	09/10/25 19:02	1
Molybdenum	62		0.50	0.20	ug/L		09/08/25 06:30	09/10/25 19:02	1
Selenium	2.5		1.0	0.28	ug/L		09/08/25 06:30	09/10/25 19:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.47	J cn	1.0	0.21	ug/L		09/10/25 08:30	09/10/25 22:38	1
Arsenic	<0.70	cn	2.1	0.70	ug/L		09/10/25 08:30	09/10/25 22:38	1
Barium	71	cn	2.1	0.77	ug/L		09/10/25 08:30	09/10/25 22:38	1
Beryllium	<0.12	cn	0.52	0.12	ug/L		09/10/25 08:30	09/10/25 22:38	1
Cadmium	<0.16	cn	0.52	0.16	ug/L		09/10/25 08:30	09/11/25 21:22	1
Chromium	<0.57	cn	2.1	0.57	ug/L		09/10/25 08:30	09/10/25 22:38	1
Cobalt	0.61	cn	0.52	0.16	ug/L		09/10/25 08:30	09/10/25 22:38	1
Iron	21	J cn	52	21	ug/L		09/10/25 08:30	09/10/25 22:38	1
Lead	0.12	J cn	0.52	0.12	ug/L		09/10/25 08:30	09/10/25 22:38	1
Manganese	230	cn	2.1	0.98	ug/L		09/10/25 08:30	09/10/25 22:38	1
Molybdenum	60	cn	0.52	0.21	ug/L		09/10/25 08:30	09/10/25 22:38	1
Selenium	2.3	cn	1.0	0.29	ug/L		09/10/25 08:30	09/10/25 22:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	1300		400	130	mg/L			09/03/25 15:45	50
Total Organic Carbon (EPA 415.1)	9.0		5.0	2.5	mg/L			09/07/25 17:16	5
TOC Result 3 (EPA 415.1)	8.9		5.0	2.5	mg/L			09/07/25 17:16	5

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10		0.30	0.10	mg/L		08/28/25 09:15	08/28/25 12:04	1

Client Sample ID: MW-103 15 g/L FB
Lab Sample ID: 410-239099-14

Date Collected: 08/25/25 13:45
Matrix: Water
Date Received: 08/26/25 18:30

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1800		150	50	mg/L			09/15/25 18:01	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.1		0.50	0.12	mg/L		09/08/25 06:30	09/11/25 20:05	10
Lithium	<0.11		0.50	0.11	mg/L		09/08/25 06:30	09/11/25 20:05	10

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.057	cn	0.26	0.057	mg/L		09/10/25 08:30	09/10/25 19:06	5
Boron	1.0		0.052	0.012	mg/L		09/10/25 08:30	09/10/25 19:02	1

Client: Terra Systems Inc
Job ID: 410-239099-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Client Sample ID: MW-103 15 g/L FB
Lab Sample ID: 410-239099-14
Date Collected: 08/25/25 13:45
Matrix: Water
Date Received: 08/26/25 18:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.70**	**J**	1.0	0.20	ug/L		09/08/25 06:30	09/10/25 18:58	1
Arsenic	**0.82**	**J**	2.0	0.68	ug/L		09/08/25 06:30	09/10/25 18:58	1
Barium	**76**		2.0	0.75	ug/L		09/08/25 06:30	09/10/25 18:58	1
Beryllium	<0.12		0.50	0.12	ug/L		09/08/25 06:30	09/10/25 18:58	1
Cadmium	<0.15		0.50	0.15	ug/L		09/08/25 06:30	09/10/25 18:58	1
Chromium	<0.55		2.0	0.55	ug/L		09/08/25 06:30	09/10/25 18:58	1
Cobalt	**0.79**		0.50	0.16	ug/L		09/08/25 06:30	09/10/25 18:58	1
Iron	**270**		50	20	ug/L		09/08/25 06:30	09/10/25 18:58	1
Lead	**0.14**	**J**	0.50	0.12	ug/L		09/08/25 06:30	09/10/25 18:58	1
Manganese	**260**	**B**	2.0	0.95	ug/L		09/08/25 06:30	09/10/25 18:58	1
Molybdenum	**59**		0.50	0.20	ug/L		09/08/25 06:30	09/10/25 18:58	1
Selenium	**2.3**		1.0	0.28	ug/L		09/08/25 06:30	09/10/25 18:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.56**	**J cn**	1.0	0.21	ug/L		09/10/25 08:30	09/10/25 22:48	1
Arsenic	**0.83**	**J cn**	2.1	0.70	ug/L		09/10/25 08:30	09/10/25 22:48	1
Barium	**69**	**cn**	2.1	0.77	ug/L		09/10/25 08:30	09/10/25 22:48	1
Beryllium	<0.12	cn	0.52	0.12	ug/L		09/10/25 08:30	09/10/25 22:48	1
Cadmium	<0.16	cn	0.52	0.16	ug/L		09/10/25 08:30	09/11/25 21:24	1
Chromium	<0.57	cn	2.1	0.57	ug/L		09/10/25 08:30	09/10/25 22:48	1
Cobalt	**0.72**	**cn**	0.52	0.16	ug/L		09/10/25 08:30	09/10/25 22:48	1
Iron	<21	cn	52	21	ug/L		09/10/25 08:30	09/10/25 22:48	1
Lead	<0.12	cn	0.52	0.12	ug/L		09/10/25 08:30	09/10/25 22:48	1
Manganese	**260**	**cn**	2.1	0.98	ug/L		09/10/25 08:30	09/10/25 22:48	1
Molybdenum	**57**	**cn**	0.52	0.21	ug/L		09/10/25 08:30	09/10/25 22:48	1
Selenium	**2.3**	**cn**	1.0	0.29	ug/L		09/10/25 08:30	09/10/25 22:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**1800**		400	130	mg/L			09/03/25 15:23	50
Total Organic Carbon (EPA 415.1)	<13	cn	25	13	mg/L			09/07/25 17:42	25
TOC Result 3 (EPA 415.1)	<13	cn	25	13	mg/L			09/07/25 17:42	25

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.50	cn	1.5	0.50	mg/L		08/28/25 09:15	08/28/25 12:08	5

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-699512/73
Matrix: Water
Analysis Batch: 699512

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.50		1.5	0.50	mg/L			09/16/25 03:38	1

Lab Sample ID: LCS 410-699512/71
Matrix: Water
Analysis Batch: 699512

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	7.50	7.10		mg/L		95	90 - 110

Lab Sample ID: LCSD 410-699512/72
Matrix: Water
Analysis Batch: 699512

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	7.50	7.06		mg/L		94	90 - 110	0	20

Lab Sample ID: MB 410-699619/5
Matrix: Water
Analysis Batch: 699619

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.50		1.5	0.50	mg/L			09/16/25 07:09	1

Lab Sample ID: LCS 410-699619/3
Matrix: Water
Analysis Batch: 699619

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	7.50	7.73		mg/L		103	90 - 110

Lab Sample ID: LCSD 410-699619/4
Matrix: Water
Analysis Batch: 699619

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	7.50	7.76		mg/L		103	90 - 110	0	20

Lab Sample ID: MB 410-700077/5
Matrix: Water
Analysis Batch: 700077

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.50		1.5	0.50	mg/L			09/16/25 14:28	1

Lab Sample ID: LCS 410-700077/3
Matrix: Water
Analysis Batch: 700077

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	7.50	7.16		mg/L		96	90 - 110

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: LCSD 410-700077/4
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 700077

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate			7.50	7.12		mg/L		95	90 - 110	1	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-695238/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 698584
Prep Batch: 695238

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.052	0.011	mg/L		09/10/25 12:15	09/12/25 01:56	1
Boron	<0.012		0.052	0.012	mg/L		09/10/25 12:15	09/12/25 01:56	1

Lab Sample ID: LCS 410-695238/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 698584
Prep Batch: 695238

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium			0.500	0.470		mg/L		94	88 - 113
Boron			0.500	0.489		mg/L		98	83 - 119

Lab Sample ID: MB 410-695994/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 697568
Prep Batch: 695994

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.052	0.011	mg/L		09/10/25 08:30	09/10/25 16:55	1
Boron	<0.012		0.052	0.012	mg/L		09/10/25 08:30	09/10/25 16:55	1

Lab Sample ID: LCS 410-695994/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 697568
Prep Batch: 695994

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium			0.500	0.481		mg/L		96	88 - 113
Boron			0.500	0.475		mg/L		95	83 - 119

Lab Sample ID: MB 410-695997/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 697342
Prep Batch: 695997

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.052	0.011	mg/L		09/08/25 23:15	09/10/25 04:23	1
Boron	<0.012		0.052	0.012	mg/L		09/08/25 23:15	09/10/25 04:23	1

Lab Sample ID: LCS 410-695997/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 697342
Prep Batch: 695997

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium			0.500	0.536		mg/L		107	88 - 113

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 410-695997/2-A
Matrix: Water
Analysis Batch: 697342

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 695997

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.528		mg/L		106	83 - 119

Lab Sample ID: MB 410-693943/1-A
Matrix: Water
Analysis Batch: 696704

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 693943

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.050	0.011	mg/L		09/05/25 21:00	09/08/25 23:31	1
Boron	<0.012		0.050	0.012	mg/L		09/05/25 21:00	09/08/25 23:31	1

Lab Sample ID: LCS 410-693943/2-A
Matrix: Water
Analysis Batch: 696704

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 693943

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.500	0.488		mg/L		98	88 - 113
Boron	0.500	0.502		mg/L		100	83 - 119

Lab Sample ID: MB 410-693954/1-A
Matrix: Water
Analysis Batch: 694731

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 693954

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.050	0.011	mg/L		09/03/25 21:00	09/04/25 11:15	1
Boron	<0.012		0.050	0.012	mg/L		09/03/25 21:00	09/04/25 11:15	1

Lab Sample ID: LCS 410-693954/2-A
Matrix: Water
Analysis Batch: 694731

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 693954

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.500	0.507		mg/L		101	88 - 113
Boron	0.500	0.519		mg/L		104	83 - 119

Lab Sample ID: MB 410-693957/1-A
Matrix: Water
Analysis Batch: 698212

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 693957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.050	0.011	mg/L		09/08/25 06:30	09/11/25 19:12	1
Boron	<0.012		0.050	0.012	mg/L		09/08/25 06:30	09/11/25 19:12	1

Lab Sample ID: LCS 410-693957/2-A
Matrix: Water
Analysis Batch: 698212

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 693957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.500	0.519		mg/L		104	88 - 113
Boron	0.500	0.507		mg/L		101	83 - 119

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 410-239099-1 MS
Matrix: Water
Analysis Batch: 698212

Client Sample ID: MW-103 Control
Prep Type: Total Recoverable
Prep Batch: 693957

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	<0.11		0.500	0.533		mg/L		107	75 - 125
Boron	1.4		0.500	1.96		mg/L		102	75 - 125

Lab Sample ID: 410-239099-1 MSD
Matrix: Water
Analysis Batch: 698212

Client Sample ID: MW-103 Control
Prep Type: Total Recoverable
Prep Batch: 693957

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	<0.11		0.500	0.538		mg/L		108	75 - 125	1	20
Boron	1.4		0.500	1.98		mg/L		107	75 - 125	1	20

Lab Sample ID: 410-239099-1 DU
Matrix: Water
Analysis Batch: 698212

Client Sample ID: MW-103 Control
Prep Type: Total Recoverable
Prep Batch: 693957

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	<0.11		<0.11		mg/L		NC	20
Boron	1.4		1.47		mg/L		2	20

Lab Sample ID: MB 410-696290/1-A
Matrix: Water
Analysis Batch: 697346

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 696290

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.012		0.050	0.012	mg/L		09/09/25 07:00	09/10/25 02:06	1

Lab Sample ID: MB 410-696290/1-A
Matrix: Water
Analysis Batch: 697994

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 696290

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.050	0.011	mg/L		09/09/25 07:00	09/11/25 00:49	1

Lab Sample ID: LCS 410-696290/2-A
Matrix: Water
Analysis Batch: 697346

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 696290

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.500		mg/L		100	83 - 119

Lab Sample ID: LCS 410-696290/2-A
Matrix: Water
Analysis Batch: 697994

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 696290

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.500	0.525		mg/L		105	88 - 113

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-695238/1-A
Matrix: Water
Analysis Batch: 698233

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 695238

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.21		1.0	0.21	ug/L		09/10/25 12:15	09/11/25 17:56	1
Arsenic	<0.70		2.1	0.70	ug/L		09/10/25 12:15	09/11/25 17:56	1
Barium	<0.77		2.1	0.77	ug/L		09/10/25 12:15	09/11/25 17:56	1
Beryllium	<0.12		0.52	0.12	ug/L		09/10/25 12:15	09/11/25 17:56	1
Cadmium	<0.16		0.52	0.16	ug/L		09/10/25 12:15	09/11/25 17:56	1
Chromium	<0.57		2.1	0.57	ug/L		09/10/25 12:15	09/11/25 17:56	1
Cobalt	<0.16		0.52	0.16	ug/L		09/10/25 12:15	09/11/25 17:56	1
Iron	<21		52	21	ug/L		09/10/25 12:15	09/11/25 17:56	1
Lead	<0.12		0.52	0.12	ug/L		09/10/25 12:15	09/11/25 17:56	1
Manganese	<0.98		2.1	0.98	ug/L		09/10/25 12:15	09/11/25 17:56	1
Molybdenum	<0.21		0.52	0.21	ug/L		09/10/25 12:15	09/11/25 17:56	1
Selenium	<0.29		1.0	0.29	ug/L		09/10/25 12:15	09/11/25 17:56	1

Lab Sample ID: LCS 410-695238/2-A
Matrix: Water
Analysis Batch: 698233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 695238

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	89.2		ug/L		89	85 - 115
Arsenic	500	473		ug/L		95	86 - 111
Barium	500	472		ug/L		94	86 - 114
Beryllium	50.0	45.5		ug/L		91	80 - 120
Cadmium	50.0	46.3		ug/L		93	86 - 114
Chromium	500	462		ug/L		92	84 - 113
Cobalt	500	450		ug/L		90	85 - 112
Iron	5000	4730		ug/L		95	84 - 114
Lead	50.0	47.8		ug/L		96	86 - 114
Manganese	500	469		ug/L		94	84 - 113
Molybdenum	50.0	44.4		ug/L		89	83 - 115
Selenium	100	90.3		ug/L		90	86 - 111

Lab Sample ID: MB 410-695994/1-A
Matrix: Water
Analysis Batch: 697642

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 695994

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.21		1.0	0.21	ug/L		09/10/25 08:30	09/10/25 22:20	1
Arsenic	<0.70		2.1	0.70	ug/L		09/10/25 08:30	09/10/25 22:20	1
Barium	<0.77		2.1	0.77	ug/L		09/10/25 08:30	09/10/25 22:20	1
Beryllium	<0.12		0.52	0.12	ug/L		09/10/25 08:30	09/10/25 22:20	1
Cadmium	<0.16		0.52	0.16	ug/L		09/10/25 08:30	09/10/25 22:20	1
Chromium	<0.57		2.1	0.57	ug/L		09/10/25 08:30	09/10/25 22:20	1
Cobalt	<0.16		0.52	0.16	ug/L		09/10/25 08:30	09/10/25 22:20	1
Iron	<21		52	21	ug/L		09/10/25 08:30	09/10/25 22:20	1
Lead	<0.12		0.52	0.12	ug/L		09/10/25 08:30	09/10/25 22:20	1
Manganese	<0.98		2.1	0.98	ug/L		09/10/25 08:30	09/10/25 22:20	1
Molybdenum	<0.21		0.52	0.21	ug/L		09/10/25 08:30	09/10/25 22:20	1
Selenium	<0.29		1.0	0.29	ug/L		09/10/25 08:30	09/10/25 22:20	1

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

Lab Sample ID: LCS 410-695994/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 697642
Prep Batch: 695994

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	89.9		ug/L		90	85 - 115
Arsenic	500	443		ug/L		89	86 - 111
Barium	500	446		ug/L		89	86 - 114
Beryllium	50.0	42.6		ug/L		85	80 - 120
Chromium	500	440		ug/L		88	84 - 113
Cobalt	500	436		ug/L		87	85 - 112
Iron	5000	4470		ug/L		89	84 - 114
Lead	50.0	46.6		ug/L		93	86 - 114
Manganese	500	440		ug/L		88	84 - 113
Molybdenum	50.0	44.1		ug/L		88	83 - 115
Selenium	100	88.8		ug/L		89	86 - 111

Lab Sample ID: LCS 410-695994/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 698233
Prep Batch: 695994

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	50.0	47.1		ug/L		94	86 - 114

Lab Sample ID: MB 410-695997/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 696690
Prep Batch: 695997

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.21		1.0	0.21	ug/L		09/08/25 23:15	09/09/25 10:36	1
Arsenic	<0.70		2.1	0.70	ug/L		09/08/25 23:15	09/09/25 10:36	1
Barium	<0.77		2.1	0.77	ug/L		09/08/25 23:15	09/09/25 10:36	1
Beryllium	<0.12		0.52	0.12	ug/L		09/08/25 23:15	09/09/25 10:36	1
Cadmium	<0.16		0.52	0.16	ug/L		09/08/25 23:15	09/09/25 10:36	1
Chromium	<0.57		2.1	0.57	ug/L		09/08/25 23:15	09/09/25 10:36	1
Cobalt	<0.16		0.52	0.16	ug/L		09/08/25 23:15	09/09/25 10:36	1
Iron	<21		52	21	ug/L		09/08/25 23:15	09/09/25 10:36	1
Lead	<0.12		0.52	0.12	ug/L		09/08/25 23:15	09/09/25 10:36	1
Manganese	<0.98		2.1	0.98	ug/L		09/08/25 23:15	09/09/25 10:36	1
Molybdenum	<0.21		0.52	0.21	ug/L		09/08/25 23:15	09/09/25 10:36	1
Selenium	<0.29		1.0	0.29	ug/L		09/08/25 23:15	09/09/25 10:36	1

Lab Sample ID: LCS 410-695997/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 696690
Prep Batch: 695997

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	99.3		ug/L		99	85 - 115
Arsenic	500	522		ug/L		104	86 - 111
Barium	500	546		ug/L		109	86 - 114
Beryllium	50.0	53.6		ug/L		107	80 - 120
Cadmium	50.0	51.9		ug/L		104	86 - 114
Chromium	500	517		ug/L		103	84 - 113
Cobalt	500	517		ug/L		103	85 - 112

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

Lab Sample ID: LCS 410-695997/2-A
Matrix: Water
Analysis Batch: 696690

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 695997

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	5000	5200		ug/L		104	84 - 114
Lead	50.0	53.2		ug/L		106	86 - 114
Manganese	500	514		ug/L		103	84 - 113
Molybdenum	50.0	49.8		ug/L		100	83 - 115
Selenium	100	101		ug/L		101	86 - 111

Lab Sample ID: MB 410-693943/1-A
Matrix: Water
Analysis Batch: 696774

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 693943

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.20		1.0	0.20	ug/L		09/05/25 21:00	09/09/25 12:48	1
Arsenic	<0.68		2.0	0.68	ug/L		09/05/25 21:00	09/09/25 12:48	1
Barium	<0.75		2.0	0.75	ug/L		09/05/25 21:00	09/09/25 12:48	1
Beryllium	<0.12		0.50	0.12	ug/L		09/05/25 21:00	09/09/25 12:48	1
Cadmium	<0.15		0.50	0.15	ug/L		09/05/25 21:00	09/09/25 12:48	1
Chromium	<0.55		2.0	0.55	ug/L		09/05/25 21:00	09/09/25 12:48	1
Cobalt	<0.16		0.50	0.16	ug/L		09/05/25 21:00	09/09/25 12:48	1
Iron	<20		50	20	ug/L		09/05/25 21:00	09/09/25 12:48	1
Lead	<0.12		0.50	0.12	ug/L		09/05/25 21:00	09/09/25 12:48	1
Manganese	<0.95		2.0	0.95	ug/L		09/05/25 21:00	09/09/25 12:48	1
Molybdenum	<0.20		0.50	0.20	ug/L		09/05/25 21:00	09/09/25 12:48	1
Selenium	<0.28		1.0	0.28	ug/L		09/05/25 21:00	09/09/25 12:48	1

Lab Sample ID: LCS 410-693943/2-A
Matrix: Water
Analysis Batch: 696774

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 693943

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	97.3		ug/L		97	85 - 115
Arsenic	500	475		ug/L		95	86 - 111
Barium	500	475		ug/L		95	86 - 114
Beryllium	50.0	49.2		ug/L		98	80 - 120
Cadmium	50.0	49.3		ug/L		99	86 - 114
Chromium	500	475		ug/L		95	84 - 113
Cobalt	500	471		ug/L		94	85 - 112
Iron	5000	4760		ug/L		95	84 - 114
Lead	50.0	50.9		ug/L		102	86 - 114
Manganese	500	473		ug/L		95	84 - 113
Molybdenum	50.0	48.2		ug/L		96	83 - 115
Selenium	100	91.6		ug/L		92	86 - 111

Lab Sample ID: MB 410-693954/1-A
Matrix: Water
Analysis Batch: 694763

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 693954

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.20		1.0	0.20	ug/L		09/03/25 21:00	09/04/25 09:26	1
Arsenic	<0.68		2.0	0.68	ug/L		09/03/25 21:00	09/04/25 09:26	1

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

Lab Sample ID: MB 410-693954/1-A
Matrix: Water
Analysis Batch: 694763

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 693954

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.75		2.0	0.75	ug/L		09/03/25 21:00	09/04/25 09:26	1
Beryllium	<0.12		0.50	0.12	ug/L		09/03/25 21:00	09/04/25 09:26	1
Cadmium	<0.15		0.50	0.15	ug/L		09/03/25 21:00	09/04/25 09:26	1
Chromium	<0.55		2.0	0.55	ug/L		09/03/25 21:00	09/04/25 09:26	1
Cobalt	<0.16		0.50	0.16	ug/L		09/03/25 21:00	09/04/25 09:26	1
Iron	<20		50	20	ug/L		09/03/25 21:00	09/04/25 09:26	1
Lead	<0.12		0.50	0.12	ug/L		09/03/25 21:00	09/04/25 09:26	1
Manganese	<0.95		2.0	0.95	ug/L		09/03/25 21:00	09/04/25 09:26	1
Molybdenum	<0.20		0.50	0.20	ug/L		09/03/25 21:00	09/04/25 09:26	1
Selenium	<0.28		1.0	0.28	ug/L		09/03/25 21:00	09/04/25 09:26	1

Lab Sample ID: LCS 410-693954/2-A
Matrix: Water
Analysis Batch: 694763

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 693954

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	106		ug/L		106	85 - 115
Arsenic	500	502		ug/L		100	86 - 111
Barium	500	529		ug/L		106	86 - 114
Beryllium	50.0	49.9		ug/L		100	80 - 120
Cadmium	50.0	51.7		ug/L		103	86 - 114
Chromium	500	510		ug/L		102	84 - 113
Cobalt	500	511		ug/L		102	85 - 112
Iron	5000	4900		ug/L		98	84 - 114
Lead	50.0	51.2		ug/L		102	86 - 114
Manganese	500	516		ug/L		103	84 - 113
Molybdenum	50.0	50.3		ug/L		101	83 - 115
Selenium	100	97.3		ug/L		97	86 - 111

Lab Sample ID: MB 410-693957/1-A
Matrix: Water
Analysis Batch: 697642

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 693957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.20		1.0	0.20	ug/L		09/08/25 06:30	09/10/25 18:43	1
Arsenic	<0.68		2.0	0.68	ug/L		09/08/25 06:30	09/10/25 18:43	1
Barium	<0.75		2.0	0.75	ug/L		09/08/25 06:30	09/10/25 18:43	1
Beryllium	<0.12		0.50	0.12	ug/L		09/08/25 06:30	09/10/25 18:43	1
Cadmium	<0.15		0.50	0.15	ug/L		09/08/25 06:30	09/10/25 18:43	1
Chromium	<0.55		2.0	0.55	ug/L		09/08/25 06:30	09/10/25 18:43	1
Cobalt	<0.16		0.50	0.16	ug/L		09/08/25 06:30	09/10/25 18:43	1
Iron	<20		50	20	ug/L		09/08/25 06:30	09/10/25 18:43	1
Lead	<0.12		0.50	0.12	ug/L		09/08/25 06:30	09/10/25 18:43	1
Manganese	1.32	J	2.0	0.95	ug/L		09/08/25 06:30	09/10/25 18:43	1
Molybdenum	<0.20		0.50	0.20	ug/L		09/08/25 06:30	09/10/25 18:43	1
Selenium	<0.28		1.0	0.28	ug/L		09/08/25 06:30	09/10/25 18:43	1

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

Lab Sample ID: LCS 410-693957/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 697642
Prep Batch: 693957

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			100	96.4		ug/L		96	85 - 115		
Arsenic			500	493		ug/L		99	86 - 111		
Barium			500	486		ug/L		97	86 - 114		
Beryllium			50.0	46.1		ug/L		92	80 - 120		
Cadmium			50.0	47.9		ug/L		96	86 - 114		
Chromium			500	487		ug/L		97	84 - 113		
Cobalt			500	485		ug/L		97	85 - 112		
Iron			5000	4970		ug/L		99	84 - 114		
Lead			50.0	50.4		ug/L		101	86 - 114		
Manganese			500	488		ug/L		98	84 - 113		
Molybdenum			50.0	48.4		ug/L		97	83 - 115		
Selenium			100	95.1		ug/L		95	86 - 111		

Lab Sample ID: 410-239099-1 MS
Client Sample ID: MW-103 Control
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 697642
Prep Batch: 693957

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	0.80	J	100	100		ug/L		99	75 - 125		
Arsenic	4.7		500	499		ug/L		99	75 - 125		
Barium	31		500	522		ug/L		98	75 - 125		
Beryllium	<0.12		50.0	47.8		ug/L		96	75 - 125		
Cadmium	<0.15		50.0	45.6		ug/L		91	75 - 125		
Chromium	4.3		500	492		ug/L		98	75 - 125		
Cobalt	0.75		500	472		ug/L		94	80 - 125		
Iron	710		5000	5570		ug/L		97	75 - 125		
Lead	0.45	J	50.0	49.5		ug/L		98	75 - 125		
Molybdenum	91		50.0	136		ug/L		91	81 - 125		
Selenium	4.5		100	105		ug/L		100	75 - 125		

Lab Sample ID: 410-239099-1 MSD
Client Sample ID: MW-103 Control
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 697642
Prep Batch: 693957

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.80	J	100	102		ug/L		101	75 - 125	2	20
Arsenic	4.7		500	517		ug/L		102	75 - 125	4	20
Barium	31		500	521		ug/L		98	75 - 125	0	20
Beryllium	<0.12		50.0	48.1		ug/L		96	75 - 125	0	20
Cadmium	<0.15		50.0	47.6		ug/L		95	75 - 125	4	20
Chromium	4.3		500	504		ug/L		100	75 - 125	3	20
Cobalt	0.75		500	490		ug/L		98	80 - 125	4	20
Iron	710		5000	5830		ug/L		103	75 - 125	5	20
Lead	0.45	J	50.0	49.7		ug/L		99	75 - 125	0	20
Molybdenum	91		50.0	141		ug/L		101	81 - 125	4	20
Selenium	4.5		100	106		ug/L		101	75 - 125	1	20

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

Lab Sample ID: 410-239099-1 DU
Matrix: Water
Analysis Batch: 697642

Client Sample ID: MW-103 Control
Prep Type: Total Recoverable
Prep Batch: 693957

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	0.80	J	0.791	J	ug/L		2	20
Arsenic	4.7		4.83		ug/L		3	20
Barium	31		32.7		ug/L		5	20
Beryllium	<0.12		<0.12		ug/L		NC	20
Cadmium	<0.15		<0.15		ug/L		NC	20
Chromium	4.3		4.07		ug/L		6	20
Cobalt	0.75		0.753		ug/L		0.05	20
Iron	710		700		ug/L		0.8	20
Lead	0.45	J	0.462	J	ug/L		2	20
Molybdenum	91		88.8		ug/L		2	20
Selenium	4.5		4.30		ug/L		4	20

Lab Sample ID: MB 410-696290/1-A
Matrix: Water
Analysis Batch: 696973

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 696290

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.20		1.0	0.20	ug/L		09/09/25 07:00	09/09/25 17:07	1
Arsenic	<0.68		2.0	0.68	ug/L		09/09/25 07:00	09/09/25 17:07	1
Barium	<0.75		2.0	0.75	ug/L		09/09/25 07:00	09/09/25 17:07	1
Beryllium	<0.12		0.50	0.12	ug/L		09/09/25 07:00	09/09/25 17:07	1
Cadmium	<0.15		0.50	0.15	ug/L		09/09/25 07:00	09/09/25 17:07	1
Chromium	<0.55		2.0	0.55	ug/L		09/09/25 07:00	09/09/25 17:07	1
Cobalt	<0.16		0.50	0.16	ug/L		09/09/25 07:00	09/09/25 17:07	1
Iron	<20		50	20	ug/L		09/09/25 07:00	09/09/25 17:07	1
Lead	<0.12		0.50	0.12	ug/L		09/09/25 07:00	09/09/25 17:07	1
Manganese	<0.95		2.0	0.95	ug/L		09/09/25 07:00	09/09/25 17:07	1
Molybdenum	<0.20		0.50	0.20	ug/L		09/09/25 07:00	09/09/25 17:07	1
Selenium	<0.28		1.0	0.28	ug/L		09/09/25 07:00	09/09/25 17:07	1

Lab Sample ID: LCS 410-696290/2-A
Matrix: Water
Analysis Batch: 696973

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 696290

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.1		ug/L		98	85 - 115
Arsenic	500	475		ug/L		95	86 - 111
Barium	500	484		ug/L		97	86 - 114
Beryllium	50.0	49.8		ug/L		100	80 - 120
Cadmium	50.0	48.6		ug/L		97	86 - 114
Chromium	500	480		ug/L		96	84 - 113
Cobalt	500	474		ug/L		95	85 - 112
Iron	5000	4740		ug/L		95	84 - 114
Lead	50.0	51.1		ug/L		102	86 - 114
Manganese	500	469		ug/L		94	84 - 113
Molybdenum	50.0	48.1		ug/L		96	83 - 115
Selenium	100	96.2		ug/L		96	86 - 111

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-694229/120
Matrix: Water
Analysis Batch: 694229

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<2.6		8.0	2.6	mg/L			09/03/25 08:55	1

Lab Sample ID: MB 410-694229/148
Matrix: Water
Analysis Batch: 694229

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<2.6		8.0	2.6	mg/L			09/03/25 11:59	1

Lab Sample ID: MB 410-694229/177
Matrix: Water
Analysis Batch: 694229

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<2.6		8.0	2.6	mg/L			09/03/25 14:56	1

Lab Sample ID: LCS 410-694229/121
Matrix: Water
Analysis Batch: 694229

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 to pH 4.5	189	177		mg/L		94	80 - 110

Lab Sample ID: LCS 410-694229/149
Matrix: Water
Analysis Batch: 694229

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 to pH 4.5	189	179		mg/L		95	80 - 110

Lab Sample ID: LCS 410-694229/178
Matrix: Water
Analysis Batch: 694229

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 to pH 4.5	189	178		mg/L		94	80 - 110

Lab Sample ID: LCSD 410-694229/122
Matrix: Water
Analysis Batch: 694229

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	189	177		mg/L		94	80 - 110	0	10

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCSD 410-694229/150
Matrix: Water
Analysis Batch: 694229

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			189	177		mg/L		94	80 - 110	2	10

Lab Sample ID: LCSD 410-694229/179
Matrix: Water
Analysis Batch: 694229

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			189	178		mg/L		94	80 - 110	0	10

Method: 415.1 - TOC

Lab Sample ID: MB 410-696461/37
Matrix: Water
Analysis Batch: 696461

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<0.50		1.0	0.50	mg/L			09/07/25 13:50	1
TOC Result 3	<0.50		1.0	0.50	mg/L			09/07/25 13:50	1

Lab Sample ID: MB 410-696461/7
Matrix: Water
Analysis Batch: 696461

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<0.50		1.0	0.50	mg/L			09/07/25 00:50	1
TOC Result 3	<0.50		1.0	0.50	mg/L			09/07/25 00:50	1

Lab Sample ID: LCS 410-696461/36
Matrix: Water
Analysis Batch: 696461

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			50.0	52.1		mg/L		104	90 - 110		
TOC Result 3			50.0	51.9		mg/L		104	90 - 110		

Lab Sample ID: LCS 410-696461/6
Matrix: Water
Analysis Batch: 696461

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			50.0	52.2		mg/L		104	90 - 110		
TOC Result 3			50.0	52.1		mg/L		104	90 - 110		

Lab Sample ID: MRL 410-696461/1
Matrix: Water
Analysis Batch: 696461

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			1.00	0.728	J	mg/L		73	50 - 150		

Method: 415.1 - TOC (Continued)

Lab Sample ID: MRL 410-696461/1
Matrix: Water
Analysis Batch: 696461

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
TOC Result 3	1.00	0.696	J	mg/L		70	

Method: 4500 S2 D-2011 - Sulfide, Total

Lab Sample ID: MRL 410-691900/6
Matrix: Water
Analysis Batch: 691900

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	0.317	0.362		mg/L		114	50 - 150

HPLC/IC

Analysis Batch: 699512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-1	MW-103 Control	Total/NA	Water	EPA 300.0 R2.1	
410-239099-3	MW-103 5 g/L NaHCO3	Total/NA	Water	EPA 300.0 R2.1	
410-239099-5	MW-103 1 g/L FeSO4-7H2O	Total/NA	Water	EPA 300.0 R2.1	
410-239099-6	MW-103 2 g/L FeSO4-7H2O	Total/NA	Water	EPA 300.0 R2.1	
410-239099-7	MW-103 5 g/L FeSO4-7H2O	Total/NA	Water	EPA 300.0 R2.1	
410-239099-14	MW-103 15 g/L FB	Total/NA	Water	EPA 300.0 R2.1	
MB 410-699512/73	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-699512/71	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-699512/72	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 699619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-10	MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Total/NA	Water	EPA 300.0 R2.1	
410-239099-12	MW-103 5 g/L FB	Total/NA	Water	EPA 300.0 R2.1	
MB 410-699619/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-699619/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-699619/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 700077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-2	MW-103 2 g/L NaHCO3	Total/NA	Water	EPA 300.0 R2.1	
410-239099-4	MW-103 10 g/L NaHCO3	Total/NA	Water	EPA 300.0 R2.1	
410-239099-8	MW-103 10 g/L FeSO4-7H2O	Total/NA	Water	EPA 300.0 R2.1	
410-239099-9	MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Total/NA	Water	EPA 300.0 R2.1	
410-239099-11	MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Total/NA	Water	EPA 300.0 R2.1	
410-239099-13	MW-103 10 g/L FB	Total/NA	Water	EPA 300.0 R2.1	
MB 410-700077/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-700077/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-700077/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 693943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-11	MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Total Recoverable	Water	3005A	
MB 410-693943/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-693943/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 693954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-10	MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Total Recoverable	Water	3005A	
410-239099-12	MW-103 5 g/L FB	Total Recoverable	Water	3005A	
MB 410-693954/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-693954/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 693957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-1	MW-103 Control	Total Recoverable	Water	3005A	
410-239099-2	MW-103 2 g/L NaHCO3	Total Recoverable	Water	3005A	
410-239099-3	MW-103 5 g/L NaHCO3	Total Recoverable	Water	3005A	
410-239099-5	MW-103 1 g/L FeSO4-7H2O	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 693957 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-6	MW-103 2 g/L FeSO4-7H2O	Total Recoverable	Water	3005A	
410-239099-7	MW-103 5 g/L FeSO4-7H2O	Total Recoverable	Water	3005A	
410-239099-8	MW-103 10 g/L FeSO4-7H2O	Total Recoverable	Water	3005A	
410-239099-9	MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Total Recoverable	Water	3005A	
410-239099-13	MW-103 10 g/L FB	Total Recoverable	Water	3005A	
410-239099-14	MW-103 15 g/L FB	Total Recoverable	Water	3005A	
MB 410-693957/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-693957/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
410-239099-1 MS	MW-103 Control	Total Recoverable	Water	3005A	
410-239099-1 MSD	MW-103 Control	Total Recoverable	Water	3005A	
410-239099-1 DU	MW-103 Control	Total Recoverable	Water	3005A	

Analysis Batch: 694731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-10	MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	693954
410-239099-12	MW-103 5 g/L FB	Total Recoverable	Water	6010D	693954
MB 410-693954/1-A	Method Blank	Total Recoverable	Water	6010D	693954
LCS 410-693954/2-A	Lab Control Sample	Total Recoverable	Water	6010D	693954

Analysis Batch: 694763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-10	MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Total Recoverable	Water	6020B	693954
410-239099-12	MW-103 5 g/L FB	Total Recoverable	Water	6020B	693954
MB 410-693954/1-A	Method Blank	Total Recoverable	Water	6020B	693954
LCS 410-693954/2-A	Lab Control Sample	Total Recoverable	Water	6020B	693954

Prep Batch: 695238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-4	MW-103 10 g/L NaHCO3	Dissolved	Water	Non-Digest Prep	
MB 410-695238/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-695238/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Prep Batch: 695994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-7	MW-103 5 g/L FeSO4-7H2O	Dissolved	Water	Non-Digest Prep	
410-239099-8	MW-103 10 g/L FeSO4-7H2O	Dissolved	Water	Non-Digest Prep	
410-239099-9	MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Dissolved	Water	Non-Digest Prep	
410-239099-10	MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Dissolved	Water	Non-Digest Prep	
410-239099-11	MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Dissolved	Water	Non-Digest Prep	
410-239099-12	MW-103 5 g/L FB	Dissolved	Water	Non-Digest Prep	
410-239099-13	MW-103 10 g/L FB	Dissolved	Water	Non-Digest Prep	
410-239099-14	MW-103 15 g/L FB	Dissolved	Water	Non-Digest Prep	
MB 410-695994/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-695994/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Prep Batch: 695997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-1	MW-103 Control	Dissolved	Water	Non-Digest Prep	
410-239099-2	MW-103 2 g/L NaHCO3	Dissolved	Water	Non-Digest Prep	
410-239099-3	MW-103 5 g/L NaHCO3	Dissolved	Water	Non-Digest Prep	
410-239099-5	MW-103 1 g/L FeSO4-7H2O	Dissolved	Water	Non-Digest Prep	

Metals (Continued)

Prep Batch: 695997 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-6	MW-103 2 g/L FeSO4-7H2O	Dissolved	Water	Non-Digest Prep	
MB 410-695997/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-695997/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Prep Batch: 696290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-4	MW-103 10 g/L NaHCO3	Total Recoverable	Water	3005A	
MB 410-696290/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-696290/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 696690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-1	MW-103 Control	Dissolved	Water	6020B	695997
410-239099-2	MW-103 2 g/L NaHCO3	Dissolved	Water	6020B	695997
410-239099-3	MW-103 5 g/L NaHCO3	Dissolved	Water	6020B	695997
410-239099-5	MW-103 1 g/L FeSO4-7H2O	Dissolved	Water	6020B	695997
410-239099-6	MW-103 2 g/L FeSO4-7H2O	Dissolved	Water	6020B	695997
MB 410-695997/1-A	Method Blank	Total/NA	Water	6020B	695997
LCS 410-695997/2-A	Lab Control Sample	Total/NA	Water	6020B	695997

Analysis Batch: 696704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-11	MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	693943
MB 410-693943/1-A	Method Blank	Total Recoverable	Water	6010D	693943
LCS 410-693943/2-A	Lab Control Sample	Total Recoverable	Water	6010D	693943

Analysis Batch: 696774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-11	MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Total Recoverable	Water	6020B	693943
MB 410-693943/1-A	Method Blank	Total Recoverable	Water	6020B	693943
LCS 410-693943/2-A	Lab Control Sample	Total Recoverable	Water	6020B	693943

Analysis Batch: 696973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-4	MW-103 10 g/L NaHCO3	Total Recoverable	Water	6020B	696290
MB 410-696290/1-A	Method Blank	Total Recoverable	Water	6020B	696290
LCS 410-696290/2-A	Lab Control Sample	Total Recoverable	Water	6020B	696290

Analysis Batch: 696974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-6	MW-103 2 g/L FeSO4-7H2O	Dissolved	Water	6020B	695997

Analysis Batch: 697342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-1	MW-103 Control	Dissolved	Water	6010D	695997
410-239099-2	MW-103 2 g/L NaHCO3	Dissolved	Water	6010D	695997
410-239099-3	MW-103 5 g/L NaHCO3	Dissolved	Water	6010D	695997
410-239099-5	MW-103 1 g/L FeSO4-7H2O	Dissolved	Water	6010D	695997
410-239099-6	MW-103 2 g/L FeSO4-7H2O	Dissolved	Water	6010D	695997
MB 410-695997/1-A	Method Blank	Total/NA	Water	6010D	695997
LCS 410-695997/2-A	Lab Control Sample	Total/NA	Water	6010D	695997

Metals

Analysis Batch: 697346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-4	MW-103 10 g/L NaHCO3	Total Recoverable	Water	6010D	696290
MB 410-696290/1-A	Method Blank	Total Recoverable	Water	6010D	696290
LCS 410-696290/2-A	Lab Control Sample	Total Recoverable	Water	6010D	696290

Analysis Batch: 697568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-7	MW-103 5 g/L FeSO4-7H2O	Dissolved	Water	6010D	695994
410-239099-7	MW-103 5 g/L FeSO4-7H2O	Dissolved	Water	6010D	695994
410-239099-8	MW-103 10 g/L FeSO4-7H2O	Dissolved	Water	6010D	695994
410-239099-9	MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Dissolved	Water	6010D	695994
410-239099-9	MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Dissolved	Water	6010D	695994
410-239099-10	MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Dissolved	Water	6010D	695994
410-239099-10	MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Dissolved	Water	6010D	695994
410-239099-11	MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Dissolved	Water	6010D	695994
410-239099-11	MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Dissolved	Water	6010D	695994
410-239099-12	MW-103 5 g/L FB	Dissolved	Water	6010D	695994
410-239099-12	MW-103 5 g/L FB	Dissolved	Water	6010D	695994
410-239099-13	MW-103 10 g/L FB	Dissolved	Water	6010D	695994
410-239099-13	MW-103 10 g/L FB	Dissolved	Water	6010D	695994
410-239099-14	MW-103 15 g/L FB	Dissolved	Water	6010D	695994
410-239099-14	MW-103 15 g/L FB	Dissolved	Water	6010D	695994
MB 410-695994/1-A	Method Blank	Total/NA	Water	6010D	695994
LCS 410-695994/2-A	Lab Control Sample	Total/NA	Water	6010D	695994

Analysis Batch: 697642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-1	MW-103 Control	Total Recoverable	Water	6020B	693957
410-239099-2	MW-103 2 g/L NaHCO3	Total Recoverable	Water	6020B	693957
410-239099-3	MW-103 5 g/L NaHCO3	Total Recoverable	Water	6020B	693957
410-239099-5	MW-103 1 g/L FeSO4-7H2O	Total Recoverable	Water	6020B	693957
410-239099-6	MW-103 2 g/L FeSO4-7H2O	Total Recoverable	Water	6020B	693957
410-239099-7	MW-103 5 g/L FeSO4-7H2O	Dissolved	Water	6020B	695994
410-239099-7	MW-103 5 g/L FeSO4-7H2O	Dissolved	Water	6020B	695994
410-239099-7	MW-103 5 g/L FeSO4-7H2O	Total Recoverable	Water	6020B	693957
410-239099-8	MW-103 10 g/L FeSO4-7H2O	Dissolved	Water	6020B	695994
410-239099-8	MW-103 10 g/L FeSO4-7H2O	Dissolved	Water	6020B	695994
410-239099-8	MW-103 10 g/L FeSO4-7H2O	Total Recoverable	Water	6020B	693957
410-239099-9	MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Dissolved	Water	6020B	695994
410-239099-9	MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Total Recoverable	Water	6020B	693957
410-239099-10	MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Dissolved	Water	6020B	695994
410-239099-11	MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Dissolved	Water	6020B	695994
410-239099-11	MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Dissolved	Water	6020B	695994
410-239099-12	MW-103 5 g/L FB	Dissolved	Water	6020B	695994
410-239099-13	MW-103 10 g/L FB	Dissolved	Water	6020B	695994
410-239099-13	MW-103 10 g/L FB	Total Recoverable	Water	6020B	693957
410-239099-14	MW-103 15 g/L FB	Dissolved	Water	6020B	695994
410-239099-14	MW-103 15 g/L FB	Total Recoverable	Water	6020B	693957
MB 410-693957/1-A	Method Blank	Total Recoverable	Water	6020B	693957
MB 410-695994/1-A	Method Blank	Total/NA	Water	6020B	695994
LCS 410-693957/2-A	Lab Control Sample	Total Recoverable	Water	6020B	693957
LCS 410-695994/2-A	Lab Control Sample	Total/NA	Water	6020B	695994

Metals (Continued)

Analysis Batch: 697642 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-1 MS	MW-103 Control	Total Recoverable	Water	6020B	693957
410-239099-1 MSD	MW-103 Control	Total Recoverable	Water	6020B	693957
410-239099-1 DU	MW-103 Control	Total Recoverable	Water	6020B	693957

Prep Batch: 697952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-1	MW-103 Control	Total Recoverable	Water	3005A	
410-239099-3	MW-103 5 g/L NaHCO3	Total Recoverable	Water	3005A	

Analysis Batch: 697994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-4	MW-103 10 g/L NaHCO3	Total Recoverable	Water	6010D	696290
MB 410-696290/1-A	Method Blank	Total Recoverable	Water	6010D	696290
LCS 410-696290/2-A	Lab Control Sample	Total Recoverable	Water	6010D	696290

Analysis Batch: 698212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-1	MW-103 Control	Total Recoverable	Water	6010D	693957
410-239099-2	MW-103 2 g/L NaHCO3	Total Recoverable	Water	6010D	693957
410-239099-3	MW-103 5 g/L NaHCO3	Total Recoverable	Water	6010D	693957
410-239099-5	MW-103 1 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	693957
410-239099-6	MW-103 2 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	693957
410-239099-7	MW-103 5 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	693957
410-239099-8	MW-103 10 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	693957
410-239099-9	MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	693957
410-239099-13	MW-103 10 g/L FB	Total Recoverable	Water	6010D	693957
410-239099-14	MW-103 15 g/L FB	Total Recoverable	Water	6010D	693957
MB 410-693957/1-A	Method Blank	Total Recoverable	Water	6010D	693957
LCS 410-693957/2-A	Lab Control Sample	Total Recoverable	Water	6010D	693957
410-239099-1 MS	MW-103 Control	Total Recoverable	Water	6010D	693957
410-239099-1 MSD	MW-103 Control	Total Recoverable	Water	6010D	693957
410-239099-1 DU	MW-103 Control	Total Recoverable	Water	6010D	693957

Analysis Batch: 698233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-4	MW-103 10 g/L NaHCO3	Dissolved	Water	6020B	695238
410-239099-7	MW-103 5 g/L FeSO4-7H2O	Dissolved	Water	6020B	695994
410-239099-8	MW-103 10 g/L FeSO4-7H2O	Dissolved	Water	6020B	695994
410-239099-9	MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Dissolved	Water	6020B	695994
410-239099-10	MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Dissolved	Water	6020B	695994
410-239099-11	MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Dissolved	Water	6020B	695994
410-239099-12	MW-103 5 g/L FB	Dissolved	Water	6020B	695994
410-239099-13	MW-103 10 g/L FB	Dissolved	Water	6020B	695994
410-239099-14	MW-103 15 g/L FB	Dissolved	Water	6020B	695994
MB 410-695238/1-A	Method Blank	Total/NA	Water	6020B	695238
LCS 410-695238/2-A	Lab Control Sample	Total/NA	Water	6020B	695238
LCS 410-695994/2-A	Lab Control Sample	Total/NA	Water	6020B	695994

Analysis Batch: 698584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-4	MW-103 10 g/L NaHCO3	Dissolved	Water	6010D	695238

Metals (Continued)

Analysis Batch: 698584 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-695238/1-A	Method Blank	Total/NA	Water	6010D	695238
LCS 410-695238/2-A	Lab Control Sample	Total/NA	Water	6010D	695238

Analysis Batch: 698842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-4	MW-103 10 g/L NaHCO3	Dissolved	Water	6010D	695238

Analysis Batch: 699753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-1	MW-103 Control	Total Recoverable	Water	6020B	697952
410-239099-3	MW-103 5 g/L NaHCO3	Total Recoverable	Water	6020B	697952

General Chemistry

Prep Batch: 691815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-1	MW-103 Control	Dissolved	Water	SM 4500 S2 B	
410-239099-2	MW-103 2 g/L NaHCO3	Dissolved	Water	SM 4500 S2 B	
410-239099-3	MW-103 5 g/L NaHCO3	Dissolved	Water	SM 4500 S2 B	
410-239099-4	MW-103 10 g/L NaHCO3	Dissolved	Water	SM 4500 S2 B	
410-239099-5	MW-103 1 g/L FeSO4-7H2O	Dissolved	Water	SM 4500 S2 B	
410-239099-6	MW-103 2 g/L FeSO4-7H2O	Dissolved	Water	SM 4500 S2 B	
410-239099-7	MW-103 5 g/L FeSO4-7H2O	Dissolved	Water	SM 4500 S2 B	
410-239099-8	MW-103 10 g/L FeSO4-7H2O	Dissolved	Water	SM 4500 S2 B	
410-239099-9	MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Dissolved	Water	SM 4500 S2 B	
410-239099-10	MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Dissolved	Water	SM 4500 S2 B	
410-239099-11	MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Dissolved	Water	SM 4500 S2 B	
410-239099-12	MW-103 5 g/L FB	Dissolved	Water	SM 4500 S2 B	
410-239099-13	MW-103 10 g/L FB	Dissolved	Water	SM 4500 S2 B	
410-239099-14	MW-103 15 g/L FB	Dissolved	Water	SM 4500 S2 B	

Analysis Batch: 691900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-1	MW-103 Control	Dissolved	Water	4500 S2 D-2011	691815
410-239099-2	MW-103 2 g/L NaHCO3	Dissolved	Water	4500 S2 D-2011	691815
410-239099-3	MW-103 5 g/L NaHCO3	Dissolved	Water	4500 S2 D-2011	691815
410-239099-4	MW-103 10 g/L NaHCO3	Dissolved	Water	4500 S2 D-2011	691815
410-239099-5	MW-103 1 g/L FeSO4-7H2O	Dissolved	Water	4500 S2 D-2011	691815
410-239099-6	MW-103 2 g/L FeSO4-7H2O	Dissolved	Water	4500 S2 D-2011	691815
410-239099-7	MW-103 5 g/L FeSO4-7H2O	Dissolved	Water	4500 S2 D-2011	691815
410-239099-8	MW-103 10 g/L FeSO4-7H2O	Dissolved	Water	4500 S2 D-2011	691815
410-239099-9	MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Dissolved	Water	4500 S2 D-2011	691815
410-239099-10	MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Dissolved	Water	4500 S2 D-2011	691815
410-239099-11	MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Dissolved	Water	4500 S2 D-2011	691815
410-239099-12	MW-103 5 g/L FB	Dissolved	Water	4500 S2 D-2011	691815
410-239099-13	MW-103 10 g/L FB	Dissolved	Water	4500 S2 D-2011	691815
410-239099-14	MW-103 15 g/L FB	Dissolved	Water	4500 S2 D-2011	691815
MRL 410-691900/6	Lab Control Sample	Total/NA	Water	4500 S2 D-2011	

General Chemistry

Analysis Batch: 694229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-1	MW-103 Control	Total/NA	Water	2320B-2011	
410-239099-2	MW-103 2 g/L NaHCO3	Total/NA	Water	2320B-2011	
410-239099-3	MW-103 5 g/L NaHCO3	Total/NA	Water	2320B-2011	
410-239099-4	MW-103 10 g/L NaHCO3	Total/NA	Water	2320B-2011	
410-239099-5	MW-103 1 g/L FeSO4-7H2O	Total/NA	Water	2320B-2011	
410-239099-6	MW-103 2 g/L FeSO4-7H2O	Total/NA	Water	2320B-2011	
410-239099-7	MW-103 5 g/L FeSO4-7H2O	Total/NA	Water	2320B-2011	
410-239099-8	MW-103 10 g/L FeSO4-7H2O	Total/NA	Water	2320B-2011	
410-239099-9	MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Total/NA	Water	2320B-2011	
410-239099-10	MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Total/NA	Water	2320B-2011	
410-239099-11	MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Total/NA	Water	2320B-2011	
410-239099-12	MW-103 5 g/L FB	Total/NA	Water	2320B-2011	
410-239099-13	MW-103 10 g/L FB	Total/NA	Water	2320B-2011	
410-239099-14	MW-103 15 g/L FB	Total/NA	Water	2320B-2011	
MB 410-694229/120	Method Blank	Total/NA	Water	2320B-2011	
MB 410-694229/148	Method Blank	Total/NA	Water	2320B-2011	
MB 410-694229/177	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-694229/121	Lab Control Sample	Total/NA	Water	2320B-2011	
LCS 410-694229/149	Lab Control Sample	Total/NA	Water	2320B-2011	
LCS 410-694229/178	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 410-694229/122	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
LCSD 410-694229/150	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
LCSD 410-694229/179	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

Analysis Batch: 696461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239099-1	MW-103 Control	Total/NA	Water	415.1	
410-239099-2	MW-103 2 g/L NaHCO3	Total/NA	Water	415.1	
410-239099-3	MW-103 5 g/L NaHCO3	Total/NA	Water	415.1	
410-239099-4	MW-103 10 g/L NaHCO3	Total/NA	Water	415.1	
410-239099-5	MW-103 1 g/L FeSO4-7H2O	Total/NA	Water	415.1	
410-239099-6	MW-103 2 g/L FeSO4-7H2O	Total/NA	Water	415.1	
410-239099-7	MW-103 5 g/L FeSO4-7H2O	Total/NA	Water	415.1	
410-239099-8	MW-103 10 g/L FeSO4-7H2O	Total/NA	Water	415.1	
410-239099-9	MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Total/NA	Water	415.1	
410-239099-10	MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Total/NA	Water	415.1	
410-239099-11	MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Total/NA	Water	415.1	
410-239099-12	MW-103 5 g/L FB	Total/NA	Water	415.1	
410-239099-13	MW-103 10 g/L FB	Total/NA	Water	415.1	
410-239099-14	MW-103 15 g/L FB	Total/NA	Water	415.1	
MB 410-696461/37	Method Blank	Total/NA	Water	415.1	
MB 410-696461/7	Method Blank	Total/NA	Water	415.1	
LCS 410-696461/36	Lab Control Sample	Total/NA	Water	415.1	
LCS 410-696461/6	Lab Control Sample	Total/NA	Water	415.1	
MRL 410-696461/1	Lab Control Sample	Total/NA	Water	415.1	

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-239099-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Client Sample ID: MW-103 Control
Lab Sample ID: 410-239099-1
Date Collected: 08/25/25 10:00
Matrix: Water
Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	699512	L4QM	ELLE	09/15/25 18:25
Dissolved	Prep	Non-Digest Prep			695997	UAMX	ELLE	09/08/25 23:15
Dissolved	Analysis	6010D		1	697342	T8CQ	ELLE	09/10/25 05:06
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6010D		10	698212	T8CQ	ELLE	09/11/25 19:19
Dissolved	Prep	Non-Digest Prep			695997	UAMX	ELLE	09/08/25 23:15
Dissolved	Analysis	6020B		1	696690	F7JF	ELLE	09/09/25 11:01
Total Recoverable	Prep	3005A			697952	UAMX	ELLE	09/11/25 21:00
Total Recoverable	Analysis	6020B		1	699753	I9IN	ELLE	09/15/25 19:25
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6020B		1	697642	LHF4	ELLE	09/10/25 18:47
Total/NA	Analysis	2320B-2011		50	694229	DI9Q	ELLE	09/03/25 15:37
Total/NA	Analysis	415.1		25	696461	P684	ELLE	09/07/25 06:51
Dissolved	Prep	SM 4500 S2 B			691815	USE1	ELLE	08/28/25 09:14
Dissolved	Analysis	4500 S2 D-2011		1	691900	USE1	ELLE	08/28/25 10:59

Client Sample ID: MW-103 2 g/L NaHCO3
Lab Sample ID: 410-239099-2
Date Collected: 08/25/25 10:15
Matrix: Water
Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	700077	KJQ8	ELLE	09/16/25 15:07
Dissolved	Prep	Non-Digest Prep			695997	UAMX	ELLE	09/08/25 23:15
Dissolved	Analysis	6010D		1	697342	T8CQ	ELLE	09/10/25 05:03
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6010D		10	698212	T8CQ	ELLE	09/11/25 20:08
Dissolved	Prep	Non-Digest Prep			695997	UAMX	ELLE	09/08/25 23:15
Dissolved	Analysis	6020B		1	696690	F7JF	ELLE	09/09/25 10:50
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6020B		1	697642	LHF4	ELLE	09/10/25 19:00
Total/NA	Analysis	2320B-2011		10	694229	DI9Q	ELLE	09/03/25 14:03
Total/NA	Analysis	415.1		10	696461	P684	ELLE	09/07/25 08:34
Dissolved	Prep	SM 4500 S2 B			691815	USE1	ELLE	08/28/25 09:15
Dissolved	Analysis	4500 S2 D-2011		1	691900	USE1	ELLE	08/28/25 10:59

Client Sample ID: MW-103 5 g/L NaHCO3
Lab Sample ID: 410-239099-3
Date Collected: 08/25/25 10:30
Matrix: Water
Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	699512	L4QM	ELLE	09/15/25 17:37
Dissolved	Prep	Non-Digest Prep			695997	UAMX	ELLE	09/08/25 23:15
Dissolved	Analysis	6010D		1	697342	T8CQ	ELLE	09/10/25 05:00

Client Sample ID: MW-103 5 g/L NaHCO3

Lab Sample ID: 410-239099-3

Date Collected: 08/25/25 10:30

Matrix: Water

Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6010D		10	698212	T8CQ	ELLE	09/11/25 19:49
Dissolved	Prep	Non-Digest Prep			695997	UAMX	ELLE	09/08/25 23:15
Dissolved	Analysis	6020B		1	696690	F7JF	ELLE	09/09/25 10:48
Total Recoverable	Prep	3005A			697952	UAMX	ELLE	09/11/25 21:00
Total Recoverable	Analysis	6020B		1	699753	I9IN	ELLE	09/15/25 19:22
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6020B		1	697642	LHF4	ELLE	09/10/25 18:56
Total/NA	Analysis	2320B-2011		50	694229	DI9Q	ELLE	09/03/25 16:51
Total/NA	Analysis	415.1		25	696461	P684	ELLE	09/07/25 09:00
Dissolved	Prep	SM 4500 S2 B			691815	USE1	ELLE	08/28/25 09:15
Dissolved	Analysis	4500 S2 D-2011		1	691900	USE1	ELLE	08/28/25 10:59

Client Sample ID: MW-103 10 g/L NaHCO3

Lab Sample ID: 410-239099-4

Date Collected: 08/25/25 10:45

Matrix: Water

Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	700077	KJQ8	ELLE	09/16/25 15:59
Dissolved	Prep	Non-Digest Prep			695238	UJL8	ELLE	09/10/25 12:15
Dissolved	Analysis	6010D		10	698842	T8CQ	ELLE	09/12/25 21:15
Dissolved	Prep	Non-Digest Prep			695238	UJL8	ELLE	09/10/25 12:15
Dissolved	Analysis	6010D		1	698584	T8CQ	ELLE	09/12/25 03:53
Total Recoverable	Prep	3005A			696290	UJL8	ELLE	09/09/25 07:00
Total Recoverable	Analysis	6010D		10	697994	T8CQ	ELLE	09/11/25 00:55
Total Recoverable	Prep	3005A			696290	UJL8	ELLE	09/09/25 07:00
Total Recoverable	Analysis	6010D		1	697346	T8CQ	ELLE	09/10/25 03:32
Dissolved	Prep	Non-Digest Prep			695238	UJL8	ELLE	09/10/25 12:15
Dissolved	Analysis	6020B		1	698233	LHF4	ELLE	09/11/25 18:06
Total Recoverable	Prep	3005A			696290	UJL8	ELLE	09/09/25 07:00
Total Recoverable	Analysis	6020B		1	696973	LHF4	ELLE	09/09/25 17:43
Total/NA	Analysis	2320B-2011		50	694229	DI9Q	ELLE	09/03/25 15:51
Total/NA	Analysis	415.1		50	696461	P684	ELLE	09/07/25 09:27
Dissolved	Prep	SM 4500 S2 B			691815	USE1	ELLE	08/28/25 09:15
Dissolved	Analysis	4500 S2 D-2011		5	691900	USE1	ELLE	08/28/25 10:59

Client Sample ID: MW-103 1 g/L FeSO4-7H2O

Lab Sample ID: 410-239099-5

Date Collected: 08/25/25 11:00

Matrix: Water

Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	699512	L4QM	ELLE	09/15/25 22:13
Dissolved	Prep	Non-Digest Prep			695997	UAMX	ELLE	09/08/25 23:15
Dissolved	Analysis	6010D		1	697342	T8CQ	ELLE	09/10/25 05:09

Client Sample ID: MW-103 1 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-5

Date Collected: 08/25/25 11:00
Matrix: Water
Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6010D		10	698212	T8CQ	ELLE	09/11/25 20:14
Dissolved	Prep	Non-Digest Prep			695997	UAMX	ELLE	09/08/25 23:15
Dissolved	Analysis	6020B		1	696690	F7JF	ELLE	09/09/25 11:05
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6020B		1	697642	LHF4	ELLE	09/10/25 19:12
Total/NA	Analysis	2320B-2011		50	694229	DI9Q	ELLE	09/03/25 16:44
Total/NA	Analysis	415.1		100	696461	P684	ELLE	09/07/25 10:45
Dissolved	Prep	SM 4500 S2 B			691815	USE1	ELLE	08/28/25 09:15
Dissolved	Analysis	4500 S2 D-2011		1	691900	USE1	ELLE	08/28/25 10:59

Client Sample ID: MW-103 2 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-6

Date Collected: 08/25/25 11:15
Matrix: Water
Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	699512	L4QM	ELLE	09/15/25 20:25
Dissolved	Prep	Non-Digest Prep			695997	UAMX	ELLE	09/08/25 23:15
Dissolved	Analysis	6010D		1	697342	T8CQ	ELLE	09/10/25 05:12
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6010D		10	698212	T8CQ	ELLE	09/11/25 20:21
Dissolved	Prep	Non-Digest Prep			695997	UAMX	ELLE	09/08/25 23:15
Dissolved	Analysis	6020B		1	696690	F7JF	ELLE	09/09/25 11:07
Dissolved	Prep	Non-Digest Prep			695997	UAMX	ELLE	09/08/25 23:15
Dissolved	Analysis	6020B		10	696974	LHF4	ELLE	09/09/25 16:17
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6020B		1	697642	LHF4	ELLE	09/10/25 19:16
Total/NA	Analysis	2320B-2011		10	694229	DI9Q	ELLE	09/03/25 13:57
Total/NA	Analysis	415.1		50	696461	P684	ELLE	09/07/25 11:12
Dissolved	Prep	SM 4500 S2 B			691815	USE1	ELLE	08/28/25 09:15
Dissolved	Analysis	4500 S2 D-2011		1	691900	USE1	ELLE	08/28/25 12:04

Client Sample ID: MW-103 5 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-7

Date Collected: 08/25/25 11:30
Matrix: Water
Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	699512	L4QM	ELLE	09/15/25 20:49
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6010D		1	697568	T8CQ	ELLE	09/10/25 17:34
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6010D		20	697568	T8CQ	ELLE	09/10/25 17:38
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6010D		10	698212	T8CQ	ELLE	09/11/25 18:56

Client Sample ID: MW-103 5 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-7

Date Collected: 08/25/25 11:30
Matrix: Water
Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		1	697642	LHF4	ELLE	09/10/25 23:20
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		5	697642	LHF4	ELLE	09/10/25 23:23
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		1	698233	LHF4	ELLE	09/11/25 21:26
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6020B		1	697642	LHF4	ELLE	09/10/25 19:23
Total/NA	Analysis	2320B-2011		50	694229	DI9Q	ELLE	09/03/25 16:36
Total/NA	Analysis	415.1		10	696461	P684	ELLE	09/07/25 11:39
Dissolved	Prep	SM 4500 S2 B			691815	USE1	ELLE	08/28/25 09:15
Dissolved	Analysis	4500 S2 D-2011		1	691900	USE1	ELLE	08/28/25 12:04

Client Sample ID: MW-103 10 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-8

Date Collected: 08/25/25 11:45
Matrix: Water
Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		200	700077	KJQ8	ELLE	09/16/25 19:16
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6010D		20	697568	T8CQ	ELLE	09/10/25 17:45
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6010D		5	698212	T8CQ	ELLE	09/11/25 20:24
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		1	697642	LHF4	ELLE	09/10/25 23:25
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		10	697642	LHF4	ELLE	09/10/25 23:27
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		1	698233	LHF4	ELLE	09/11/25 21:37
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6020B		100	697642	LHF4	ELLE	09/10/25 19:21
Total/NA	Analysis	2320B-2011		50	694229	DI9Q	ELLE	09/03/25 15:30
Total/NA	Analysis	415.1		25	696461	P684	ELLE	09/07/25 12:06
Dissolved	Prep	SM 4500 S2 B			691815	USE1	ELLE	08/28/25 09:15
Dissolved	Analysis	4500 S2 D-2011		1	691900	USE1	ELLE	08/28/25 12:04

Client Sample ID: MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-9

Date Collected: 08/25/25 12:30
Matrix: Water
Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	700077	KJQ8	ELLE	09/16/25 15:46
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6010D		1	697568	T8CQ	ELLE	09/10/25 17:48

Client Sample ID: MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-9

Date Collected: 08/25/25 12:30
Matrix: Water
Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6010D		20	697568	T8CQ	ELLE	09/10/25 17:51
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6010D		1	698212	T8CQ	ELLE	09/11/25 20:18
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		1	697642	LHF4	ELLE	09/10/25 23:29
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		1	698233	LHF4	ELLE	09/11/25 21:40
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6020B		1	697642	LHF4	ELLE	09/10/25 19:14
Total/NA	Analysis	2320B-2011		50	694229	DI9Q	ELLE	09/03/25 16:22
Total/NA	Analysis	415.1		10	696461	P684	ELLE	09/07/25 12:33
Dissolved	Prep	SM 4500 S2 B			691815	USE1	ELLE	08/28/25 09:15
Dissolved	Analysis	4500 S2 D-2011		1	691900	USE1	ELLE	08/28/25 12:04

Client Sample ID: MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-10

Date Collected: 08/25/25 12:45
Matrix: Water
Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	699619	KJQ8	ELLE	09/16/25 13:20
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6010D		1	697568	T8CQ	ELLE	09/10/25 17:54
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6010D		20	697568	T8CQ	ELLE	09/10/25 17:58
Total Recoverable	Prep	3005A			693954	UAMX	ELLE	09/03/25 21:00
Total Recoverable	Analysis	6010D		1	694731	MT26	ELLE	09/04/25 12:45
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		1	697642	LHF4	ELLE	09/10/25 23:31
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		1	698233	LHF4	ELLE	09/11/25 21:42
Total Recoverable	Prep	3005A			693954	UAMX	ELLE	09/03/25 21:00
Total Recoverable	Analysis	6020B		1	694763	SAM2	ELLE	09/04/25 09:38
Total/NA	Analysis	2320B-2011		50	694229	DI9Q	ELLE	09/03/25 16:16
Total/NA	Analysis	415.1		25	696461	P684	ELLE	09/07/25 12:59
Dissolved	Prep	SM 4500 S2 B			691815	USE1	ELLE	08/28/25 09:15
Dissolved	Analysis	4500 S2 D-2011		1	691900	USE1	ELLE	08/28/25 12:04

Client Sample ID: MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O
Lab Sample ID: 410-239099-11

Date Collected: 08/25/25 13:00
Matrix: Water
Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		200	700077	KJQ8	ELLE	09/16/25 16:26

Client Sample ID: MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O

Lab Sample ID: 410-239099-11

Date Collected: 08/25/25 13:00

Matrix: Water

Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6010D		1	697568	T8CQ	ELLE	09/10/25 16:28
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6010D		5	697568	T8CQ	ELLE	09/10/25 16:35
Total Recoverable	Prep	3005A			693943	UAMX	ELLE	09/05/25 21:00
Total Recoverable	Analysis	6010D		1	696704	T8CQ	ELLE	09/09/25 00:28
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		1	697642	LHF4	ELLE	09/10/25 22:32
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		5	697642	LHF4	ELLE	09/10/25 22:34
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		1	698233	LHF4	ELLE	09/11/25 21:18
Total Recoverable	Prep	3005A			693943	UAMX	ELLE	09/05/25 21:00
Total Recoverable	Analysis	6020B		10	696774	SAM2	ELLE	09/09/25 14:32
Total/NA	Analysis	2320B-2011		50	694229	DI9Q	ELLE	09/03/25 15:58
Total/NA	Analysis	415.1		25	696461	P684	ELLE	09/07/25 16:24
Dissolved	Prep	SM 4500 S2 B			691815	USE1	ELLE	08/28/25 09:15
Dissolved	Analysis	4500 S2 D-2011		1	691900	USE1	ELLE	08/28/25 12:04

Client Sample ID: MW-103 5 g/L FB

Lab Sample ID: 410-239099-12

Date Collected: 08/25/25 13:15

Matrix: Water

Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	699619	KJQ8	ELLE	09/16/25 13:09
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6010D		1	697568	T8CQ	ELLE	09/10/25 16:31
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6010D		5	697568	T8CQ	ELLE	09/10/25 16:38
Total Recoverable	Prep	3005A			693954	UAMX	ELLE	09/03/25 21:00
Total Recoverable	Analysis	6010D		1	694731	MT26	ELLE	09/04/25 12:42
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		1	697642	LHF4	ELLE	09/10/25 22:36
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		1	698233	LHF4	ELLE	09/11/25 21:20
Total Recoverable	Prep	3005A			693954	UAMX	ELLE	09/03/25 21:00
Total Recoverable	Analysis	6020B		1	694763	SAM2	ELLE	09/04/25 09:35
Total/NA	Analysis	2320B-2011		50	694229	DI9Q	ELLE	09/03/25 16:30
Total/NA	Analysis	415.1		5	696461	P684	ELLE	09/07/25 16:50
Dissolved	Prep	SM 4500 S2 B			691815	USE1	ELLE	08/28/25 09:15
Dissolved	Analysis	4500 S2 D-2011		1	691900	USE1	ELLE	08/28/25 12:04

Client Sample ID: MW-103 10 g/L FB

Lab Sample ID: 410-239099-13

Date Collected: 08/25/25 13:30

Matrix: Water

Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	700077	KJQ8	ELLE	09/16/25 16:39
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6010D		1	697568	T8CQ	ELLE	09/10/25 18:56
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6010D		5	697568	T8CQ	ELLE	09/10/25 18:59
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6010D		10	698212	T8CQ	ELLE	09/11/25 20:11
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		1	697642	LHF4	ELLE	09/10/25 22:38
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		1	698233	LHF4	ELLE	09/11/25 21:22
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6020B		1	697642	LHF4	ELLE	09/10/25 19:02
Total/NA	Analysis	2320B-2011		50	694229	DI9Q	ELLE	09/03/25 15:45
Total/NA	Analysis	415.1		5	696461	P684	ELLE	09/07/25 17:16
Dissolved	Prep	SM 4500 S2 B			691815	USE1	ELLE	08/28/25 09:15
Dissolved	Analysis	4500 S2 D-2011		1	691900	USE1	ELLE	08/28/25 12:04

Client Sample ID: MW-103 15 g/L FB

Lab Sample ID: 410-239099-14

Date Collected: 08/25/25 13:45

Matrix: Water

Date Received: 08/26/25 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	699512	L4QM	ELLE	09/15/25 18:01
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6010D		1	697568	T8CQ	ELLE	09/10/25 19:02
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6010D		5	697568	T8CQ	ELLE	09/10/25 19:06
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6010D		10	698212	T8CQ	ELLE	09/11/25 20:05
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		1	697642	LHF4	ELLE	09/10/25 22:48
Dissolved	Prep	Non-Digest Prep			695994	UJL8	ELLE	09/10/25 08:30
Dissolved	Analysis	6020B		1	698233	LHF4	ELLE	09/11/25 21:24
Total Recoverable	Prep	3005A			693957	UJL8	ELLE	09/08/25 06:30
Total Recoverable	Analysis	6020B		1	697642	LHF4	ELLE	09/10/25 18:58
Total/NA	Analysis	2320B-2011		50	694229	DI9Q	ELLE	09/03/25 15:23
Total/NA	Analysis	415.1		25	696461	P684	ELLE	09/07/25 17:42
Dissolved	Prep	SM 4500 S2 B			691815	USE1	ELLE	08/28/25 09:15
Dissolved	Analysis	4500 S2 D-2011		5	691900	USE1	ELLE	08/28/25 12:08

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-239099-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-26
A2LA	Dept. of Energy	0001.01	11-30-26
A2LA	ISO/IEC 17025	0001.01	11-30-26
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-26
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-09-26
California	State	2792	01-31-26
Colorado	State	PA00009	06-30-26
Connecticut	State	PH-0746	06-30-27
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	07-01-26
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	01-31-26
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-25
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	11-30-26
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-26
Maine	State	2019012	03-12-27
Maryland	State	100	06-30-26
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26
Minnesota	NELAP	042-999-487	12-31-25
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	01-01-26
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	01-10-26
New Jersey	NELAP	PA011	06-30-26
New York	NELAP	10670	04-01-26
North Carolina (DW)	State	42705	07-31-26
North Carolina (WW/SW)	State	521	12-31-25
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	12-31-25
Pennsylvania	NELAP	36-00037	01-31-26
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-26
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-25
Virginia	NELAP	460182	06-14-26
Washington	State	C457	04-11-26
West Virginia (DW)	State	9906 C	03-31-26

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-239099-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	055	07-31-26
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	11-30-26

Method Summary

Client: Terra Systems Inc
Job ID: 410-239099-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010D	Metals (ICP)	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
415.1	TOC	EPA	ELLE
4500 S2 D-2011	Sulfide, Total	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
SM 4500 S2 B	Sulfide, Separation of Soluble and Insoluble	SM	ELLE

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:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Terra Systems Inc
Job ID: 410-239099-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
410-239099-1	MW-103 Control	Water	08/25/25 10:00	08/26/25 18:30	South Dakota
410-239099-2	MW-103 2 g/L NaHCO3	Water	08/25/25 10:15	08/26/25 18:30	South Dakota
410-239099-3	MW-103 5 g/L NaHCO3	Water	08/25/25 10:30	08/26/25 18:30	South Dakota
410-239099-4	MW-103 10 g/L NaHCO3	Water	08/25/25 10:45	08/26/25 18:30	South Dakota
410-239099-5	MW-103 1 g/L FeSO4-7H2O	Water	08/25/25 11:00	08/26/25 18:30	South Dakota
410-239099-6	MW-103 2 g/L FeSO4-7H2O	Water	08/25/25 11:15	08/26/25 18:30	South Dakota
410-239099-7	MW-103 5 g/L FeSO4-7H2O	Water	08/25/25 11:30	08/26/25 18:30	South Dakota
410-239099-8	MW-103 10 g/L FeSO4-7H2O	Water	08/25/25 11:45	08/26/25 18:30	South Dakota
410-239099-9	MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Water	08/25/25 12:30	08/26/25 18:30	South Dakota
410-239099-10	MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Water	08/25/25 12:45	08/26/25 18:30	South Dakota
410-239099-11	MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Water	08/25/25 13:00	08/26/25 18:30	South Dakota
410-239099-12	MW-103 5 g/L FB	Water	08/25/25 13:15	08/26/25 18:30	South Dakota
410-239099-13	MW-103 10 g/L FB	Water	08/25/25 13:30	08/26/25 18:30	South Dakota
410-239099-14	MW-103 15 g/L FB	Water	08/25/25 13:45	08/26/25 18:30	South Dakota

Request/Chain of Custody

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410-239099 Chain of Custody

Sample #

Client: Terra Systems, Inc.			
Project Name/#: WSP GRE Stanton SD CCR Phase II	Site ID #: Stanton SD		
Project Manager: Michael D. Lee	P.O. #: 251114 8/25/25		
Sampler: Gregory Maccarone	PWSID #:		
Phone #: 302-798-9553	Quote #: 41022082		
State where samples were collected: ___ SD	For Compliance: Yes ☑ No ☑		

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Water	Matrix: Other:	Total # of Containers	Analyses Requested: Dis (f) As, B, Ba, Be, Cd, Co, Cr, Fe, Li, Mn, Mo, Pb, Sb, Be by 6020B ICPMS	Analyses Requested: Total As, B, Ba, Be, Cd, Co, Cr, Fe, Li, Mn, Mo, Pb, Sb, Se by 6020B ICPMS	Analyses Requested: Alkalinity	Analyses Requested: Sulfide	Analyses Requested: TOC	Analyses Requested: Ferrous Iron EPA 415.1	Analyses Requested: Sulfate by EPA 300.1	Remarks
Preservation Codes									N	N	-	B	P	H	_	
MW-103 Control	8/25/2025	10:00		X		X		7	X	X	X	X	X	X	X	ff= field filtered
MW-103 2 g/L NaHCO3	8/25/2025	10:15		X		X		7	X	X	X	X	X	X	X	
MW-103 5 g/L NaHCO3	8/25/2025	10:30		X		X		7	X	X	X	X	X	X	X	
MW-103 10 g/L NaHCO3	8/25/2025	10:45		X		X		7	X	X	X	X	X	X	X	
MW-103 1 g/L FeSO4-7H2O	8/25/2025	11:00		X		X		7	X	X	X	X	X	X	X	
MW-103 2 g/L FeSO4-7H2O	8/25/2025	11:15		X		X		7	X	X	X	X	X	X	X	
MW-103 5 g/L FeSO4-7H2O	8/25/2025	11:30		X		X		7	X	X	X	X	X	X	X	
MW-103 10 g/L FeSO4-7H2O	8/25/2025	11:45		X		X		7	X	X	X	X	X	X	X	
MW-103 5 g/L NaHCO3 2 g/L FeSO4-7H2O	8/25/2025	12:30		X		X		7	X	X	X	X	X	X	X	
MW-103 5 g/L NaHCO3 5 g/L FeSO4-7H2O	8/25/2025	12:45		X		X		7	X	X	X	X	X	X	X	

Matrix: ☐ Sediment ☐ Tissue ☑ Ground ☐ Potable ☐ Surface ☐ NPDES

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

For Lab Use Only: SF #: ___ SCR #: ___

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 9/8/25

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: mlee@terrasystems.net

Phone: 302-798-9553

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐

Type III (Reduced non-CLP) ☐ CT RCP ☐

Type VI (Raw Data Only) ☐ TX TRRP-13 ☐

NJ DKQP ☐ NYSDEC Category ☐ A or ☐ B

EDD Required? Yes ☐ No ☑ If yes, format: ___

Relinquished by:	Date	Time	Received by:	Date	Time
Michael Lee	8/26/25	13:25	RPM/ELLE 2	8/26/25	1305
RPM/ELLE 2	8/26/25	1830			

Relinquished by Commercial Carrier: UPS ___ FedEx ___ Other ___

Temperature upon receipt rec'd 3.6 corr 3.6 °C

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7045 0218

KF

Environmental Analysis Request/Chain of Custody

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Acct. # _____ Group # _____ Sample # _____

Client: Terra Systems, Inc.			
Project Name/#: WSP GRE Stanton SD CCR * Phase II	Site ID #: Stanton SD		
Project Manager: Michael D. Lee	P.O. #: 251114 8/25/25		
Sampler: Gregory Maccarone	PWSID #:		
Phone #: 302-798-9553	Quote #: 41022082		
State where samples were collected: ___ SD	For Compliance: Yes ☑	No ☑	

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Water	Matrix: Other:	Total # of Containers	Analyses Requested: Diss (ff) As, B, Ba, Be, Cd, Co, Cr, Fe, Li, Mn, Mo, Pb, Sb, Se by 6020B ICP/MS	Analyses Requested: Total As, B, Ba, Be, Cd, Co, Cr, Fe, Li, Mn, Mo, Pb, Sb, Se by 6020B ICP/MS	Analyses Requested: Alkalinity	Analyses Requested: Sulfide	Analyses Requested: TOC	Analyses Requested: Ferrous Iron EPA 415.1	Analyses Requested: Sulfate by EPA 300.1	Remarks
									Preservation Codes: N	N	-	B	P	H	_	
MW-103 5 g/L NaHCO3 10 g/L FeSO4-7H2O	8/25/2025	13:00		X		X		7	X	X	X	X	X	X	X	ff= field filtered
MW-103 5 g/L FB	8/25/2025	13:15		X		X		7	X	X	X	X	X	X	X	
MW-103 10 g/L FB	8/25/2025	13:30		X		X		7	X	X	X	X	X	X	X	
MW-103 15 g/L FB	8/25/2025	13:45		X		X		7	X	X	X	X	X	X	X	

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 P = H_3PO_4
O = Other

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 9/8/25

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: mlee@terrasystems.net

Phone: 302-798-9553

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type VI (Raw Data Only)	☐	TX TRRP-13	☐
NJ DKQP	☐	NYSDEC Category	☐ A or ☐ B

EDD Required? Yes ☐ No ☑ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Michael Lee	8/26/25	13:25	RPM/ELLE	26AUG25	1305
RPM/ELLE	26AUG25	1830			

Login Sample Receipt Checklist

Client: Terra Systems Inc

Job Number: 410-239099-1

Login Number: 239099

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Foreman, Kai

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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.	False	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	Not present.
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

Sample Preservation Checks (performed by the laboratory)

Question	Answer	Comment
Did the sample containers checked meet expected preservation conditions?	False	Refer to Job Narrative for details.

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Dr. Michael D Lee
Terra Systems Inc
130 Hickman Road
Suite 1
Claymont, Delaware 19703

Generated 9/19/2025 4:08:50 PM

JOB DESCRIPTION

WSP GRE Stanton SD CCR Phase II

JOB NUMBER

410-239769-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
9/19/2025 4:08:50 PM

Authorized for release by
Stephen Gordon, Senior Project Manager
Stephen.Gordon@et.eurofinsus.com
(412)525-0071

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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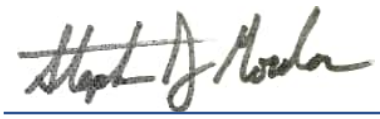


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Definitions/Glossary

Client: Terra Systems Inc
Job ID: 410-239769-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Qualifiers

Metals

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
cn	Refer to Case Narrative for further detail
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
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Job Narrative
410-239769-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 8/28/2025 5:12 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.9°C.

Receipt Exceptions
The container count for the following samples did not match what was listed on the Chain-of-Custody (COC): MW-211 Control (410-239769-1), MW-211 2 g/L NaHCO3 (410-239769-2), MW-211 5 g/L NaHCO3 (410-239769-3), MW-211 10 g/L NaHCO3 (410-239769-4), MW-211 1 g/L FeSO4-7H2O (410-239769-5), MW-211 2 g/L FeSO4-7H2O (410-239769-6), MW-211 5 g/L FeSO4-7H2O (410-239769-7), MW-211 10 g/L FeSO4-7H2O (410-239769-8), MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O (410-239769-9), MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O (410-239769-10), MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O (410-239769-11), MW-211 5 g/L FB (410-239769-12), MW-211 10 g/L FB (410-239769-13) and MW-211 15 g/L FB (410-239769-14).
The laboratory received 6 total containers, while the COC lists 7 total containers.

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

Metals
Method 6010D - Dissolved: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of 5: MW-211 10 g/L NaHCO3 (410-239769-4). The sample(s) were preserved to the appropriate pH in the laboratory.
This does not meet regulatory requirements.

Method 6010D - Dissolved: The following samples were diluted due to the nature of the sample matrix: MW-211 2 g/L NaHCO3 (410-239769-2), MW-211 1 g/L FeSO4-7H2O (410-239769-5), MW-211 2 g/L FeSO4-7H2O (410-239769-6), MW-211 5 g/L FeSO4-7H2O (410-239769-7) and MW-211 10 g/L FeSO4-7H2O (410-239769-8). Elevated reporting limits (RLs) are provided.

Method 6010D - Total Recoverable: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of 5: MW-211 10 g/L NaHCO3 (410-239769-4). The sample(s) were preserved to the appropriate pH in the laboratory.
This does not meet regulatory requirements.

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

General Chemistry
Method 2320B: Elevated reporting limits are provided for the following samples due to insufficient sample provided for analysis: MW-211 5 g/L FeSO4-7H2O (410-239769-7) and MW-211 10 g/L FeSO4-7H2O (410-239769-8).

Method 415.1: The reference method requires samples to be preserved to a pH of <2. The following samples were received with insufficient preservation at a pH of 6: MW-211 5 g/L NaHCO3 (410-239769-3) and MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O (410-239769-9). The sample(s) were preserved to the appropriate pH in the laboratory.
This does not meet regulatory requirements.

Method 415.1: The reference method requires samples to be preserved to a pH of <2. The following sample was received with

insufficient preservation at a pH of 3: MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O (410-239769-10). The sample(s) were preserved to the appropriate pH in the laboratory.
This does not meet regulatory requirements.

Method 415.1: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of 6: MW-211 10 g/L NaHCO3 (410-239769-4) and could not be adjusted. This does not meet regulatory requirements.

Method 415.1: The following samples were diluted due to the nature of the sample matrix: MW-211 Control (410-239769-1), MW-211 5 g/L NaHCO3 (410-239769-3), MW-211 10 g/L NaHCO3 (410-239769-4), MW-211 2 g/L FeSO4-7H2O (410-239769-6), MW-211 5 g/L FeSO4-7H2O (410-239769-7), MW-211 10 g/L FeSO4-7H2O (410-239769-8), MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O (410-239769-9), MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O (410-239769-10) and MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O (410-239769-11). Elevated reporting limits (RLs) are provided.

Method SM4500_S2_D - Dissolved: The following samples were diluted due to the nature of the sample matrix: MW-211 2 g/L NaHCO3 (410-239769-2), MW-211 5 g/L NaHCO3 (410-239769-3), MW-211 10 g/L NaHCO3 (410-239769-4), MW-211 1 g/L FeSO4-7H2O (410-239769-5), MW-211 2 g/L FeSO4-7H2O (410-239769-6), MW-211 5 g/L FeSO4-7H2O (410-239769-7), MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O (410-239769-9), MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O (410-239769-10), MW-211 10 g/L FB (410-239769-13) and MW-211 15 g/L FB (410-239769-14). 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.

Detection Summary

Client: Terra Systems Inc
Job ID: 410-239769-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Client Sample ID: MW-211 Control
Lab Sample ID: 410-239769-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	770		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.5	^2	0.050	0.012	mg/L	1		6010D	Total Recoverable
Antimony	0.91	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Arsenic	6.0		2.0	0.68	ug/L	1		6020B	Total Recoverable
Barium	56		2.0	0.75	ug/L	1		6020B	Total Recoverable
Cobalt	1.2		0.50	0.16	ug/L	1		6020B	Total Recoverable
Iron	250		50	20	ug/L	1		6020B	Total Recoverable
Lead	0.19	J	0.50	0.12	ug/L	1		6020B	Total Recoverable
Manganese	310		2.0	0.95	ug/L	1		6020B	Total Recoverable
Molybdenum	61		0.50	0.20	ug/L	1		6020B	Total Recoverable
Selenium	3.7		1.0	0.28	ug/L	1		6020B	Total Recoverable
Barium	50		21	7.7	ug/L	10		6020B	Dissolved
Manganese	300		21	9.8	ug/L	10		6020B	Dissolved
Molybdenum	62		5.2	2.1	ug/L	10		6020B	Dissolved
Selenium	4.0	J	10	2.9	ug/L	10		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	500		80	26	mg/L	10		2320B-2011	Total/NA
Total Organic Carbon	11	cn	10	5.0	mg/L	10		415.1	Total/NA
TOC Result 3	11	cn	10	5.0	mg/L	10		415.1	Total/NA

Client Sample ID: MW-211 2 g/L NaHCO3
Lab Sample ID: 410-239769-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	770		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.6	^2	0.050	0.012	mg/L	1		6010D	Total Recoverable
Antimony	0.78	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Arsenic	4.2		2.0	0.68	ug/L	1		6020B	Total Recoverable
Barium	57		2.0	0.75	ug/L	1		6020B	Total Recoverable
Cobalt	0.76		0.50	0.16	ug/L	1		6020B	Total Recoverable
Iron	170		50	20	ug/L	1		6020B	Total Recoverable
Manganese	91		2.0	0.95	ug/L	1		6020B	Total Recoverable
Molybdenum	74		0.50	0.20	ug/L	1		6020B	Total Recoverable
Selenium	4.1		1.0	0.28	ug/L	1		6020B	Total Recoverable
Barium	56	cn	21	7.7	ug/L	10		6020B	Dissolved
Manganese	110	cn	21	9.8	ug/L	10		6020B	Dissolved
Molybdenum	80	cn	5.2	2.1	ug/L	10		6020B	Dissolved
Selenium	3.1	J cn	10	2.9	ug/L	10		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	1300		80	26	mg/L	10		2320B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-211 2 g/L NaHCO3 (Continued) — Lab Sample ID: 410-239769-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon	10		1.0	0.50	mg/L	1		415.1	Total/NA
TOC Result 3	10		1.0	0.50	mg/L	1		415.1	Total/NA

Client Sample ID: MW-211 5 g/L NaHCO3 — Lab Sample ID: 410-239769-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	830		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.8		0.050	0.012	mg/L	1		6010D	Total Recoverable
Antimony	3.3	J	10	2.0	ug/L	10		6020B	Total Recoverable
Arsenic	8.9	J	20	6.8	ug/L	10		6020B	Total Recoverable
Barium	76		20	7.5	ug/L	10		6020B	Total Recoverable
Cobalt	2.5	J	5.0	1.6	ug/L	10		6020B	Total Recoverable
Iron	230	J	500	200	ug/L	10		6020B	Total Recoverable
Manganese	140		20	9.5	ug/L	10		6020B	Total Recoverable
Molybdenum	75		5.0	2.0	ug/L	10		6020B	Total Recoverable
Selenium	7.0	J	10	2.8	ug/L	10		6020B	Total Recoverable
Barium	62		21	7.7	ug/L	10		6020B	Dissolved
Manganese	110		21	9.8	ug/L	10		6020B	Dissolved
Molybdenum	71		5.2	2.1	ug/L	10		6020B	Dissolved
Selenium	4.4	J	10	2.9	ug/L	10		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	2500		80	26	mg/L	10		2320B-2011	Total/NA
Total Organic Carbon	8.9	J cn	10	5.0	mg/L	10		415.1	Total/NA
TOC Result 3	8.6	J cn	10	5.0	mg/L	10		415.1	Total/NA

Client Sample ID: MW-211 10 g/L NaHCO3 — Lab Sample ID: 410-239769-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	820		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.7	cn	0.050	0.012	mg/L	1		6010D	Total Recoverable
Antimony	0.88	J cn	1.0	0.20	ug/L	1		6020B	Total Recoverable
Arsenic	10	cn	2.0	0.68	ug/L	1		6020B	Total Recoverable
Barium	81	cn	2.0	0.75	ug/L	1		6020B	Total Recoverable
Beryllium	0.13	J cn	0.50	0.12	ug/L	1		6020B	Total Recoverable
Cobalt	1.6	cn	0.50	0.16	ug/L	1		6020B	Total Recoverable
Iron	170	cn	50	20	ug/L	1		6020B	Total Recoverable
Lead	0.17	J cn	0.50	0.12	ug/L	1		6020B	Total Recoverable
Manganese	60	cn	2.0	0.95	ug/L	1		6020B	Total Recoverable
Molybdenum	57	cn	0.50	0.20	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-211 10 g/L NaHCO3 (Continued) — Lab Sample ID: 410-239769-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	4.2	cn	1.0	0.28	ug/L	1		6020B	Total Recoverable
Arsenic	11	J cn	21	7.0	ug/L	10		6020B	Dissolved
Barium	78	cn	21	7.7	ug/L	10		6020B	Dissolved
Cobalt	1.9	J cn	5.2	1.6	ug/L	10		6020B	Dissolved
Manganese	70	cn	21	9.8	ug/L	10		6020B	Dissolved
Molybdenum	59	cn	5.2	2.1	ug/L	10		6020B	Dissolved
Selenium	3.7	J cn	10	2.9	ug/L	10		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	4900		80	26	mg/L	10		2320B-2011	Total/NA

Client Sample ID: MW-211 1 g/L FeSO4-7H2O — Lab Sample ID: 410-239769-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1000		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.6		0.050	0.012	mg/L	1		6010D	Total Recoverable
Barium	98		10	3.7	ug/L	5		6020B	Total Recoverable
Cobalt	8.7		2.5	0.78	ug/L	5		6020B	Total Recoverable
Iron	4100		250	100	ug/L	5		6020B	Total Recoverable
Manganese	2600		10	4.8	ug/L	5		6020B	Total Recoverable
Molybdenum	16		2.5	1.0	ug/L	5		6020B	Total Recoverable
Barium	73	cn	21	7.7	ug/L	10		6020B	Dissolved
Cobalt	7.8	cn	5.2	1.6	ug/L	10		6020B	Dissolved
Manganese	2500	cn	21	9.8	ug/L	10		6020B	Dissolved
Molybdenum	13	cn	5.2	2.1	ug/L	10		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	430		80	26	mg/L	10		2320B-2011	Total/NA
Total Organic Carbon	6.9		1.0	0.50	mg/L	1		415.1	Total/NA
TOC Result 3	6.9		1.0	0.50	mg/L	1		415.1	Total/NA

Client Sample ID: MW-211 2 g/L FeSO4-7H2O — Lab Sample ID: 410-239769-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1200		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.6		0.050	0.012	mg/L	1		6010D	Total Recoverable
Lithium	0.057	J cn	0.26	0.057	mg/L	5		6010D	Dissolved
Barium	87		10	3.7	ug/L	5		6020B	Total Recoverable
Cobalt	27		2.5	0.78	ug/L	5		6020B	Total Recoverable
Iron	19000		250	100	ug/L	5		6020B	Total Recoverable
Manganese	5300		10	4.8	ug/L	5		6020B	Total Recoverable
Molybdenum	4.1		2.5	1.0	ug/L	5		6020B	Total Recoverable
Barium	75	cn	21	7.7	ug/L	10		6020B	Dissolved
Cobalt	25	cn	5.2	1.6	ug/L	10		6020B	Dissolved
Iron	15000	cn	520	210	ug/L	10		6020B	Dissolved
Manganese	5000	cn	21	9.8	ug/L	10		6020B	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-211 2 g/L FeSO4-7H2O (Continued) — Lab Sample ID: 410-239769-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	3.1	J cn	5.2	2.1	ug/L	10		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	380		80	26	mg/L	10		2320B-2011	Total/NA

Client Sample ID: MW-211 5 g/L FeSO4-7H2O — Lab Sample ID: 410-239769-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	2100		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.6		0.050	0.012	mg/L	1		6010D	Total Recoverable
Barium	75		10	3.7	ug/L	5		6020B	Total Recoverable
Cobalt	60		2.5	0.78	ug/L	5		6020B	Total Recoverable
Iron	200000		250	100	ug/L	5		6020B	Total Recoverable
Lead	1.2	J	2.5	0.60	ug/L	5		6020B	Total Recoverable
Manganese	9600		10	4.8	ug/L	5		6020B	Total Recoverable
Molybdenum	2.6		2.5	1.0	ug/L	5		6020B	Total Recoverable
Barium	50	cn	21	7.7	ug/L	10		6020B	Dissolved
Cobalt	57	cn	5.2	1.6	ug/L	10		6020B	Dissolved
Iron	180000	cn	520	210	ug/L	10		6020B	Dissolved
Manganese	9200	cn	21	9.8	ug/L	10		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	30	J cn	80	26	mg/L	10		2320B-2011	Total/NA

Client Sample ID: MW-211 10 g/L FeSO4-7H2O — Lab Sample ID: 410-239769-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	2000		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.6		0.050	0.012	mg/L	1		6010D	Total Recoverable
Barium	57		10	3.7	ug/L	5		6020B	Total Recoverable
Cadmium	1.0	J	2.5	0.76	ug/L	5		6020B	Total Recoverable
Cobalt	64		2.5	0.78	ug/L	5		6020B	Total Recoverable
Iron	260000		250	100	ug/L	5		6020B	Total Recoverable
Lead	0.78	J	2.5	0.60	ug/L	5		6020B	Total Recoverable
Manganese	9900		10	4.8	ug/L	5		6020B	Total Recoverable
Molybdenum	1.7	J	2.5	1.0	ug/L	5		6020B	Total Recoverable
Barium	55	cn	21	7.7	ug/L	10		6020B	Dissolved
Cobalt	61	cn	5.2	1.6	ug/L	10		6020B	Dissolved
Iron	240000	cn	520	210	ug/L	10		6020B	Dissolved
Manganese	9500	cn	21	9.8	ug/L	10		6020B	Dissolved

Client Sample ID: MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O — Lab Sample ID: 410-239769-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1300		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Terra Systems Inc
Job ID: 410-239769-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Client Sample ID: MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O (Continued)
Lab Sample ID: 410-239769-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1.7		0.050	0.012	mg/L	1		6010D	Total Recoverable
Barium	99		20	7.5	ug/L	10		6020B	Total Recoverable
Cobalt	4.6	J	5.0	1.6	ug/L	10		6020B	Total Recoverable
Iron	4400		500	200	ug/L	10		6020B	Total Recoverable
Manganese	910		20	9.5	ug/L	10		6020B	Total Recoverable
Molybdenum	20		5.0	2.0	ug/L	10		6020B	Total Recoverable
Barium	87		21	7.7	ug/L	10		6020B	Dissolved
Cobalt	3.4	J	5.2	1.6	ug/L	10		6020B	Dissolved
Manganese	800		21	9.8	ug/L	10		6020B	Dissolved
Molybdenum	17		5.2	2.1	ug/L	10		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	2200		80	26	mg/L	10		2320B-2011	Total/NA

Client Sample ID: MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O
Lab Sample ID: 410-239769-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	2100		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.7		0.050	0.012	mg/L	1		6010D	Total Recoverable
Barium	54		20	7.5	ug/L	10		6020B	Total Recoverable
Cobalt	14		5.0	1.6	ug/L	10		6020B	Total Recoverable
Iron	29000		500	200	ug/L	10		6020B	Total Recoverable
Manganese	1400		20	9.5	ug/L	10		6020B	Total Recoverable
Molybdenum	6.0		5.0	2.0	ug/L	10		6020B	Total Recoverable
Barium	46		21	7.7	ug/L	10		6020B	Dissolved
Cobalt	13		5.2	1.6	ug/L	10		6020B	Dissolved
Iron	14000		520	210	ug/L	10		6020B	Dissolved
Manganese	1100		21	9.8	ug/L	10		6020B	Dissolved
Molybdenum	5.8		5.2	2.1	ug/L	10		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	1700		80	26	mg/L	10		2320B-2011	Total/NA

Client Sample ID: MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O
Lab Sample ID: 410-239769-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	3300		300	100	mg/L	200		EPA 300.0 R2.1	Total/NA
Boron	1.7		0.050	0.012	mg/L	1		6010D	Total Recoverable
Barium	40		20	7.5	ug/L	10		6020B	Total Recoverable
Cobalt	39		5.0	1.6	ug/L	10		6020B	Total Recoverable
Iron	220000		500	200	ug/L	10		6020B	Total Recoverable
Manganese	2500		20	9.5	ug/L	10		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O (Continued)
Lab Sample ID: 410-239769-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	4.4	J	5.0	2.0	ug/L	10		6020B	Total Recoverable
Barium	42		21	7.7	ug/L	10		6020B	Dissolved
Cobalt	37		5.2	1.6	ug/L	10		6020B	Dissolved
Iron	210000		520	210	ug/L	10		6020B	Dissolved
Manganese	2400		21	9.8	ug/L	10		6020B	Dissolved
Molybdenum	3.0	J	5.2	2.1	ug/L	10		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	810		80	26	mg/L	10		2320B-2011	Total/NA

Client Sample ID: MW-211 5 g/L FB
Lab Sample ID: 410-239769-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1000		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.4		0.050	0.012	mg/L	1		6010D	Total Recoverable
Barium	72		10	3.7	ug/L	5		6020B	Total Recoverable
Cobalt	1.2	J	2.5	0.78	ug/L	5		6020B	Total Recoverable
Iron	710		250	100	ug/L	5		6020B	Total Recoverable
Manganese	460		10	4.8	ug/L	5		6020B	Total Recoverable
Molybdenum	42		2.5	1.0	ug/L	5		6020B	Total Recoverable
Selenium	2.1	J	5.0	1.4	ug/L	5		6020B	Total Recoverable
Barium	68		21	7.7	ug/L	10		6020B	Dissolved
Manganese	440		21	9.8	ug/L	10		6020B	Dissolved
Molybdenum	41		5.2	2.1	ug/L	10		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	510		80	26	mg/L	10		2320B-2011	Total/NA
Total Organic Carbon	7.5		1.0	0.50	mg/L	1		415.1	Total/NA
TOC Result 3	7.4		1.0	0.50	mg/L	1		415.1	Total/NA

Client Sample ID: MW-211 10 g/L FB
Lab Sample ID: 410-239769-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1400		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.5		0.050	0.012	mg/L	1		6010D	Total Recoverable
Barium	82		10	3.7	ug/L	5		6020B	Total Recoverable
Cobalt	1.6	J	2.5	0.78	ug/L	5		6020B	Total Recoverable
Iron	1600		250	100	ug/L	5		6020B	Total Recoverable
Lead	1.1	J	2.5	0.60	ug/L	5		6020B	Total Recoverable
Manganese	440		10	4.8	ug/L	5		6020B	Total Recoverable
Molybdenum	52		2.5	1.0	ug/L	5		6020B	Total Recoverable
Selenium	2.3	J	5.0	1.4	ug/L	5		6020B	Total Recoverable
Barium	79		21	7.7	ug/L	10		6020B	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-211 10 g/L FB (Continued)
Lab Sample ID: 410-239769-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	410		21	9.8	ug/L	10		6020B	Dissolved
Molybdenum	52		5.2	2.1	ug/L	10		6020B	Dissolved
Selenium	4.1	J	10	2.9	ug/L	10		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	500		80	26	mg/L	10		2320B-2011	Total/NA
Total Organic Carbon	7.9		1.0	0.50	mg/L	1		415.1	Total/NA
TOC Result 3	7.9		1.0	0.50	mg/L	1		415.1	Total/NA

Client Sample ID: MW-211 15 g/L FB
Lab Sample ID: 410-239769-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1500		150	50	mg/L	100		EPA 300.0 R2.1	Total/NA
Boron	1.4		0.050	0.012	mg/L	1		6010D	Total Recoverable
Barium	78		10	3.7	ug/L	5		6020B	Total Recoverable
Cobalt	1.3	J	2.5	0.78	ug/L	5		6020B	Total Recoverable
Iron	1100		250	100	ug/L	5		6020B	Total Recoverable
Manganese	320		10	4.8	ug/L	5		6020B	Total Recoverable
Molybdenum	46		2.5	1.0	ug/L	5		6020B	Total Recoverable
Selenium	2.8	J	5.0	1.4	ug/L	5		6020B	Total Recoverable
Barium	61		21	7.7	ug/L	10		6020B	Dissolved
Manganese	280		21	9.8	ug/L	10		6020B	Dissolved
Molybdenum	46		5.2	2.1	ug/L	10		6020B	Dissolved
Selenium	3.2	J	10	2.9	ug/L	10		6020B	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	490		80	26	mg/L	10		2320B-2011	Total/NA
Total Organic Carbon	7.5		1.0	0.50	mg/L	1		415.1	Total/NA
TOC Result 3	7.5		1.0	0.50	mg/L	1		415.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-211 Control
Lab Sample ID: 410-239769-1

Date Collected: 08/27/25 08:00
Matrix: Water

Date Received: 08/28/25 17:12

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**770**		150	50	mg/L			09/16/25 15:20	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.5**	**^2**	0.050	0.012	mg/L		09/09/25 07:00	09/10/25 06:04	1
Lithium	<0.055		0.25	0.055	mg/L		09/09/25 07:00	09/11/25 01:04	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.052	0.011	mg/L		09/10/25 08:20	09/11/25 04:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.91**	**J**	1.0	0.20	ug/L		09/09/25 07:00	09/09/25 20:50	1
Arsenic	**6.0**		2.0	0.68	ug/L		09/09/25 07:00	09/09/25 20:50	1
Barium	**56**		2.0	0.75	ug/L		09/09/25 07:00	09/09/25 20:50	1
Beryllium	<0.12		0.50	0.12	ug/L		09/09/25 07:00	09/09/25 20:50	1
Cadmium	<0.15		0.50	0.15	ug/L		09/09/25 07:00	09/09/25 20:50	1
Chromium	<0.55		2.0	0.55	ug/L		09/09/25 07:00	09/09/25 20:50	1
Cobalt	**1.2**		0.50	0.16	ug/L		09/09/25 07:00	09/09/25 20:50	1
Iron	**250**		50	20	ug/L		09/09/25 07:00	09/09/25 20:50	1
Lead	**0.19**	**J**	0.50	0.12	ug/L		09/09/25 07:00	09/09/25 20:50	1
Manganese	**310**		2.0	0.95	ug/L		09/09/25 07:00	09/09/25 20:50	1
Molybdenum	**61**		0.50	0.20	ug/L		09/09/25 07:00	09/09/25 20:50	1
Selenium	**3.7**		1.0	0.28	ug/L		09/09/25 07:00	09/09/25 20:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.1		10	2.1	ug/L		09/10/25 08:20	09/15/25 17:27	10
Arsenic	<7.0		21	7.0	ug/L		09/10/25 08:20	09/15/25 17:27	10
Barium	**50**		21	7.7	ug/L		09/10/25 08:20	09/15/25 17:27	10
Beryllium	<1.2		5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:27	10
Cadmium	<1.6		5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:27	10
Chromium	<5.7		21	5.7	ug/L		09/10/25 08:20	09/15/25 17:27	10
Cobalt	<1.6		5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:27	10
Iron	<210		520	210	ug/L		09/10/25 08:20	09/15/25 17:27	10
Lead	<1.2		5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:27	10
Manganese	**300**		21	9.8	ug/L		09/10/25 08:20	09/15/25 17:27	10
Molybdenum	**62**		5.2	2.1	ug/L		09/10/25 08:20	09/15/25 17:27	10
Selenium	**4.0**	**J**	10	2.9	ug/L		09/10/25 08:20	09/15/25 17:27	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**500**		80	26	mg/L			09/03/25 13:19	10
Total Organic Carbon (EPA 415.1)	**11**	**cn**	10	5.0	mg/L			09/10/25 22:44	10
TOC Result 3 (EPA 415.1)	**11**	**cn**	10	5.0	mg/L			09/10/25 22:44	10

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10		0.30	0.10	mg/L		09/03/25 09:00	09/03/25 11:53	1

Client Sample ID: MW-211 2 g/L NaHCO3
Lab Sample ID: 410-239769-2
Date Collected: 08/27/25 08:15
Matrix: Water
Date Received: 08/28/25 17:12

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**770**		150	50	mg/L			09/16/25 16:52	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.6**	**^2**	0.050	0.012	mg/L		09/09/25 07:00	09/10/25 06:07	1
Lithium	<0.055		0.25	0.055	mg/L		09/09/25 07:00	09/11/25 01:07	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.057	cn	0.26	0.057	mg/L		09/10/25 08:20	09/11/25 19:08	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.78**	**J**	1.0	0.20	ug/L		09/09/25 07:00	09/09/25 20:52	1
Arsenic	**4.2**		2.0	0.68	ug/L		09/09/25 07:00	09/09/25 20:52	1
Barium	**57**		2.0	0.75	ug/L		09/09/25 07:00	09/09/25 20:52	1
Beryllium	<0.12		0.50	0.12	ug/L		09/09/25 07:00	09/09/25 20:52	1
Cadmium	<0.15		0.50	0.15	ug/L		09/09/25 07:00	09/09/25 20:52	1
Chromium	<0.55		2.0	0.55	ug/L		09/09/25 07:00	09/09/25 20:52	1
Cobalt	**0.76**		0.50	0.16	ug/L		09/09/25 07:00	09/09/25 20:52	1
Iron	**170**		50	20	ug/L		09/09/25 07:00	09/09/25 20:52	1
Lead	<0.12		0.50	0.12	ug/L		09/09/25 07:00	09/09/25 20:52	1
Manganese	**91**		2.0	0.95	ug/L		09/09/25 07:00	09/09/25 20:52	1
Molybdenum	**74**		0.50	0.20	ug/L		09/09/25 07:00	09/09/25 20:52	1
Selenium	**4.1**		1.0	0.28	ug/L		09/09/25 07:00	09/09/25 20:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.1	cn	10	2.1	ug/L		09/10/25 08:20	09/15/25 17:29	10
Arsenic	<7.0	cn	21	7.0	ug/L		09/10/25 08:20	09/15/25 17:29	10
Barium	**56**	**cn**	21	7.7	ug/L		09/10/25 08:20	09/15/25 17:29	10
Beryllium	<1.2	cn	5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:29	10
Cadmium	<1.6	cn	5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:29	10
Chromium	<5.7	cn	21	5.7	ug/L		09/10/25 08:20	09/15/25 17:29	10
Cobalt	<1.6	cn	5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:29	10
Iron	<210	cn	520	210	ug/L		09/10/25 08:20	09/15/25 17:29	10
Lead	<1.2	cn	5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:29	10
Manganese	**110**	**cn**	21	9.8	ug/L		09/10/25 08:20	09/15/25 17:29	10
Molybdenum	**80**	**cn**	5.2	2.1	ug/L		09/10/25 08:20	09/15/25 17:29	10
Selenium	**3.1**	**J cn**	10	2.9	ug/L		09/10/25 08:20	09/15/25 17:29	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**1300**		80	26	mg/L			09/03/25 13:38	10
Total Organic Carbon (EPA 415.1)	**10**		1.0	0.50	mg/L			09/11/25 00:02	1
TOC Result 3 (EPA 415.1)	**10**		1.0	0.50	mg/L			09/11/25 00:02	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.50	cn	1.5	0.50	mg/L		09/03/25 09:00	09/03/25 11:53	5

Client Sample ID: MW-211 5 g/L NaHCO3
Lab Sample ID: 410-239769-3
Date Collected: 08/27/25 08:30
Matrix: Water
Date Received: 08/28/25 17:12

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**830**		150	50	mg/L			09/16/25 16:13	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.8**		0.050	0.012	mg/L		09/10/25 21:30	09/12/25 03:45	1
Lithium	<0.011		0.050	0.011	mg/L		09/10/25 21:30	09/12/25 03:45	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.052	0.011	mg/L		09/10/25 08:20	09/11/25 04:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**3.3**	**J**	10	2.0	ug/L		09/10/25 21:30	09/15/25 15:27	10
Arsenic	**8.9**	**J**	20	6.8	ug/L		09/10/25 21:30	09/15/25 15:27	10
Barium	**76**		20	7.5	ug/L		09/10/25 21:30	09/15/25 15:27	10
Beryllium	<1.2		5.0	1.2	ug/L		09/10/25 21:30	09/15/25 15:27	10
Cadmium	<1.5		5.0	1.5	ug/L		09/10/25 21:30	09/15/25 15:27	10
Chromium	<5.5		20	5.5	ug/L		09/10/25 21:30	09/15/25 15:27	10
Cobalt	**2.5**	**J**	5.0	1.6	ug/L		09/10/25 21:30	09/15/25 15:27	10
Iron	**230**	**J**	500	200	ug/L		09/10/25 21:30	09/15/25 15:27	10
Lead	<1.2		5.0	1.2	ug/L		09/10/25 21:30	09/15/25 15:27	10
Manganese	**140**		20	9.5	ug/L		09/10/25 21:30	09/15/25 15:27	10
Molybdenum	**75**		5.0	2.0	ug/L		09/10/25 21:30	09/15/25 15:27	10
Selenium	**7.0**	**J**	10	2.8	ug/L		09/10/25 21:30	09/15/25 15:27	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.1		10	2.1	ug/L		09/10/25 08:20	09/15/25 17:32	10
Arsenic	<7.0		21	7.0	ug/L		09/10/25 08:20	09/15/25 17:32	10
Barium	**62**		21	7.7	ug/L		09/10/25 08:20	09/15/25 17:32	10
Beryllium	<1.2		5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:32	10
Cadmium	<1.6		5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:32	10
Chromium	<5.7		21	5.7	ug/L		09/10/25 08:20	09/15/25 17:32	10
Cobalt	<1.6		5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:32	10
Iron	<210		520	210	ug/L		09/10/25 08:20	09/15/25 17:32	10
Lead	<1.2		5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:32	10
Manganese	**110**		21	9.8	ug/L		09/10/25 08:20	09/15/25 17:32	10
Molybdenum	**71**		5.2	2.1	ug/L		09/10/25 08:20	09/15/25 17:32	10
Selenium	**4.4**	**J**	10	2.9	ug/L		09/10/25 08:20	09/15/25 17:32	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**2500**		80	26	mg/L			09/03/25 12:38	10
Total Organic Carbon (EPA 415.1)	**8.9**	**J cn**	10	5.0	mg/L			09/11/25 00:28	10
TOC Result 3 (EPA 415.1)	**8.6**	**J cn**	10	5.0	mg/L			09/11/25 00:28	10

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.50	cn	1.5	0.50	mg/L		09/03/25 09:00	09/03/25 11:53	5

Client Sample ID: MW-211 10 g/L NaHCO3
Lab Sample ID: 410-239769-4
Date Collected: 08/27/25 08:45
Matrix: Water
Date Received: 08/28/25 17:12

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**820**		150	50	mg/L			09/16/25 18:10	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.7**	**cn**	0.050	0.012	mg/L		09/08/25 21:30	09/09/25 17:12	1
Lithium	<0.011	cn	0.050	0.011	mg/L		09/08/25 21:30	09/09/25 17:12	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011	cn	0.052	0.011	mg/L		09/10/25 08:20	09/11/25 04:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.88**	**J cn**	1.0	0.20	ug/L		09/08/25 21:30	09/09/25 19:38	1
Arsenic	**10**	**cn**	2.0	0.68	ug/L		09/08/25 21:30	09/09/25 19:38	1
Barium	**81**	**cn**	2.0	0.75	ug/L		09/08/25 21:30	09/09/25 19:38	1
Beryllium	**0.13**	**J cn**	0.50	0.12	ug/L		09/08/25 21:30	09/09/25 19:38	1
Cadmium	<0.15	cn	0.50	0.15	ug/L		09/08/25 21:30	09/09/25 19:38	1
Chromium	<0.55	cn	2.0	0.55	ug/L		09/08/25 21:30	09/09/25 19:38	1
Cobalt	**1.6**	**cn**	0.50	0.16	ug/L		09/08/25 21:30	09/09/25 19:38	1
Iron	**170**	**cn**	50	20	ug/L		09/08/25 21:30	09/09/25 19:38	1
Lead	**0.17**	**J cn**	0.50	0.12	ug/L		09/08/25 21:30	09/09/25 19:38	1
Manganese	**60**	**cn**	2.0	0.95	ug/L		09/08/25 21:30	09/09/25 19:38	1
Molybdenum	**57**	**cn**	0.50	0.20	ug/L		09/08/25 21:30	09/09/25 19:38	1
Selenium	**4.2**	**cn**	1.0	0.28	ug/L		09/08/25 21:30	09/09/25 19:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.1	cn	10	2.1	ug/L		09/10/25 08:20	09/15/25 17:34	10
Arsenic	**11**	**J cn**	21	7.0	ug/L		09/10/25 08:20	09/15/25 17:34	10
Barium	**78**	**cn**	21	7.7	ug/L		09/10/25 08:20	09/15/25 17:34	10
Beryllium	<1.2	cn	5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:34	10
Cadmium	<1.6	cn	5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:34	10
Chromium	<5.7	cn	21	5.7	ug/L		09/10/25 08:20	09/15/25 17:34	10
Cobalt	**1.9**	**J cn**	5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:34	10
Iron	<210	cn	520	210	ug/L		09/10/25 08:20	09/15/25 17:34	10
Lead	<1.2	cn	5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:34	10
Manganese	**70**	**cn**	21	9.8	ug/L		09/10/25 08:20	09/15/25 17:34	10
Molybdenum	**59**	**cn**	5.2	2.1	ug/L		09/10/25 08:20	09/15/25 17:34	10
Selenium	**3.7**	**J cn**	10	2.9	ug/L		09/10/25 08:20	09/15/25 17:34	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**4900**		80	26	mg/L			09/03/25 13:52	10
Total Organic Carbon (EPA 415.1)	<25	cn	50	25	mg/L			09/11/25 00:54	50
TOC Result 3 (EPA 415.1)	<25	cn	50	25	mg/L			09/11/25 00:54	50

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.50	cn	1.5	0.50	mg/L		09/03/25 09:00	09/03/25 11:53	5

Client Sample ID: MW-211 1 g/L FeSO4-7H2O
Lab Sample ID: 410-239769-5
Date Collected: 08/27/25 09:00
Matrix: Water
Date Received: 08/28/25 17:12

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1000**		150	50	mg/L			09/18/25 17:15	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.6**		0.050	0.012	mg/L		09/10/25 21:30	09/12/25 03:48	1
Lithium	<0.055		0.25	0.055	mg/L		09/10/25 21:30	09/15/25 09:23	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.057	cn	0.26	0.057	mg/L		09/10/25 08:20	09/11/25 19:11	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		5.0	1.0	ug/L		09/10/25 21:30	09/15/25 15:29	5
Arsenic	<3.4		10	3.4	ug/L		09/10/25 21:30	09/15/25 15:29	5
Barium	**98**		10	3.7	ug/L		09/10/25 21:30	09/15/25 15:29	5
Beryllium	<0.60		2.5	0.60	ug/L		09/10/25 21:30	09/15/25 15:29	5
Cadmium	<0.76		2.5	0.76	ug/L		09/10/25 21:30	09/15/25 15:29	5
Chromium	<2.8		10	2.8	ug/L		09/10/25 21:30	09/15/25 15:29	5
Cobalt	**8.7**		2.5	0.78	ug/L		09/10/25 21:30	09/15/25 15:29	5
Iron	**4100**		250	100	ug/L		09/10/25 21:30	09/15/25 15:29	5
Lead	<0.60		2.5	0.60	ug/L		09/10/25 21:30	09/15/25 15:29	5
Manganese	**2600**		10	4.8	ug/L		09/10/25 21:30	09/15/25 15:29	5
Molybdenum	**16**		2.5	1.0	ug/L		09/10/25 21:30	09/15/25 15:29	5
Selenium	<1.4		5.0	1.4	ug/L		09/10/25 21:30	09/15/25 15:29	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.1	cn	10	2.1	ug/L		09/10/25 08:20	09/15/25 17:36	10
Arsenic	<7.0	cn	21	7.0	ug/L		09/10/25 08:20	09/15/25 17:36	10
Barium	**73**	**cn**	21	7.7	ug/L		09/10/25 08:20	09/15/25 17:36	10
Beryllium	<1.2	cn	5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:36	10
Cadmium	<1.6	cn	5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:36	10
Chromium	<5.7	cn	21	5.7	ug/L		09/10/25 08:20	09/15/25 17:36	10
Cobalt	**7.8**	**cn**	5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:36	10
Iron	<210	cn	520	210	ug/L		09/10/25 08:20	09/15/25 17:36	10
Lead	<1.2	cn	5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:36	10
Manganese	**2500**	**cn**	21	9.8	ug/L		09/10/25 08:20	09/15/25 17:36	10
Molybdenum	**13**	**cn**	5.2	2.1	ug/L		09/10/25 08:20	09/15/25 17:36	10
Selenium	<2.9	cn	10	2.9	ug/L		09/10/25 08:20	09/15/25 17:36	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**430**		80	26	mg/L			09/03/25 12:44	10
Total Organic Carbon (EPA 415.1)	**6.9**		1.0	0.50	mg/L			09/11/25 01:20	1
TOC Result 3 (EPA 415.1)	**6.9**		1.0	0.50	mg/L			09/11/25 01:20	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.50	cn	1.5	0.50	mg/L		09/03/25 09:00	09/03/25 11:53	5

Client Sample ID: MW-211 2 g/L FeSO4-7H2O
Lab Sample ID: 410-239769-6
Date Collected: 08/27/25 09:15
Matrix: Water
Date Received: 08/28/25 17:12

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1200**		150	50	mg/L			09/16/25 13:54	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.6**		0.050	0.012	mg/L		09/10/25 21:30	09/12/25 03:51	1
Lithium	<0.055		0.25	0.055	mg/L		09/10/25 21:30	09/15/25 09:26	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.057**	**J cn**	0.26	0.057	mg/L		09/10/25 08:20	09/11/25 19:14	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		5.0	1.0	ug/L		09/10/25 21:30	09/15/25 15:31	5
Arsenic	<3.4		10	3.4	ug/L		09/10/25 21:30	09/15/25 15:31	5
Barium	**87**		10	3.7	ug/L		09/10/25 21:30	09/15/25 15:31	5
Beryllium	<0.60		2.5	0.60	ug/L		09/10/25 21:30	09/15/25 15:31	5
Cadmium	<0.76		2.5	0.76	ug/L		09/10/25 21:30	09/15/25 15:31	5
Chromium	<2.8		10	2.8	ug/L		09/10/25 21:30	09/15/25 15:31	5
Cobalt	**27**		2.5	0.78	ug/L		09/10/25 21:30	09/15/25 15:31	5
Iron	**19000**		250	100	ug/L		09/10/25 21:30	09/15/25 15:31	5
Lead	<0.60		2.5	0.60	ug/L		09/10/25 21:30	09/15/25 15:31	5
Manganese	**5300**		10	4.8	ug/L		09/10/25 21:30	09/15/25 15:31	5
Molybdenum	**4.1**		2.5	1.0	ug/L		09/10/25 21:30	09/15/25 15:31	5
Selenium	<1.4		5.0	1.4	ug/L		09/10/25 21:30	09/15/25 15:31	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.1	cn	10	2.1	ug/L		09/10/25 08:20	09/15/25 17:38	10
Arsenic	<7.0	cn	21	7.0	ug/L		09/10/25 08:20	09/15/25 17:38	10
Barium	**75**	**cn**	21	7.7	ug/L		09/10/25 08:20	09/15/25 17:38	10
Beryllium	<1.2	cn	5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:38	10
Cadmium	<1.6	cn	5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:38	10
Chromium	<5.7	cn	21	5.7	ug/L		09/10/25 08:20	09/15/25 17:38	10
Cobalt	**25**	**cn**	5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:38	10
Iron	**15000**	**cn**	520	210	ug/L		09/10/25 08:20	09/15/25 17:38	10
Lead	<1.2	cn	5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:38	10
Manganese	**5000**	**cn**	21	9.8	ug/L		09/10/25 08:20	09/15/25 17:38	10
Molybdenum	**3.1**	**J cn**	5.2	2.1	ug/L		09/10/25 08:20	09/15/25 17:38	10
Selenium	<2.9	cn	10	2.9	ug/L		09/10/25 08:20	09/15/25 17:38	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**380**		80	26	mg/L			09/03/25 13:25	10
Total Organic Carbon (EPA 415.1)	<25	cn	50	25	mg/L			09/11/25 01:46	50
TOC Result 3 (EPA 415.1)	<25	cn	50	25	mg/L			09/11/25 01:46	50

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.50	cn	1.5	0.50	mg/L		09/03/25 09:00	09/03/25 11:53	5

Client Sample ID: MW-211 5 g/L FeSO4-7H2O

Lab Sample ID: 410-239769-7

Date Collected: 08/27/25 09:30

Matrix: Water

Date Received: 08/28/25 17:12

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**2100**		150	50	mg/L			09/16/25 18:50	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.6**		0.050	0.012	mg/L		09/10/25 21:30	09/12/25 03:55	1
Lithium	<0.055		0.25	0.055	mg/L		09/10/25 21:30	09/15/25 09:29	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.057	cn	0.26	0.057	mg/L		09/10/25 08:20	09/11/25 19:17	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		5.0	1.0	ug/L		09/10/25 21:30	09/15/25 15:40	5
Arsenic	<3.4		10	3.4	ug/L		09/10/25 21:30	09/15/25 15:40	5
Barium	**75**		10	3.7	ug/L		09/10/25 21:30	09/15/25 15:40	5
Beryllium	<0.60		2.5	0.60	ug/L		09/10/25 21:30	09/15/25 15:40	5
Cadmium	<0.76		2.5	0.76	ug/L		09/10/25 21:30	09/15/25 15:40	5
Chromium	<2.8		10	2.8	ug/L		09/10/25 21:30	09/15/25 15:40	5
Cobalt	**60**		2.5	0.78	ug/L		09/10/25 21:30	09/15/25 15:40	5
Iron	**200000**		250	100	ug/L		09/10/25 21:30	09/15/25 15:40	5
Lead	**1.2**	**J**	2.5	0.60	ug/L		09/10/25 21:30	09/15/25 15:40	5
Manganese	**9600**		10	4.8	ug/L		09/10/25 21:30	09/15/25 15:40	5
Molybdenum	**2.6**		2.5	1.0	ug/L		09/10/25 21:30	09/15/25 15:40	5
Selenium	<1.4		5.0	1.4	ug/L		09/10/25 21:30	09/15/25 15:40	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.1	cn	10	2.1	ug/L		09/10/25 08:20	09/15/25 17:49	10
Arsenic	<7.0	cn	21	7.0	ug/L		09/10/25 08:20	09/15/25 17:49	10
Barium	**50**	**cn**	21	7.7	ug/L		09/10/25 08:20	09/15/25 17:49	10
Beryllium	<1.2	cn	5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:49	10
Cadmium	<1.6	cn	5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:49	10
Chromium	<5.7	cn	21	5.7	ug/L		09/10/25 08:20	09/15/25 17:49	10
Cobalt	**57**	**cn**	5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:49	10
Iron	**180000**	**cn**	520	210	ug/L		09/10/25 08:20	09/15/25 17:49	10
Lead	<1.2	cn	5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:49	10
Manganese	**9200**	**cn**	21	9.8	ug/L		09/10/25 08:20	09/15/25 17:49	10
Molybdenum	<2.1	cn	5.2	2.1	ug/L		09/10/25 08:20	09/15/25 17:49	10
Selenium	<2.9	cn	10	2.9	ug/L		09/10/25 08:20	09/15/25 17:49	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**30**	**J cn**	80	26	mg/L			09/03/25 12:24	10
Total Organic Carbon (EPA 415.1)	<5.0	cn	10	5.0	mg/L			09/11/25 02:13	10
TOC Result 3 (EPA 415.1)	<5.0	cn	10	5.0	mg/L			09/11/25 02:13	10

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.50	cn	1.5	0.50	mg/L		09/03/25 09:00	09/03/25 11:53	5

Client Sample ID: MW-211 10 g/L FeSO4-7H2O
Lab Sample ID: 410-239769-8
Date Collected: 08/27/25 09:45
Matrix: Water
Date Received: 08/28/25 17:12

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**2000**		150	50	mg/L			09/16/25 15:33	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.6**		0.050	0.012	mg/L		09/10/25 21:30	09/12/25 03:58	1
Lithium	<0.055		0.25	0.055	mg/L		09/10/25 21:30	09/15/25 09:32	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.057	cn	0.26	0.057	mg/L		09/10/25 08:20	09/11/25 19:20	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		5.0	1.0	ug/L		09/10/25 21:30	09/15/25 15:42	5
Arsenic	<3.4		10	3.4	ug/L		09/10/25 21:30	09/15/25 15:42	5
Barium	**57**		10	3.7	ug/L		09/10/25 21:30	09/15/25 15:42	5
Beryllium	<0.60		2.5	0.60	ug/L		09/10/25 21:30	09/15/25 15:42	5
Cadmium	**1.0**	**J**	2.5	0.76	ug/L		09/10/25 21:30	09/15/25 15:42	5
Chromium	<2.8		10	2.8	ug/L		09/10/25 21:30	09/15/25 15:42	5
Cobalt	**64**		2.5	0.78	ug/L		09/10/25 21:30	09/15/25 15:42	5
Iron	**260000**		250	100	ug/L		09/10/25 21:30	09/15/25 15:42	5
Lead	**0.78**	**J**	2.5	0.60	ug/L		09/10/25 21:30	09/15/25 15:42	5
Manganese	**9900**		10	4.8	ug/L		09/10/25 21:30	09/15/25 15:42	5
Molybdenum	**1.7**	**J**	2.5	1.0	ug/L		09/10/25 21:30	09/15/25 15:42	5
Selenium	<1.4		5.0	1.4	ug/L		09/10/25 21:30	09/15/25 15:42	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.1	cn	10	2.1	ug/L		09/10/25 08:20	09/15/25 17:52	10
Arsenic	<7.0	cn	21	7.0	ug/L		09/10/25 08:20	09/15/25 17:52	10
Barium	**55**	**cn**	21	7.7	ug/L		09/10/25 08:20	09/15/25 17:52	10
Beryllium	<1.2	cn	5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:52	10
Cadmium	<1.6	cn	5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:52	10
Chromium	<5.7	cn	21	5.7	ug/L		09/10/25 08:20	09/15/25 17:52	10
Cobalt	**61**	**cn**	5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:52	10
Iron	**240000**	**cn**	520	210	ug/L		09/10/25 08:20	09/15/25 17:52	10
Lead	<1.2	cn	5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:52	10
Manganese	**9500**	**cn**	21	9.8	ug/L		09/10/25 08:20	09/15/25 17:52	10
Molybdenum	<2.1	cn	5.2	2.1	ug/L		09/10/25 08:20	09/15/25 17:52	10
Selenium	<2.9	cn	10	2.9	ug/L		09/10/25 08:20	09/15/25 17:52	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	<26	cn	80	26	mg/L			09/03/25 12:18	10
Total Organic Carbon (EPA 415.1)	<13	cn	25	13	mg/L			09/11/25 05:40	25
TOC Result 3 (EPA 415.1)	<13	cn	25	13	mg/L			09/11/25 05:40	25

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10		0.30	0.10	mg/L		09/03/25 09:00	09/03/25 11:53	1

Client Sample ID: MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O
Lab Sample ID: 410-239769-9
Date Collected: 08/27/25 10:00
Matrix: Water
Date Received: 08/28/25 17:12

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1300**		150	50	mg/L			09/15/25 21:13	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.7**		0.050	0.012	mg/L		09/10/25 21:30	09/12/25 04:02	1
Lithium	<0.011		0.050	0.011	mg/L		09/10/25 21:30	09/12/25 04:02	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.052	0.011	mg/L		09/10/25 08:20	09/11/25 05:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.0		10	2.0	ug/L		09/10/25 21:30	09/15/25 15:44	10
Arsenic	<6.8		20	6.8	ug/L		09/10/25 21:30	09/15/25 15:44	10
Barium	**99**		20	7.5	ug/L		09/10/25 21:30	09/15/25 15:44	10
Beryllium	<1.2		5.0	1.2	ug/L		09/10/25 21:30	09/15/25 15:44	10
Cadmium	<1.5		5.0	1.5	ug/L		09/10/25 21:30	09/15/25 15:44	10
Chromium	<5.5		20	5.5	ug/L		09/10/25 21:30	09/15/25 15:44	10
Cobalt	**4.6**	**J**	5.0	1.6	ug/L		09/10/25 21:30	09/15/25 15:44	10
Iron	**4400**		500	200	ug/L		09/10/25 21:30	09/15/25 15:44	10
Lead	<1.2		5.0	1.2	ug/L		09/10/25 21:30	09/15/25 15:44	10
Manganese	**910**		20	9.5	ug/L		09/10/25 21:30	09/15/25 15:44	10
Molybdenum	**20**		5.0	2.0	ug/L		09/10/25 21:30	09/15/25 15:44	10
Selenium	<2.8		10	2.8	ug/L		09/10/25 21:30	09/15/25 15:44	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.1		10	2.1	ug/L		09/10/25 08:20	09/15/25 17:54	10
Arsenic	<7.0		21	7.0	ug/L		09/10/25 08:20	09/15/25 17:54	10
Barium	**87**		21	7.7	ug/L		09/10/25 08:20	09/15/25 17:54	10
Beryllium	<1.2		5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:54	10
Cadmium	<1.6		5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:54	10
Chromium	<5.7		21	5.7	ug/L		09/10/25 08:20	09/15/25 17:54	10
Cobalt	**3.4**	**J**	5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:54	10
Iron	<210		520	210	ug/L		09/10/25 08:20	09/15/25 17:54	10
Lead	<1.2		5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:54	10
Manganese	**800**		21	9.8	ug/L		09/10/25 08:20	09/15/25 17:54	10
Molybdenum	**17**		5.2	2.1	ug/L		09/10/25 08:20	09/15/25 17:54	10
Selenium	<2.9		10	2.9	ug/L		09/10/25 08:20	09/15/25 17:54	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**2200**		80	26	mg/L			09/03/25 12:55	10
Total Organic Carbon (EPA 415.1)	<13	cn	25	13	mg/L			09/11/25 06:06	25
TOC Result 3 (EPA 415.1)	<13	cn	25	13	mg/L			09/11/25 06:06	25

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.50	cn	1.5	0.50	mg/L		09/03/25 09:00	09/03/25 11:53	5

Client Sample ID: MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O
Lab Sample ID: 410-239769-10
Date Collected: 08/27/25 10:15
Matrix: Water
Date Received: 08/28/25 17:12

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**2100**		150	50	mg/L			09/16/25 12:58	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.7**		0.050	0.012	mg/L		09/10/25 21:30	09/12/25 04:05	1
Lithium	<0.011		0.050	0.011	mg/L		09/10/25 21:30	09/12/25 04:05	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.052	0.011	mg/L		09/10/25 08:20	09/11/25 05:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.0		10	2.0	ug/L		09/10/25 21:30	09/15/25 15:47	10
Arsenic	<6.8		20	6.8	ug/L		09/10/25 21:30	09/15/25 15:47	10
Barium	**54**		20	7.5	ug/L		09/10/25 21:30	09/16/25 22:15	10
Beryllium	<1.2		5.0	1.2	ug/L		09/10/25 21:30	09/15/25 15:47	10
Cadmium	<1.5		5.0	1.5	ug/L		09/10/25 21:30	09/15/25 15:47	10
Chromium	<5.5		20	5.5	ug/L		09/10/25 21:30	09/15/25 15:47	10
Cobalt	**14**		5.0	1.6	ug/L		09/10/25 21:30	09/15/25 15:47	10
Iron	**29000**		500	200	ug/L		09/10/25 21:30	09/15/25 15:47	10
Lead	<1.2		5.0	1.2	ug/L		09/10/25 21:30	09/15/25 15:47	10
Manganese	**1400**		20	9.5	ug/L		09/10/25 21:30	09/15/25 15:47	10
Molybdenum	**6.0**		5.0	2.0	ug/L		09/10/25 21:30	09/15/25 15:47	10
Selenium	<2.8		10	2.8	ug/L		09/10/25 21:30	09/15/25 15:47	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.1		10	2.1	ug/L		09/10/25 08:20	09/15/25 17:56	10
Arsenic	<7.0		21	7.0	ug/L		09/10/25 08:20	09/15/25 17:56	10
Barium	**46**		21	7.7	ug/L		09/10/25 08:20	09/15/25 17:56	10
Beryllium	<1.2		5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:56	10
Cadmium	<1.6		5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:56	10
Chromium	<5.7		21	5.7	ug/L		09/10/25 08:20	09/15/25 17:56	10
Cobalt	**13**		5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:56	10
Iron	**14000**		520	210	ug/L		09/10/25 08:20	09/15/25 17:56	10
Lead	<1.2		5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:56	10
Manganese	**1100**		21	9.8	ug/L		09/10/25 08:20	09/15/25 17:56	10
Molybdenum	**5.8**		5.2	2.1	ug/L		09/10/25 08:20	09/15/25 17:56	10
Selenium	<2.9		10	2.9	ug/L		09/10/25 08:20	09/15/25 17:56	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**1700**		80	26	mg/L			09/03/25 13:33	10
Total Organic Carbon (EPA 415.1)	<13	cn	25	13	mg/L			09/11/25 06:33	25
TOC Result 3 (EPA 415.1)	<13	cn	25	13	mg/L			09/11/25 06:33	25

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.50	cn	1.5	0.50	mg/L		09/03/25 09:00	09/03/25 11:53	5

Client Sample ID: MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O
Lab Sample ID: 410-239769-11
Date Collected: 08/27/25 10:30
Matrix: Water
Date Received: 08/28/25 17:12

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**3300**		300	100	mg/L			09/16/25 19:29	200

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.7**		0.050	0.012	mg/L		09/10/25 21:30	09/12/25 04:22	1
Lithium	<0.055		0.25	0.055	mg/L		09/10/25 21:30	09/15/25 09:35	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.052	0.011	mg/L		09/10/25 08:20	09/11/25 05:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.0		10	2.0	ug/L		09/10/25 21:30	09/15/25 15:49	10
Arsenic	<6.8		20	6.8	ug/L		09/10/25 21:30	09/15/25 15:49	10
Barium	**40**		20	7.5	ug/L		09/10/25 21:30	09/15/25 15:49	10
Beryllium	<1.2		5.0	1.2	ug/L		09/10/25 21:30	09/15/25 15:49	10
Cadmium	<1.5		5.0	1.5	ug/L		09/10/25 21:30	09/15/25 15:49	10
Chromium	<5.5		20	5.5	ug/L		09/10/25 21:30	09/15/25 15:49	10
Cobalt	**39**		5.0	1.6	ug/L		09/10/25 21:30	09/15/25 15:49	10
Iron	**220000**		500	200	ug/L		09/10/25 21:30	09/15/25 15:49	10
Lead	<1.2		5.0	1.2	ug/L		09/10/25 21:30	09/15/25 15:49	10
Manganese	**2500**		20	9.5	ug/L		09/10/25 21:30	09/15/25 15:49	10
Molybdenum	**4.4**	**J**	5.0	2.0	ug/L		09/10/25 21:30	09/15/25 15:49	10
Selenium	<2.8		10	2.8	ug/L		09/10/25 21:30	09/15/25 15:49	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.1		10	2.1	ug/L		09/10/25 08:20	09/15/25 17:58	10
Arsenic	<7.0		21	7.0	ug/L		09/10/25 08:20	09/15/25 17:58	10
Barium	**42**		21	7.7	ug/L		09/10/25 08:20	09/15/25 17:58	10
Beryllium	<1.2		5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:58	10
Cadmium	<1.6		5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:58	10
Chromium	<5.7		21	5.7	ug/L		09/10/25 08:20	09/15/25 17:58	10
Cobalt	**37**		5.2	1.6	ug/L		09/10/25 08:20	09/15/25 17:58	10
Iron	**210000**		520	210	ug/L		09/10/25 08:20	09/15/25 17:58	10
Lead	<1.2		5.2	1.2	ug/L		09/10/25 08:20	09/15/25 17:58	10
Manganese	**2400**		21	9.8	ug/L		09/10/25 08:20	09/15/25 17:58	10
Molybdenum	**3.0**	**J**	5.2	2.1	ug/L		09/10/25 08:20	09/15/25 17:58	10
Selenium	<2.9		10	2.9	ug/L		09/10/25 08:20	09/15/25 17:58	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**810**		80	26	mg/L			09/03/25 12:31	10
Total Organic Carbon (EPA 415.1)	<13	cn	25	13	mg/L			09/11/25 06:59	25
TOC Result 3 (EPA 415.1)	<13	cn	25	13	mg/L			09/11/25 06:59	25

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10		0.30	0.10	mg/L		09/03/25 09:00	09/03/25 11:53	1

Client Sample ID: MW-211 5 g/L FB
Lab Sample ID: 410-239769-12

Date Collected: 08/27/25 10:45
Matrix: Water
Date Received: 08/28/25 17:12

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1000**		150	50	mg/L			09/18/25 18:07	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.4**		0.050	0.012	mg/L		09/10/25 21:30	09/12/25 04:25	1
Lithium	<0.055		0.25	0.055	mg/L		09/10/25 21:30	09/15/25 09:38	5

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.052	0.011	mg/L		09/10/25 08:20	09/11/25 05:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		5.0	1.0	ug/L		09/10/25 21:30	09/15/25 15:51	5
Arsenic	<3.4		10	3.4	ug/L		09/10/25 21:30	09/15/25 15:51	5
Barium	**72**		10	3.7	ug/L		09/10/25 21:30	09/15/25 15:51	5
Beryllium	<0.60		2.5	0.60	ug/L		09/10/25 21:30	09/15/25 15:51	5
Cadmium	<0.76		2.5	0.76	ug/L		09/10/25 21:30	09/15/25 15:51	5
Chromium	<2.8		10	2.8	ug/L		09/10/25 21:30	09/15/25 15:51	5
Cobalt	**1.2**	**J**	2.5	0.78	ug/L		09/10/25 21:30	09/15/25 15:51	5
Iron	**710**		250	100	ug/L		09/10/25 21:30	09/15/25 15:51	5
Lead	<0.60		2.5	0.60	ug/L		09/10/25 21:30	09/15/25 15:51	5
Manganese	**460**		10	4.8	ug/L		09/10/25 21:30	09/15/25 15:51	5
Molybdenum	**42**		2.5	1.0	ug/L		09/10/25 21:30	09/15/25 15:51	5
Selenium	**2.1**	**J**	5.0	1.4	ug/L		09/10/25 21:30	09/15/25 15:51	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.1		10	2.1	ug/L		09/10/25 08:20	09/15/25 18:00	10
Arsenic	<7.0		21	7.0	ug/L		09/10/25 08:20	09/15/25 18:00	10
Barium	**68**		21	7.7	ug/L		09/10/25 08:20	09/15/25 18:00	10
Beryllium	<1.2		5.2	1.2	ug/L		09/10/25 08:20	09/15/25 18:00	10
Cadmium	<1.6		5.2	1.6	ug/L		09/10/25 08:20	09/15/25 18:00	10
Chromium	<5.7		21	5.7	ug/L		09/10/25 08:20	09/15/25 18:00	10
Cobalt	<1.6		5.2	1.6	ug/L		09/10/25 08:20	09/15/25 18:00	10
Iron	<210		520	210	ug/L		09/10/25 08:20	09/15/25 18:00	10
Lead	<1.2		5.2	1.2	ug/L		09/10/25 08:20	09/15/25 18:00	10
Manganese	**440**		21	9.8	ug/L		09/10/25 08:20	09/15/25 18:00	10
Molybdenum	**41**		5.2	2.1	ug/L		09/10/25 08:20	09/15/25 18:00	10
Selenium	<2.9		10	2.9	ug/L		09/10/25 08:20	09/15/25 18:00	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**510**		80	26	mg/L			09/03/25 13:13	10
Total Organic Carbon (EPA 415.1)	**7.5**		1.0	0.50	mg/L			09/11/25 07:25	1
TOC Result 3 (EPA 415.1)	**7.4**		1.0	0.50	mg/L			09/11/25 07:25	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.10		0.30	0.10	mg/L		09/03/25 09:00	09/03/25 11:53	1

Client Sample ID: MW-211 10 g/L FB
Lab Sample ID: 410-239769-13

Date Collected: 08/27/25 11:00
Matrix: Water
Date Received: 08/28/25 17:12

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1400**		150	50	mg/L			09/18/25 19:00	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.5**		0.050	0.012	mg/L		09/10/25 21:30	09/12/25 04:28	1
Lithium	<0.011		0.050	0.011	mg/L		09/10/25 21:30	09/12/25 04:28	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.052	0.011	mg/L		09/10/25 08:20	09/11/25 05:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		5.0	1.0	ug/L		09/10/25 21:30	09/15/25 15:53	5
Arsenic	<3.4		10	3.4	ug/L		09/10/25 21:30	09/15/25 15:53	5
Barium	**82**		10	3.7	ug/L		09/10/25 21:30	09/15/25 15:53	5
Beryllium	<0.60		2.5	0.60	ug/L		09/10/25 21:30	09/15/25 15:53	5
Cadmium	<0.76		2.5	0.76	ug/L		09/10/25 21:30	09/15/25 15:53	5
Chromium	<2.8		10	2.8	ug/L		09/10/25 21:30	09/15/25 15:53	5
Cobalt	**1.6**	**J**	2.5	0.78	ug/L		09/10/25 21:30	09/15/25 15:53	5
Iron	**1600**		250	100	ug/L		09/10/25 21:30	09/15/25 15:53	5
Lead	**1.1**	**J**	2.5	0.60	ug/L		09/10/25 21:30	09/15/25 15:53	5
Manganese	**440**		10	4.8	ug/L		09/10/25 21:30	09/15/25 15:53	5
Molybdenum	**52**		2.5	1.0	ug/L		09/10/25 21:30	09/15/25 15:53	5
Selenium	**2.3**	**J**	5.0	1.4	ug/L		09/10/25 21:30	09/15/25 15:53	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.1		10	2.1	ug/L		09/10/25 08:20	09/15/25 18:03	10
Arsenic	<7.0		21	7.0	ug/L		09/10/25 08:20	09/15/25 18:03	10
Barium	**79**		21	7.7	ug/L		09/10/25 08:20	09/15/25 18:03	10
Beryllium	<1.2		5.2	1.2	ug/L		09/10/25 08:20	09/15/25 18:03	10
Cadmium	<1.6		5.2	1.6	ug/L		09/10/25 08:20	09/15/25 18:03	10
Chromium	<5.7		21	5.7	ug/L		09/10/25 08:20	09/15/25 18:03	10
Cobalt	<1.6		5.2	1.6	ug/L		09/10/25 08:20	09/15/25 18:03	10
Iron	<210		520	210	ug/L		09/10/25 08:20	09/15/25 18:03	10
Lead	<1.2		5.2	1.2	ug/L		09/10/25 08:20	09/15/25 18:03	10
Manganese	**410**		21	9.8	ug/L		09/10/25 08:20	09/15/25 18:03	10
Molybdenum	**52**		5.2	2.1	ug/L		09/10/25 08:20	09/15/25 18:03	10
Selenium	**4.1**	**J**	10	2.9	ug/L		09/10/25 08:20	09/15/25 18:03	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**500**		80	26	mg/L			09/03/25 12:49	10
Total Organic Carbon (EPA 415.1)	**7.9**		1.0	0.50	mg/L			09/10/25 21:52	1
TOC Result 3 (EPA 415.1)	**7.9**		1.0	0.50	mg/L			09/10/25 21:52	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.50	cn	1.5	0.50	mg/L		09/03/25 09:00	09/03/25 11:53	5

Client Sample ID: MW-211 15 g/L FB
Lab Sample ID: 410-239769-14
Date Collected: 08/27/25 11:15
Matrix: Water
Date Received: 08/28/25 17:12

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1500**		150	50	mg/L			09/15/25 17:13	100

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.4**		0.050	0.012	mg/L		09/10/25 21:30	09/12/25 04:32	1
Lithium	<0.011		0.050	0.011	mg/L		09/10/25 21:30	09/12/25 04:32	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.052	0.011	mg/L		09/10/25 08:20	09/11/25 05:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		5.0	1.0	ug/L		09/10/25 21:30	09/15/25 15:55	5
Arsenic	<3.4		10	3.4	ug/L		09/10/25 21:30	09/15/25 15:55	5
Barium	**78**		10	3.7	ug/L		09/10/25 21:30	09/15/25 15:55	5
Beryllium	<0.60		2.5	0.60	ug/L		09/10/25 21:30	09/15/25 15:55	5
Cadmium	<0.76		2.5	0.76	ug/L		09/10/25 21:30	09/15/25 15:55	5
Chromium	<2.8		10	2.8	ug/L		09/10/25 21:30	09/15/25 15:55	5
Cobalt	**1.3**	**J**	2.5	0.78	ug/L		09/10/25 21:30	09/15/25 15:55	5
Iron	**1100**		250	100	ug/L		09/10/25 21:30	09/15/25 15:55	5
Lead	<0.60		2.5	0.60	ug/L		09/10/25 21:30	09/15/25 15:55	5
Manganese	**320**		10	4.8	ug/L		09/10/25 21:30	09/15/25 15:55	5
Molybdenum	**46**		2.5	1.0	ug/L		09/10/25 21:30	09/15/25 15:55	5
Selenium	**2.8**	**J**	5.0	1.4	ug/L		09/10/25 21:30	09/15/25 15:55	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.1		10	2.1	ug/L		09/10/25 08:20	09/15/25 18:05	10
Arsenic	<7.0		21	7.0	ug/L		09/10/25 08:20	09/15/25 18:05	10
Barium	**61**		21	7.7	ug/L		09/10/25 08:20	09/15/25 18:05	10
Beryllium	<1.2		5.2	1.2	ug/L		09/10/25 08:20	09/15/25 18:05	10
Cadmium	<1.6		5.2	1.6	ug/L		09/10/25 08:20	09/15/25 18:05	10
Chromium	<5.7		21	5.7	ug/L		09/10/25 08:20	09/15/25 18:05	10
Cobalt	<1.6		5.2	1.6	ug/L		09/10/25 08:20	09/15/25 18:05	10
Iron	<210		520	210	ug/L		09/10/25 08:20	09/15/25 18:05	10
Lead	<1.2		5.2	1.2	ug/L		09/10/25 08:20	09/15/25 18:05	10
Manganese	**280**		21	9.8	ug/L		09/10/25 08:20	09/15/25 18:05	10
Molybdenum	**46**		5.2	2.1	ug/L		09/10/25 08:20	09/15/25 18:05	10
Selenium	**3.2**	**J**	10	2.9	ug/L		09/10/25 08:20	09/15/25 18:05	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**490**		80	26	mg/L			09/03/25 13:44	10
Total Organic Carbon (EPA 415.1)	**7.5**		1.0	0.50	mg/L			09/10/25 22:18	1
TOC Result 3 (EPA 415.1)	**7.5**		1.0	0.50	mg/L			09/10/25 22:18	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D-2011)	<0.50	cn	1.5	0.50	mg/L		09/03/25 09:00	09/03/25 11:53	5

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-699512/73
Matrix: Water
Analysis Batch: 699512
Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.50		1.5	0.50	mg/L			09/16/25 03:38	1

Lab Sample ID: LCS 410-699512/71
Matrix: Water
Analysis Batch: 699512
Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	7.50	7.10		mg/L		95	90 - 110

Lab Sample ID: LCSD 410-699512/72
Matrix: Water
Analysis Batch: 699512
Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	7.50	7.06		mg/L		94	90 - 110	0	20

Lab Sample ID: MB 410-699619/5
Matrix: Water
Analysis Batch: 699619
Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.50		1.5	0.50	mg/L			09/16/25 07:09	1

Lab Sample ID: LCS 410-699619/3
Matrix: Water
Analysis Batch: 699619
Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	7.50	7.73		mg/L		103	90 - 110

Lab Sample ID: LCSD 410-699619/4
Matrix: Water
Analysis Batch: 699619
Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	7.50	7.76		mg/L		103	90 - 110	0	20

Lab Sample ID: MB 410-700077/5
Matrix: Water
Analysis Batch: 700077
Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.50		1.5	0.50	mg/L			09/16/25 14:28	1

Lab Sample ID: LCS 410-700077/3
Matrix: Water
Analysis Batch: 700077
Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	7.50	7.16		mg/L		96	90 - 110

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: LCSD 410-700077/4
Matrix: Water
Analysis Batch: 700077

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate			7.50	7.12		mg/L		95	90 - 110	1	20

Lab Sample ID: MB 410-701408/5
Matrix: Water
Analysis Batch: 701408

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.50		1.5	0.50	mg/L			09/18/25 15:30	1

Lab Sample ID: LCS 410-701408/3
Matrix: Water
Analysis Batch: 701408

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfate			7.50	7.08		mg/L		94	90 - 110		

Lab Sample ID: LCSD 410-701408/4
Matrix: Water
Analysis Batch: 701408

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate			7.50	7.06		mg/L		94	90 - 110	0	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-695992/1-A
Matrix: Water
Analysis Batch: 698007

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 695992

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.011		0.052	0.011	mg/L		09/10/25 08:20	09/11/25 03:47	1

Lab Sample ID: LCS 410-695992/2-A
Matrix: Water
Analysis Batch: 698007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 695992

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium			0.500	0.501		mg/L		100	88 - 113		

Lab Sample ID: MB 410-696118/1-A
Matrix: Water
Analysis Batch: 697342

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 696118

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.012		0.050	0.012	mg/L		09/08/25 21:30	09/09/25 16:14	1
Lithium	<0.011		0.050	0.011	mg/L		09/08/25 21:30	09/09/25 16:14	1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 410-696118/2-A
Matrix: Water
Analysis Batch: 697342

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 696118

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.516		mg/L		103	83 - 119
Lithium	0.500	0.509		mg/L		102	88 - 113

Lab Sample ID: MB 410-696291/1-A
Matrix: Water
Analysis Batch: 697346

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 696291

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.012		0.050	0.012	mg/L		09/09/25 07:00	09/10/25 04:34	1
Lithium	<0.011		0.050	0.011	mg/L		09/09/25 07:00	09/10/25 04:34	1

Lab Sample ID: LCS 410-696291/2-A
Matrix: Water
Analysis Batch: 697346

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 696291

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.543		mg/L		109	83 - 119
Lithium	0.500	0.528		mg/L		106	88 - 113

Lab Sample ID: MB 410-696294/1-A
Matrix: Water
Analysis Batch: 698583

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 696294

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.012		0.050	0.012	mg/L		09/10/25 21:30	09/12/25 03:05	1
Lithium	<0.011		0.050	0.011	mg/L		09/10/25 21:30	09/12/25 03:05	1

Lab Sample ID: LCS 410-696294/2-A
Matrix: Water
Analysis Batch: 698583

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 696294

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.509		mg/L		102	83 - 119
Lithium	0.500	0.512		mg/L		102	88 - 113

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-695992/1-A
Matrix: Water
Analysis Batch: 699753

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 695992

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.21		1.0	0.21	ug/L		09/10/25 08:20	09/15/25 17:05	1
Arsenic	<0.70		2.1	0.70	ug/L		09/10/25 08:20	09/15/25 17:05	1
Barium	<0.77		2.1	0.77	ug/L		09/10/25 08:20	09/15/25 17:05	1
Beryllium	<0.12		0.52	0.12	ug/L		09/10/25 08:20	09/15/25 17:05	1
Cadmium	<0.16		0.52	0.16	ug/L		09/10/25 08:20	09/15/25 17:05	1
Chromium	<0.57		2.1	0.57	ug/L		09/10/25 08:20	09/15/25 17:05	1
Cobalt	<0.16		0.52	0.16	ug/L		09/10/25 08:20	09/15/25 17:05	1
Iron	<21		52	21	ug/L		09/10/25 08:20	09/15/25 17:05	1

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

Lab Sample ID: MB 410-695992/1-A
Matrix: Water
Analysis Batch: 699753

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 695992

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.12		0.52	0.12	ug/L		09/10/25 08:20	09/15/25 17:05	1
Manganese	<0.98		2.1	0.98	ug/L		09/10/25 08:20	09/15/25 17:05	1
Molybdenum	<0.21		0.52	0.21	ug/L		09/10/25 08:20	09/15/25 17:05	1
Selenium	<0.29		1.0	0.29	ug/L		09/10/25 08:20	09/15/25 17:05	1

Lab Sample ID: LCS 410-695992/2-A
Matrix: Water
Analysis Batch: 699753

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 695992

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	103		ug/L		103	85 - 115
Arsenic	500	518		ug/L		104	86 - 111
Barium	500	507		ug/L		101	86 - 114
Beryllium	50.0	53.6		ug/L		107	80 - 120
Cadmium	50.0	51.7		ug/L		103	86 - 114
Chromium	500	522		ug/L		104	84 - 113
Cobalt	500	521		ug/L		104	85 - 112
Iron	5000	5160		ug/L		103	84 - 114
Lead	50.0	52.8		ug/L		106	86 - 114
Manganese	500	516		ug/L		103	84 - 113
Molybdenum	50.0	55.0		ug/L		110	83 - 115
Selenium	100	103		ug/L		103	86 - 111

Lab Sample ID: MB 410-696118/1-A
Matrix: Water
Analysis Batch: 696973

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 696118

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.20		1.0	0.20	ug/L		09/08/25 21:30	09/09/25 19:25	1
Arsenic	<0.68		2.0	0.68	ug/L		09/08/25 21:30	09/09/25 19:25	1
Barium	<0.75		2.0	0.75	ug/L		09/08/25 21:30	09/09/25 19:25	1
Beryllium	<0.12		0.50	0.12	ug/L		09/08/25 21:30	09/09/25 19:25	1
Cadmium	<0.15		0.50	0.15	ug/L		09/08/25 21:30	09/09/25 19:25	1
Chromium	<0.55		2.0	0.55	ug/L		09/08/25 21:30	09/09/25 19:25	1
Cobalt	<0.16		0.50	0.16	ug/L		09/08/25 21:30	09/09/25 19:25	1
Iron	<20		50	20	ug/L		09/08/25 21:30	09/09/25 19:25	1
Lead	<0.12		0.50	0.12	ug/L		09/08/25 21:30	09/09/25 19:25	1
Manganese	<0.95		2.0	0.95	ug/L		09/08/25 21:30	09/09/25 19:25	1
Molybdenum	<0.20		0.50	0.20	ug/L		09/08/25 21:30	09/09/25 19:25	1
Selenium	<0.28		1.0	0.28	ug/L		09/08/25 21:30	09/09/25 19:25	1

Lab Sample ID: LCS 410-696118/2-A
Matrix: Water
Analysis Batch: 696973

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 696118

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	101		ug/L		101	85 - 115
Arsenic	500	500		ug/L		100	86 - 111
Barium	500	493		ug/L		99	86 - 114

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

Lab Sample ID: LCS 410-696118/2-A
Matrix: Water
Analysis Batch: 696973

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 696118

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	50.0	51.0		ug/L		102	80 - 120
Cadmium	50.0	50.3		ug/L		101	86 - 114
Chromium	500	497		ug/L		99	84 - 113
Cobalt	500	495		ug/L		99	85 - 112
Iron	5000	4760		ug/L		95	84 - 114
Lead	50.0	50.6		ug/L		101	86 - 114
Manganese	500	478		ug/L		96	84 - 113
Molybdenum	50.0	49.1		ug/L		98	83 - 115
Selenium	100	97.0		ug/L		97	86 - 111

Lab Sample ID: MB 410-696291/1-A
Matrix: Water
Analysis Batch: 696973

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 696291

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.20		1.0	0.20	ug/L		09/09/25 07:00	09/09/25 20:22	1
Arsenic	<0.68		2.0	0.68	ug/L		09/09/25 07:00	09/09/25 20:22	1
Barium	<0.75		2.0	0.75	ug/L		09/09/25 07:00	09/09/25 20:22	1
Beryllium	<0.12		0.50	0.12	ug/L		09/09/25 07:00	09/09/25 20:22	1
Cadmium	<0.15		0.50	0.15	ug/L		09/09/25 07:00	09/09/25 20:22	1
Chromium	<0.55		2.0	0.55	ug/L		09/09/25 07:00	09/09/25 20:22	1
Cobalt	<0.16		0.50	0.16	ug/L		09/09/25 07:00	09/09/25 20:22	1
Iron	<20		50	20	ug/L		09/09/25 07:00	09/09/25 20:22	1
Lead	<0.12		0.50	0.12	ug/L		09/09/25 07:00	09/09/25 20:22	1
Manganese	<0.95		2.0	0.95	ug/L		09/09/25 07:00	09/09/25 20:22	1
Molybdenum	<0.20		0.50	0.20	ug/L		09/09/25 07:00	09/09/25 20:22	1
Selenium	<0.28		1.0	0.28	ug/L		09/09/25 07:00	09/09/25 20:22	1

Lab Sample ID: LCS 410-696291/2-A
Matrix: Water
Analysis Batch: 696973

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 696291

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	101		ug/L		101	85 - 115
Arsenic	500	494		ug/L		99	86 - 111
Barium	500	502		ug/L		100	86 - 114
Beryllium	50.0	50.3		ug/L		101	80 - 120
Cadmium	50.0	51.7		ug/L		103	86 - 114
Chromium	500	492		ug/L		98	84 - 113
Cobalt	500	488		ug/L		98	85 - 112
Iron	5000	5030		ug/L		101	84 - 114
Lead	50.0	52.0		ug/L		104	86 - 114
Manganese	500	498		ug/L		100	84 - 113
Molybdenum	50.0	49.0		ug/L		98	83 - 115
Selenium	100	97.4		ug/L		97	86 - 111

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

Lab Sample ID: MB 410-696294/1-A
Matrix: Water
Analysis Batch: 699753

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 696294

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.20		1.0	0.20	ug/L		09/10/25 21:30	09/15/25 15:13	1
Arsenic	<0.68		2.0	0.68	ug/L		09/10/25 21:30	09/15/25 15:13	1
Barium	<0.75		2.0	0.75	ug/L		09/10/25 21:30	09/15/25 15:13	1
Beryllium	<0.12		0.50	0.12	ug/L		09/10/25 21:30	09/15/25 15:13	1
Cadmium	<0.15		0.50	0.15	ug/L		09/10/25 21:30	09/15/25 15:13	1
Chromium	<0.55		2.0	0.55	ug/L		09/10/25 21:30	09/15/25 15:13	1
Cobalt	<0.16		0.50	0.16	ug/L		09/10/25 21:30	09/15/25 15:13	1
Iron	<20		50	20	ug/L		09/10/25 21:30	09/15/25 15:13	1
Lead	<0.12		0.50	0.12	ug/L		09/10/25 21:30	09/15/25 15:13	1
Manganese	<0.95		2.0	0.95	ug/L		09/10/25 21:30	09/15/25 15:13	1
Molybdenum	<0.20		0.50	0.20	ug/L		09/10/25 21:30	09/15/25 15:13	1
Selenium	<0.28		1.0	0.28	ug/L		09/10/25 21:30	09/15/25 15:13	1

Lab Sample ID: LCS 410-696294/2-A
Matrix: Water
Analysis Batch: 699753

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 696294

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	102		ug/L		102	85 - 115
Arsenic	500	507		ug/L		101	86 - 111
Barium	500	512		ug/L		102	86 - 114
Beryllium	50.0	52.8		ug/L		106	80 - 120
Cadmium	50.0	50.9		ug/L		102	86 - 114
Chromium	500	524		ug/L		105	84 - 113
Cobalt	500	519		ug/L		104	85 - 112
Iron	5000	5230		ug/L		105	84 - 114
Lead	50.0	51.5		ug/L		103	86 - 114
Manganese	500	507		ug/L		101	84 - 113
Molybdenum	50.0	52.5		ug/L		105	83 - 115
Selenium	100	99.6		ug/L		100	86 - 111

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-694229/120
Matrix: Water
Analysis Batch: 694229

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<2.6		8.0	2.6	mg/L			09/03/25 08:55	1

Lab Sample ID: MB 410-694229/148
Matrix: Water
Analysis Batch: 694229

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<2.6		8.0	2.6	mg/L			09/03/25 11:59	1

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 410-694229/121
Matrix: Water
Analysis Batch: 694229

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 to pH 4.5	189	177		mg/L		94	80 - 110

Lab Sample ID: LCS 410-694229/149
Matrix: Water
Analysis Batch: 694229

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 to pH 4.5	189	179		mg/L		95	80 - 110

Lab Sample ID: LCSD 410-694229/122
Matrix: Water
Analysis Batch: 694229

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	189	177		mg/L		94	80 - 110	0	10

Lab Sample ID: LCSD 410-694229/150
Matrix: Water
Analysis Batch: 694229

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	189	177		mg/L		94	80 - 110	2	10

Method: 415.1 - TOC

Lab Sample ID: MB 410-698365/37
Matrix: Water
Analysis Batch: 698365

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<0.50		1.0	0.50	mg/L			09/11/25 03:05	1
TOC Result 3	<0.50		1.0	0.50	mg/L			09/11/25 03:05	1

Lab Sample ID: MB 410-698365/7
Matrix: Water
Analysis Batch: 698365

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<0.50		1.0	0.50	mg/L			09/10/25 13:59	1
TOC Result 3	<0.50		1.0	0.50	mg/L			09/10/25 13:59	1

Lab Sample ID: LCS 410-698365/36
Matrix: Water
Analysis Batch: 698365

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	50.0	50.8		mg/L		102	90 - 110

Method: 415.1 - TOC (Continued)

Lab Sample ID: LCS 410-698365/36
Matrix: Water
Analysis Batch: 698365

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
TOC Result 3	50.0	50.7		mg/L		101	90 - 110

Lab Sample ID: LCS 410-698365/6
Matrix: Water
Analysis Batch: 698365

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	50.0	50.3		mg/L		101	90 - 110
TOC Result 3	50.0	50.2		mg/L		100	90 - 110

Lab Sample ID: MRL 410-698365/1
Matrix: Water
Analysis Batch: 698365

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	1.00	0.702	J	mg/L		70	50 - 150
TOC Result 3	1.00	0.679	J	mg/L		68	

Method: 4500 S2 D-2011 - Sulfide, Total

Lab Sample ID: MRL 410-694033/17
Matrix: Water
Analysis Batch: 694033

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	0.324	0.439		mg/L		136	50 - 150

HPLC/IC

Analysis Batch: 699512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-9	MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Total/NA	Water	EPA 300.0 R2.1	
410-239769-14	MW-211 15 g/L FB	Total/NA	Water	EPA 300.0 R2.1	
MB 410-699512/73	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-699512/71	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-699512/72	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 699619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-6	MW-211 2 g/L FeSO4-7H2O	Total/NA	Water	EPA 300.0 R2.1	
410-239769-10	MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Total/NA	Water	EPA 300.0 R2.1	
MB 410-699619/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-699619/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-699619/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 700077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-1	MW-211 Control	Total/NA	Water	EPA 300.0 R2.1	
410-239769-2	MW-211 2 g/L NaHCO3	Total/NA	Water	EPA 300.0 R2.1	
410-239769-3	MW-211 5 g/L NaHCO3	Total/NA	Water	EPA 300.0 R2.1	
410-239769-4	MW-211 10 g/L NaHCO3	Total/NA	Water	EPA 300.0 R2.1	
410-239769-7	MW-211 5 g/L FeSO4-7H2O	Total/NA	Water	EPA 300.0 R2.1	
410-239769-8	MW-211 10 g/L FeSO4-7H2O	Total/NA	Water	EPA 300.0 R2.1	
410-239769-11	MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Total/NA	Water	EPA 300.0 R2.1	
MB 410-700077/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-700077/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-700077/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 701408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-5	MW-211 1 g/L FeSO4-7H2O	Total/NA	Water	EPA 300.0 R2.1	
410-239769-12	MW-211 5 g/L FB	Total/NA	Water	EPA 300.0 R2.1	
410-239769-13	MW-211 10 g/L FB	Total/NA	Water	EPA 300.0 R2.1	
MB 410-701408/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-701408/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-701408/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 695992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-1	MW-211 Control	Dissolved	Water	Non-Digest Prep	
410-239769-2	MW-211 2 g/L NaHCO3	Dissolved	Water	Non-Digest Prep	
410-239769-3	MW-211 5 g/L NaHCO3	Dissolved	Water	Non-Digest Prep	
410-239769-4	MW-211 10 g/L NaHCO3	Dissolved	Water	Non-Digest Prep	
410-239769-5	MW-211 1 g/L FeSO4-7H2O	Dissolved	Water	Non-Digest Prep	
410-239769-6	MW-211 2 g/L FeSO4-7H2O	Dissolved	Water	Non-Digest Prep	
410-239769-7	MW-211 5 g/L FeSO4-7H2O	Dissolved	Water	Non-Digest Prep	
410-239769-8	MW-211 10 g/L FeSO4-7H2O	Dissolved	Water	Non-Digest Prep	
410-239769-9	MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Dissolved	Water	Non-Digest Prep	
410-239769-10	MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Dissolved	Water	Non-Digest Prep	
410-239769-11	MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Dissolved	Water	Non-Digest Prep	

Metals (Continued)

Prep Batch: 695992 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-12	MW-211 5 g/L FB	Dissolved	Water	Non-Digest Prep	
410-239769-13	MW-211 10 g/L FB	Dissolved	Water	Non-Digest Prep	
410-239769-14	MW-211 15 g/L FB	Dissolved	Water	Non-Digest Prep	
MB 410-695992/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-695992/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Prep Batch: 696118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-4	MW-211 10 g/L NaHCO3	Total Recoverable	Water	3005A	
MB 410-696118/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-696118/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 696291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-1	MW-211 Control	Total Recoverable	Water	3005A	
410-239769-2	MW-211 2 g/L NaHCO3	Total Recoverable	Water	3005A	
MB 410-696291/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-696291/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 696294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-3	MW-211 5 g/L NaHCO3	Total Recoverable	Water	3005A	
410-239769-5	MW-211 1 g/L FeSO4-7H2O	Total Recoverable	Water	3005A	
410-239769-6	MW-211 2 g/L FeSO4-7H2O	Total Recoverable	Water	3005A	
410-239769-7	MW-211 5 g/L FeSO4-7H2O	Total Recoverable	Water	3005A	
410-239769-8	MW-211 10 g/L FeSO4-7H2O	Total Recoverable	Water	3005A	
410-239769-9	MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Total Recoverable	Water	3005A	
410-239769-10	MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Total Recoverable	Water	3005A	
410-239769-11	MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Total Recoverable	Water	3005A	
410-239769-12	MW-211 5 g/L FB	Total Recoverable	Water	3005A	
410-239769-13	MW-211 10 g/L FB	Total Recoverable	Water	3005A	
410-239769-14	MW-211 15 g/L FB	Total Recoverable	Water	3005A	
MB 410-696294/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-696294/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 696973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-1	MW-211 Control	Total Recoverable	Water	6020B	696291
410-239769-2	MW-211 2 g/L NaHCO3	Total Recoverable	Water	6020B	696291
410-239769-4	MW-211 10 g/L NaHCO3	Total Recoverable	Water	6020B	696118
MB 410-696118/1-A	Method Blank	Total Recoverable	Water	6020B	696118
MB 410-696291/1-A	Method Blank	Total Recoverable	Water	6020B	696291
LCS 410-696118/2-A	Lab Control Sample	Total Recoverable	Water	6020B	696118
LCS 410-696291/2-A	Lab Control Sample	Total Recoverable	Water	6020B	696291

Analysis Batch: 697342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-4	MW-211 10 g/L NaHCO3	Total Recoverable	Water	6010D	696118
MB 410-696118/1-A	Method Blank	Total Recoverable	Water	6010D	696118
LCS 410-696118/2-A	Lab Control Sample	Total Recoverable	Water	6010D	696118

Metals

Analysis Batch: 697346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-1	MW-211 Control	Total Recoverable	Water	6010D	696291
410-239769-2	MW-211 2 g/L NaHCO3	Total Recoverable	Water	6010D	696291
MB 410-696291/1-A	Method Blank	Total Recoverable	Water	6010D	696291
LCS 410-696291/2-A	Lab Control Sample	Total Recoverable	Water	6010D	696291

Analysis Batch: 697994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-1	MW-211 Control	Total Recoverable	Water	6010D	696291
410-239769-2	MW-211 2 g/L NaHCO3	Total Recoverable	Water	6010D	696291

Analysis Batch: 698007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-1	MW-211 Control	Dissolved	Water	6010D	695992
410-239769-3	MW-211 5 g/L NaHCO3	Dissolved	Water	6010D	695992
410-239769-4	MW-211 10 g/L NaHCO3	Dissolved	Water	6010D	695992
410-239769-9	MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Dissolved	Water	6010D	695992
410-239769-10	MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Dissolved	Water	6010D	695992
410-239769-11	MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Dissolved	Water	6010D	695992
410-239769-12	MW-211 5 g/L FB	Dissolved	Water	6010D	695992
410-239769-13	MW-211 10 g/L FB	Dissolved	Water	6010D	695992
410-239769-14	MW-211 15 g/L FB	Dissolved	Water	6010D	695992
MB 410-695992/1-A	Method Blank	Total/NA	Water	6010D	695992
LCS 410-695992/2-A	Lab Control Sample	Total/NA	Water	6010D	695992

Analysis Batch: 698270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-2	MW-211 2 g/L NaHCO3	Dissolved	Water	6010D	695992
410-239769-5	MW-211 1 g/L FeSO4-7H2O	Dissolved	Water	6010D	695992
410-239769-6	MW-211 2 g/L FeSO4-7H2O	Dissolved	Water	6010D	695992
410-239769-7	MW-211 5 g/L FeSO4-7H2O	Dissolved	Water	6010D	695992
410-239769-8	MW-211 10 g/L FeSO4-7H2O	Dissolved	Water	6010D	695992

Analysis Batch: 698583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-3	MW-211 5 g/L NaHCO3	Total Recoverable	Water	6010D	696294
410-239769-5	MW-211 1 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	696294
410-239769-6	MW-211 2 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	696294
410-239769-7	MW-211 5 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	696294
410-239769-8	MW-211 10 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	696294
410-239769-9	MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	696294
410-239769-10	MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	696294
410-239769-11	MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	696294
410-239769-12	MW-211 5 g/L FB	Total Recoverable	Water	6010D	696294
410-239769-13	MW-211 10 g/L FB	Total Recoverable	Water	6010D	696294
410-239769-14	MW-211 15 g/L FB	Total Recoverable	Water	6010D	696294
MB 410-696294/1-A	Method Blank	Total Recoverable	Water	6010D	696294
LCS 410-696294/2-A	Lab Control Sample	Total Recoverable	Water	6010D	696294

Analysis Batch: 699407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-5	MW-211 1 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	696294

Metals (Continued)

Analysis Batch: 699407 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-6	MW-211 2 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	696294
410-239769-7	MW-211 5 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	696294
410-239769-8	MW-211 10 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	696294
410-239769-11	MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Total Recoverable	Water	6010D	696294
410-239769-12	MW-211 5 g/L FB	Total Recoverable	Water	6010D	696294

Analysis Batch: 699753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-1	MW-211 Control	Dissolved	Water	6020B	695992
410-239769-2	MW-211 2 g/L NaHCO3	Dissolved	Water	6020B	695992
410-239769-3	MW-211 5 g/L NaHCO3	Dissolved	Water	6020B	695992
410-239769-3	MW-211 5 g/L NaHCO3	Total Recoverable	Water	6020B	696294
410-239769-4	MW-211 10 g/L NaHCO3	Dissolved	Water	6020B	695992
410-239769-5	MW-211 1 g/L FeSO4-7H2O	Dissolved	Water	6020B	695992
410-239769-5	MW-211 1 g/L FeSO4-7H2O	Total Recoverable	Water	6020B	696294
410-239769-6	MW-211 2 g/L FeSO4-7H2O	Dissolved	Water	6020B	695992
410-239769-6	MW-211 2 g/L FeSO4-7H2O	Total Recoverable	Water	6020B	696294
410-239769-7	MW-211 5 g/L FeSO4-7H2O	Dissolved	Water	6020B	695992
410-239769-7	MW-211 5 g/L FeSO4-7H2O	Total Recoverable	Water	6020B	696294
410-239769-8	MW-211 10 g/L FeSO4-7H2O	Dissolved	Water	6020B	695992
410-239769-8	MW-211 10 g/L FeSO4-7H2O	Total Recoverable	Water	6020B	696294
410-239769-9	MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Dissolved	Water	6020B	695992
410-239769-9	MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Total Recoverable	Water	6020B	696294
410-239769-10	MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Dissolved	Water	6020B	695992
410-239769-10	MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Total Recoverable	Water	6020B	696294
410-239769-11	MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Dissolved	Water	6020B	695992
410-239769-11	MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Total Recoverable	Water	6020B	696294
410-239769-12	MW-211 5 g/L FB	Dissolved	Water	6020B	695992
410-239769-12	MW-211 5 g/L FB	Total Recoverable	Water	6020B	696294
410-239769-13	MW-211 10 g/L FB	Dissolved	Water	6020B	695992
410-239769-13	MW-211 10 g/L FB	Total Recoverable	Water	6020B	696294
410-239769-14	MW-211 15 g/L FB	Dissolved	Water	6020B	695992
410-239769-14	MW-211 15 g/L FB	Total Recoverable	Water	6020B	696294
MB 410-695992/1-A	Method Blank	Total/NA	Water	6020B	695992
MB 410-696294/1-A	Method Blank	Total Recoverable	Water	6020B	696294
LCS 410-695992/2-A	Lab Control Sample	Total/NA	Water	6020B	695992
LCS 410-696294/2-A	Lab Control Sample	Total Recoverable	Water	6020B	696294

Analysis Batch: 700322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-10	MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Total Recoverable	Water	6020B	696294

General Chemistry

Prep Batch: 693939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-1	MW-211 Control	Dissolved	Water	SM 4500 S2 B	
410-239769-2	MW-211 2 g/L NaHCO3	Dissolved	Water	SM 4500 S2 B	
410-239769-3	MW-211 5 g/L NaHCO3	Dissolved	Water	SM 4500 S2 B	
410-239769-4	MW-211 10 g/L NaHCO3	Dissolved	Water	SM 4500 S2 B	
410-239769-5	MW-211 1 g/L FeSO4-7H2O	Dissolved	Water	SM 4500 S2 B	

General Chemistry (Continued)

Prep Batch: 693939 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-6	MW-211 2 g/L FeSO4-7H2O	Dissolved	Water	SM 4500 S2 B	
410-239769-7	MW-211 5 g/L FeSO4-7H2O	Dissolved	Water	SM 4500 S2 B	
410-239769-8	MW-211 10 g/L FeSO4-7H2O	Dissolved	Water	SM 4500 S2 B	
410-239769-9	MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Dissolved	Water	SM 4500 S2 B	
410-239769-10	MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Dissolved	Water	SM 4500 S2 B	
410-239769-11	MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Dissolved	Water	SM 4500 S2 B	
410-239769-12	MW-211 5 g/L FB	Dissolved	Water	SM 4500 S2 B	
410-239769-13	MW-211 10 g/L FB	Dissolved	Water	SM 4500 S2 B	
410-239769-14	MW-211 15 g/L FB	Dissolved	Water	SM 4500 S2 B	

Analysis Batch: 694033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-1	MW-211 Control	Dissolved	Water	4500 S2 D-2011	693939
410-239769-2	MW-211 2 g/L NaHCO3	Dissolved	Water	4500 S2 D-2011	693939
410-239769-3	MW-211 5 g/L NaHCO3	Dissolved	Water	4500 S2 D-2011	693939
410-239769-4	MW-211 10 g/L NaHCO3	Dissolved	Water	4500 S2 D-2011	693939
410-239769-5	MW-211 1 g/L FeSO4-7H2O	Dissolved	Water	4500 S2 D-2011	693939
410-239769-6	MW-211 2 g/L FeSO4-7H2O	Dissolved	Water	4500 S2 D-2011	693939
410-239769-7	MW-211 5 g/L FeSO4-7H2O	Dissolved	Water	4500 S2 D-2011	693939
410-239769-8	MW-211 10 g/L FeSO4-7H2O	Dissolved	Water	4500 S2 D-2011	693939
410-239769-9	MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Dissolved	Water	4500 S2 D-2011	693939
410-239769-10	MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Dissolved	Water	4500 S2 D-2011	693939
410-239769-11	MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Dissolved	Water	4500 S2 D-2011	693939
410-239769-12	MW-211 5 g/L FB	Dissolved	Water	4500 S2 D-2011	693939
410-239769-13	MW-211 10 g/L FB	Dissolved	Water	4500 S2 D-2011	693939
410-239769-14	MW-211 15 g/L FB	Dissolved	Water	4500 S2 D-2011	693939
MRL 410-694033/17	Lab Control Sample	Total/NA	Water	4500 S2 D-2011	

Analysis Batch: 694229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-1	MW-211 Control	Total/NA	Water	2320B-2011	
410-239769-2	MW-211 2 g/L NaHCO3	Total/NA	Water	2320B-2011	
410-239769-3	MW-211 5 g/L NaHCO3	Total/NA	Water	2320B-2011	
410-239769-4	MW-211 10 g/L NaHCO3	Total/NA	Water	2320B-2011	
410-239769-5	MW-211 1 g/L FeSO4-7H2O	Total/NA	Water	2320B-2011	
410-239769-6	MW-211 2 g/L FeSO4-7H2O	Total/NA	Water	2320B-2011	
410-239769-7	MW-211 5 g/L FeSO4-7H2O	Total/NA	Water	2320B-2011	
410-239769-8	MW-211 10 g/L FeSO4-7H2O	Total/NA	Water	2320B-2011	
410-239769-9	MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Total/NA	Water	2320B-2011	
410-239769-10	MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Total/NA	Water	2320B-2011	
410-239769-11	MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Total/NA	Water	2320B-2011	
410-239769-12	MW-211 5 g/L FB	Total/NA	Water	2320B-2011	
410-239769-13	MW-211 10 g/L FB	Total/NA	Water	2320B-2011	
410-239769-14	MW-211 15 g/L FB	Total/NA	Water	2320B-2011	
MB 410-694229/120	Method Blank	Total/NA	Water	2320B-2011	
MB 410-694229/148	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-694229/121	Lab Control Sample	Total/NA	Water	2320B-2011	
LCS 410-694229/149	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 410-694229/122	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
LCSD 410-694229/150	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

QC Association Summary

Client: Terra Systems Inc
Job ID: 410-239769-1
Project/Site: WSP GRE Stanton SD CCR Phase II

General Chemistry

Analysis Batch: 698365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-239769-1	MW-211 Control	Total/NA	Water	415.1	
410-239769-2	MW-211 2 g/L NaHCO3	Total/NA	Water	415.1	
410-239769-3	MW-211 5 g/L NaHCO3	Total/NA	Water	415.1	
410-239769-4	MW-211 10 g/L NaHCO3	Total/NA	Water	415.1	
410-239769-5	MW-211 1 g/L FeSO4-7H2O	Total/NA	Water	415.1	
410-239769-6	MW-211 2 g/L FeSO4-7H2O	Total/NA	Water	415.1	
410-239769-7	MW-211 5 g/L FeSO4-7H2O	Total/NA	Water	415.1	
410-239769-8	MW-211 10 g/L FeSO4-7H2O	Total/NA	Water	415.1	
410-239769-9	MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Total/NA	Water	415.1	
410-239769-10	MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Total/NA	Water	415.1	
410-239769-11	MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Total/NA	Water	415.1	
410-239769-12	MW-211 5 g/L FB	Total/NA	Water	415.1	
410-239769-13	MW-211 10 g/L FB	Total/NA	Water	415.1	
410-239769-14	MW-211 15 g/L FB	Total/NA	Water	415.1	
MB 410-698365/37	Method Blank	Total/NA	Water	415.1	
MB 410-698365/7	Method Blank	Total/NA	Water	415.1	
LCS 410-698365/36	Lab Control Sample	Total/NA	Water	415.1	
LCS 410-698365/6	Lab Control Sample	Total/NA	Water	415.1	
MRL 410-698365/1	Lab Control Sample	Total/NA	Water	415.1	

Client Sample ID: MW-211 Control
Lab Sample ID: 410-239769-1

Date Collected: 08/27/25 08:00
Matrix: Water
Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	700077	KJQ8	ELLE	09/16/25 15:20
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6010D		1	698007	T8CQ	ELLE	09/11/25 04:23
Total Recoverable	Prep	3005A			696291	UJL8	ELLE	09/09/25 07:00
Total Recoverable	Analysis	6010D		5	697994	T8CQ	ELLE	09/11/25 01:04
Total Recoverable	Prep	3005A			696291	UJL8	ELLE	09/09/25 07:00
Total Recoverable	Analysis	6010D		1	697346	T8CQ	ELLE	09/10/25 06:04
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 17:27
Total Recoverable	Prep	3005A			696291	UJL8	ELLE	09/09/25 07:00
Total Recoverable	Analysis	6020B		1	696973	LHF4	ELLE	09/09/25 20:50
Total/NA	Analysis	2320B-2011		10	694229	DI9Q	ELLE	09/03/25 13:19
Total/NA	Analysis	415.1		10	698365	UJE2	ELLE	09/10/25 22:44
Dissolved	Prep	SM 4500 S2 B			693939	USAE	ELLE	09/03/25 09:00
Dissolved	Analysis	4500 S2 D-2011		1	694033	USAE	ELLE	09/03/25 11:53

Client Sample ID: MW-211 2 g/L NaHCO3
Lab Sample ID: 410-239769-2

Date Collected: 08/27/25 08:15
Matrix: Water
Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	700077	KJQ8	ELLE	09/16/25 16:52
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6010D		5	698270	T8CQ	ELLE	09/11/25 19:08
Total Recoverable	Prep	3005A			696291	UJL8	ELLE	09/09/25 07:00
Total Recoverable	Analysis	6010D		5	697994	T8CQ	ELLE	09/11/25 01:07
Total Recoverable	Prep	3005A			696291	UJL8	ELLE	09/09/25 07:00
Total Recoverable	Analysis	6010D		1	697346	T8CQ	ELLE	09/10/25 06:07
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 17:29
Total Recoverable	Prep	3005A			696291	UJL8	ELLE	09/09/25 07:00
Total Recoverable	Analysis	6020B		1	696973	LHF4	ELLE	09/09/25 20:52
Total/NA	Analysis	2320B-2011		10	694229	DI9Q	ELLE	09/03/25 13:38
Total/NA	Analysis	415.1		1	698365	UJE2	ELLE	09/11/25 00:02
Dissolved	Prep	SM 4500 S2 B			693939	USAE	ELLE	09/03/25 09:00
Dissolved	Analysis	4500 S2 D-2011		5	694033	USAE	ELLE	09/03/25 11:53

Client Sample ID: MW-211 5 g/L NaHCO3
Lab Sample ID: 410-239769-3

Date Collected: 08/27/25 08:30
Matrix: Water
Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	700077	KJQ8	ELLE	09/16/25 16:13

Client Sample ID: MW-211 5 g/L NaHCO3

Lab Sample ID: 410-239769-3

Date Collected: 08/27/25 08:30

Matrix: Water

Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6010D		1	698007	T8CQ	ELLE	09/11/25 04:30
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6010D		1	698583	T8CQ	ELLE	09/12/25 03:45
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 17:32
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 15:27
Total/NA	Analysis	2320B-2011		10	694229	DI9Q	ELLE	09/03/25 12:38
Total/NA	Analysis	415.1		10	698365	UJE2	ELLE	09/11/25 00:28
Dissolved	Prep	SM 4500 S2 B			693939	USAE	ELLE	09/03/25 09:00
Dissolved	Analysis	4500 S2 D-2011		5	694033	USAE	ELLE	09/03/25 11:53

Client Sample ID: MW-211 10 g/L NaHCO3

Lab Sample ID: 410-239769-4

Date Collected: 08/27/25 08:45

Matrix: Water

Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	700077	KJQ8	ELLE	09/16/25 18:10
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6010D		1	698007	T8CQ	ELLE	09/11/25 04:33
Total Recoverable	Prep	3005A			696118	UAMX	ELLE	09/08/25 21:30
Total Recoverable	Analysis	6010D		1	697342	T8CQ	ELLE	09/09/25 17:12
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 17:34
Total Recoverable	Prep	3005A			696118	UAMX	ELLE	09/08/25 21:30
Total Recoverable	Analysis	6020B		1	696973	LHF4	ELLE	09/09/25 19:38
Total/NA	Analysis	2320B-2011		10	694229	DI9Q	ELLE	09/03/25 13:52
Total/NA	Analysis	415.1		50	698365	UJE2	ELLE	09/11/25 00:54
Dissolved	Prep	SM 4500 S2 B			693939	USAE	ELLE	09/03/25 09:00
Dissolved	Analysis	4500 S2 D-2011		5	694033	USAE	ELLE	09/03/25 11:53

Client Sample ID: MW-211 1 g/L FeSO4-7H2O

Lab Sample ID: 410-239769-5

Date Collected: 08/27/25 09:00

Matrix: Water

Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	701408	L4QM	ELLE	09/18/25 17:15
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6010D		5	698270	T8CQ	ELLE	09/11/25 19:11
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6010D		1	698583	T8CQ	ELLE	09/12/25 03:48
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6010D		5	699407	MT26	ELLE	09/15/25 09:23

Client Sample ID: MW-211 1 g/L FeSO4-7H2O
Lab Sample ID: 410-239769-5

Date Collected: 08/27/25 09:00
Matrix: Water
Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 17:36
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6020B		5	699753	I9IN	ELLE	09/15/25 15:29
Total/NA	Analysis	2320B-2011		10	694229	DI9Q	ELLE	09/03/25 12:44
Total/NA	Analysis	415.1		1	698365	UJE2	ELLE	09/11/25 01:20
Dissolved	Prep	SM 4500 S2 B			693939	USAE	ELLE	09/03/25 09:00
Dissolved	Analysis	4500 S2 D-2011		5	694033	USAE	ELLE	09/03/25 11:53

Client Sample ID: MW-211 2 g/L FeSO4-7H2O
Lab Sample ID: 410-239769-6

Date Collected: 08/27/25 09:15
Matrix: Water
Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	699619	KJQ8	ELLE	09/16/25 13:54
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6010D		5	698270	T8CQ	ELLE	09/11/25 19:14
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6010D		1	698583	T8CQ	ELLE	09/12/25 03:51
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6010D		5	699407	MT26	ELLE	09/15/25 09:26
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 17:38
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6020B		5	699753	I9IN	ELLE	09/15/25 15:31
Total/NA	Analysis	2320B-2011		10	694229	DI9Q	ELLE	09/03/25 13:25
Total/NA	Analysis	415.1		50	698365	UJE2	ELLE	09/11/25 01:46
Dissolved	Prep	SM 4500 S2 B			693939	USAE	ELLE	09/03/25 09:00
Dissolved	Analysis	4500 S2 D-2011		5	694033	USAE	ELLE	09/03/25 11:53

Client Sample ID: MW-211 5 g/L FeSO4-7H2O
Lab Sample ID: 410-239769-7

Date Collected: 08/27/25 09:30
Matrix: Water
Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	700077	KJQ8	ELLE	09/16/25 18:50
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6010D		5	698270	T8CQ	ELLE	09/11/25 19:17
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6010D		1	698583	T8CQ	ELLE	09/12/25 03:55
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6010D		5	699407	MT26	ELLE	09/15/25 09:29
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 17:49

Client Sample ID: MW-211 5 g/L FeSO4-7H2O
Lab Sample ID: 410-239769-7

Date Collected: 08/27/25 09:30
Matrix: Water
Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6020B		5	699753	I9IN	ELLE	09/15/25 15:40
Total/NA	Analysis	2320B-2011		10	694229	DI9Q	ELLE	09/03/25 12:24
Total/NA	Analysis	415.1		10	698365	UJE2	ELLE	09/11/25 02:13
Dissolved	Prep	SM 4500 S2 B			693939	USAE	ELLE	09/03/25 09:00
Dissolved	Analysis	4500 S2 D-2011		5	694033	USAE	ELLE	09/03/25 11:53

Client Sample ID: MW-211 10 g/L FeSO4-7H2O
Lab Sample ID: 410-239769-8

Date Collected: 08/27/25 09:45
Matrix: Water
Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	700077	KJQ8	ELLE	09/16/25 15:33
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6010D		5	698270	T8CQ	ELLE	09/11/25 19:20
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6010D		1	698583	T8CQ	ELLE	09/12/25 03:58
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6010D		5	699407	MT26	ELLE	09/15/25 09:32
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 17:52
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6020B		5	699753	I9IN	ELLE	09/15/25 15:42
Total/NA	Analysis	2320B-2011		10	694229	DI9Q	ELLE	09/03/25 12:18
Total/NA	Analysis	415.1		25	698365	UJE2	ELLE	09/11/25 05:40
Dissolved	Prep	SM 4500 S2 B			693939	USAE	ELLE	09/03/25 09:00
Dissolved	Analysis	4500 S2 D-2011		1	694033	USAE	ELLE	09/03/25 11:53

Client Sample ID: MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O
Lab Sample ID: 410-239769-9

Date Collected: 08/27/25 10:00
Matrix: Water
Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	699512	L4QM	ELLE	09/15/25 21:13
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6010D		1	698007	T8CQ	ELLE	09/11/25 05:05
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6010D		1	698583	T8CQ	ELLE	09/12/25 04:02
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 17:54
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 15:44
Total/NA	Analysis	2320B-2011		10	694229	DI9Q	ELLE	09/03/25 12:55
Total/NA	Analysis	415.1		25	698365	UJE2	ELLE	09/11/25 06:06

Client Sample ID: MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O
Lab Sample ID: 410-239769-9

Date Collected: 08/27/25 10:00
Matrix: Water
Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	SM 4500 S2 B			693939	USAE	ELLE	09/03/25 09:00
Dissolved	Analysis	4500 S2 D-2011		5	694033	USAE	ELLE	09/03/25 11:53

Client Sample ID: MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O
Lab Sample ID: 410-239769-10

Date Collected: 08/27/25 10:15
Matrix: Water
Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	699619	KJQ8	ELLE	09/16/25 12:58
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6010D		1	698007	T8CQ	ELLE	09/11/25 05:08
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6010D		1	698583	T8CQ	ELLE	09/12/25 04:05
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 17:56
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 15:47
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6020B		10	700322	I9IN	ELLE	09/16/25 22:15
Total/NA	Analysis	2320B-2011		10	694229	DI9Q	ELLE	09/03/25 13:33
Total/NA	Analysis	415.1		25	698365	UJE2	ELLE	09/11/25 06:33
Dissolved	Prep	SM 4500 S2 B			693939	USAE	ELLE	09/03/25 09:00
Dissolved	Analysis	4500 S2 D-2011		5	694033	USAE	ELLE	09/03/25 11:53

Client Sample ID: MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O
Lab Sample ID: 410-239769-11

Date Collected: 08/27/25 10:30
Matrix: Water
Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		200	700077	KJQ8	ELLE	09/16/25 19:29
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6010D		1	698007	T8CQ	ELLE	09/11/25 05:11
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6010D		1	698583	T8CQ	ELLE	09/12/25 04:22
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6010D		5	699407	MT26	ELLE	09/15/25 09:35
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 17:58
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 15:49
Total/NA	Analysis	2320B-2011		10	694229	DI9Q	ELLE	09/03/25 12:31
Total/NA	Analysis	415.1		25	698365	UJE2	ELLE	09/11/25 06:59
Dissolved	Prep	SM 4500 S2 B			693939	USAE	ELLE	09/03/25 09:00
Dissolved	Analysis	4500 S2 D-2011		1	694033	USAE	ELLE	09/03/25 11:53

Client Sample ID: MW-211 5 g/L FB
Lab Sample ID: 410-239769-12

Date Collected: 08/27/25 10:45
Matrix: Water
Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	701408	L4QM	ELLE	09/18/25 18:07
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6010D		1	698007	T8CQ	ELLE	09/11/25 05:14
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6010D		1	698583	T8CQ	ELLE	09/12/25 04:25
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6010D		5	699407	MT26	ELLE	09/15/25 09:38
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 18:00
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6020B		5	699753	I9IN	ELLE	09/15/25 15:51
Total/NA	Analysis	2320B-2011		10	694229	DI9Q	ELLE	09/03/25 13:13
Total/NA	Analysis	415.1		1	698365	UJE2	ELLE	09/11/25 07:25
Dissolved	Prep	SM 4500 S2 B			693939	USAE	ELLE	09/03/25 09:00
Dissolved	Analysis	4500 S2 D-2011		1	694033	USAE	ELLE	09/03/25 11:53

Client Sample ID: MW-211 10 g/L FB
Lab Sample ID: 410-239769-13

Date Collected: 08/27/25 11:00
Matrix: Water
Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	701408	L4QM	ELLE	09/18/25 19:00
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6010D		1	698007	T8CQ	ELLE	09/11/25 05:18
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6010D		1	698583	T8CQ	ELLE	09/12/25 04:28
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 18:03
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6020B		5	699753	I9IN	ELLE	09/15/25 15:53
Total/NA	Analysis	2320B-2011		10	694229	DI9Q	ELLE	09/03/25 12:49
Total/NA	Analysis	415.1		1	698365	UJE2	ELLE	09/10/25 21:52
Dissolved	Prep	SM 4500 S2 B			693939	USAE	ELLE	09/03/25 09:00
Dissolved	Analysis	4500 S2 D-2011		5	694033	USAE	ELLE	09/03/25 11:53

Client Sample ID: MW-211 15 g/L FB
Lab Sample ID: 410-239769-14

Date Collected: 08/27/25 11:15
Matrix: Water
Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	EPA 300.0 R2.1		100	699512	L4QM	ELLE	09/15/25 17:13
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6010D		1	698007	T8CQ	ELLE	09/11/25 05:21

Lab Chronicle

Client: Terra Systems Inc
Job ID: 410-239769-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Client Sample ID: MW-211 15 g/L FB
Lab Sample ID: 410-239769-14

Date Collected: 08/27/25 11:15
Matrix: Water

Date Received: 08/28/25 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6010D		1	698583	T8CQ	ELLE	09/12/25 04:32
Dissolved	Prep	Non-Digest Prep			695992	UJL8	ELLE	09/10/25 08:20
Dissolved	Analysis	6020B		10	699753	I9IN	ELLE	09/15/25 18:05
Total Recoverable	Prep	3005A			696294	UAMX	ELLE	09/10/25 21:30
Total Recoverable	Analysis	6020B		5	699753	I9IN	ELLE	09/15/25 15:55
Total/NA	Analysis	2320B-2011		10	694229	DI9Q	ELLE	09/03/25 13:44
Total/NA	Analysis	415.1		1	698365	UJE2	ELLE	09/10/25 22:18
Dissolved	Prep	SM 4500 S2 B			693939	USAE	ELLE	09/03/25 09:00
Dissolved	Analysis	4500 S2 D-2011		5	694033	USAE	ELLE	09/03/25 11:53

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-239769-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-26
A2LA	Dept. of Energy	0001.01	11-30-26
A2LA	ISO/IEC 17025	0001.01	11-30-26
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-26
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-09-26
California	State	2792	01-31-26
Colorado	State	PA00009	06-30-26
Connecticut	State	PH-0746	06-30-27
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	07-01-26
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	01-31-26
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-25
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	11-30-26
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-26
Maine	State	2019012	03-12-27
Maryland	State	100	06-30-26
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26
Minnesota	NELAP	042-999-487	12-31-25
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	01-01-26
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	01-10-26
New Jersey	NELAP	PA011	06-30-26
New York	NELAP	10670	04-01-26
North Carolina (DW)	State	42705	07-31-26
North Carolina (WW/SW)	State	521	12-31-25
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	12-31-25
Pennsylvania	NELAP	36-00037	01-31-26
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-26
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-25
Virginia	NELAP	460182	06-14-26
Washington	State	C457	04-11-26
West Virginia (DW)	State	9906 C	03-31-26

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Terra Systems Inc
Job ID: 410-239769-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	055	07-31-26
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	11-30-26

Method Summary

Client: Terra Systems Inc
Job ID: 410-239769-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010D	Metals (ICP)	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
415.1	TOC	EPA	ELLE
4500 S2 D-2011	Sulfide, Total	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
SM 4500 S2 B	Sulfide, Separation of Soluble and Insoluble	SM	ELLE

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:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Terra Systems Inc
Job ID: 410-239769-1
Project/Site: WSP GRE Stanton SD CCR Phase II

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
410-239769-1	MW-211 Control	Water	08/27/25 08:00	08/28/25 17:12	South Dakota
410-239769-2	MW-211 2 g/L NaHCO3	Water	08/27/25 08:15	08/28/25 17:12	South Dakota
410-239769-3	MW-211 5 g/L NaHCO3	Water	08/27/25 08:30	08/28/25 17:12	South Dakota
410-239769-4	MW-211 10 g/L NaHCO3	Water	08/27/25 08:45	08/28/25 17:12	South Dakota
410-239769-5	MW-211 1 g/L FeSO4-7H2O	Water	08/27/25 09:00	08/28/25 17:12	South Dakota
410-239769-6	MW-211 2 g/L FeSO4-7H2O	Water	08/27/25 09:15	08/28/25 17:12	South Dakota
410-239769-7	MW-211 5 g/L FeSO4-7H2O	Water	08/27/25 09:30	08/28/25 17:12	South Dakota
410-239769-8	MW-211 10 g/L FeSO4-7H2O	Water	08/27/25 09:45	08/28/25 17:12	South Dakota
410-239769-9	MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O	Water	08/27/25 10:00	08/28/25 17:12	South Dakota
410-239769-10	MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O	Water	08/27/25 10:15	08/28/25 17:12	South Dakota
410-239769-11	MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O	Water	08/27/25 10:30	08/28/25 17:12	South Dakota
410-239769-12	MW-211 5 g/L FB	Water	08/27/25 10:45	08/28/25 17:12	South Dakota
410-239769-13	MW-211 10 g/L FB	Water	08/27/25 11:00	08/28/25 17:12	South Dakota
410-239769-14	MW-211 15 g/L FB	Water	08/27/25 11:15	08/28/25 17:12	South Dakota

Environmental Analysis Request

410-239769 Chain of Custody

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Acct. # _____ Group # _____ Sample # _____

Client: Terra Systems, Inc.			
Project Name/#: WSP GRE Stanton SD CCR Phase II	Site ID #: Stanton SD		
Project Manager: Michael D. Lee	P.O. #: 251114 8/27/25		
Sampler: Gregory Maccarone	PWSID #:		
Phone #: 302-798-9553	Quote #: 41022082		
State where samples were collected: ___ SD	For Compliance: Yes ☑	No ☑	

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Water	Other:	Total # of Containers	Analyses Requested: Diss (f) As, B, Ba, Be, Cd, Co, Cr, Fe, Li, Mn, Mo, Pb, Sb, Se by 6020B ICP/MS	Total As, B, Ba, Be, Cd, Co, Cr, Fe, Li, Mn, Mo, Pb, Sb, Se by 6020B ICP/MS	Alkalinity	Sulfide	TOC	Sulfate by EPA 300.1	Remarks
MW-211 Control	8/27/2025	10:00		X		X		7	X	X	X	X	X	X	ff= field filtered
MW-211 2 g/L NaHCO3	8/27/2025	10:15		X		X		7	X	X	X	X	X	X	
MW-211 5 g/L NaHCO3	8/27/2025	10:30		X		X		7	X	X	X	X	X	X	
MW-211 10 g/L NaHCO3	8/27/2025	10:45		X		X		7	X	X	X	X	X	X	
MW-211 1 g/L FeSO4-7H2O	8/27/2025	11:00		X		X		7	X	X	X	X	X	X	
MW-211 2 g/L FeSO4-7H2O	8/27/2025	11:15		X		X		7	X	X	X	X	X	X	
MW-211 5 g/L FeSO4-7H2O	8/27/2025	11:30		X		X		7	X	X	X	X	X	X	
MW-211 10 g/L FeSO4-7H2O	8/27/2025	11:45		X		X		7	X	X	X	X	X	X	
MW-211 5 g/L NaHCO3 2 g/L FeSO4-7H2O	8/27/2025	12:00		X		X		7	X	X	X	X	X	X	
MW-211 5 g/L NaHCO3 5 g/L FeSO4-7H2O	8/27/2025	12:15		X		X		7	X	X	X	X	X	X	

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

For Lab Use Only: SF #: _____ SCR #: _____

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 9/10/25

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: mlee@terrasystems.net

Phone: 302-798-9553

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type VI (Raw Data Only)	☐	TX TRRP-13	☐
NJ DKQP	☐	NYSDEC Category	☐ A or ☐ B

EDD Required? Yes ☐ No ☑ If yes, format: _____

	Date	Time		Date	Time
Relinquished by:	8/28/1023		Received by:	8/28/251023	
Relinquished by:	8/28/25	17:12	Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:	8/28/25	17:12

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt R: 2.0 C: 1.9 °C

8/29/25

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7045 0216

Environmental Analysis Request/Chain of Custody

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Acct. # _____ Group # _____ Sample # _____

Client: Terra Systems, Inc.			
Project Name/#: WSP GRE Stanton SD CCR Phase II	Site ID #: Stanton SD		
Project Manager: Michael D. Lee	P.O. #: 251114 8/27/25		
Sampler: Gregory Maccarone	PWSID #:		
Phone #: 302-798-9553	Quote #: 41022082		
State where samples were collected: ___ SD	For Compliance: Yes ☑ No ☑		

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Water	Matrix: Other:	Total # of Containers	Diss (f) As, B, Ba, Be, Cd, Co, Cr, Fe, Li, Mn, Mo, Pb, Sb, Se by 6020B ICP/MS	Total As, B, Ba, Be, Cd, Co, Cr, Fe, Li, Mn, Mo, Pb, Sb, Se by 6020B ICP/MS	Alkalinity	Sulfide	TOC	[redacted]	Sulfate by EPA 300.1			Remarks
									N	N	-	B	P					
MW-211 5 g/L NaHCO3 10 g/L FeSO4-7H2O	8/27/2025	10:30		X		X		7	X	X	X	X	X		X			ff= field filtered
MW-211 5 g/L FB	8/27/2025	10:45		X		X		7	X	X	X	X	X		X			
MW-211 10 g/L FB	8/27/2025	11:00		X		X		7	X	X	X	X	X		X			
MW-211 15 g/L FB	8/27/2025	11:15		X		X		7	X	X	X	X	X		X			

Matrix: ☐ Tissue ☐ Sediment ☐ Soil ☑ Ground ☐ Potable ☐ Water ☐ Surface ☐ NPDES ☐ Other:

Analyses Requested / Preservation Codes

For Lab Use Only: SF #: _____ SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed: 9/10/25

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: mlee@terrasystems.net

Phone: 302-798-9553

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐
Type III (Reduced non-CLP) ☐ CT RCP ☐
Type VI (Raw Data Only) ☐ TX TRRP-13 ☐
NJ DKQP ☐ NYSDEC Category ☐ A or ☐ B

EDD Required? Yes ☐ No ☑ If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	8/28/25	1023	[signature]	8/28/25	1023
[signature]	8/28/25	1712			
			[signature]	8/28/25	1712

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt R-2.0 C-2.9 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

3Ka 2241 8/29/25 7045 0218

Login Sample Receipt Checklist

Client: Terra Systems Inc

Job Number: 410-239769-1

Login Number: 239769

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Metzger, Katherine A

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	Not present.
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

Sample Preservation Checks (performed by the laboratory)

Question	Answer	Comment
Did the sample containers checked meet expected preservation conditions?	False	Refer to Job Narrative for details.

APPENDIX G

Bottom Ash Impoundment Assessment of Corrective Measures

REPORT

Assessment of Corrective Measures

Great River Energy, Stanton Station, Closed Bottom Ash Impoundment

Submitted to:

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GL21509219.000-041-RPT-0

September 24, 2025



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1.0 INTRODUCTION

WSP USA Inc. (WSP) has prepared this assessment of corrective measures (ACM) report for the Bottom Ash Impoundment at Great River Energy's (GRE) Stanton Station in accordance with the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule, 40 Code of Federal Regulations (CFR) Part 257 and the North Dakota Department of Environmental Quality (NDDEQ) CCR Rule, North Dakota Administrative Code (NDAC) Title 33.1 Article 20 Chapter 08. This ACM has been prepared to evaluate potential corrective measures including source control and groundwater remediation corrective measures to address the identified statistically significant levels (SSLs) of molybdenum and arsenic in groundwater downgradient of the Bottom Ash Impoundment. Molybdenum was detected as an SSL at monitoring well MW-201 and arsenic was detected as an SSL at monitoring well MW-203.

The SSL for molybdenum at MW-201 was identified March 28, 2025, following completion of assessment monitoring statistics associated with the fourth quarter (Q4) 2024 semi-annual sampling and testing event. A notification identifying the SSL for molybdenum was prepared and both posted online and submitted to the NDDEQ on April 8, 2025 (within 30 days of identifying the SSL). The ACM was initiated on June 26, 2025, within 90 days of identifying the SSL for molybdenum.

The SSL for arsenic at MW-203 was identified July 22, 2025, following completion of assessment monitoring statistics associated with the first quarter (Q1) 2025 annual sampling and testing event and initiation of the ACM at the Bottom Ash Impoundment. A notification identifying the SSL for arsenic was prepared and both posted online and submitted to the NDDEQ on August 1, 2025 (within 30 days of identifying the SSL). The ACM for the arsenic SSL was initiated July 22, 2025, by incorporation into the ongoing ACM for the Bottom Ash Impoundment, within 90 days of identified the SSL.

1.1 Purpose

The purpose of this ACM is to identify potential corrective measures to prevent further releases, remediate any identified releases, and restore the groundwater downgradient of the Bottom Ash Impoundment to original conditions. In particular, the ACM evaluates corrective measures including source control and alternatives for groundwater corrective action at the site given the site conditions and constituents of concern. Based on the results of the ACM, further evaluation will be performed, site-specific studies completed, and a final long-term corrective action plan will be developed and implemented pursuant to 40 CFR 257.97 and -98 and NDAC 33.1-20-08-06(6) and (7). This process is typically iterative and may be composed of multiple steps to analyze the effectiveness of corrective measures to address the potential migration of CCR constituents in groundwater at the Bottom Ash Impoundment.

Both the Federal and State rules indicate that corrective measure assessments should include an analysis of the effectiveness of potential corrective measures addressing the following as stated in 40 CFR 257.96(c) and NDAC 33.1-20-08-06(6)(c):

- performance of potential remedies
- reliability of potential remedies
- ease of implementation of potential remedies
- potential impacts of potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination

- time required to begin and complete the remedy
- any institutional requirements that may substantially affect implementation of the selected remedy, such as state or local permit requirements
- other environmental or public health requirements that may substantially affect implementation of the selected remedy

These evaluation criteria were considered for each potential remedy and are discussed in more detail in the following sections. Once potential corrective measures are identified, they will be further evaluated, and a remedy will be selected using the criteria outlined in 40 CFR 257.97 and -98 and NDAC 33.1-20-08-06(6) and (7).

1.2 Site Background

Stanton Station was a coal-fired electric generation facility located along the Missouri River in Mercer County, approximately three miles southeast of Stanton, North Dakota. Stanton Station began generating power in 1966 and ceased power production in February 2017. Demolition of the industrial site was finished in 2019, with site restoration completed in 2020. CCRs were managed in composite-lined surface water impoundment cells and dry waste landfills regulated and permitted by the NDDEQ in accordance with NDAC Article 33.1-20, Solid Waste Management and Land Protection.

Stanton Station has two CCR units covered by the Federal and State CCR rules:

- Bottom Ash CCR Landfill (Bottom Ash Landfill)
- Bottom Ash CCR Surface Impoundment (Bottom Ash Impoundment)

Locations of the two CCR units, and the Bottom Ash Impoundment groundwater monitoring wells are shown in Figure 1. This ACM pertains only to the Bottom Ash Impoundment.

1.3 Site Closure and Restoration

Site restoration activities began in the summer of 2019 and were completed in the summer of 2020. These activities primarily included closure of the Bottom Ash Landfill and the Bottom Ash Impoundment as well as re-grading the site to promote drainage and vegetative growth.

Documentation of the closure and cover construction at the Bottom Ash Impoundment was included in the construction quality assurance (CQA) report provided to the NDDEQ (GAUSA 2021b). Construction activities associated with the closure of the Bottom Ash Impoundment included:

- Isolation of the south cell and construction of a sump within the south cell
- Closure by removal of the north and center cells, including removal of the high-density polyethylene (HDPE) liner and approximately six inches of the clay soil liner
- Regrading and stabilization of waste in the south cell and construction of a final cover system over the south cell in accordance with the final cover designs outlined in the Closure and Post-Closure Plan (GAI 2019) to minimize infiltration and erosion and to meet or exceed the requirements of 40 CFR 257.102(d)(3)(ii) and NDAC 33.1-20-08-07(3)(d)(3)(b).

Each construction activity included CQA testing and monitoring and was overseen by a professional engineer licensed in the state of North Dakota. Documentation was provided to the NDDEQ (GAUSA 2021b). Construction drawings for the Bottom Ash Impoundment closure are included in Appendix A.

2.0 SITE CONDITIONS

The Stanton Station site is located along the Missouri River, and the general area is primarily characterized by the presence of glacial deposits, with alluvial deposits dominating near-surface geology adjacent to the Missouri River. The following sections detail the regional and site geology and hydrogeology.

2.1 Regional and Site Geology

Regional geology of the area surrounding Stanton Station is documented in the Hydrogeologic Assessment Report, Stanton Station Ash Ponds (Braun 1993). Stanton Station is located in the Missouri Slope District of the Glaciated Missouri Plateau Section of the Great Plains Province. Subsurface and surficial stratigraphy of Mercer County and the adjacent Oliver County were reviewed in depth by C.G. Carlson for the North Dakota Geological Society (Carlson 1973). Primary near-surface stratigraphic units in the area of Stanton Station include the Tongue River formation and Cannonball Formation, with named lignite beds prominent in the vicinity of the site.

Near-surface geology at Stanton Station consists of two primary geologic units: the upper alluvial terrace deposits of the Missouri River, and underlying sediments and bedrock belonging to the Bullion Creek Formation, each of which have varying extents and thickness across the site (Braun 1993).

2.2 Site Hydrogeology

The principal hydrostratigraphic unit and uppermost water-bearing unit in the vicinity of the Bottom Ash Impoundment consists of alluvial deposits, which include two subunits: an upper silty sand and clay, and an underlying outwash sand and gravel. Individually, these subunits are laterally heterogeneous and geologic conditions within these subunits can be characterized by interbedded layers of gravel, sand, silt, clay, and coal.

Due to variations in subunit thickness throughout the site and the interconnected behavior of the identified subunits, groundwater in the uppermost water bearing unit is monitored in both identified subunits. Flow generally moves from southwest to northeast across the site towards the Missouri River. Depths from the ground surface to the uppermost water-bearing unit range from 5 to 20 feet in the area around Stanton Station.

2.3 Groundwater Flow Conditions

Depths to groundwater have been measured at sampled wells during each sampling event prior to purging. Groundwater elevations in the uppermost groundwater at Stanton Station are consistent with historical values and demonstrate that groundwater generally flows to the north and northeast towards the Missouri River.

The groundwater flow rate across each facility was estimated with the equation:

$$V_s = k \times {}^{i}/_{n_e}$$

Where:

V_s = the groundwater flow rate in feet per day (ft/day)

k = the hydraulic conductivity in ft/day, estimated from slug testing results from system wells

i = the hydraulic gradient in feet per feet (ft/ft), calculated based on groundwater elevations for the presented monitoring events

n_e = the effective porosity, a unitless parameter, estimated to be 0.25 for a silt/sand (Duffield 2007), reflective of site soils

Hydraulic conductivity (k) values measured on site ranged from 0.023 ft/day to 21.9 ft/day based on site-specific testing conducted in 2023 and analyzed in 2024 (WSP 2024). As the Bottom Ash Impoundment and Bottom Ash Landfill are adjacent to one another and intersect similar geologic formations within the uppermost water-bearing zone, the groundwater flow rates are assumed to be approximately the same for the facilities during each sampling event and are presented below.

- Q4 2024
  - Average gradient (i) = 0.008 ft/ft
  - Range of groundwater flow velocities (V_s): 0.0007 ft/day to 0.66 ft/day
- Q1 2025
  - Average gradient (i) = 0.007 ft/ft
  - Range of groundwater flow velocities (V_s): 0.0006 ft/day to 0.62 ft/day

3.0 GROUNDWATER MONITORING SUMMARY

3.1 Groundwater Monitoring Program

The CCR groundwater monitoring system at Stanton Station is designed to identify potential impacts from the Bottom Ash Impoundment. The Bottom Ash Impoundment monitoring wells are installed and screened at appropriate locations and depths to obtain groundwater samples from the uppermost water bearing unit. The number and spacing of the downgradient monitoring wells were selected based on the hydrogeologic conditions at the site and the areal extent of the CCR unit in closure, such that impacts to groundwater quality in the uppermost water bearing unit can be detected along potential flow pathways if they were to occur. The current groundwater monitoring system is described in the Coal Combustion Residuals Groundwater Monitoring System Certification, Revision 1 (GAI 2020).

3.2 Site-Specific Groundwater Protection Standards (GWPS)

Site-specific groundwater protection standards (GWPS) as provided in Table 1 were established for statistical comparison with assessment monitoring results. Site-specific GWPS were originally developed from upgradient and side-gradient background locations (MW-8B, MW-7A, MW-7B, MW-105, and MW-6B), with data collected between the start of the CCR monitoring program in 2016 and Q4 2021.

Per 40 CFR 257.95(h) and NDAC 33.1-20-08-06(5)(h), the site-specific GWPS must fall within one of the following categories:

- For constituents for which a maximum contaminant level (MCL) has been established by the USEPA (40 CFR 141.62 and 141.66), the MCL for that constituent will be the site-specific GWPS.
- For the following constituents, the following alternative CCR-specified limits apply within the Federal rule:

- Cobalt – 0.006 milligrams per liter (mg/L)
- Lead – 0.015 mg/L
- Lithium – 0.04 mg/L
- Molybdenum – 0.1 mg/L

- For constituents where the background baseline concentration is higher than the specified levels noted above, a statistical limit determined from the baseline data will be the site-specific GWPS.

Based on the pooled background dataset, the MCL or alternative limit as indicated above were set as the site-specific GWPS for the assessment monitoring constituents, with the exception of lithium.

Each measured concentration of lithium from the upgradient and side-gradient background locations collected to date are greater than the value specified in 40 CFR 257.95(h)(2). The pooled dataset for lithium displayed a non-normal distribution with the included data from 2016 to Q4 2021, resulting in a GWPS of 0.325 mg/L as the highest value in the pooled background dataset as shown in Table 1.

Site-specific GWPS values were originally developed when the Bottom Ash Landfill entered assessment monitoring, with data collected through Q4 2021. Background data collected since Q4 2021 have been reviewed during each assessment monitoring sampling event to confirm the continued applicability of the site-specific GWPS. Changes in the background water quality will continue to be monitored during each assessment monitoring sampling event.

3.3 Assessment Monitoring SSLs

During assessment monitoring sampling events, groundwater samples are collected and analyzed for the assessment monitoring parameters to meet the requirements of 40 CFR 257.95(b) and NDAC 33.1-20-08-06(5). Analytical data from both the annual and semi-annual assessment monitoring events have been statistically analyzed pursuant to 40 CFR 257.93(f) and NDAC 33.1-20-08-06(3)(f), using the methods for assessment monitoring statistics described in detail in the Coal Combustion Residuals Groundwater Statistical Methods Certification, Revision 2 (GAUSA 2021a).

Statistical analysis of the assessment monitoring results from groundwater sampling and analysis of the wells downgradient of the Bottom Ash Impoundment (MW-201, MW-202, MW-203) is performed using a confidence interval approach to evaluate if detected constituent concentrations were SSLs relative to the site-specific GWPS.

A confidence (α) of 95% was used for calculating the Upper Confidence Limit (UCL) and Lower Confidence Limit (LCL) of the compliance data. Confidence limits can be either parametric or non-parametric, dependent on the number of non-detects and data distribution of each data set. For determination of SSLs, the LCL is of primary interest. A confidence interval is only considered statistically above the associated GWPS if both the UCL and LCL exceed the GWPS. If only the UCL exceeds the GWPS while the LCL remains below the GWPS, the results of the test are considered inconclusive. The Unified Guidance recommends that results within this category be interpreted as “in compliance” and not an SSL (USEPA 2009). If both the UCL and LCL are below the GWPS, the data are considered not statistically significant.

An SSL was identified for molybdenum at MW-201 following the Q4 2024 assessment monitoring sampling event. Following identification of the SSL, GRE initiated an assessment of corrective measures for the Bottom Ash Impoundment.

Following initiation of the assessment of corrective measures for the Bottom Ash Impoundment, a separate SSL was identified for arsenic at MW-203 following the Q1 2025 assessment monitoring sampling event.

Data collected during assessment monitoring for arsenic and molybdenum at the background wells and the Bottom Ash Impoundment downgradient wells are shown in Appendix B.

4.0 NATURE AND EXTENT INVESTIGATION

4.1 Field Investigation Activities

Following the identification of the SSL for molybdenum at MW-201, a site investigation plan was developed to help characterize the nature and extent of molybdenum above the GWPS per 40 CFR 257.95(g)(1) and NDAC 33.1-20-08-06(5)(g)(1). The site investigation plan was expanded to also help characterize the nature and extent of arsenic above the GWPS following the identification of the SSL for arsenic at MW-203. Eight additional nature and extent wells were installed based on available information pertaining to groundwater flow direction and gradient downgradient of the Bottom Ash Impoundment. The locations of new and existing monitoring wells used to define the nature and extent of the elevated molybdenum at MW-201 and arsenic at MW-203 are shown in Figure 2.

4.1.1 Property Boundary Well Investigation

A new monitoring well was installed at the downgradient property boundary adjacent to the Missouri River (MW-PB1R) in the direction of groundwater flow. Well MW-PB1R has been installed to a depth approximately 10 feet deeper than the adjacent MW-PB1, which was previously installed as a property boundary well. MW-PB1 has intermittently had insufficient water to be sampled. Both wells (MW-PB1 and MW-PB1R) will be sampled per the schedule established for assessment monitoring within 40 CFR 257.95 and NDAC 33.1-20-08-06(5) when there is sufficient water in the wells. The boring log and well completion information for MW-PB1R and MW-PB1 are included in Appendix B.

4.1.2 June 2025 Nature and Extent Well Investigation

Following the SSL identification, eight additional monitoring wells have been installed to determine the extent of impacts of molybdenum in the vicinity of MW-201 and arsenic in the vicinity of MW-203 (Figure 2).

Five wells, MW-223, MW-224, MW-225, MW-226, and MW-230, were installed and developed in June 2025 near MW-201 to determine the extents of molybdenum. Wells were placed approximately 200 feet to the west (MW-223) and east (MW-224) of MW-201. Additionally, wells were placed in the downgradient direction of groundwater flow, approximately 200 feet (MW-225) and 500 feet (MW-226) to the north and northeast of MW-201. MW-230 was drilled within 10 feet of well MW-201 to a depth intended to intersect the locally defined “bedrock”, to a depth approximately 20 feet deeper than MW-201.

Three additional wells, MW-227, MW-228, and MW-229, were installed and developed in June 2025 near MW-203 to determine the extents of arsenic. Wells were placed approximately 200 feet to the north (MW-227) and south (MW-228) of MW-203, based on the location of the unit boundary and the generalized direction of groundwater flow. MW-229 was installed approximately 400 ft east of MW-203.

Boring logs and well completion information for the wells installed in June 2025 are included in Appendix B.

4.1.3 Additional Nature and Extent Wells

Additional site wells associated with the historical monitoring network for the Bottom Ash Impoundment (MW-1R and MW-104) will continue to be used in conjunction with the monitoring network to evaluate the nature and extent of the identified SSLs, per direction previously provided by NDDEQ (NDDEQ 2023). Additional monitoring locations downgradient of the Bottom Ash Impoundment that are associated with other facilities at Stanton Station will also be reviewed in context of determining the nature and extent of the identified SSLs.

4.1.4 Groundwater Sampling and Analysis

Groundwater samples will be collected from the new and existing nature and extent wells and analyzed for both detection monitoring and assessment monitoring analytes. Samples have not yet been collected from the recently installed nature and extent wells. The recently installed wells will be sampled in accordance with the assessment monitoring program schedule pending installation of dedicated low-flow sampling pumps (scheduled to be installed early October 2025).

4.1.5 Solids Sampling and Analysis

As part of the drilling program for the nature and extent wells in June 2025, solids samples were collected at the installed well locations during drilling and sent for analysis by SGS Canada Inc. Samples are being analyzed using the sequential extraction procedure (SEP; Tessier et al. 1979) and X-ray diffraction (XRD) including clay speciation. Results of the associated analysis have not yet been received and will be included in future submittals.

Soil samples shipped for analysis via SEP and XRD included the following:

- MW-225 from within the screened interval
- MW-226 from within the screened interval
- MW-227 from above the screened interval
- MW-230
  - A sample corresponding to the screened interval of MW-201 (10 to 20 feet below ground surface)
  - A second sample within the screened interval at MW-230 (35 to 40 feet below ground surface)
- MW-PB1R from within the screened interval

5.0 ASSESSMENT OF CORRECTIVE MEASURES

5.1 Objectives of the Corrective Measures

Potential corrective measures are evaluated using the criteria listed in 40 CFR 257.96(c) and NDAC 33.1-20-08-06(6)(c), including performance, reliability, ease of implementation, potential impacts, remedy duration, and institutional and public health requirements.

In addition, the following criteria listed in 04 CFR 257.97(b) and NDAC 33.1-20-08-06(7)(b) must be met by the selected corrective measure:

- Protect human health and the environment.
- Attain applicable GWPS as specified pursuant to 40 CFR 257.95(h) and NDAC 33.1-20-08-06(5)(h).

- Control the source(s) of release(s) to reduce or eliminate, to the maximum extent feasible, further releasees of assessment monitoring constituents to the environment.
- Remove from the environment as much of the contaminated material that was released from the CCR unit as is feasible, considering factors such as avoiding inappropriate disturbance of sensitive ecosystems.
- Comply with standards for management of waste as specified in 40 CFR 257.98(d) and NDAC 33.1-20-08-06(8)(d).

The corrective measures evaluated as part of this ACM are not intended to be an exhaustive list of all possible corrective measures but are focused on corrective measures that are anticipated to be technically feasible and that will likely perform satisfactorily at the site.

Section 5.2 discusses corrective measures primarily associated with source control and Section 5.3 discusses corrective measures primarily associated with groundwater remediation.

5.2 Source Control Corrective Measures

The selected remedy should control the source(s) of release(s) to reduce or eliminate, to the maximum extent feasible, further releases of assessment monitoring constituents to the environment. Source control measures at the Bottom Ash Impoundment are focused both on CCR and leachate present within the closed Bottom Ash Impoundment footprint.

Prior to the initiation of assessment monitoring and the ACM, the Bottom Ash Impoundment was closed with an engineered final cover placed over waste left in place. Closure was completed in accordance with the Closure and Post-Closure Plan (GAI 2019). Although closure was performed prior to initiation of assessment monitoring and the ACM, an evaluation of the previously conducted closure as a source control measure is provided below, indicating why the steps previously taken are considered an appropriate source control measure.

Closure of the Bottom Ash Impoundment provides the primary source control measure to reduce the potential for migration for CCR constituents to groundwater. In addition, removal of leachate by pumping from the constructed sump reduces the volume of remaining leachate within the Bottom Ash Impoundment following closure.

If over the course of corrective action implementation and monitoring, the previously implemented closure measures (engineered cover and leachate removal) are determined to be inadequate, additional source control measures will be further evaluated and implemented. Two potential additional source control measures options include:

- increased leachate removal through the installation of dewatering wells
- complete closure by removal of CCR from the Bottom Ash Impoundment

Table 2 provides a summary of the source control measures compared to the evaluation criteria described in both the Federal and State rules and listed in Section 1.1, as applied to site conditions.

5.2.1 Bottom Ash Impoundment Closure

As noted in Section 1.3, primary closure of the Bottom Ash Impoundment was completed in 2020. Due to site conditions and construction sequencing, the waste on the west end of the south cell was in a soft and saturated state. The waste was stabilized as part of the closure by adding fly ash from Coal Creek Station and Spiritwood

Station (approved by the NDDEQ for beneficial use). Waste slopes were regraded to 7% slopes to direct stormwater off and away from the closed and covered impoundment and to reduce erosion.

The effectiveness of closure of the Bottom Ash Impoundment as a source control relies on the final cover and liner. The Bottom Ash Impoundment is lined with a composite liner consisting of a 60-mil HDPE geomembrane overlying 2 feet of compacted clay with a hydraulic conductivity of 1 x 10^{-7} cm/sec, or less.

The final cover is engineered to minimize the potential for precipitation to infiltrate through the cover and into the waste. The constructed final cover includes a composite system consisting of a geosynthetic clay liner (GCL) overlain by a 60-mil HDPE geomembrane. A 30-inch growth medium layer and 6-inch topsoil layer overly the geomembrane and are designed to support native grass vegetation which supports runoff and removal of precipitation through evapotranspiration. The CQA Engineer observed closure and final cover system construction and:

- Confirmed that all regraded waste and mixed material was compacted to a firm and unyielding surface prior to placement of the final cover system.
- Observed installation of the GCL and geomembrane including all non-destructive and destructive testing of the materials and seams. The HDPE was welded to existing geomembrane liner.
- Observed monitoring and testing of growth medium and topsoil layers to meet project specifications including compaction and soil quality criteria (sodium adsorption ratio, electrical conductivity, and organic matter) prior to seeding and mulching.

Following closure of the Bottom Ash Impoundment, an updated post-closure care plan was prepared for the site in 2022 (GAUSA 2022). Maintenance will be provided on the final cover system for the required post-closure care period so that the integrity and effectiveness of the final cover system is maintained. Maintenance activities will include, as needed, repairs to the final cover to correct any effects related to settlement, subsidence, erosion, or other events, and will be performed to prevent run-on or run-off from eroding or otherwise damaging the final cover.

5.2.2 Leachate Removal

The bottom ash within the Bottom Ash Impoundment south cell was originally hydraulically sluiced into the cell, and precipitation falling on the footprint during operation and closure construction accumulated within the bottom ash. During closure construction, free water was pumped from the south cell and additional waste material from the closure of the north and center cells was added to achieve final waste grades. In addition to removal of free water within the south cell, the constructed sump was pumped during closure construction to remove any leachate that accumulated during closure. Construction of the engineered composite cover significantly reduced the infiltration of precipitation into the waste, but residual water remains within the bottom ash that was not removed during closure construction.

The removal of leachate will reduce leakage through potential defects in the composite liner by reducing the driving head. To remove this residual water, leachate accumulating in the sump has been regularly pumped out and disposed offsite. Up until early 2025, this was accomplished with a vacuum truck pumping the sump dry as often as every few days. In 2025, GRE installed a dedicated pump and holding tank along with power and other controls. This new system pumps leachate from the sump as the leachate accumulates, maintaining the depth of leachate in the sump between approximately 1 and 1.5 feet. This system is planned to operate through the post-

closure period until leachate recharge drops below the level that the installed pumps can operate or until the recharge rate is low enough that an alternative leachate management method becomes preferable.

5.2.3 Increased Leachate Removal

The current leachate removal system is pumping accumulated leachate from the sump located in the northwest corner of the Bottom Ash Impoundment south cell. Leachate accumulates in this sump by flowing through the bottom ash/waste material from areas of higher head to the lower head condition maintained at the sump. The permeability of the bottom ash and waste material, along with the gradient to the sump (distance and head differential) result in a limited flow rate.

To increase the rate of leachate removal, dewatering wells may be installed at other locations and screened within the waste just above the composite liner. Additional dewatering locations are expected to increase the rate of leachate removal by increasing the gradient to each extraction location (reduced flow distance). Increasing the rate of leachate removal will more quickly reduce the driving head over the liner, further reducing the potential for leakage.

Additional dewatering locations will require penetrating the composite cover system, including the geomembrane and GCL. Each penetration can allow for increased infiltration through the cover if not completed correctly. In addition, drilling a well through the waste to just above the liner runs the risk of penetrating the composite liner system, creating a defect that may allow for increased leakage from the unit. These risks will be considered during a more thorough evaluation if the installation of additional dewatering wells is deemed to be necessary.

5.2.4 Closure by Removal

Closure by removal involves removal of the final cover and excavation of all CCR and the composite liner system from the Bottom Ash Impoundment. Excavated materials would be transported to a separate permitted CCR landfill.

Advantages of removal over the current source control include:

- Eliminates the potential for future contamination to occur due to failure of the cover and liner systems of the Bottom Ash Impoundment.
- Reduces the required post-closure monitoring period following implementation if each of the assessment monitoring parameters returned to concentrations below the GWPS.

Disadvantages of removal over the current source control include:

- Requires destruction of the existing cover and liner systems and requires permitting efforts for a separate CCR landfill.
- Increases the overall risk to workers, the surrounding community, and the environment due to factors such as fugitive dust, heavy construction equipment operation and emissions, and potential spills and safety hazards associated with transport to a new site.
- Due to site hydrogeological changes during site restoration, assessment monitoring parameters may not rapidly return to concentrations below the GWPS.

Closure by removal will be more thoroughly evaluated if additional source control measures are deemed necessary.

5.3 Groundwater Remediation Corrective Measures

A summary of the potential groundwater remediation corrective measures evaluated as part of this ACM is included in the following sections. Corrective measures are being evaluated to address the SSLs for molybdenum and arsenic in groundwater downgradient of the Bottom Ash Impoundment unit boundary. Based on site-specific information, knowledge of remedial alternatives, and site conditions at the Bottom Ash Impoundment, the following remedies, either individually or in combination, are being evaluated using the criteria specified in 40 CFR 257.96(c) and NDAC 33.1-20-08-06(6)(c):

- Monitored Natural Attenuation and Enhanced Monitored Natural Attenuation
- Hydraulic Containment (Groundwater Pump and Treat)
- Geochemical Approaches (In-Situ Injection)
- Permeable Reactive Barriers
- Phytoremediation

Following this assessment of corrective measures, additional information will be gathered to further evaluate the identified potential corrective measures and determine which option(s) should be implemented at the site that meets the criteria specified in 40 CFR 257.97(b) and NDAC 33.1-20-08-06(7)(b). Table 3 provides a summary of each of the remedial technologies described below compared to the evaluation criteria described in both the Federal and State rules and listed in Section 1.1, as applied to site conditions.

5.3.1 Monitored Natural Attenuation and Enhanced Monitored Natural Attenuation

The USEPA (2015) defines monitored natural attenuation (MNA) as:

> The reliance on natural attenuation processes (within the context of a carefully controlled and monitored site cleanup approach) to achieve site-specific remediation objectives within a timeframe that is reasonable compared to that offered by other more active methods. The 'natural remediation processes' that are at work in such a remediation approach include a variety of physical, chemical, or biological processes that, under favorable conditions, act without human intervention to reduce the mass, toxicity, mobility, volume, or concentration of contaminants in soil or groundwater. These in situ processes include biodegradation; dispersion; dilution; sorption; volatilization; radioactive decay; and chemical or biological stabilization, transformation, or destruction of contaminants.

Attenuation mechanisms for inorganic constituents, like molybdenum and arsenic, can be physical and/or chemical. Physical methods include dilution, dispersion, and related processes. Chemical mechanisms for inorganic constituents include adsorption to oxyhydroxides of iron, aluminum, manganese, and other metals, and coprecipitation with common minerals such as iron sulfides or carbonates.

USEPA guidance for MNA outlines an evaluation of the potential for successful remediation for each constituent of interest, by the following tiered approach:

- Tier 1: Assessment of groundwater plume stability and constituent attenuation based on statistical analysis and geochemical testing.

- Tier 2: Identification of the attenuation mechanisms occurring at each location and estimation of the timeframe required for attenuation based on site-specific groundwater and aquifer solids characterization data, including sequential extraction data.
- Tier 3: Assessment of capacity in the aquifer system to attenuate the plume and confirmation of long-term plume stability through geochemical modeling.
- Tier 4: Design of an MNA performance monitoring program to demonstrate that MNA is progressing as predicted, verify plume stability, identify toxic and/or mobile transformation products (if any), optimize monitoring well locations, and verify attainment of MNA remediation objectives.

A successful MNA approach requires a good understanding of hydrogeologic conditions and long-term monitoring of site conditions. MNA is a relatively slow remedy when used in isolation. As such, MNA is frequently used in combination with other remedies, including source control.

MNA can be enhanced using low-energy, in-situ techniques to stimulate or increase the attenuation of contaminants or reduce contaminant loading. Options for MNA enhancements include increasing the attenuation capacity of the aquifer, decreasing the mobility of contaminants, and/or increasing the stability of immobilized contaminants (ITRC 2010).

MNA and/or enhanced MNA are potentially effective means of remediating molybdenum and arsenic downgradient of the Bottom Ash Impoundment. The effectiveness of an MNA approach is dependent on site-specific conditions. Further geochemical evaluation and groundwater modeling is required to evaluate remedial timeframes. Table 3 includes a comparison of MNA and enhanced MNA to the requirements of 40 CFR 257.96(c) and NDAC 33.1-20-08-06(6)(c).

MNA is being evaluated as a potential option for remediating arsenic identified in one of the downgradient wells at the adjacent Bottom Ash Landfill (Figure 1). Site-specific geochemical testing was conducted and MNA Tier 1, 2 and 3 evaluations have been completed (WSP 2023; WSP 2024). The Tier 1, 2, and 3 MNA evaluations indicated that attenuation of arsenic is occurring downgradient of the Bottom Ash Landfill, that there is adequate capacity to attenuate arsenic, and that the attenuated arsenic is modeled to be stable. Based on these findings, geochemical testing is being done and a Tier 1 MNA evaluation will be pursued to identify if MNA is a suitable remedy for attenuating arsenic and molybdenum given the downgradient conditions at the Bottom Ash Impoundment.

5.3.2 Hydraulic Containment (Groundwater Pump and Treat)

Hydraulic containment can be used to control potential hazards through reduction of risk exposure pathways. Pump and treat is one form of hydraulic containment. Pump and treat refers to the use of groundwater extraction to artificially induce a hydraulic gradient for capture or control of the migration of impacted groundwater is considered as a viable remedial technology at many sites (USEPA 1996). A pump and treat approach uses extraction wells, subsurface drains, or trenches to capture groundwater, which then may require above-ground treatment and permitted discharge to a receiving water body or reinjection into the aquifer, depending on the site conditions and regulatory requirements. A pump and treat approach may also be coupled with vertical barrier walls to more effectively direct water to the wells.

Extraction technologies are more efficient for mobile constituents which are not readily attenuated by other mechanisms such as precipitation or adsorption. As such, given the chemical behavior of both arsenic and molybdenum and site hydrogeologic heterogeneity, the technical feasibility of achieving the site GWPS for the required parameters using pump and treat as the sole corrective measure is uncertain. Bench-scale and/or pilot-

scale testing would be necessary for different treatment technologies to determine the potential to remove both parameters from the site groundwater. Table 3 includes a comparison of hydraulic containment (groundwater pump and treat) to the requirements of 40 CFR 257.96(c) and NDAC 33.1-20-08-06(6)(c).

Based on previously completed review of hydraulic containment for the nearby Bottom Ash Landfill, hydraulic containment may not be further evaluated as a stand-alone remedy for the Bottom Ash Impoundment. Pump and treat extraction technologies tend to be more efficient for constituents that are not readily attenuated by mechanisms such as adsorption, making the application less efficient for the extraction of arsenic. If this alternative is considered further, additional chemical testing, similar to that for in situ injection, is necessary to determine the extraction potential for arsenic and molybdenum with different treatment technologies given the site-specific conditions.

5.3.3 Geochemical Approaches (In Situ Injection)

Subsurface in situ injections of reagents are a remediation technology that can be used for inorganic constituents. In situ injections for inorganic constituents rely on three mechanisms that influence solubility, mobility, and/or toxicity of inorganic constituents:

i) Oxidation-reduction potential (redox) manipulation

ii) Adsorption to aluminum, iron oxyhydroxides, or other metal oxyhydroxides, or various sulfate compounds under oxidizing groundwater conditions

iii) Adsorption to, or coprecipitation with, iron or other metal sulfides under reducing conditions

In-situ injection requires understanding the subsurface transport characteristics and (geo)chemical characteristics of the aquifer, and a thorough understanding of the reaction kinetics to derive appropriate reagent. Often this technology is bench tested and field-evaluated in a relatively small area (i.e., pilot tested) to bolster the understanding of these factors prior to remedial selection, design, and implementation.

Arsenic and molybdenum can be immobilized under different combinations of pH and redox conditions. A variety of pH and/or redox-altering technologies are available which can incorporate biological processes, chemical oxidants and reductants, and/or mechanical processes such as air sparging. These processes can be used to decrease the mobility of these constituents.

Chemical injection can be utilized to alter groundwater conditions to reduce metal mobility. Reactive chemicals can be introduced into soil and groundwater to trigger rapid and complete metal precipitation. This may involve pH adjustment to higher levels while maintaining adequate buffering capacity within the groundwater to limit the upper extent of the pH range, as solubility increases with higher pH for both arsenic and molybdenum.

Following implementation of chemical injection as a corrective measure, routine collection of additional data, including measurements of total alkalinity and ongoing measurement of pH, is necessary for ensuring that conditions remain favorable for precipitation of the contaminants of concern.

Table 3 includes a comparison of in situ injection to the requirements of 40 CFR 257.96(c) and NDAC 33.1-20-08-06(6)(c).

Chemical injection is currently being evaluated as a potential option for remediating arsenic identified in one of the downgradient wells at the adjacent Bottom Ash Landfill (Figure 1). Initial testing using site specific groundwater and aquifer solids and associated modeling suggest that injection of iron particles upgradient of the well of interest

could increase the quantity of sorption sites, in turn reducing arsenic concentrations in groundwater downgradient of the injection locations (WSP 2025a). Bench-scale testing of alternatives at the Bottom Ash Landfill is ongoing (WSP 2025b). Based on these initial findings from the adjacent Bottom Ash Landfill, chemical injection may also be a viable option for remediating arsenic and molybdenum at the Bottom Ash Impoundment.

5.3.4 Permeable Reactive Barriers

Permeable reactive barriers (PRBs) typically involve the installation of a subsurface zone of material intended to remove constituents of interest as groundwater flows through the PRBs. PRBs can be installed in downgradient locations using conventional excavation methods or a one-pass trenching method. Excavated trenches are backfilled with reactive media to create a zone that interacts with constituents as they passively flow through the PRB in the direction of groundwater flow (ITRC 2011). PRB systems can be constructed as continuous “walls” or as “funnel-and-gate” systems where impermeable slurry walls create a “funnel” that directs groundwater to permeable “treatment gates” filled with reactive materials. Funnel-and-gate configurations can reduce the required treatment area, allowing the system to be more readily maintained. Funnel-and-gate configurations can also address issues with groundwater flow circumvention of the PRB that have been identified in more typical wall configurations. PRBs are typically keyed into an underlying low-permeability unit to minimize preferential flow under the installed barrier.

PRBs may present a viable alternative for in-situ treatment of arsenic and molybdenum under certain conditions. PRBs are often constructed of reactive materials such as zero valent iron (ZVI), zeolites, and granular activated carbon. Zeolites can be used to promote ionic exchange and/or sorption, while activated carbon can be used to induce and/or sustain reducing conditions within an aquifer. Constituents of interest interact with the reactive materials via precipitation or sorption, dependent on the chemical properties of both the chosen reactive material and the constituents of interest. While installation of a PRB could work for stabilization of the constituents of concern, materials used for PRB construction can increase the mobility of non-target metals within the aquifer based on interaction with the amendments. Pilot testing would be required to determine the effectiveness and potential for secondary impacts to groundwater chemistry based on the addition of the PRB amendments to the aquifer.

Table 3 includes a comparison of PRBs to the requirements of 40 CFR 257.96(c) and NDAC 33.1-20-08-06(6)(c).

PRBs may not be further evaluated at the Bottom Ash Impoundment due to uncertainty in the ability to be keyed into a competent bedrock layer. Critically, for a PRB to be effective, the barrier should ideally “extend to and be keyed into a competent bedrock layer or aquitard” to prevent circumvention of groundwater around the installed barrier (ITRC 2011). Downgradient of the Bottom Ash Impoundment, a continuous competent bedrock layer has not been identified in close proximity to the uppermost water-bearing zone.

5.3.5 Phytoremediation

Phytoremediation uses plants to degrade, immobilize, or contain constituents of interest in soil, groundwater, surface water, and sediments. Phytoremediation includes plant-based technologies and applications for hydraulic control, nutrient management, sediment control, and slope stabilization (Goldemund and Gestler 2019). Phytoremediation can be a viable alternative for areas with relatively low levels of constituents in shallow soils or groundwater.

The Interstate Technology and Regulatory Council (ITRC 2009) lists the main mechanisms involved in the phytoremediation for inorganic constituents as:

- Phytosequestration, or the ability of plants to sequester constituents within the rhizosphere, an area a few millimeters from the root surface. Phytosequestration is considered a containment mechanism.
- Phytohydraulics, or the ability of plants to capture and evaporate water. Phytohydraulics provides hydraulic control of the groundwater plume through plant root uptake and is considered a containment mechanism.
- Phytoextraction, or the process of constituent uptake into a plant. Phytoextraction is remediation through removal of the constituent of interest.

Typically, a combination of phytoremediation mechanisms acts in concert in successful phytoremediation applications for inorganic constituents such as arsenic and molybdenum.

The effectiveness of groundwater remediation using traditional phytoremediation approaches can be limited by compacted soil conditions that impede root penetration and depths to targeted groundwater. Depending on plant type, many root systems for plants used in traditional phytoremediation approaches focus on the upper 1 to 2 feet from the ground surface (ITRC 2011), while groundwater downgradient of the Bottom Ash Impoundment is approximately 5 to 10 feet below the ground surface. In addition to traditional phytoremediation approaches, engineered approaches such as the TreeWell® System, a proprietary system developed by Applied Natural Sciences, can be used to bypass the constraints of a traditional system, through promoting downward root growth, encouraging constituent treatment and focusing groundwater extraction from a target depth within the aquifer (Gatliff et al. 2016; Goldemund and Gestler 2019).

Table 3 includes a comparison of phytoremediation to the requirements of 40 CFR 257.96(c) and NDAC 33.1-20-08-06(6)(c). Phytoremediation may not be further evaluated as a corrective measure for the Bottom Ash Impoundment due to the groundwater depth in the area of concern being deeper than can typically be affected by phytoremediation.

6.0 NEXT STEPS/REMEDY SELECTION

The purpose of this ACM is to analyze the effectiveness of potential corrective measure(s) for groundwater using the criteria outlined in 40 CFR 257.96 and NDAC 33.1-20-08-06(5).

For source control, the engineered soil cover over the Bottom Ash Impoundment as well as ongoing leachate removal through the existing sump are source control corrective measures previously and currently implemented prior to assessment monitoring or the ACM. If over the course of corrective action implementation and monitoring, the previously implemented source control measures are determined to be inadequate, additional source control measures may be evaluated and implemented.

For groundwater remediation, several potential corrective measures have been evaluated and may be viable for remediation of arsenic and molybdenum downgradient of the Bottom Ash Impoundment. Additional information will be gathered to further evaluate the potential corrective measures and determine which option(s) should be implemented at the Bottom Ash Impoundment. The following sections present the additional data gathering, schedule, reporting, and next steps that will support remedy selection and corrective action implementation. The items discussed below are focused on those actions planned for the next approximately three months (until the 2025 Annual Coal Combustion Residuals Groundwater Monitoring and Corrective Action Report, due in January 2026).

6.1 Additional Data Gathering

Collection and evaluation of additional data are necessary to refine the conceptual site model, further characterize the nature and extent of groundwater impacts, and to further evaluate the feasibility and effectiveness of potential corrective measures described in this document such that an appropriate groundwater corrective measure or combination of corrective measures may be selected and implemented.

6.1.1 Continuing Nature and Extent Investigation

As discussed in Section 4.0, new and existing monitoring wells will be used to help define the extents of arsenic and molybdenum above the GWPS. Dedicated low-flow pumps are scheduled to be installed in the new nature and extent wells in late September or early October 2025. Following installation of the dedicated low-flow pumps, Q4 2025 groundwater samples will be collected from both the existing program wells and the newly installed nature and extent wells. Data from both the network wells and the newly installed nature and extent wells will be evaluated to define the extents of elevated arsenic and molybdenum following receipt of the Q4 2025 groundwater data.

6.1.2 Geochemistry Evaluation

As discussed in Section 4.1.5, solids samples were collected at the installed well locations and sent for analysis by SGS Canada Inc. Samples are being analyzed using SEP (Tessier et al. 1979) and XRD including clay speciation. Results of the associated analysis have not yet been received and will be included in future submittals. Following receipt and review of the geochemical analysis, a site-specific geochemical evaluation, including a Tier 1 MNA evaluation as described in Section 5.3.1, will be initiated to determine the attenuation capacity and stability of the aquifer materials and potential attenuation mechanisms within the aquifer for arsenic and molybdenum. The capacity and available mechanisms of the aquifer to attenuate arsenic and molybdenum will impact the effectiveness potential remedies, including MNA, enhanced MNA, in situ injection, or the implementation and installation of a PRB.

6.2 Schedule and Reporting

Per NDAC 33.1-20-08-06(6)(d), this ACM report will be provided to the NDDEQ for review and approval. The ACM will be placed in the facility's operating record in accordance with 40 CFR 257.96(d) and NDAC 33.1-20-08-06(6)(d). Following finalization of the ACM, the 2025 Annual Groundwater Monitoring and Corrective Action Report is due January 31, 2026. As required in 40 CFR 257.96(a) and NDAC 33.1-20-08-06(6)(a), a copy of this ACM and the certification of the ACM by a qualified professional engineer licensed in the state of North Dakota will be included within the Annual Report. The Annual Report will also include discussion of actions taken between finalization of this ACM and the end of 2025. A semi-annual report will be prepared describing the progress to select and design a remedy, per 40 CFR 257.97(a) and NDAC 33.1-20-08-06(7)(a). The first semi-annual report will be completed by July 31, 2026.

Remedy selection will occur as soon as feasible. Selection of a final remedy depends on a thorough evaluation and testing of the corrective action options to confirm the selected options are effective. Selected corrective actions must meet the standards described in Section 5.1.

A schedule for items anticipated to be completed by the end of 2025 for inclusion in the 2025 annual report due in January 2026 is included below:

Task Description	Estimated Completion Date
■ Dedicated Low-Flow Pump Installation	Sep-Oct 2025
■ Groundwater Sampling	Oct-Dec 2025
■ Geochemistry Lab Results and Evaluation (initiate Tier I MNA Evaluation)	Oct-Dec 2025
■ 2025 Annual Groundwater Monitoring and Corrective Action Report	Jan 2026

Prior to final selection of a corrective measure, a public meeting to present the results of the corrective measures assessment will be held a minimum of 30 days before the final selection of the remedy. Upon selection of a remedy, a final report will be prepared describing the selected remedy and how the remedy meets the standards described in Section 5.1. The final remedy selection report must be certified by a qualified professional engineer licensed in the state of North Dakota per 40 CFR 257.97(a) and approved by the NDDEQ per NDAC 33.1-20-08-06(7)(a). Once the remedy has been selected and approved by the NDDEQ, the implementation of the remedy will be initiated in accordance with 40 CFR 257.98 and NDAC 33.1-20-08-06(8).

Certification

This Assessment of Corrective Measures has been prepared in compliance with applicable requirements of the Federal CCR Rule (40 CFR 257.96) and NDDEQ CCR Rule (NDAC 33.1-20-08)

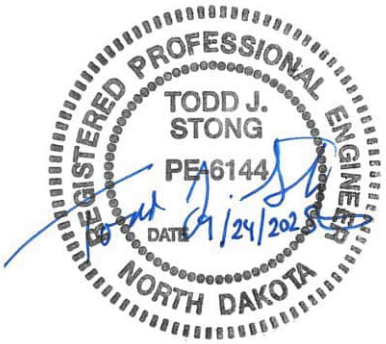
WSP USA Inc.

Erin L. Hunter, PhD
Senior Lead Consultant

Todd J. Stong, PE
Director

ELH/TJS/kg

I certify to the best of my knowledge, information, and belief that this ACM for molybdenum and arsenic at the Bottom Ash Impoundment meets the applicable requirements of 40 CFR Part 257.96 and NDAC 33.1-20-08.



Todd J. Stong, PE
North Dakota Registered Professional Engineer No. PE-6144

https://wsponlinenam.sharepoint.com/sites/gld-170737/project files/5 technical work/2025- stanton gw/acm/bai acm/final/gl21509219.000-041-rpt-0-acm_bai_24sep25.docx

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Tables

Table 1: Stanton Station Site-Specific Groundwater Protection Standards

Parameter	Units	GWPS
Appendix IV		
Antimony, Total	mg/L	0.006
Arsenic, Total	mg/L	0.01
Barium, Total	mg/L	2
Beryllium, Total	mg/L	0.004
Cadmium, Total	mg/L	0.005
Chromium, Total	mg/L	0.1
Cobalt, Total	mg/L	0.006
Fluoride	mg/L	4
Lead, Total	mg/L	0.015
Lithium, Total	mg/L	0.325
Mercury, Total	mg/L	0.002
Molybdenum, Total	mg/L	0.1
Radium-226 + Radium-228, combined	pCi/L	5
Selenium, Total	mg/L	0.05
Thallium, Total	mg/L	0.002

Notes:
mg/L: milligrams per liter
pCi/L: picocuries per liter
GWPS: Groundwater Protection Standard
The site-specific GWPS for lithium was derived from the pooled site background lithium values.

Table 2: Source Control Corrective Measures Comparison

Corrective Measure	Performance	Reliability	Ease of Implementation	Potential Impacts	Time to Begin and Complete	Permitting / Institutional Requirements	Other Environmental or Public Health Requirements
Closure In-Place with Cover	Performance is reliant on not having significant sustained interaction with groundwater and placed CCR, and the final cover being an engineered cover designed to minimize the potential for precipitation to infiltrate through the cover and into	Reliability of closure in-place with a cover is dependent on the continued performance of the cover system during the post-closure period, and groundwater not rising to the point of significant interaction with the CCR.	Implementation was completed in 2020. However, detailed design was required, along with permit updates with the NDDEQ. Implementation required extensive earthworks construction for reducing the footprint and	Failure of the cover system could allow more infiltration through the CCR than desired.	Begun in 2019 and completed in 2020 prior to initiating assessment monitoring or the assessment of corrective measures.	Previously permitted and approved by the NDDEQ. Deed restrictions have previously been placed based on the current site closure configuration.	Prior to completion, construction disruptions occurred. Little to no additional disruptions are anticipated unless changes are made to the existing closed in place footprint of the impoundment.
Lechate Removal (existing sump)	Performance is connected to a reduction in the hydraulic head on the composite liner system of the impoundment. As leachate is removed, the head on the liner is reduced, and the potential leakage rate through defects is subsequently reduced.	System is relatively reliable but can stop pumping if issues arise with power source, level alarms, the pump or the holding tank. Online monitoring allows for quick identification of issues.	Initial implementation began in 2020 with installation of the sump, with a dedicated pump and holding tank installed in 2025. Operations require monitoring of the pump and the tank, and coordination of transfer trucks to haul leachate for	A release of leachate could occur if the holding tank, its additional containment, or the transfer trucks failed.	Leachate removal from the sump began in 2020 during closure construction and will continue through the 30-year post-closure period as required as leachate accumulates in the sump.	Dedicated pump and holding tank design were reviewed by NDDEQ. Secondary containment is required for all piping and tanks outside the lined cover.	Offsite disposal of leachate required or alternative permitting necessary.
Increased Leachate Removal (dewatering wells)	Building upon the existing leachate removal system, increased leachate removal will more quickly reduce the head on the liner and thus more quickly reduce the potential leakage rate through defects.	Similar reliability as the existing system.	Moderate. Requires installation of additional infrastructure (additional wells for dewatering). Modeling may be required to optimize installation based on site-specific conditions.	Inaccurate drilling of additional well points through the existing cover system could lead to increased infiltration within the impoundment or create conduits through the liner system.	Design, regulatory approval, installation and commissioning may take 6-12 months. Once implemented, dewatering would continue through the 30-year post-closure period as required (as leachate accumulates at the wells).	Will require approval from the NDDEQ for the composite cover penetrations and drilling into the impoundment.	Offsite disposal of leachate required or alternative permitting necessary.
Closure by Removal	Closure by removal removes the source and eliminates the potential for future contamination to occur due to failure of the cover and liner systems.	Reliability for closure by removal is dependent on complete removal of source material and impacted material.	In order to implement closure by removal, a new landfill would need to be designed, permitted by the NDDEQ, and constructed prior to removal of material from the existing impoundment footprint.	Increase in overall risk to workers, surrounding community and the environment due to factors such as fugitive dust, heavy construction equipment operation and emissions, and potential spills and safety hazards associated with transport to the new site.	Time to begin is constrained by the need to investigate a site, design, permit, and construct a new CCR landfill, which can take upwards of 2 years. Construction of a new landfill is required prior to removal of material from the existing impoundment, which may take an additional 6 to 12 months based on the current volume of CCR.	A new landfill permit will be required.	Significant disruptions will be made to the current site configuration, along with significant construction activity for developing a new landfill, removing CCR, and hauling CCR to the new landfill.

Notes:

Permeable Reactive Barriers (PRBs)	PRBs may have a limited reactive lifespan, dependent in part on the characteristics of the aquifer and the chosen reactive material. Without replacement of the reactive material within the PRB, extended performance of the corrective measure may not be possible. Additional testing may be required to select an appropriate sorptive media. PRBs also require vertical installation to key into low permeability zones and horizontal extents wide enough to prevent impacted groundwater from going around and/or under the PRB.	PRBs are a reliable corrective measure, but loss of reactivity over time may require re-installation depending on the length of time to reach the required GWPS. Reliability may be improved based on the ease of access to intercept the flow of groundwater. Additional data collection, may be needed to characterize the attenuation mechanisms present within the aquifer and select an appropriate reactive media.	Implementation is moderate to difficult. Based on differentiation of the stratigraphic units, may require additional drilling for confirmation of an appropriate confining unit for constraining hydraulic movement. Trenching is necessary for installation.	Dependent on the materials used for PRB, mobilization of additional constituents may occur based on changing conditions within the aquifer. Short-term impacts may occur during construction of the PRB, but can be mitigated through appropriate planning. Positive impacts include reduction in the volume, mobility, or toxicity of the constituent of interest through precipitation within the reactive media.	Installation of a PRB can be accomplished in roughly 1 year, depending on the final location and configuration. Bench- and/or pilot-scale testing would be necessary prior to design and construction of the remedy, which may take up to 2 years.	Deed restrictions have previously been placed based on site closure. No other institutional requirements are anticipated.	Following installation, PRBs are a passive remedy. Certain treatment media have the potential to mobilize additional naturally-occurring constituents downgradient of the PRB.
Phytoremediation	Once established, phytoremediation can effectively provide hydraulic containment, and provide potential reduction of constituents of interest through immobilization, uptake, and/or sequestration within the biomass. It may take between 3 and 5 years following planting for the system to begin performing. Phytoremediation may be limited by site climate	When implemented as an engineered system, phytoremediation must account for the characteristics of the aquifer, including the hydraulic conductivity, flow velocity, depth to impacted groundwater, and other factors. Reliability is dependent on careful design of the system.	Implementation is easy to moderate. Trees must be installed to appropriate depths to intercept impacted groundwater. Once established, trees are self-maintaining with no required external energy requirements and little maintenance.	Minimal anticipated negative impacts. Positive impacts include enhanced aesthetics, additional wildlife habitat, and minimal energy usage.	Optimization via groundwater modeling is required, which may take between 6 and 9 months. Installation is relatively short and can be substantially completed within a few months. Hydraulic control may take between 3 and 5 years following planting, but system performance is anticipated to improve over time.	Deed restrictions have previously been placed based on site closure. No other institutional requirements are anticipated.	None anticipated. Following installation, remedy is passive and does not require external energy.

Notes:

Table 3: Groundwater Remediation Corrective Measures Comparison

Corrective Measure	Performance	Reliability	Ease of Implementation	Potential Impacts	Time to Begin and Complete	Permitting / Institutional Requirements	Other Environmental or Public Health Requirements
Monitored Natural Attenuation and Enhanced Monitored Natural Attenuation	Assuming available capacity, MNA can provide continued effective performance in reducing constituent concentrations.	Reliability is dependent on aquifer conditions that favor arsenic and molybdenum attenuation or can be enhanced, and that sufficient attenuation capacity exists within the aquifer. MNA is reliable and can either be used as a stand-alone corrective measure for groundwater impacted by molybdenum and arsenic, or in combination with other technologies.	Little to no effort required for physical implementation of standard MNA, but moderate to complex effort required to fully and accurately implement, monitor, and document as a corrective measure. Enhanced MNA may require additional installation requirements, including well installation. Additional data is needed to demonstrate that the aquifer has sufficient attenuation capacity to meet the stated site objectives within a reasonable time frame.	No known impacts. MNA relies on the natural processes and existing geologic materials within the aquifer to reduce constituent concentrations, toxicity, and mobility without disturbing the installed cover or subsurface materials.	Evaluation for MNA can begin immediately, but substantial completion of evaluation and demonstration of attenuation mechanisms may require mulitple years. Long-term monitoring and reporting are likely required.	No additional requirements, as deed restrictions have previously been placed due to site closure.	Little to no physical disruption to remediation areas and no adverse construction impacts are expected.
Hydraulic Containment (Groundwater Pump and Treat)	Pump and treat can effectively provide hydraulic control throughout the operational life of the system. Performance is contingent on routine groundwater assessment throughout the pumping process, and may not be quickly effective. Performance is additionally predicated on disposal of treated water and/or waste treatment sludge. Pump and treat can be less effective for inorganic compounds, like molybdenum and arsenic.	Generally reliable for hydraulic control of the groundwater plume and migration of contaminants of interest.	Implementation is moderate, because although this is a proven approach, the site is unmanned, making implementation more difficult. Additional extraction wells and trenches would need to be installed.	Potential impacts are related to the operation of an on-site, above-ground water treatment facility and associated infrastructure for treatment and conveyance of impacted groundwater. Pumping may unintentionally alter geochemistry of the aquifer, in addition to the intended alteration of hydraulic flow pathways.	Extraction wells and trenches can be installed relatively quickly (generally within 6 to 12 months), but additional aquifer testing, overall system design, installation, and optimization, and permit approvals may be required, with lead times up to 2 years. Time for construction of any water treatment components may be variable depending on the scale of the chosen treatment process. Treatment timeline may extend for multiple years.	Depending on the effluent management strategy, a groundwater extraction permit and/or a NPDES discharge permit may be required, or an underground injection control (UIC) permit may be required if groundwater reinjection is chosen. Deed restrictions have previously been enacted based on site closure.	Above ground treatment components may be required for extended periods of time, resulting in waste residuals requiring management and disposal.

Geochemical Approaches (In-Situ Injection)	In-situ injection can rapidly alter aquifer conditions, resulting in geochemical immobilization of constituents of concern. Continued monitoring is required to ensure that aquifer conditions remain favorable for containing constituents of interest while not resulting in mobilization of other metals.	Approach is reliable if injected materials can be evenly distributed throughout the aquifer, permeability of the aquifer materials is adequate to allow for distribution, and available volume of appropriate receptors exists within the aquifer.	Moderate. May require installation of additional infrastructure for injection (additional wells for injection or other means of injection). Bench and pilot testing are required to optimize implementation.	Minimal negative impacts are anticipated if the remedy works as designed. Additional constituents may be mobilized as an unintended consequence if appropriate steps are not taken prior to remedy implementation.	Optimization via bench-scale and pilot testing is required prior to implementation, and may require up to 2 years. Additional wells can be installed relatively quickly following pilot testing. Completion time would be variable based on attenuation mechanisms within the aquifer and distribution of injected materials within the treatment area.	An underground injection control (UIC) permit may be required for in-situ injections in order to implement this corrective measure. Deed restrictions have previously been enacted based on site closure.	None anticipated. Potential for mobilization of additional redox-sensitive components. Remedy is passive following installation.
Permeable Reactive Barriers (PRBs)	PRBs may have a limited reactive lifespan, dependent in part on the characteristics of the aquifer and the chosen reactive material. Without replacement of the reactive material within the PRB, extended performance of the corrective measure may not be possible. Additional testing may be required to select an appropriate sorptive media. PRBs also require vertical installation to key into low permeability zones and horizontal extents wide enough to prevent impacted groundwater from going around and/or under the PRB.	PRBs are a reliable corrective measure, but loss of reactivity over time may require re-installation depending on the length of time to reach the required GWPS. Reliability may be improved based on the ease of access to intercept the flow of groundwater. Additional data collection, may be needed to characterize the attenuation mechanisms present within the aquifer and select an appropriate reactive media.	Implementation is moderate to difficult. Based on differentiation of the stratigraphic units, may require additional drilling for confirmation of an appropriate confining unit for constraining hydraulic movement. Trenching is necessary for installation.	Dependent on the materials used for PRB, mobilization of additional constituents may occur based on changing conditions within the aquifer. Short-term impacts may occur during construction of the PRB, but can be mitigated through appropriate planning. Positive impacts include reduction in the volume, mobility, or toxicity of the constituent of interest through precipitation within the reactive media.	Installation of a PRB can be accomplished in roughly 1 year, depending on the final location and configuration. Bench- and/or pilot-scale testing would be necessary prior to design and construction of the remedy, which may take up to 2 years.	Deed restrictions have previously been placed based on site closure. No other institutional requirements are anticipated.	Following installation, PRBs are a passive remedy. Certain treatment media have the potential to mobilize additional naturally-occurring constituents downgradient of the PRB.
Phytoremediation	Once established, phytoremediation can effectively provide hydraulic containment, and provide potential reduction of constituents of interest through immobilization, uptake, and/or sequestration within the biomass. It may take between 3 and 5 years following planting for the system to begin performing. Phytoremediation may be limited by site climate conditions and depth to groundwater.	When implemented as an engineered system, phytoremediation must account for the characteristics of the aquifer, including the hydraulic conductivity, flow velocity, depth to impacted groundwater, and other factors. Reliability is dependent on careful design of the system.	Implementation is easy to moderate. Trees must be installed to appropriate depths to intercept impacted groundwater. Once established, trees are self-maintaining with no required external energy requirements and little maintenance.	Minimal anticipated negative impacts. Positive impacts include enhanced aesthetics, additional wildlife habitat, and minimal energy usage.	Optimization via groundwater modeling is required, which may take between 6 and 9 months. Installation is relatively short and can be substantially completed within a few months. Hydraulic control may take between 3 and 5 years following planting, but system performance is anticipated to improve over time.	Deed restrictions have previously been placed based on site closure. No other institutional requirements are anticipated.	None anticipated. Following installation, remedy is passive and does not require external energy.

Notes:

Figures



LEGEND - Q2 2024 GROUNDWATER CONTOURS

- UPGRADIENT OR SIDEGRADIENT MONITORING WELL
- IMPOUNDMENT DOWNGRADIENT MONITORING WELL
- CLOSED BOTTOM ASH LANDFILL/IMPOUNDMENT FOOTPRINT (APPROX.)
- GENERAL DIRECTION OF GROUNDWATER FLOW
- GROUNDWATER CONTOURS AND ELEVATIONS

NOTE(S)

1. AERIAL IMAGERY OBTAINED FROM UNITED STATES DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURE IMAGERY PROGRAM, 2023.
2. GROUNDWATER CONTOURS ARE BASED ON JUNE 2024 ELEVATION INFORMATION FROM THE SHOWN MONITORING WELLS, AS WELL AS MONITORING WELLS AND PIEZOMETERS NOT SHOWN.
3. THE NORTH AND CENTER CELLS OF THE BOTTOM ASH IMPOUNDMENT WERE CLOSED BY REMOVAL OF WASTE AND LINER.
4. THE SOUTH CELL OF THE BOTTOM ASH IMPOUNDMENT WAS CLOSED WITH A FINAL COVER OVER PLACED WASTE.
5. THE BOTTOM ASH LANDFILL WAS CLOSED BY CONSOLIDATION OF PLACED WASTE INTO A SMALLER FOOTPRINT AND CONSTRUCTION OF A FINAL COVER.

N

0 200 400
1" = 200' FEET

wsp

GREAT RIVER ENERGY - STANTON STATION
BOTTOM ASH IMPOUNDMENT MONITORING WELL NETWORK

FIGURE 1

Path: \\corp.pbwan.net\US\Central\Data\USJK100\acad\GREAT RIVER ENERGY\STANTON\99_PROJECTS\21509219\Annual Monitoring Reports\ | File Name: 21509219_2024_WO-StantonNDDEQ_Q2_GWSURF_FIGURE1.dwg



LEGEND - Q2 2024 GROUNDWATER CONTOURS

- UPGRADIENT OR SIDEGRADIENT MONITORING WELL
- IMPOUNDMENT DOWNGRADIENT MONITORING WELL
- JUNE 2025 NATURE AND EXTENT WELLS
- ADDITIONAL NATURE AND EXTENT WELLS
- CLOSED BOTTOM ASH LANDFILL/IMPOUNDMENT FOOTPRINT
- GENERAL DIRECTION OF GROUNDWATER FLOW
- GROUNDWATER CONTOURS AND ELEVATIONS

NOTE(S)

1. AERIAL IMAGERY OBTAINED FROM UNITED STATES DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURE IMAGERY PROGRAM, 2023.
2. GROUNDWATER CONTOURS ARE BASED ON JUNE 2024 ELEVATION INFORMATION FROM THE SHOWN MONITORING WELLS, AS WELL AS MONITORING WELLS AND PIEZOMETERS NOT SHOWN.
3. THE NORTH AND CENTER CELLS OF THE BOTTOM ASH IMPOUNDMENT WERE CLOSED BY REMOVAL OF WASTE AND LINER.
4. THE SOUTH CELL OF THE BOTTOM ASH IMPOUNDMENT WAS CLOSED WITH A FINAL COVER OVER PLACED WASTE.
5. THE BOTTOM ASH LANDFILL WAS CLOSED BY CONSOLIDATION OF PLACED WASTE INTO A SMALLER FOOTPRINT AND CONSTRUCTION OF A FINAL COVER.

N

0 200 400
1" = 200' FEET

wsp

GREAT RIVER ENERGY - STANTON STATION
BOTTOM ASH IMPOUNDMENT NATURE AND EXTENT WELLS

FIGURE 2

Path: \\corp.pbwan.net\US\Central\Data\US\LJK100\acad\GREAT RIVER ENERGY\STANTON\99_PROJECTS\215092\19Annual Monitoring Reports\ | File Name: 215092I9_2024_WO-StantonNDDEQ_O2_GWSURF_FIGURE2.dwg

APPENDIX A

Bottom Ash Impoundment Closure Drawings

GREAT RIVER ENERGY
STANTON STATION
SOUTH CELL ISOLATION AND SUMP CONSTRUCTION



Prepared for:

GREAT RIVER ENERGY

Stanton Station
Stanton, North Dakota

Prepared by:

GOLDER

Golder Associates Inc.
44 Union Boulevard, Suite 300
Lakewood, Colorado USA 80228

SOUTH CELL ISOLATION AND SUMP CONSTRUCTION		
DRAWING NUMBER	TITLE	REVISION
1	TITLE SHEET	0
2	PROJECT DESCRIPTION AND GENERAL NOTES	0
3	SITE OVERVIEW	0
4	EXISTING CONDITIONS - SOUTH CELL	0
5	CLEANOUT AND SUMP CONSTRUCTION	0
6	BOTTOM ASH PROTECTIVE COVER	0

REFERENCE DRAWINGS		
DRAWING NUMBER	TITLE	REVISION
S1007	POND A SECTIONS AND DETAILS - SH. 2	1
S1009	OUTFALL STRUCTURES OUTLINE - PLAN AND SECTIONS	2
S1010	OUTFALL STRUCTURES REINFORCEMENT - SH. 1	2
S1013	PIPING DETAILS	2

REV.	YYYY-MM-DD	DESCRIPTION	DESIGNED	PREPARED	REVIEWED	APPROVED
0	2019-04-02	ISSUED FOR CONSTRUCTION	CCS	CCS	TJS	TJS
B	2018-11-05	ISSUED FOR BID	CCS	KAC	TJS	TJS
A	2018-10-24	ISSUED FOR CLIENT REVIEW	CCS	CCS	TJS	TJS

SEAL

REGISTERED PROFESSIONAL ENGINEER
TODD J. STONG
PE-6148
Date 4/1/2019
NORTH DAKOTA

CLIENT
GREAT RIVER ENERGY
STANTON STATION

CONSULTANT
GOLDER

GOLDER ASSOCIATES INC.
44 UNION BLVD., SUITE 300
LAKEWOOD, COLORADO
USA
(303) 980-0540
www.golder.com

PROJECT
STANTON SITE RESTORATION

TITLE
TITLE SHEET

PROJECT NO. 1775717 | REV. 0 | 1 of 6 | DRAWING 1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI D

0 1 in

Path: \\Denver\acad\GREAT RIVER ENERGY\STANTON\99_PROJECTS\1775717\South Cell Isolation and Sump\ | File Name: 1775717_SS-SC000.dwg | Last Edited By: cschuettpelz Date: 2019-03-27 Time:9:10:51 AM | Printed By: CSchuettpelz Date: 2019-04-02 Time:8:23:54 AM

PROJECT DESCRIPTION

THE SOUTH CELL ISOLATION AND SUMP CONSTRUCTION PROJECT CONSISTS OF CLEANING OUT EXISTING COAL COMBUSTION RESIDUALS (CCRS) WITHIN THE CONCRETE OUTLET STRUCTURE NEAR THE NORTHWEST CORNER OF THE SOUTH CELL OF THE BOTTOM ASH IMPOUNDMENT, CLEANING OUT AND FILLING THE CROSS-OVER PIPELINE BETWEEN THE CENTER AND SOUTH CELL WITH PRESSURIZED GROUT, CONSTRUCTING A SUMP WITHIN THE EXISTING CONCRETE STRUCTURE IN THE SOUTH CELL, AND PLACING BOTTOM ASH PROTECTIVE COVER OVER GEOMEMBRANE-LINED PORTIONS OF THE SOUTH CELL OF THE BOTTOM ASH IMPOUNDMENT. THE SOUTH CELL OF THE BOTTOM ASH IMPOUNDMENT AT STANTON STATION IS SOUTH OF THE ORIGINAL FOOTPRINT OF STANTON STATION NORTH OF HIGHWAY 200A IN MERCER COUNTY.

GENERAL NOTES AND SPECIFICATIONS

1. ALL GRE AND OSHA HEALTH AND SAFETY REQUIREMENTS SHALL BE FOLLOWED DURING EXECUTION OF THE WORK. GRE PROCEDURES SHALL BE USED FOR ALL EXCAVATIONS, HOT WORK, AND LOCK-OUT/TAG-OUT. ALL CONTRACTOR EMPLOYEES SHALL ATTEND THE GRE CONTRACTOR SAFETY ORIENTATION.
2. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY EQUIPMENT AND PROVIDE ACCESS FOR THE OWNER'S REPRESENTATIVE TO INSPECT THE WORK. INSPECTION ACCESS IS REQUIRED THROUGHOUT THE DURATION OF THE PROJECT.
3. FOR THIS WORK, GREAT RIVER ENERGY IS THE OWNER. THE COMPANY BIDDING ON THE WORK IS THE CONTRACTOR.
4. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES LOCATED IN AND AROUND THE WORK AREA (INCLUDING MONITORING WELLS AND PIEZOMETERS) AND SHALL EXERCISE CARE WHEN WORKING NEAR THESE UTILITIES. IF ANY UNEXPECTED UTILITIES ARE LOCATED WHILE PERFORMING THE WORK, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY AND INFORM THE OWNER'S REPRESENTATIVE.
5. EXISTING UTILITIES ARE ONLY SHOWN IN THE AREA NEAR THE BOTTOM ASH IMPOUNDMENT AND BOTTOM ASH LANDFILL AND LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. ABOVE-GRADE UTILITIES OR EQUIPMENT MAY BE PRESENT AND CONTRACTOR SHALL INFORM OWNER OF CONFLICTS WITH THESE UTILITIES OR EQUIPMENT.
6. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS PRIOR TO STARTING WORK, AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE IF CONFLICTS EXIST ON THE DRAWINGS.
7. LOCATIONS AND DIMENSIONS OF EXISTING STRUCTURES ARE BASED ON DRAWINGS PROVIDED BY GRE AND SHOULD BE FIELD-VERIFIED.
8. CONTRACTOR IS RESPONSIBLE FOR SURVEY CONTROL AND FOR RECORD-KEEPING REQUIRED TO PRODUCE AS-BUILT DRAWINGS.
9. CONTRACTOR SHALL PERFORM HOUSEKEEPING DUTIES ON A DAILY BASIS TO KEEP WORK AREAS CLEAN. HOUSEKEEPING SHALL BE PERFORMED AT THE COMPLETION OF THE WORK TO THE SATISFACTION OF THE OWNER.
10. TEMPORARY EXCAVATIONS SHALL BE COMPLETED AT MAXIMUM SLOPES FOLLOWING GRE AND OSHA REQUIREMENTS.
11. ALL WORK COMPLETED IN AND AROUND THE BOTTOM ASH IMPOUNDMENT AND BOTTOM ASH LANDFILL SHALL BE COORDINATED WITH GRE. ACCESS ROUTES TO THE WORK AREA SHALL BE APPROVED BY THE OWNER PRIOR TO USE. IF ACCESS IS GIVEN VIA THE SOUTH ENTRANCE GATE, CONTRACTOR SHALL USE CARE WHEN ENTERING AND EXITING HIGHWAY 200A AND SHALL INFORM GRE EACH DAY WHEN ARRIVING OR DEPARTING THE SITE.
12. BOTTOM ASH PROTECTIVE COVER SHALL BE PLACED ON ALL AREAS OF EXPOSED GEOMEMBRANE. PROTECTIVE COVER OVER GEOMEMBRANE SIDE SLOPES SHALL BE A MINIMUM OF 3 FEET THICK.
13. BOTTOM ASH PROTECTIVE COVER SHALL BE BORROWED FROM THE CENTER OF THE SOUTH CELL OF THE BOTTOM ASH IMPOUNDMENT. IF SUFFICIENT BOTTOM ASH IS UNAVAILABLE WITHIN THE SOUTH CELL OF THE BOTTOM ASH IMPOUNDMENT, THE CONTRACTOR MAY BORROW ADDITIONAL BOTTOM ASH FROM THE BOTTOM ASH LANDFILL AFTER APPROVAL FROM THE OWNER'S REPRESENTATIVE.
14. PROTECTIVE COVER ON THE SIDE SLOPES SHALL BE PLACED FROM THE TOE OF THE SLOPE TOWARD THE CREST USING LOW GROUND PRESSURE EQUIPMENT. CONTRACTOR TO EVALUATE PLACEMENT CONDITIONS AS WORK PROGRESSES AND MAY MODIFY THE SLOPE OF BOTTOM ASH PLACED ON GEOMEMBRANE DEPENDING ON WORK CONDITIONS. MODIFICATIONS TO BOTTOM ASH PROTECTIVE COVER PLACEMENT SLOPES SHALL BE APPROVED BY OWNER PRIOR TO WORK BEING COMPLETED.
15. CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO THE GEOMEMBRANE DURING CONSTRUCTION AND REPAIRS TO THE GEOMEMBRANE PRIOR TO DEMOBILIZING FROM SITE UNLESS AGREED TO OTHERWISE WITH THE OWNER.

GENERAL NOTES AND SPECIFICATIONS (CONTINUED)

16. IN-PLACE COAL COMBUSTION RESIDUALS IN THE BOTTOM ASH IMPOUNDMENT MAY BE SATURATED AND SOFT WITH LOW BEARING STRENGTH.
17. CONTRACTOR IS RESPONSIBLE FOR DEWATERING ACTIVITIES WITHIN THE SOUTH CELL AND CENTER CELL TO COMPLETE THE WORK TO THE LINES AND GRADES SHOWN ON THE DRAWINGS AND AS DESCRIBED IN BID DOCUMENTS. WATER FROM THE SOUTH CELL AND CENTER CELL MAY BE PUMPED TO THE NORTH CELL OR MANAGED IN THE CENTER CELL AS REQUIRED.
18. THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL WITHIN THEIR WORK AREA, WHICH MAY INVOLVE USING A WATER TRUCK TO CONDITION BORROW AREAS, PLACEMENT AREAS, AND ACCESS ROADS.
19. THE SOURCE OF WATER USED FOR DUST CONTROL IS THE MISSOURI RIVER. ACCESS TO THE WATER SOURCE SHALL BE ALONG THE EXISTING ROAD TO THE STANTON STATION INTAKE STRUCTURE. CONTRACTOR SHALL CONFIRM THE PUMP SUCTION LOCATION WITH THE OWNER PRIOR TO USE AND IS RESPONSIBLE FOR MAINTAINING THE EXISTING GRAVEL ROAD TO THE WATER SOURCE DURING CONSTRUCTION.
20. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING TEMPORARY ACCESS RAMPS/ROADS AS DETERMINED TO BE REQUIRED BY THE CONTRACTOR TO COMPLETE THE WORK.
21. THE CONTRACTOR IS RESPONSIBLE FOR ALL LABOR, EQUIPMENT, AND OTHER INCIDENTALS REQUIRED TO PERFORM THE WORK UNLESS OTHERWISE STATED IN THESE DRAWINGS OR THE BID DOCUMENTS.

CONSTRUCTION COORDINATION

1. DECONSTRUCTION ACTIVITIES NEAR THE FOOTPRINT OF THE ORIGINAL STANTON STATION SITE WILL BE TAKING PLACE NEAR THE BOTTOM ASH IMPOUNDMENT AND BOTTOM ASH LANDFILL DURING THIS WORK. THE CONTRACTOR SHALL BE AWARE OF WORK BEING DONE BY OTHERS AND SHALL COORDINATE CONTRACTOR'S SCHEDULE AND HAUL ROUTES TO COINCIDE WITH OTHER WORK.

SUBMITTAL(S)

1. A CRITICAL PATH OR BAR GRAPH TYPE SCHEDULE, PREPARED FOR EACH CONTRACT ITEM, SHALL BE SUBMITTED.
2. A WRITTEN WORK SAFETY PLAN DESCRIBING METHODS AND PRECAUTIONS TO BE TAKEN BY THE CONTRACTOR FOR SAFE PLACEMENT OF BOTTOM ASH SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO ANY WORK BEING COMPLETED.
3. A WORK PLAN DESCRIBING THE EQUIPMENT AND METHODS THAT THE CONTRACTOR INTENDS TO EMPLOY TO ACCOMPLISH WORK. THIS PLAN SHALL ALSO INCLUDE EQUIPMENT STAGING LOCATIONS.
4. ANY MATERIALS REQUIRED TO COMPLETE THE WORK, WHICH MAY INCLUDE, BUT NOT BE LIMITED TO, PIPING, PIPING APPURTENANCES AND COUPLERS, GROUT, PIPE GROUT PLUGS, DRAIN GRAVEL, AND GEOSYNTHETICS.

ABBREVIATIONS

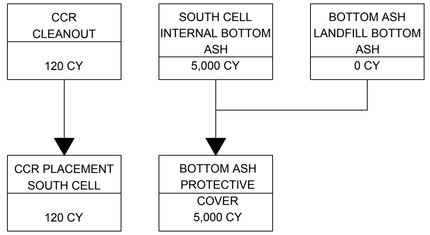
ADS	ADVANCED DRAINAGE SYSTEMS
CCR	COAL COMBUSTION RESIDUAL
CY	CUBIC YARD
DIA.	DIAMETER
EL.	ELEVATION
ft	FEET
GOLDER	GOLDER ASSOCIATES INC.
GRE	GREAT RIVER ENERGY
HDPE	HIGH DENSITY POLYETHYLENE
in	INCH
LF	LINEAR FEET
MIN.	MINIMUM
N.T.S.	NOT TO SCALE
TYP.	TYPICAL

REFERENCES

1. SITE LOCATION: SECTION 21, T144N, R84W, MERCER COUNTY, NORTH DAKOTA.
2. EXISTING GROUND TOPOGRAPHY WAS PROVIDED BY INTERSTATE ENGINEERING. THE INTERIOR OF THE BOTTOM ASH IMPOUNDMENT WAS SURVEY IN SEPTEMBER OF 2018 AND THE BOTTOM ASH LANDFILL WAS SURVEYED IN 2014.
3. THE SITE AERIAL IMAGE WAS PROVIDED BY GRE AND WAS ACQUIRED IN 2018. THE LOCATION OF THE AERIAL IMAGE IS APPROXIMATE.
4. COORDINATES ARE BASED ON PLANT GRID SYSTEM.

QUANTITIES

EARTHWORKS

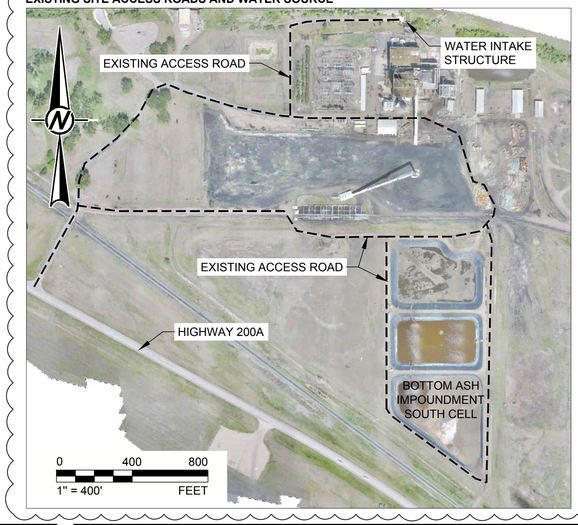


CONSTRUCTION ITEMS

TYPE	PURPOSE	SIZE	QUANTITY	NOTES
PERFORATED ADS N-12 PLAIN END HDPE PIPE	SUMP PIPING	18 in	35 LF	OUTSIDE DIAMETER = 22 INCHES
ADS END CAP	SUMP PIPING	18 in	1 EA	
ADS N-12 HDPE 90-DEGREE ELBOW	SUMP PIPING	18 in	1 EA	BELL-BELL ELBOW
SOLID WALL DR-17 HDPE PIPE	SUMP RISER PIPING ABOVE THE CONCRETE STRUCTURE	22 in	8 LF	PE 4710 IPS (IRON PIPE SIZE) OUTSIDE DIAMETER = 22 INCHES
HDPE CAP	CAP ON TOP OF SUMP RISER PIPE	22 in	1 EA	CAP COMPATIBLE WITH DR-17 PLAIN END HDPE PIPE WITH AN OUTSIDE DIAMETER OF 22 INCHES
MARMAC COUPLER	ADS N-12 ST IB HDPE PIPE TO SOLID WALL DR-17 HDPE PIPE CONNECTION	N/A	1 EA	MARMAC OR EQUIVALENT APPROVED BY OWNER'S REPRESENTATIVE
DRAIN GRAVEL	SUMP DRAINAGE GRAVEL	N/A	50 CY	DRAIN GRAVEL TO BE APPROVED BY THE OWNER'S REPRESENTATIVE SEE SPECIFICATIONS
8-OUNCE PER SQUARE YARD NONWOVEN GEOTEXTILE	SUMP FILTER	N/A	~800 SF	
NON-SHRINK GROUT	FILL THE EXISTING 36-INCH DIAMETER REINFORCED CONCRETE PIPE BETWEEN THE SOUTH AND CENTER CELL	N/A	~20 CY	NON-SHRINK GROUT TO BE APPROVED BY THE OWNER'S REPRESENTATIVE SEE SPECIFICATIONS

QUANTITIES SHOWN ARE FOR INFORMATION ONLY. CONTRACTOR IS RESPONSIBLE FOR DETERMINING QUANTITIES REQUIRED BASED ON THE DRAWINGS, INCLUDING ANY WASTE.

EXISTING SITE ACCESS ROADS AND WATER SOURCE



REV.	YYYY-MM-DD	DESCRIPTION	DESIGNED	PREPARED	REVIEWED	APPROVED
0	2019-04-02	ISSUED FOR CONSTRUCTION	CCS	CCS	TJS	TJS
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SEAL

REGISTERED PROFESSIONAL ENGINEER
TODD J. STONG
PE-8134
DATE 4/2/2019
NORTH DAKOTA

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STANTON STATION

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PROJECT
STANTON SITE RESTORATION

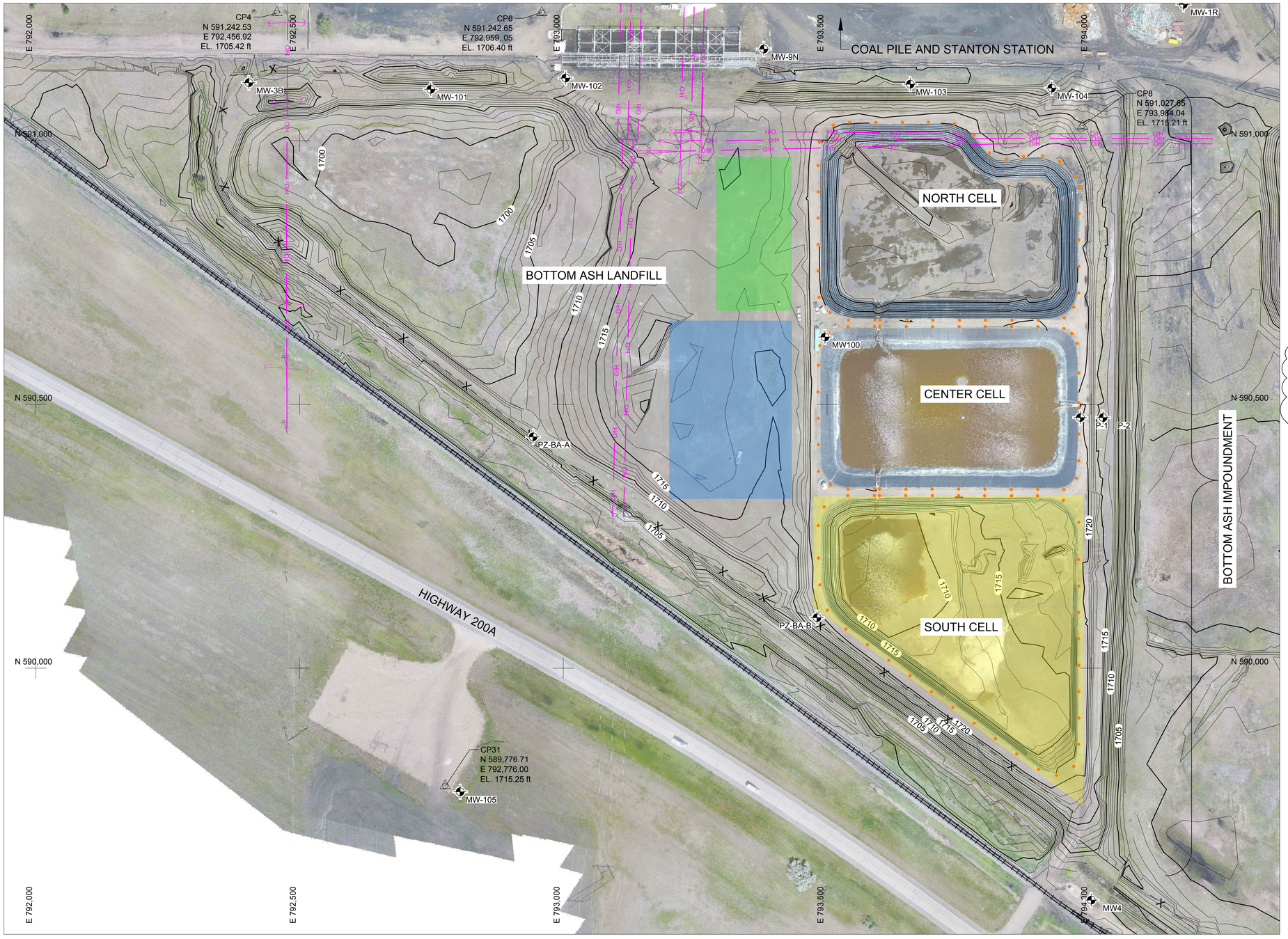
TITLE
PROJECT DESCRIPTION AND GENERAL NOTES

PROJECT NO. 1775717 | REV. 0 | 2 of 6 | DRAWING 2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI D

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LEGEND

- EXISTING GROUND TOPOGRAPHY (REFERENCE 2)
- BOTTOM ASH IMPOUNDMENT SOUTH CELL WORK AREA
- CONTRACTOR STAGING AREA
- BOTTOM ASH LANDFILL BORROW
- BOLLARDS
- RAIL LINES
- O/H — OVERHEAD ELECTRICAL
- FENCE
- MW-1R — MONITORING WELL/PIEZOMETER
- SURVEY CONTROL POINT

NOTES

1. THE LOCATIONS AND EXTENTS OF THE BOTTOM ASH LANDFILL BORROW TO BE APPROVED BY THE OWNER'S REPRESENTATIVE.
2. CARE SHALL BE TAKEN WHEN WORKING NEAR EXISTING MONITORING WELLS/PIEZOMETERS. ANY DAMAGE TO MONITORING WELLS/PIEZOMETERS IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
3. THE RAIL LINE BETWEEN THE BOTTOM ASH IMPOUNDMENT/BOTTOM ASH LANDFILL AND THE COAL PILE HAS BEEN REMOVED.

REFERENCES

1. SITE LOCATION: SECTION 21, T144N, R84W, MERCER COUNTY, NORTH DAKOTA.
2. EXISTING GROUND TOPOGRAPHY WAS ACQUIRED BY INTERSTATE ENGINEERING IN 2014 AND 2018.
3. THE SITE AERIAL IMAGE WAS PROVIDED BY GRE AND WAS ACQUIRED IN 2018. THE LOCATION OF THE AERIAL IMAGE IS APPROXIMATE.
4. COORDINATES ARE BASED ON THE PLANT GRID SYSTEM.
5. THE CONTOUR INTERVAL IS ONE FOOT.
6. THE BOTTOM ASH LANDFILL AND BOTTOM ASH IMPOUNDMENT FACILITIES ARE CONTAINED WITHIN PROPERTY OWNED BY GREAT RIVER ENERGY.

0 100 200
1" = 100' FEET

REV.	YYYY-MM-DD	DESCRIPTION	DESIGNED	PREPARED	REVIEWED	APPROVED
0	2019-04-02	ISSUED FOR CONSTRUCTION	CCS	CCS	TJS	TJS
B	2018-11-05	ISSUED FOR BID	CCS	KAC	TJS	TJS
A	2018-10-24	ISSUED FOR CLIENT REVIEW	CCS	CCS	TJS	TJS

SEAL

REGISTERED PROFESSIONAL ENGINEER — TODD J. STONG — PE-6144 — Date 4/2/2019 — NORTH DAKOTA

CLIENT
GREAT RIVER ENERGY
STANTON STATION

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GOLDER ASSOCIATES INC.
44 UNION BLVD., SUITE 300
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USA
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www.golder.com

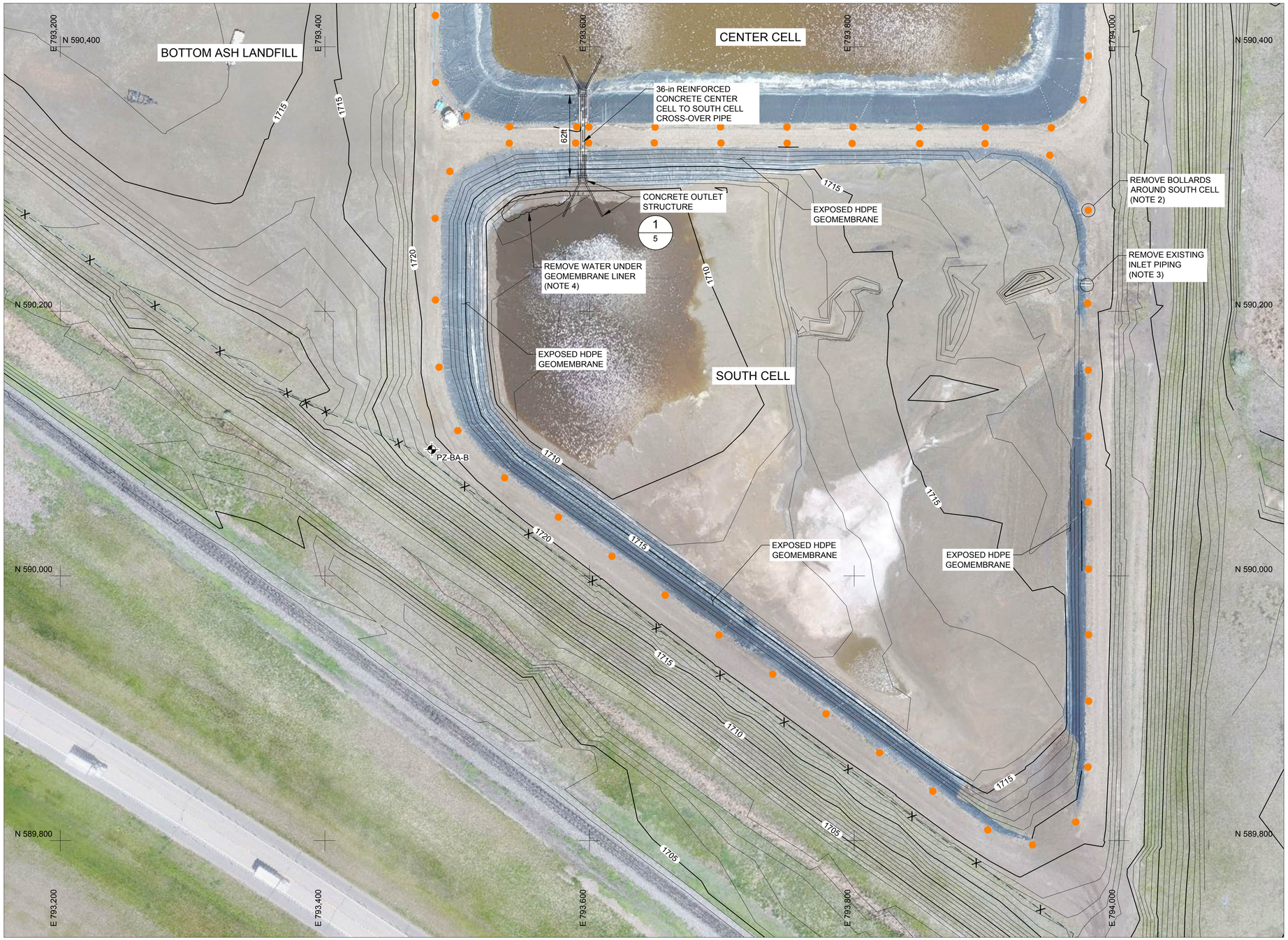
PROJECT
STANTON SITE RESTORATION

TITLE
SITE OVERVIEW

PROJECT NO. 1775717 | REV. 0 | 3 of 6 | DRAWING 3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI D

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LEGEND

- EXISTING GROUND TOPOGRAPHY (REFERENCE 2)
- BOLLARDS
- FENCE
- MONITORING WELL/PIEZOMETER (MW-1R)

NOTES

1. APPROXIMATELY 36 BOLLARDS EXIST AROUND THE SOUTH CELL OF THE BOTTOM ASH IMPOUNDMENT.
2. BOLLARDS SHALL BE CUT OFF AT GROUND LEVEL AROUND THE SOUTH CELL AND SAFETY CABLE SHALL BE REMOVED. BOLLARDS AND SAFETY CABLE TO BE DISPOSED OF IN THE DECONSTRUCTION CONTRACTORS METAL SCRAP PILE AS APPROVED BY THE OWNER. NO METAL IS TO BE DISPOSED OF WITHIN THE BOTTOM ASH IMPOUNDMENT.
3. EXISTING INLET PLASTIC PIPING SHALL BE CUT OFF APPROXIMATELY TWO FEET BELOW THE GROUND SURFACE AND BACKFILLED WITH SOIL. PLASTIC PIPING MAY BE DISPOSED OF IN THE CENTER OF THE SOUTH CELL OF THE BOTTOM ASH IMPOUNDMENT AS APPROVED BY THE OWNER. SEE REFERENCE DRAWING S1013 FOR INFORMATION ON EXISTING PIPING.
4. WATER TRAPPED UNDER THE GEOMEMBRANE LINER SHALL BE REMOVED BY HAND EXCAVATING A LOW SPOT BELOW THE TRAPPED WATER, CUTTING A HOLE IN THE GEOMEMBRANE LINER, DRAINING THE TRAPPED WATER, AND REPAIRING THE GEOMEMBRANE WITH AN EXTRUSION WELD APPROVED BY THE OWNER.

REFERENCES

1. SITE LOCATION: SECTION 21, T144N, R84W, MERCER COUNTY, NORTH DAKOTA.
2. EXISTING GROUND TOPOGRAPHY WAS ACQUIRED BY INTERSTATE ENGINEERING IN 2014 AND 2018.
3. THE SITE AERIAL IMAGE WAS PROVIDED BY GRE AND WAS ACQUIRED IN 2018. THE LOCATION OF THE AERIAL IMAGE IS APPROXIMATE.
4. COORDINATES ARE BASED ON THE PLANT GRID SYSTEM.
5. THE CONTOUR INTERVAL IS ONE FOOT.
6. THE BOTTOM ASH LANDFILL AND BOTTOM ASH IMPOUNDMENT FACILITIES ARE CONTAINED WITHIN PROPERTY OWNED BY GREAT RIVER ENERGY.

0 40 80
1" = 40' FEET

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B	2018-11-05	ISSUED FOR BID	CCS	KAC	TJS	TJS
A	2018-10-24	ISSUED FOR CLIENT REVIEW	CCS	CCS	TJS	TJS

SEAL

REGISTERED PROFESSIONAL ENGINEER
TODD J. STONG
PE-6144
Date 4/12/2019
NORTH DAKOTA

CLIENT
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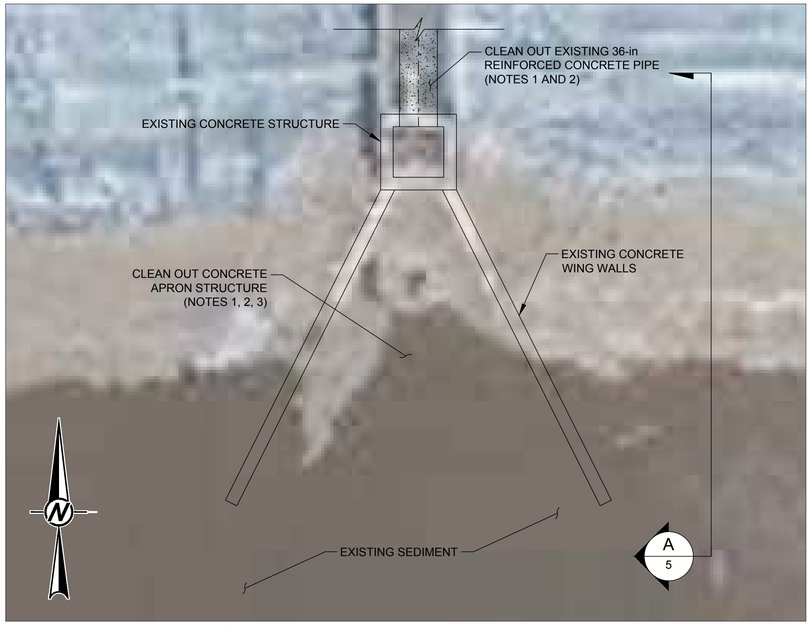
PROJECT
STANTON SITE RESTORATION

TITLE
EXISTING CONDITIONS - SOUTH CELL

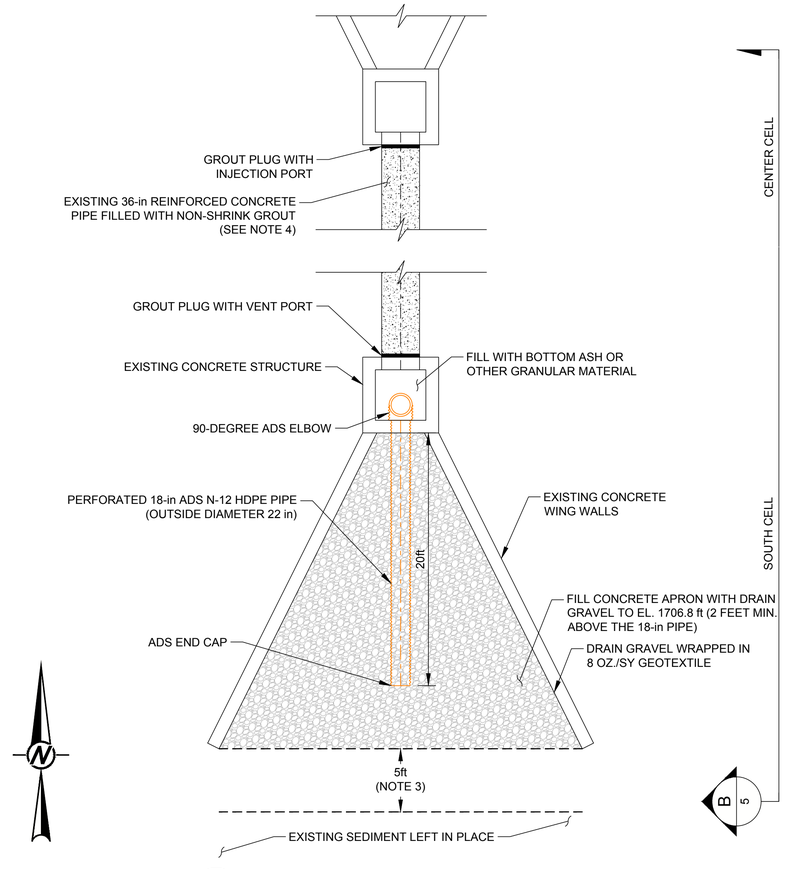
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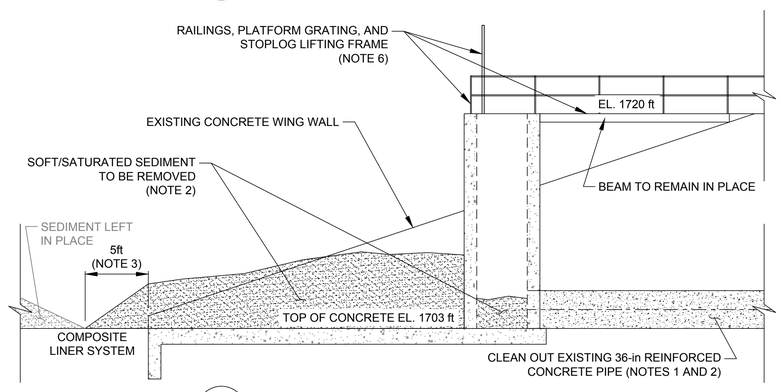
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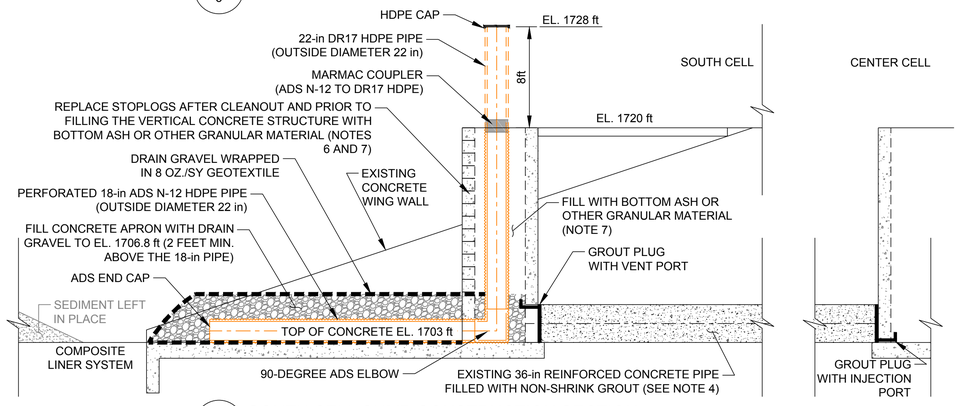
SCALE 1" = 6' 1/5 SOUTH CELL SUMP CLEANOUT PLAN



SCALE 1" = 6' 2/5 SOUTH CELL SUMP CONSTRUCTION PLAN



SCALE 1" = 6' A/5 SOUTH CELL SUMP CLEANOUT SECTION



SCALE 1" = 6' B/5 SOUTH CELL SUMP CONSTRUCTION SECTION

NOTES

1. THE EXISTING 36-INCH REINFORCED CONCRETE PIPELINE SHALL BE CLEANED AND PRESSURE WASHED PRIOR TO FILLING WITH NON-SHRINK GROUT. THE SOUTH CELL CONCRETE APRON STRUCTURE AND A PORTION OF THE CENTER CELL CONCRETE APRON STRUCTURE MAY ALSO BE REQUIRED TO BE CLEANED OUT AND PRESSURE WASHED PRIOR TO PLACEMENT OF GROUT PLUGS.
2. SOFT AND SATURATED SEDIMENT CLEANED OUT FROM THE 36-INCH PIPE AND BETWEEN THE WING WALLS IN THE CENTER AND SOUTH CELLS SHALL BE DISPOSED OF IN THE CENTER OF THE SOUTH CELL OF THE BOTTOM ASH IMPOUNDMENT.
3. SEDIMENT TO BE REMOVED DOWN TO THE TOP OF CONCRETE ELEVATION OF THE CONCRETE APRON STRUCTURE AND A MINIMUM OF 5 FEET HORIZONTALLY BEYOND THE CONCRETE APRON STRUCTURE. SEE REFERENCE DRAWINGS FOR DETAILS OF THE CONCRETE STRUCTURES.
4. THE EXISTING 36-INCH PIPE SHALL BE PRESSURE-GROUTED WITH NON-SHRINK GROUT APPROVED BY THE OWNER'S REPRESENTATIVE.
5. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING TEMPORARY ACCESS RAMPS/ROADS AS DETERMINED TO BE REQUIRED BY THE CONTRACTOR TO COMPLETE THE WORK.
6. THE RAILINGS, PLATFORM GRATING, AND STOPLOG LIFTING FRAME THAT ARE A PART OF THE SOUTH CELL CONCRETE STRUCTURE SHALL BE DISPOSED OF IN THE DECONSTRUCTION CONTRACTOR'S METAL SCRAP PILE AS APPROVED BY THE OWNER. NO METAL IS TO BE DIPSOSED OF WITHIN THE BOTTOM ASH IMPOUNDMENT.
7. THE STOPLOGS SHALL BE REMOVED AS REQUIRED TO CLEAN OUT THE CONCRETE STRUCTURE AND 36-INCH REINFORCED CONCRETE PIPE. AFTER PLACEMENT OF THE SUMP DRAIN GRAVEL AND PIPING AND PRIOR TO PLACEMENT OF BOTTOM ASH OR OTHER GRANULAR MATERIAL APPROVED BY THE OWNER IN THE VERTICAL CONCRETE STRUCTURE, THE STOPLOGS SHALL BE REPLACED TO TO TOP OF THE CONCRETE STRUCTURE.
8. THE CONTRACTOR IS RESPONSIBLE FOR DEWATERING THE SOUTH CELL AND CENTER CELL TO COMPLETE THE WORK TO THE LINES AND GRADES SHOWN ON THE DRAWINGS AND AS DESCRIBED IN BID DOCUMENTS. WATER FROM THE SOUTH CELL AND CENTER CELL MAY BE PUMPED TO THE NORTH CELL OR MANAGED IN THE CENTER CELL AS REQUIRED.

REFERENCES

1. THE SITE AERIAL IMAGE WAS PROVIDED BY GRE AND WAS ACQUIRED IN 2018. THE LOCATION OF THE AERIAL IMAGE IS APPROXIMATE.

REV.	YYYY-MM-DD	DESCRIPTION	DESIGNED	PREPARED	REVIEWED	APPROVED
0	2019-04-02	ISSUED FOR CONSTRUCTION	CCS	CCS	TJS	TJS
B	2018-11-05	ISSUED FOR BID	CCS	KAC	TJS	TJS
A	2018-10-24	ISSUED FOR CLIENT REVIEW	CCS	CCS	TJS	TJS

SEAL

REGISTERED PROFESSIONAL ENGINEER — TODD J. STONG — PE-6144 — Date 4/2/2019 — NORTH DAKOTA

CLIENT
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STANTON STATION

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PROJECT
STANTON SITE RESTORATION

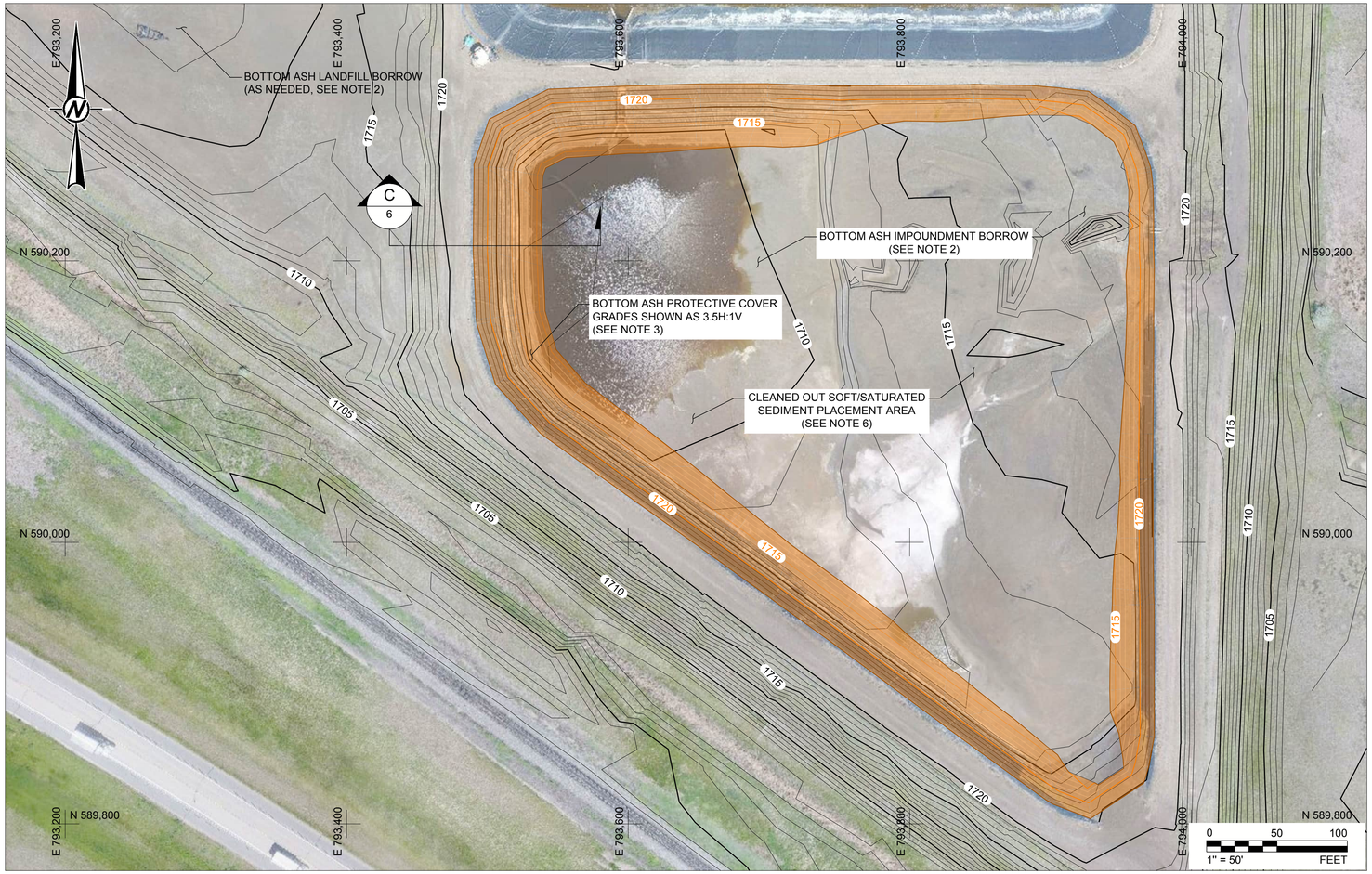
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CLEANOUT AND SUMP CONSTRUCTION

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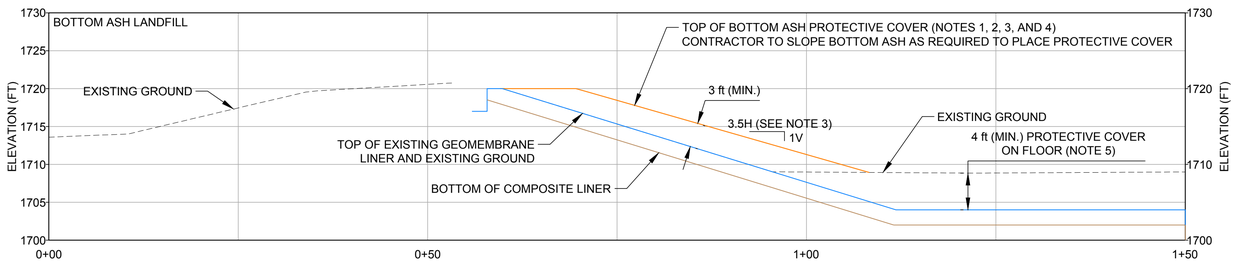
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SCALE 1" = 50' 1/6 BOTTOM ASH PROTECTIVE COVER PLAN



SCALE N.T.S. C/6 WEST SLOPE SECTION (TYPICAL BOTTOM ASH PROTECTIVE COVER)

LEGEND

- 1715 — EXISTING GROUND TOPOGRAPHY (REFERENCE 2)
- 1715 — BOTTOM ASH PROTECTIVE COVER PLACEMENT ON SIDE SLOPES (NOTES 1, 2, 3, AND 4)

NOTES

1. BOTTOM ASH PROTECTIVE COVER SHALL BE PLACED ON ALL AREAS OF EXPOSED GEOMEMBRANE. PROTECTIVE COVER OVER GEOMEMBRANE SIDE SLOPES SHALL BE A MINIMUM OF 3 FEET THICK.
2. BOTTOM ASH PROTECTIVE COVER SHALL BE BORROWED FROM THE CENTER OF THE SOUTH CELL OF THE BOTTOM ASH IMPOUNDMENT. IF SUFFICIENT BOTTOM ASH IS UNAVAILABLE WITHIN THE SOUTH CELL OF THE BOTTOM ASH IMPOUNDMENT, THE CONTRACTOR MAY BORROW ADDITIONAL BOTTOM ASH FROM THE BOTTOM ASH LANDFILL AFTER APPROVAL FROM THE OWNER'S REPRESENTATIVE.
3. PROTECTIVE COVER ON THE SIDE SLOPES SHALL BE PLACED FROM THE TOE OF THE SLOPE TOWARD THE CREST USING LOW GROUND PRESSURE EQUIPMENT. CONTRACTOR TO EVALUATE PLACEMENT CONDITIONS AS WORK PROGRESSES AND MAY MODIFY THE SLOPE OF BOTTOM ASH PLACED ON GEOMEMBRANE DEPENDING ON WORK CONDITIONS. MODIFICATIONS TO BOTTOM ASH PROTECTIVE COVER PLACEMENT SLOPES SHALL BE APPROVED BY OWNER PRIOR TO WORK BEING COMPLETED.
4. CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO THE GEOMEMBRANE DURING CONSTRUCTION AND REPAIRS TO THE GEOMEMBRANE PRIOR TO DEMOBILIZING FROM SITE UNLESS AGREED OTHERWISE WITH THE OWNER.
5. PROTECTIVE COVER OVER THE FLOOR OF THE GEOMEMBRANE SHALL BE A MINIMUM OF 4 FEET THICK OR TO A MINIMUM ELEVATION OF 1708 ft.
6. SOFT/SATURATED SEDIMENT CLEANED OUT FROM THE CROSS-OVER PIPELINE BETWEEN THE CENTER CELL AND THE SOUTH CELL AND FROM WITHIN THE CONCRETE STRUCTURES PRIOR TO CONSTRUCTION OF THE SUMP SHALL BE PLACED IN THE CENTER OF THE SOUTH CELL OF THE BOTTOM ASH IMPOUNDMENT AS APPROVED BY THE OWNER. SOFT/SATURATED SEDIMENT MAY BE STABILIZED AND BLENDED WITH EXISTING BOTTOM ASH WITHIN THE CELL TO PROVIDE A WORKABLE MATERIAL.
7. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING TEMPORARY ACCESS RAMPS/ROADS AS DETERMINED TO BE REQUIRED BY THE CONTRACTOR TO COMPLETE THE WORK.
8. THE CONTRACTOR IS RESPONSIBLE FOR DEWATERING THE SOUTH CELL AND CENTER CELL TO COMPLETE THE WORK TO THE LINES AND GRADES SHOWN ON THE DRAWINGS AND AS DESCRIBED IN BID DOCUMENTS. WATER FROM THE SOUTH CELL AND CENTER CELL MAY BE PUMPED TO THE NORTH CELL OR MANAGED IN THE CENTER CELL AS REQUIRED TO ACCOMPLISH THE WORK.

REFERENCES

1. SITE LOCATION: SECTION 21, T144N, R84W, MERCER COUNTY, NORTH DAKOTA.
2. EXISTING GROUND TOPOGRAPHY WAS ACQUIRED BY INTERSTATE ENGINEERING IN 2014 AND 2018.
3. THE SITE AERIAL IMAGE WAS PROVIDED BY GRE AND WAS ACQUIRED IN 2018. THE LOCATION OF THE AERIAL IMAGE IS APPROXIMATE.
4. COORDINATES ARE BASED ON THE PLANT GRID SYSTEM.
5. THE CONTOUR INTERVAL IS ONE FOOT.
6. THE BOTTOM ASH LANDFILL AND BOTTOM ASH IMPOUNDMENT FACILITIES ARE CONTAINED WITHIN PROPERTY OWNED BY GREAT RIVER ENERGY.

REV.	YYYY-MM-DD	DESCRIPTION	DESIGNED	PREPARED	REVIEWED	APPROVED
0	2019-04-02	ISSUED FOR CONSTRUCTION	CCS	CCS	TJS	TJS
B	2018-11-05	ISSUED FOR BID	CCS	KAC	TJS	TJS
A	2018-10-24	ISSUED FOR CLIENT REVIEW	CCS	CCS	TJS	TJS

SEAL

REGISTERED PROFESSIONAL ENGINEER — TODD J. STONG — PE-6144 — Date 4/1/2019 — NORTH DAKOTA

CLIENT
GREAT RIVER ENERGY
STANTON STATION

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GOLDER

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USA
(303) 980-0540
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PROJECT
STANTON SITE RESTORATION

TITLE
BOTTOM ASH PROTECTIVE COVER

PROJECT NO. 1775717 | REV. 0 | 6 of 6 | DRAWING 6

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI D

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GREAT RIVER ENERGY
SCOPE OF WORK G
SOUTH CELL CLOSURE



Prepared for:

GREAT RIVER ENERGY

Stanton Station
Stanton, North Dakota

Prepared by:

GOLDER

Golder Associates Inc.
7245 W Alaska Dr., Suite 200
Lakewood, Colorado USA 80226

SOUTH CELL CLOSURE DRAWING LIST

DRAWING NO.	TITLE	REVISION
G1	TITLE SHEET	0
G2	GENERAL NOTES AND QUANTITIES	0
G3	EXISTING CONDITIONS	0
G4	TOP OF WASTE	0
G5	TOP OF FINAL COVER	0
G6	SECTIONS	0
G7	DETAILS	0

ADDITIONAL OVERALL SITE INFORMATION IS INCLUDED ON DRAWINGS 1 THROUGH 7

REV.	YYYY-MM-DD	DESCRIPTION	DESIGNED	PREPARED	REVIEWED	APPROVED
0	2019-07-19	ISSUED FOR CONSTRUCTION	MRS	MRS	RFS	TJS

SEAL

REGISTERED PROFESSIONAL ENGINEER
TODD J. STONG
PE-6144
Date 7/19/19
NORTH DAKOTA

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GREAT RIVER ENERGY
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STANTON, NORTH DAKOTA

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PROJECT
STANTON SITE RESTORATION
SOUTH CELL CLOSURE

TITLE
TITLE SHEET

PROJECT NO. 1775717 | REV. 0 | G1 of G7 | DRAWING G1

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI D

PROJECT DESCRIPTION

THE SOUTH CELL CLOSURE CONSTRUCTION SCOPE OF WORK CONSISTS OF REGRADING IN-PLACE AND COAL COMBUSTION RESIDUALS AND OTHER WASTE MATERIALS PLACED WITHIN THE SOUTH CELL IMPOUNDMENT TO BETWEEN 3% AND 15% GRADES. PLACING GEOSYNTHETIC CLAY LINER, GEOMEMBRANE, GROWTH MEDIUM, AND TOPSOIL AS REQUIRED TO COVER THE IMPOUNDMENT AND DIRECT SURFACE WATER OFF THE FINAL COVERED FACILITY.

SOUTH CELL CLOSURE GENERAL NOTES AND SPECIFICATIONS

1. COAL COMBUSTION RESIDUALS, COAL, AND OTHER SOIL-LIKE MATERIALS DEPOSITED IN THE SOUTH CELL SHALL BE PLACED AND COMPACTED TO PRODUCE A FIRM AND UNYIELDING TOP OF WASTE SURFACE. THESE MATERIALS SHALL BE MOISTURE-CONDITIONED DURING PLACEMENT.

2. THE WATER WITHIN THE SOUTH CELL SHALL NOT BE DISCHARGED BY THE CONTRACTOR. ONLY THE OWNER CAN REMOVE THIS WATER. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE OWNER'S REPRESENTATIVE WHEN CONTACT WATER NEEDS TO BE PUMPED FROM THE NORTHWEST CORNER SUMP. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE BEFORE CONTACT WATER GETS ABOVE ELEVATION 1716 FT.

3. THE APPROXIMATE DISTANCE FROM THE TOPSOIL BORROW AREA TO THE SOUTH CELL CLOSURE EXTENTS IS 0.6 MILES ONE-WAY.

4. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING HAUL ROADS BETWEEN THE SOUTH CELL, RIVER, WATER SOURCE, DEPOSITION LOCATIONS, WATER DISCHARGE LOCATIONS, AND BORROW AREAS TO PROVIDE ADEQUATE ACCESS THROUGHOUT CONSTRUCTION.

5. CARE SHALL BE TAKEN WHEN WORKING IN AND AROUND THE BOTTOM ASH IMPOUNDMENT SOUTH CELL TO AVOID DAMAGE TO THE LINER SYSTEM, PROTECTIVE COVER, OR SUMP SYSTEM. CONTRACTOR IS RESPONSIBLE FOR MARKING ANY DAMAGE AND FOR INFORMING THE OWNER OF DAMAGE AS SOON AS POSSIBLE. CONTRACTOR IS RESPONSIBLE FOR REPAIRS TO LINER, PROTECTIVE COVER, OR SUMP SYSTEM DAMAGED AS A PART OF PERFORMING THIS SCOPE OF WORK.

6. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING RAMPS AND/OR ACCESS ROADS OVER GEOMEMBRANE-LINED SLOPES TO PROTECT THE SUMP AND LINER SYSTEM IN THE SOUTH CELL. PROTECTIVE COVER SHALL BE MAINTAINED AT A MINIMUM THICKNESS OF THREE (3) FEET AND AS APPROVED BY THE OWNER'S REPRESENTATIVE.

7. BOLLARDS, PILLARS/PEDESTALS, AND THEIR FOUNDATIONS AROUND THE SOUTH CELL ARE TO BE CUT AND REMOVED TO GRADE BY OTHERS PRIOR TO THE START OF WORK. IF ANY BELOW GRADE STRUCTURES ARE ENCOUNTERED DURING THE EXECUTION OF THIS WORK, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF MATERIALS IN THE BOTTOM ASH IMPOUNDMENT SOUTH CELL AS APPROVED BY THE OWNER'S REPRESENTATIVE.

ABBREVIATIONS

AC	ACRE
BAL	BOTTOM ASH LANDFILL
CCR	COAL COMBUSTION RESIDUAL
C&D	CONSTRUCTION AND DEMOLITION
℄	CENTERLINE
CY	CUBIC YARD
DWG	DRAWING
EL.	ELEVATION
ft	FEET
GCL	GEOSYNTHETIC CLAY LINER
GOLDER	GOLDER ASSOCIATES INC.
GRE	GREAT RIVER ENERGY
HDPE	HIGH DENSITY POLYETHYLENE
in	INCH
LF	LINEAR FOOT
MIN.	MINIMUM
NTS	NOT TO SCALE
SF	SQUARE FOOT
SOW	SCOPE OF WORK
TYP.	TYPICAL

REFERENCES

1. SITE LOCATION: T144N, R84W, MERCER COUNTY, NORTH DAKOTA.

2. AERIAL IMAGE IS A COMBINATION OF IMAGERY OBTAINED FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE NATIONAL AERIAL IMAGE PROGRAM, ACQUIRED IN 2018, AND IMAGERY PROVIDED BY GRE, ACQUIRED IN JUNE 2018.

3. EXISTING GROUND TOPOGRAPHY IS FROM AN AERIAL SURVEY PERFORMED BY KBM, INC. ON APRIL 27, 2001 (SITE WIDE), A GROUND SURVEY PERFORMED BY INTERSTATE ENGINEERING IN 2014 (BOTTOM ASH IMPOUNDMENT AND LANDFILL AREA), A GROUND SURVEY PERFORMED BY INTERSTATE ENGINEERING IN 2017 (COAL PILE AREA), AND A GROUND SURVEY PERFORMED BY INTERSTATE ENGINEERING IN 2018.

BID ITEM QUANTITIES

TYPE	LOCATION/PURPOSE	SIZE	QUANTITY	NOTES
WASTE REGRADING	SOUTH CELL	N/A	5,000 CY	
POLYMER TREATED GCL	SOUTH CELL FINAL COVER	N/A	174,600 SF	
60-MIL TEXTURED HDPE GEOMEMBRANE	SOUTH CELL FINAL COVER	N/A	174,600 SF	
GROWTH MEDIUM	SOUTH CELL FINAL COVER	N/A	16,800 CY	
FERTILIZER	SOUTH CELL FINAL COVER	N/A	4.5 AC	
TOPSOIL (BORROW)	SOUTH CELL FINAL COVER	N/A	4,000 CY	
SEED AND MULCH (FINAL COVER MIX)	SOUTH CELL FINAL COVER	N/A	4.5 AC	SEE SPECIFICATION FOR SEED MIX
SILT FENCE EROSION CONTROLS	SOUTH CELL, AS NEEDED	36 in	1,400 LF	

* QUANTITIES PRESENTED MAY NOT ACCOUNT FOR WASTE, SHRINK, SWELL, OR OTHER ADDITIONAL QUANTITY REQUIRED TO COMPLETE THE WORK.
* ITEMS ABOVE REFLECT QUANTITIES TO BE MEASURED AS DESCRIBED IN THE MEASURE AND PAYMENT.
* ADDITIONAL MATERIALS REQUIRED TO COMPLETE THE WORK MAY NOT BE SHOWN IN THIS TABLE (SEE MEASURE AND PAYMENT)

REV.	YYYY-MM-DD	DESCRIPTION	DESIGNED	PREPARED	REVIEWED	APPROVED
0	2019-07-19	ISSUED FOR CONSTRUCTION	MRS	MRS	RFS	TJS

SEAL

REGISTERED PROFESSIONAL ENGINEER
TODD J. STONG
PE-6144
Date 7/19/19
NORTH DAKOTA

CLIENT
GREAT RIVER ENERGY
STANTON STATION
STANTON, NORTH DAKOTA

CONSULTANT
GOLDER
GOLDER ASSOCIATES INC.
7245 W ALASKA DR., SUITE 200
LAKEWOOD, COLORADO
USA
(303) 980-0540
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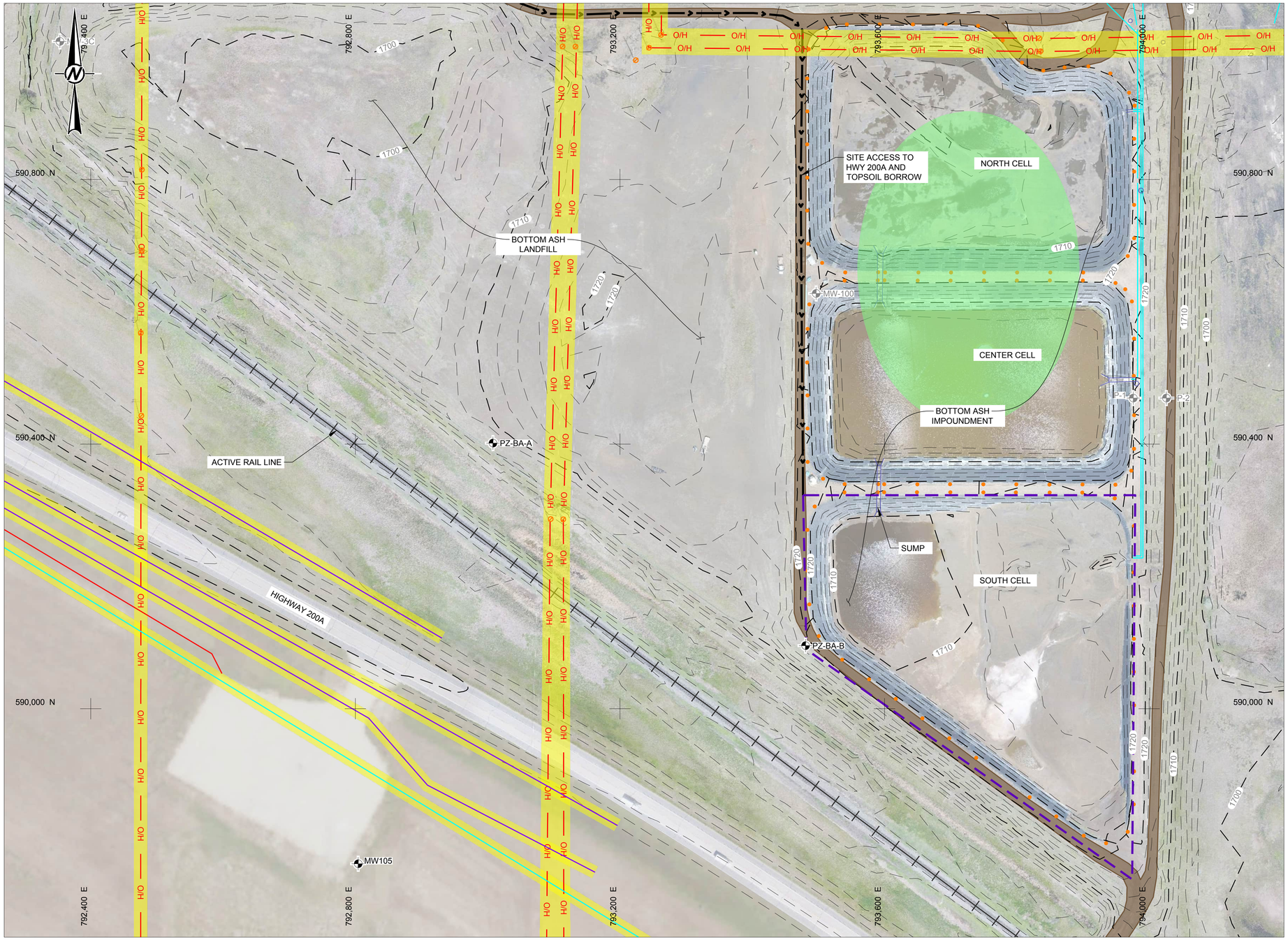
PROJECT
STANTON SITE RESTORATION
SOUTH CELL CLOSURE

TITLE
GENERAL NOTES AND QUANTITIES

PROJECT NO. 1775717 | REV. 0 | G2 of G7 | DRAWING G2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI D
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LEGEND

- EXISTING GROUND TOPOGRAPHY (REFERENCES 3 AND 4)
- SOUTH CELL CLOSURE EXTENTS (APPROXIMATE)
- POTENTIAL TOPSOIL BORROW AREA HAUL ROUTE (0.6 MILES ONE-WAY)
- EXISTING POWER POLES
- WATER PIPING (BURIED) (NOTE 1)
- ELECTRICAL (BURIED) (NOTE 1)
- OVERHEAD ELECTRIC LINE (ACTIVE) (NOTE 1)
- COMMUNICATIONS (BURIED) (NOTE 1)
- ACTIVE UTILITY (NOTE 1)
- EXISTING ACCESS ROAD
- ACTIVE RAIL LINE
- BOLLARD FOUNDATIONS (NOTE 3)
- MW-10 MONITORING WELLS/PIEZOMETERS (NOTE 2)
- MW-10 MONITORING WELLS/PIEZOMETERS TO BE ABANDONED (BY OTHERS)
- GROWTH MEDIUM STOCKPILE (NOTE 4)

NOTE(S)

1. LOCATIONS AND DIMENSIONS OF EXISTING UTILITIES ARE APPROXIMATE AND ARE BASED ON DESIGN DRAWINGS AND/OR AS-BUILT INFORMATION PROVIDED BY GRE AND SHOULD BE FIELD VERIFIED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING UTILITIES WHEN PERFORMING WORK NEAR MARKED LINES .
2. CARE SHALL BE TAKEN WHEN WORKING NEAR EXISTING MONITORING WELLS/PIEZOMETERS. ANY DAMAGE TO MONITORING WELLS/PIEZOMETERS IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
3. BOLLARDS, PILLARS/PEDESTALS, AND THEIR FOUNDATIONS AROUND THE SOUTH CELL ARE TO BE CUT AND REMOVED TO GRADE BY OTHERS PRIOR TO THE START OF WORK. IF ANY BELOW GRADE STRUCTURES ARE ENCOUNTERED DURING THE EXECUTION OF THIS WORK, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF MATERIALS IN THE BOTTOM ASH IMPOUNDMENT SOUTH CELL AS APPROVED BY THE OWNER'S REPRESENTATIVE.
4. GROWTH MEDIUM WILL BE STOCKPILED IN THE AREA INDICATED IN THE DRAWING OR COME DIRECTLY FROM SOW F (SITE REGRADE) GENERAL CUT.

REFERENCE(S)

1. SITE LOCATION: T144N, R84W, MERCER COUNTY, NORTH DAKOTA.
2. AERIAL IMAGE IS A COMBINATION OF IMAGERY OBTAINED FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE NATIONAL AERIAL IMAGE PROGRAM, ACQUIRED IN 2018, AND IMAGERY PROVIDED BY GRE, ACQUIRED IN JUNE 2018.
3. EXISTING GROUND TOPOGRAPHY IS FROM AN AERIAL SURVEY PERFORMED BY KBM, INC. ON APRIL 27, 2001 (SITE WIDE), A GROUND SURVEY PERFORMED BY INTERSTATE ENGINEERING IN 2014 (BOTTOM ASH IMPOUNDMENT AND LANDFILL AREA), A GROUND SURVEY PERFORMED BY INTERSTATE ENGINEERING IN 2017 (COAL PILE AREA), AND A GROUND SURVEY PERFORMED BY INTERSTATE ENGINEERING IN 2018.
4. EXISTING GROUND TOPOGRAPHY CONTOUR INTERVAL IS TWO (2) FEET.

0 80 160
1" = 80' FEET

REV.	YYYY-MM-DD	DESCRIPTION	DESIGNED	PREPARED	REVIEWED	APPROVED
0	2019-07-19	ISSUED FOR CONSTRUCTION	MRS	MRS	RFS	TJS

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USA
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PROJECT
STANTON SITE RESTORATION
SOUTH CELL CLOSURE

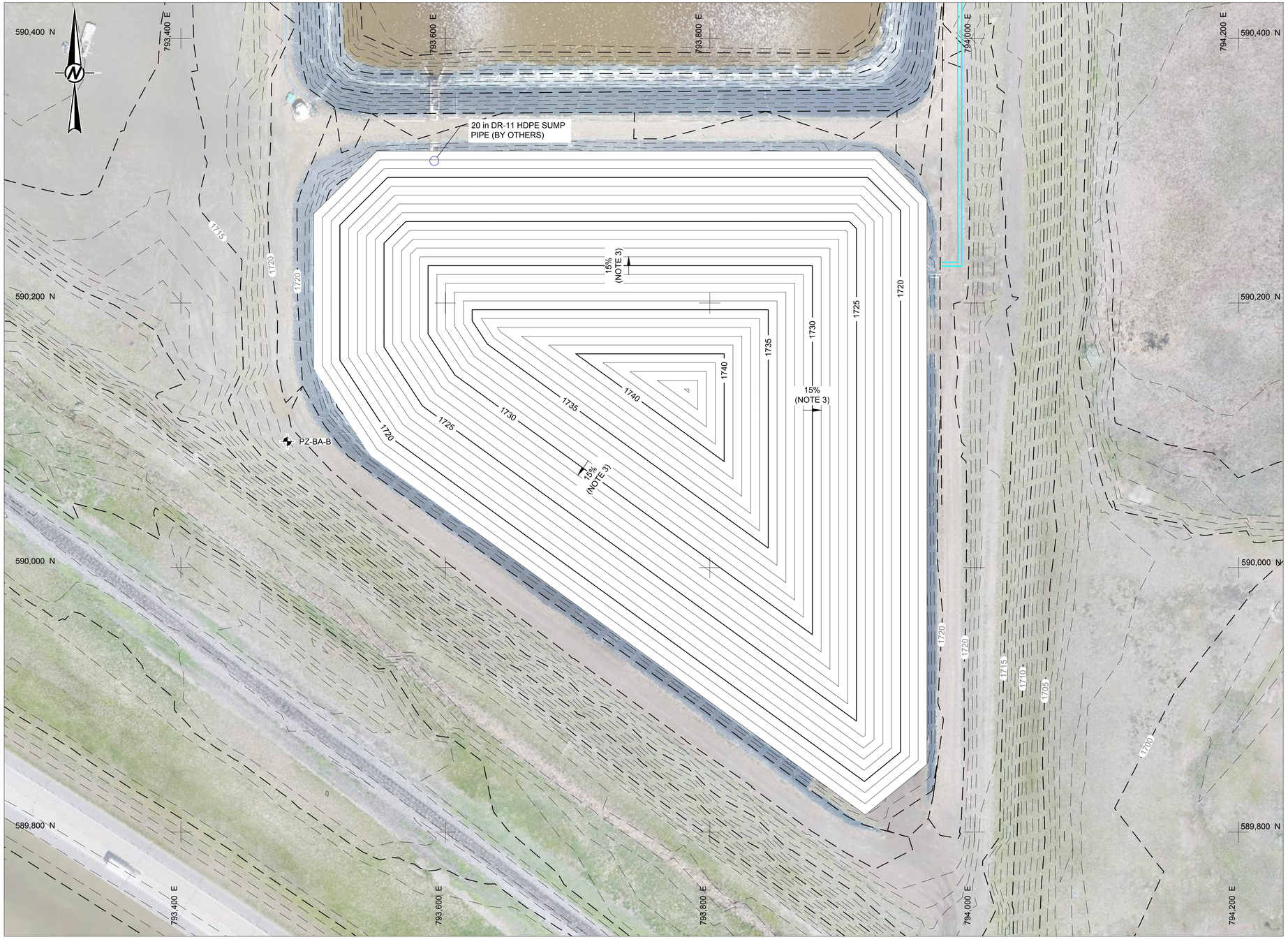
TITLE
EXISTING CONDITIONS

PROJECT NO.	REV.		DRAWING
1775717	0	G3 of G7	G3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI D

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LEGEND

- 3600 — EXISTING GROUND TOPOGRAPHY (REFERENCES 3 AND 4)
- 3600 — TOP OF WASTE GRADES (NOTES 1 AND 3 AND REFERENCE 4)
- MW-10 — MONITORING WELLS/PIEZOMETERS (NOTE 2)
- WATER PIPING (BURIED)
- 20 in DR-11 HDPE SUMP PIPE (BY OTHERS)

NOTE(S)

1. COAL COMBUSTION RESIDUALS, COAL, AND OTHER SOIL-LIKE MATERIALS DEPOSITED IN THE SOUTH CELL IMPOUNDMENT SHALL BE PLACED AND COMPACTED TO PRODUCE A FIRM AND UNYIELDING TOP OF WASTE SURFACE. THESE MATERIALS SHALL BE MOISTURE-CONDITIONED DURING PLACEMENT.
2. CARE SHALL BE TAKEN WHEN WORKING NEAR EXISTING MONITORING WELLS/PIEZOMETERS. ANY DAMAGE TO MONITORING WELLS/PIEZOMETERS IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
3. TOP OF WASTE GRADES ARE APPROXIMATE AND MAY VARY DEPENDING ON THE AMOUNT OF MATERIAL REQUIRED TO BE CONTAINED AS A PART OF THE STANTON STATION SITE RESTORATION CONSTRUCTION. TOP OF WASTE GRADES SHALL NOT BE LESS THAN 3% OR GREATER THAN 15% UNLESS OTHERWISE APPROVED BY THE OWNER'S REPRESENTATIVE.
4. BOLLARDS, PILLARS/PEDESTALS, AND THEIR FOUNDATIONS AROUND THE SOUTH CELL ARE TO BE CUT AND REMOVED TO GRADE BY OTHERS PRIOR TO THE START OF WORK. IF ANY BELOW GRADE STRUCTURES ARE ENCOUNTERED DURING THE EXECUTION OF THIS WORK, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF MATERIALS IN THE BOTTOM ASH IMPOUNDMENT SOUTH CELL AS APPROVED BY THE OWNER'S REPRESENTATIVE.

REFERENCE(S)

1. SITE LOCATION: T144N, R84W, MERCER COUNTY, NORTH DAKOTA.
2. AERIAL IMAGE IS A COMBINATION OF IMAGERY OBTAINED FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE NATIONAL AERIAL IMAGE PROGRAM, ACQUIRED IN 2018, AND IMAGERY PROVIDED BY GRE, ACQUIRED IN JUNE 2018.
3. EXISTING GROUND TOPOGRAPHY IS FROM AN AERIAL SURVEY PERFORMED BY KBM, INC. ON APRIL 27, 2001 (SITE WIDE), A GROUND SURVEY PERFORMED BY INTERSTATE ENGINEERING IN 2014 (BOTTOM ASH IMPOUNDMENT AND LANDFILL AREA), A GROUND SURVEY PERFORMED BY INTERSTATE ENGINEERING IN 2017 (COAL PILE AREA), AND A GROUND SURVEY PERFORMED BY INTERSTATE ENGINEERING IN 2018.
4. EXISTING GROUND TOPOGRAPHY AND TOP OF WASTE CONTOUR INTERVAL IS ONE (1) FOOT.

0 40 80
1" = 40' FEET

REV.	YYYY-MM-DD	DESCRIPTION	DESIGNED	PREPARED	REVIEWED	APPROVED
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TODD J. STONG
PE-6144
NORTH DAKOTA
Date 7/19/19

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LAKEWOOD, COLORADO
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PROJECT
STANTON SITE RESTORATION
SOUTH CELL CLOSURE

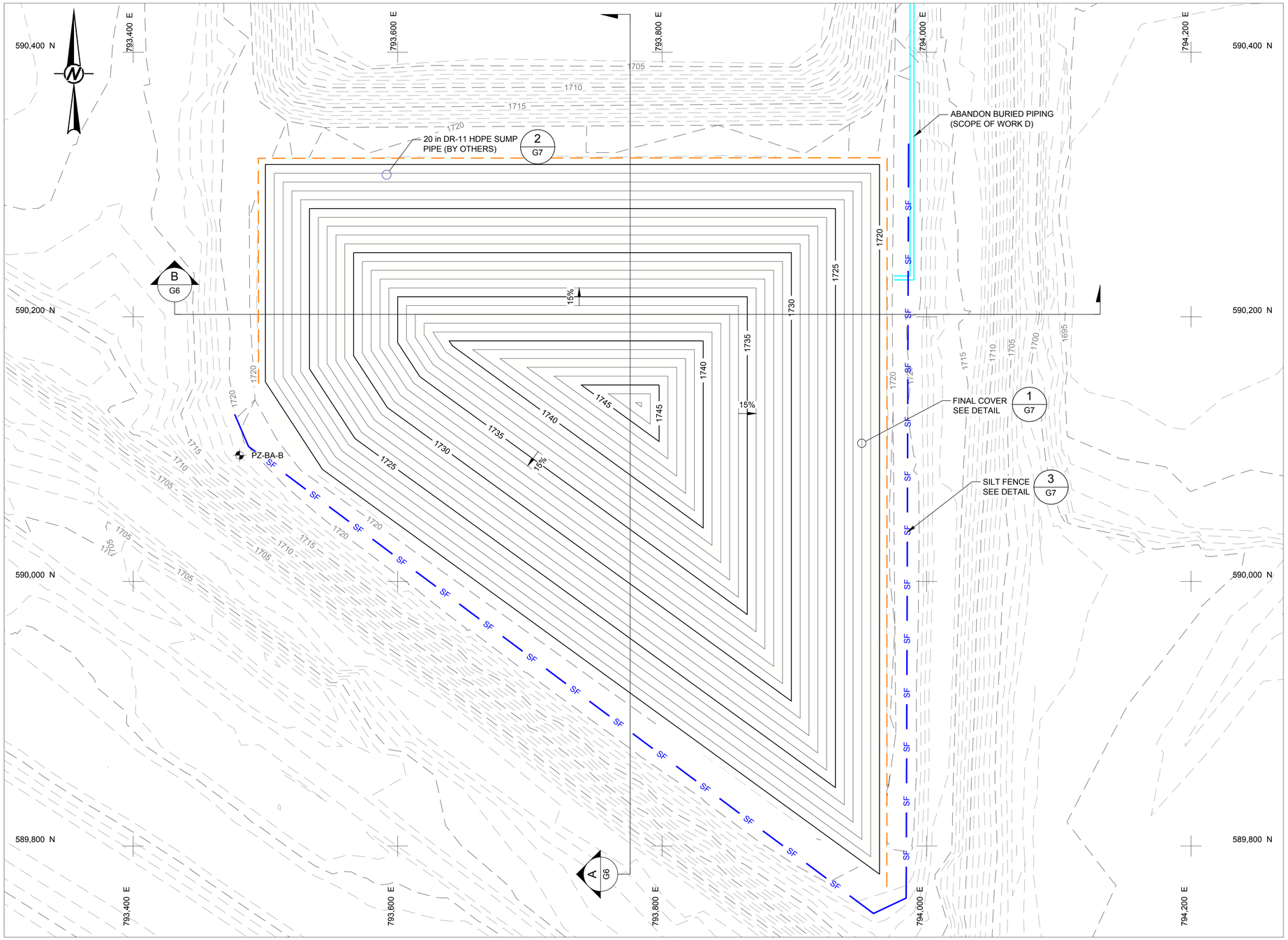
TITLE
TOP OF WASTE

PROJECT NO. 1775717 | REV. 0 | G4 of G7 | DRAWING G4

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI D

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LEGEND

- EXISTING GROUND TOPOGRAPHY (REFERENCES 2 AND 3)
- TOP OF FINAL COVER GRADES (NOTES 1 AND 2) (REFERENCE 3)
- APPROXIMATE TIE-IN LOCATION TO SCOPE OF WORK D NORTH, CENTER CELLS CLOSURE AND SCOPE OF WORK E BOTTOM ASH LANDFILL CLOSURE AND SCOPE OF WORK F SITE RESTORATION GRADING (NOTE 4)
- SF — SILT FENCE (AS REQUIRED) (NOTE 3)
- WATER PIPING (BURIED)
- 20 in DR-11 HDPE SUMP PIPE PENETRATION
- MW-10 — MONITORING WELLS/PIEZOMETERS (NOTE 5)

NOTE(S)

1. THE AREA RECEIVING FINAL COVER IS APPROXIMATE. ALL AREAS OF WASTE PLACEMENT SHALL RECEIVE FINAL COVER.
2. TOP OF FINAL COVER GRADES ARE APPROXIMATE AND THE FINAL SLOPES MAY VARY DEPENDING ON THE AMOUNT OF MATERIAL REQUIRED TO BE CONTAINED AS A PART OF THE STANTON STATION SITE RESTORATION CONSTRUCTION. ALL AREAS OF WASTE PLACEMENT WILL RECEIVE FINAL COVER. TOP OF FINAL COVER GRADES SHALL NOT BE LESS THAN 3% OR GREATER THAN 15% UNLESS OTHERWISE APPROVED BY THE OWNER'S REPRESENTATIVE.
3. CONTRACTOR SHALL FOLLOW BEST MANAGEMENT PRACTICES FOR INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES. ALL PERMANENT AND TEMPORARY EROSION CONTROL FEATURES ARE SUBJECT TO REVIEW FOR EFFECTIVENESS AND NECESSARY ADJUSTMENTS WILL BE MADE AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
4. SOUTH CELL CLOSURE GRADING SHALL TIE INTO THE SCOPE OF WORK D, E AND F ALONG THE APPROXIMATE TIE-IN LINE INDICATED. SCOPE OF WORK D, E AND F GRADING IS NOT SHOWN FOR CLARITY.
5. CARE SHALL BE TAKEN WHEN WORKING NEAR EXISTING MONITORING WELLS/PIEZOMETERS. ANY DAMAGE TO MONITORING WELLS/PIEZOMETERS IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.

REFERENCE(S)

1. SITE LOCATION: T144N, R84W, MERCER COUNTY, NORTH DAKOTA.
2. EXISTING GROUND TOPOGRAPHY IS FROM AN AERIAL SURVEY PERFORMED BY KBM, INC. ON APRIL 27, 2001 (SITE WIDE), A GROUND SURVEY PERFORMED BY INTERSTATE ENGINEERING IN 2014 (BOTTOM ASH IMPOUNDMENT AND LANDFILL AREA), A GROUND SURVEY PERFORMED BY INTERSTATE ENGINEERING IN 2017 (COAL PILE AREA), AND A GROUND SURVEY PERFORMED BY INTERSTATE ENGINEERING IN 2018.
3. EXISTING GROUND TOPOGRAPHY AND TOP OF FINAL COVER CONTOUR INTERVAL IS ONE (1) FOOT.

0 40 80
1" = 40' FEET

REV.	YYYY-MM-DD	DESCRIPTION	DESIGNED	PREPARED	REVIEWED	APPROVED
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SEAL

REGISTERED PROFESSIONAL ENGINEER
TODD J. STONG
PE-6144
Date 7/19/19
NORTH DAKOTA

CLIENT
GREAT RIVER ENERGY
STANTON STATION
STANTON, NORTH DAKOTA

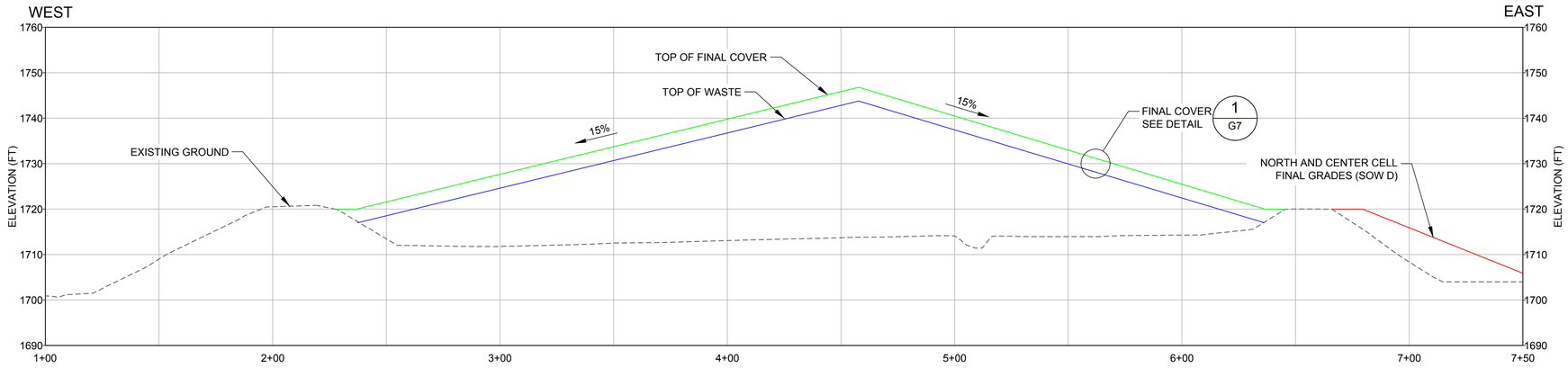
CONSULTANT
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LAKEWOOD, COLORADO
USA
(303) 980-0540
www.golder.com

PROJECT
STANTON SITE RESTORATION
SOUTH CELL CLOSURE

TITLE
TOP OF FINAL COVER

PROJECT NO. 1775717 | REV. 0 | G5 of G7 | DRAWING G5

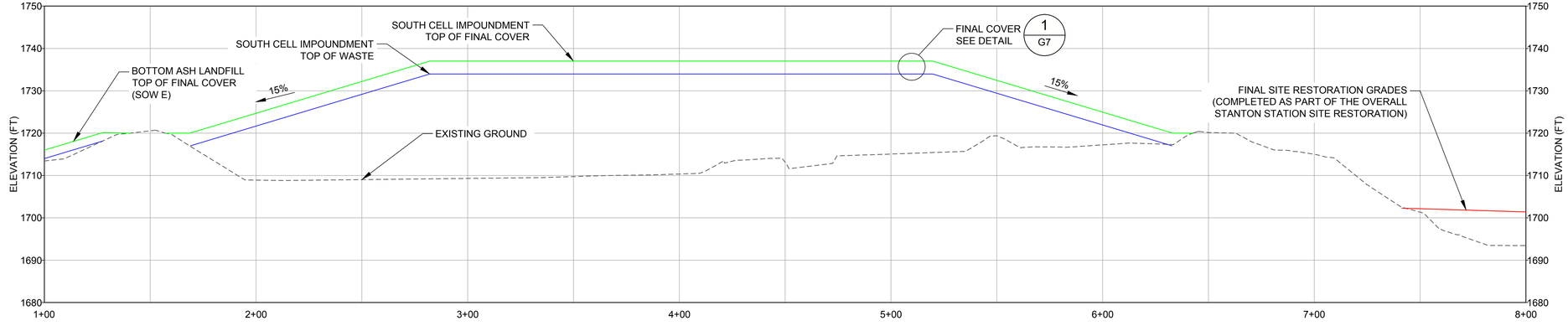
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SCALE 1" = 30'
2X VERTICAL EXAGGERATION

A
G5

BOTTOM ASH IMPOUNDMENT CLOSURE SOUTH-NORTH SECTION



SCALE 1" = 30'
2X VERTICAL EXAGGERATION

B
G5

BOTTOM ASH IMPOUNDMENT CLOSURE WEST-EAST SECTION

LEGEND

- EXISTING GROUND TOPOGRAPHY
- TOP OF WASTE GRADES
- TOP OF FINAL COVER GRADES
- FINAL SITE RESTORATION GRADES

REV.	YYYY-MM-DD	DESCRIPTION	DESIGNED	PREPARED	REVIEWED	APPROVED
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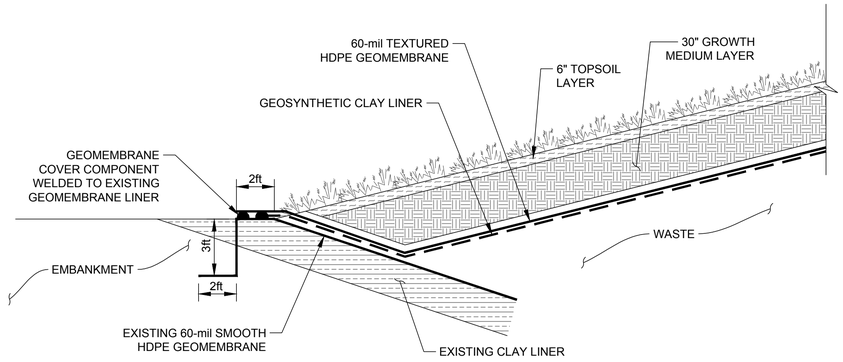
PROJECT
STANTON SITE RESTORATION
SOUTH CELL CLOSURE

TITLE
SECTIONS

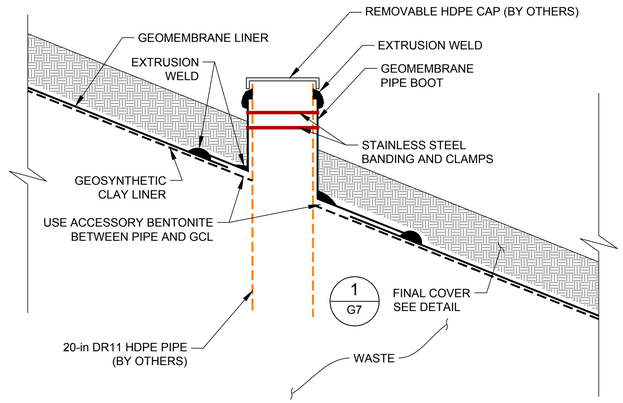
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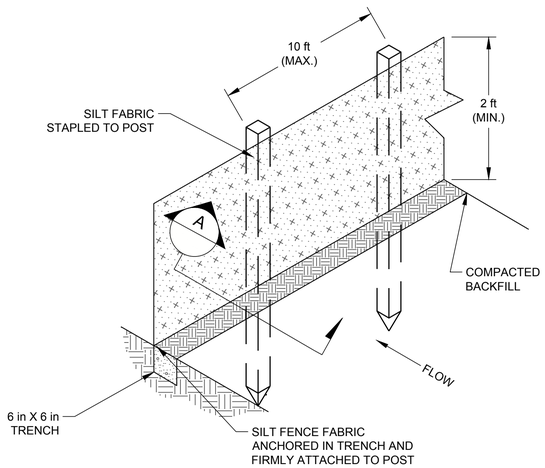
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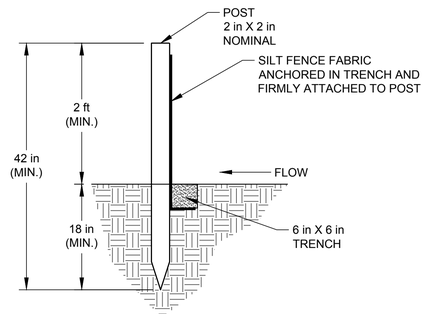


NTS 1 G7 SOUTH CELL COMPOSITE FINAL COVER



NTS 2 G7 SUMP PIPE PENETRATION DETAIL





SECTION A

NTS 3 G7 SILT FENCE DETAIL

REV.	YYYY-MM-DD	DESCRIPTION	DESIGNED	PREPARED	REVIEWED	APPROVED
0	2019-07-19	ISSUED FOR CONSTRUCTION	MRS	MRS	RFS	TJS

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PE-6144
DATE 7/19/19
NORTH DAKOTA

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PROJECT
STANTON SITE RESTORATION
SOUTH CELL CLOSURE

TITLE
DETAILS

PROJECT NO. 1775717 | REV. 0 | G7 of G7 | DRAWING G7

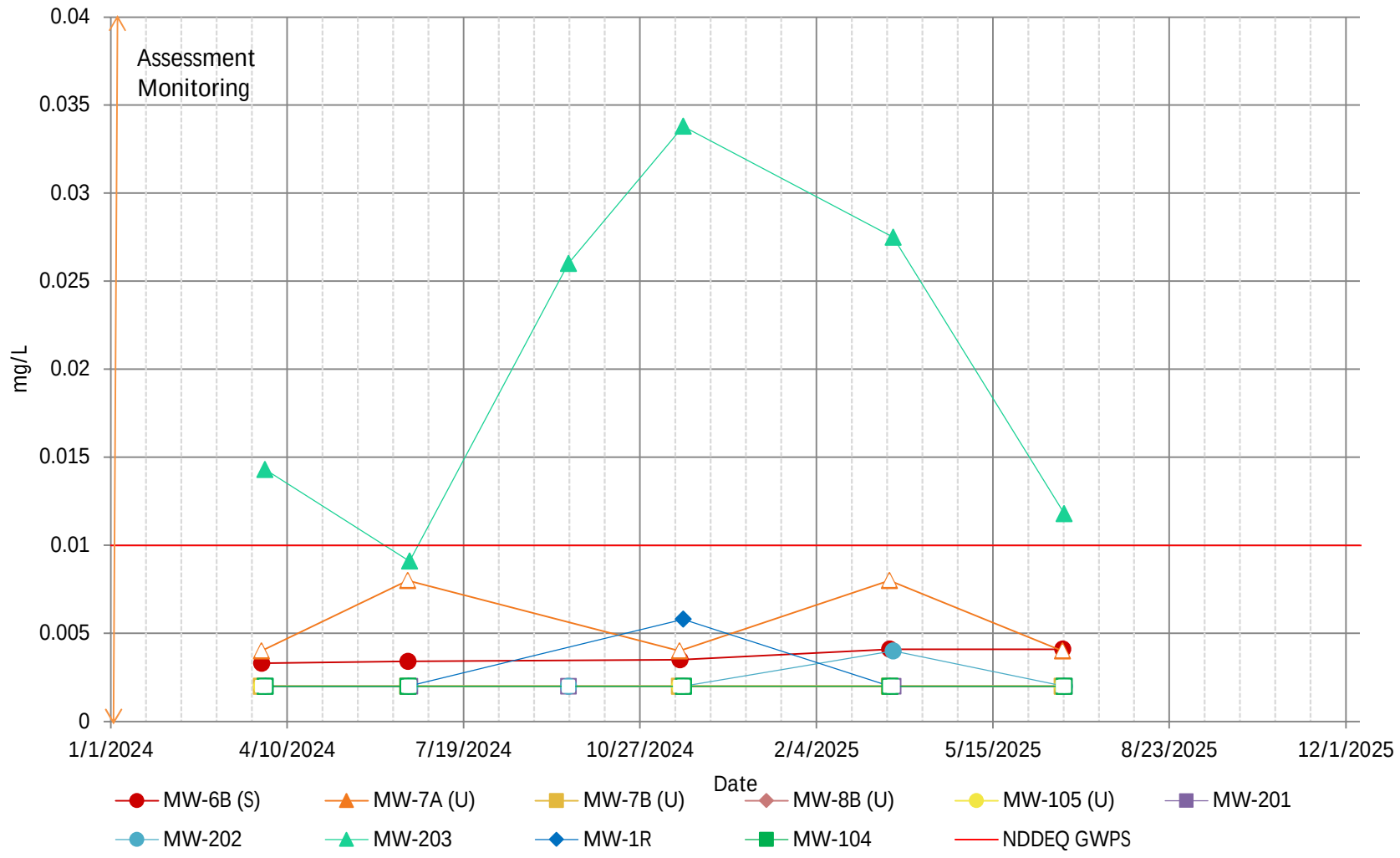
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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI D

APPENDIX B

Bottom Ash Impoundment Arsenic and Molybdenum Assessment Monitoring Data

https://wsponlinenam.sharepoint.com/sites/GLD-170737/Project Files/5 Technical Work/2025- Stanton GW/Time Series/[TimeSeries - Stanton BAI Up + Extended Down App IV



Non-detects are shown as open symbols at the practical quantitation limit.

Figure BAI-ACM-1

Groundwater Arsenic Concentrations

Great River Energy

Stanton Station BAI Network

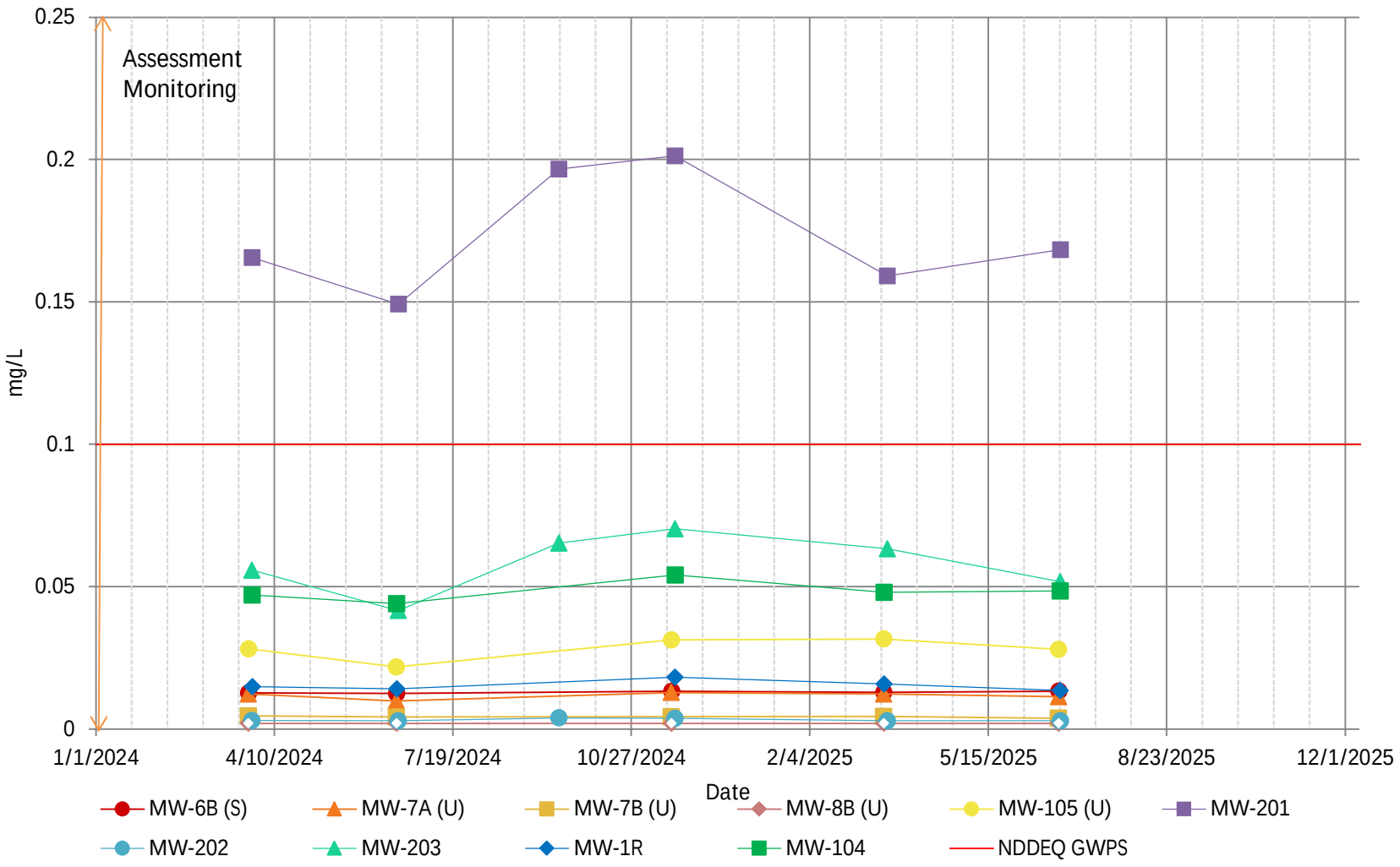
Denver, Colorado, USA

9/18/2025

GL21509219.000

WSP USA Inc.

https://wsponlinenam.sharepoint.com/sites/GLD-170737/Project Files/5 Technical Work/2025- Stanton GW/Time Series/[TimeSeries - Stanton BAI Up + Extended Down App IV



Non-detects are shown as open symbols at the practical quantitation limit.

Figure BAI-ACM-2

Groundwater Molybdenum Concentrations

Great River Energy

Stanton Station BAI Network

Denver, Colorado, USA

9/18/2025

GL21509219.000

WSP USA Inc.

APPENDIX C

June 2025 Boring Logs and Well Completion Information

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

Terracon
1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-223

Location: See Exploration Plan

Latitude: 47.2828° Longitude: -101.3321°

Depth (Ft.) Elevation.: 1702.53 (Ft.)

Graphic Log	Depth (Ft.)	Elevation (Ft.)	Material Description	Installation Details	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
	0.3	1702.2	**TOPSOIL**, dark brown	PVC Cap; Protective Casing; Cement								
			LEAN CLAY WITH SAND (CL), dark brown, stiff					18	3-5-5 N=10	15.0		
	4.5	1698		Cuttings								
			POORLY GRADED SAND WITH CLAY (SP-SC), fine grained, grayish tan, medium dense	PVC Riser; Bentonite	5			12	4-5-6 N=11	17.4		10
	9.5	1693		Silica Sand								
	10.5	1692	**FAT CLAY (CH)**, gray, medium stiff		10			1	1-1-4 N=5	46.2		
	11.0	1691.5	**POORLY GRADED SAND (SP)**, fine grained, tannish brown			▽						
			LEAN CLAY (CL), trace sand, gray, stiff waterbearing at 12'									
	16.0	1686.5		Prepack PVC Screen	15			18	2-3-8 N=11	29.7	43-11-32	95
			Boring Terminated at 16 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were provided by others.

Water Level Observations
▽ While drilling

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Notes

Advancement Method
3¼" HSA, 0-14½'

Logged by
J. Hoeven

Boring Started
06-17-2025

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Boring Completed
06-17-2025

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

Terracon
1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-224

Location: See Exploration Plan

Latitude: 47.2828° Longitude: -101.3309°

Depth (Ft.) Elevation.: 1701.37 (Ft.)

Depth (Ft.)	Elevation (Ft.)	Description	Installation Details	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
0.3	1701	**TOPSOIL**, dark brown	PVC Cap; Protective Casing; Cement							
		LEAN CLAY WITH SAND (CL), dark brown, stiff				18	4-4-7 N=11	11.4		
4.5	1696.9		Cuttings							
		SANDY LEAN CLAY (CL), grayish tan, stiff	PVC Riser; Bentonite; Silica Sand			16	3-5-5 N=10	23.6		
10.5	1690.9			▽		18	4-5-4 N=9	38.4	NP	48
11.0	1690.4	**SILTY SAND (SM)**, fine grained, brown, waterbearing								
		SANDY FAT CLAY (CH), light brown								
15.0	1686.4		Prepack PVC Screen			18	6-10-10 N=20	17.4		39
16.0	1685.4	**CLAYEY SAND (SC)**, trace clay, fine grained, light brown, medium dense, waterbearing								
		Boring Terminated at 16 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were provided by others.

Water Level Observations
▽ While drilling

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Notes

Advancement Method
3¼" HSA, 0-14½'

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
J. Hoeven

Boring Started
06-17-2025

Boring Completed
06-17-2025

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-225

Location: See Exploration Plan

Latitude: 47.2832° Longitude: -101.3312°

Depth (Ft.)	Elevation.: 1701.42 (Ft.)	Installation Details	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
0.3	**TOPSOIL**, dark brown — 1701.2	PVC Cap; Protective Casing; Cement							
	LEAN CLAY WITH SAND (CL), dark brown, stiff	Cuttings		X	18	2-5-7 N=12	17.0		
5		PVC Riser; Bentonite		X	18	4-5-7 N=12	19.6		
9.5	1691.9	Silica Sand							
10	**CLAYEY SAND (SC)**, fine grained, tan to gray, loose to medium dense waterbearing at 12'		▽	X	18	2-1-3 N=4	21.7		15
15		Prepack PVC Screen		X	18	8-10-14 N=24	15.8		
16.0	1685.4								
	Boring Terminated at 16 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were provided by others.

Water Level Observations
▽ While drilling

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Notes

Advancement Method
3¼" HSA, 0-14½'

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
J. Hoeven

Boring Started
06-17-2025

Boring Completed
06-17-2025

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

Terracon
1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-226

Location: See Exploration Plan

Latitude: 47.2837° Longitude: -101.3302°

Depth (Ft.) Elevation.: 1699.52 (Ft.)

Graphic Log	Depth (Ft.)	Installation Details	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
	0.3 **TOPSOIL**, dark brown 1699.3	PVC Cap								
	LEAN CLAY WITH SAND (CL), trace gravel, dark brown, very stiff to stiff	Protective Casing								
		Cement				18	4-8-9 N=17	14.0		
		Cuttings								
		PVC Riser	5			16	4-5-5 N=10	12.3		
		Bentonite								
		Silica Sand								
	10.0 1689.5		10	▽		7	3-4-7 N=11	18.6		
	POORLY GRADED SAND (SP), fine grained, brown, medium dense to very loose, waterbearing									
		Prepack PVC Screen	15			12	0-0-3 N=3	16.6		3
	16.0 1683.5 1" seam of coal at 15.75'									
	Boring Terminated at 16 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were provided by others.

Water Level Observations
▽ While drilling

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Notes

Advancement Method
3¼" HSA, 0-14½'

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
J. Hoeven

Boring Started
06-17-2025

Boring Completed
06-17-2025

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-227

Location: See Exploration Plan

Latitude: 47.2822° Longitude: -101.3299°

Depth (Ft.) Elevation.: 1701.1 (Ft.)

Graphic Log	Depth (Ft.)	Material Description	Elevation	Installation Details	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
	1.0	**TOPSOIL**, brown	1700.1	PVC Cap; Protective Casing; Cement								
		SANDY LEAN CLAY (CL), brown to dark gray, very stiff to stiff, coal inclusions		Cuttings; PVC Riser; Bentonite; Silica Sand	5			14	3-7-8 N=15	12.7		
								12	5-9-11 N=20	12.7		51
	10.8		1690.4		10	▽		7	2-4-8 N=12	25.4	42-24-18	67
		CLAYEY SAND (SC), fine grained, tan, medium dense, waterbearing		Prepack PVC Screen								
	16.0		1685.1		15			11	4-8-10 N=18	26.7		
		Boring Terminated at 16 Feet										

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were provided by others.

Water Level Observations
▽ While drilling

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Notes

Advancement Method
3¼" HSA, 0-14½'

Logged by
J. Hoeven

Boring Started

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Boring Completed

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

Terracon
1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-228

Location: See Exploration Plan

Latitude: 47.2814° Longitude: -101.3301°

Depth (Ft.) Elevation.: 1703.25 (Ft.)

Graphic Log	Depth (Ft.)		Installation Details	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
	1.0	**TOPSOIL**, dark brown 1702.3	PVC Cap, Protective Casing, Cement, PVC Riser, Bentonite, Silica Sand, Prepack PVC Screen								
		CLAYEY SAND (SC), fine grained, dark brown, medium dense to very loose			▽		15	3-8-9 N=17	9.0		
	5.5	1697.8		5			11	3-2-1 N=3	18.6		24
		POORLY GRADED SAND WITH CLAY (SP-SC), fine grained, tan, very loose, waterbearing									
	10.0	1693.3									
	11.0	**SANDY LEAN CLAY (CL)**, tan, medium stiff 1692.3		10			13	2-2-5 N=7	27.5	49-15-34	45
		Boring Terminated at 11 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were provided by others.

Water Level Observations
▽ While drilling

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Notes

Advancement Method
3¼" HSA, 0-9½'

Logged by
J. Hoeven

Boring Started

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Boring Completed

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

Terracon
1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-229

Location: See Exploration Plan

Latitude: 47.2816° Longitude: -101.3287°

Depth (Ft.) Elevation.: 1702.54 (Ft.)

Graphic Log	Depth (Ft.)	Elevation (Ft.)	Description	Installation Details	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
	1.0	1701.5	**TOPSOIL**, dark brown	PVC Cap; Protective Casing; Cement								
	4.5	1698	**CLAYEY SAND (SC)**, fine grained, dark brown, medium dense	Cuttings				12	3-7-5 N=12	10.0		
	9.5	1693	**POORLY GRADED SAND (SP)**, fine grained, tan, medium dense	PVC Riser; Bentonite; Silica Sand	5			11	7-7-8 N=15	11.0		
	12.8	1689.8	**FAT CLAY WITH SAND (CH)**, grayish tan, medium stiff		10	▽		15	1-2-3 N=5	29.8	97-17-80	84
	13.0	1689.5	**TOPSOIL**									
	16.0	1686.5	**FAT CLAY (CH)**, trace sand, dark gray, stiff	Prepack PVC Screen	15			15	2-5-7 N=12	24.9		
			Boring Terminated at 16 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevations were provided by others.

Water Level Observations
▽ While drilling

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Notes

Advancement Method
3¼" HSA, 0-14½'

Logged by
J. Hoeven

Boring Started

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Boring Completed

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

Terracon
1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-230

Location: See Exploration Plan
Latitude: 47.2828° Longitude: -101.3315°

Depth (Ft.)	Elevation.: 1701.63 (Ft.)	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
0.3	**TOPSOIL**, dark brown	1701.3				
	FAT CLAY WITH SAND (CH), brown, stiff to medium stiff	18	3-6-9 N=15	17.9		
5.5		1696.1				
	CLAYEY SAND (SC), fine to medium grained, brown and gray, medium dense	2	3-2-3 N=5	18.3		
		18	3-4-8 N=12	26.6		
	waterbearing at 15'	18	3-9-9 N=18	19.7		39
19.5		1682.1				
	POORLY GRADED SAND WITH CLAY AND GRAVEL (SP-SC), fine grained, dark gray, medium dense, waterbearing	18	5-12-14 N=26	19.9		11
24.5		1677.1				
	WELL GRADED GRAVEL WITH SAND (GW), fine to coarse grained, gray and brown, medium dense, waterbearing	18	5-10-12 N=22	6.7		3
30.9		1670.7				
	SANDY SILT (ML), gray, hard, waterbearing	10	5-8-12 N=20	18.5		
		18	14-19-19 N=38	21.6		70
39.5		1662.1				
	LEAN CLAY (CL), trace silt, gray, hard	9	20-50/3"	15.2	29-18-11	99
41.0		1660.6				
	Auger Refusal at 41 Feet					

Installation Details: PVC Cap; Protective Casing; Cement; Cuttings; PVC Riser; Bentonite; Silica Sand; Prepack PVC Screen; Collapse

Depth (Ft.): 5, 10, 15, 20, 25, 30, 35, 40

Water Level Observations: ▽ While drilling

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations were provided by others.

Notes

Advancement Method
3¼" HSA, 0-39½'

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Logged by
J. Hoeven

Boring Started

Boring Completed

GRE-Stanton & GHM 2023-2025
HWY 200 | Stanton, ND
Terracon Project No. M2255048

Terracon
1502 Grumman Ln, Ste 4
Bismarck, ND

Boring Log No. MW-PB1R

Location: See Exploration Plan
Latitude: 47.2868° Longitude: -101.3289°
Depth (Ft.) Elevation.: 1695.68 (Ft.)

Depth (Ft.)	Elevation (Ft.)	Description	Installation Details	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	Water Content (%)	Atterberg Limits LL-PL-PI	Percent Fines
0.3	1695.3	**TOPSOIL**, dark brown	PVC Cap; Protective Casing; Cement							
		POORLY GRADED SAND WITH CLAY (SP-SC), fine grained, tan, medium dense				8	3-5-5 N=10	12.8		
4.5	1691.2									
		CLAYEY SAND (SC), fine grained, tan to gray, medium dense to very loose	Cuttings			8	5-5-6 N=11	11.2		
						10	2-2-3 N=5	11.3		
			PVC Riser							
		waterbearing at 14½'		▽		18	1-2-1 N=3	24.2		
19.5	1676.2									
		LEAN CLAY (CL), brownish gray, medium stiff	Bentonite			18	2-2-3 N=5	31.3	44-15-29	98
24.5	1671.2		Silica Sand							
		CLAYEY SAND (SC), fine grained, grayish brown, very loose to loose, waterbearing				14	1-1-1 N=2	27.0		
			Prepack PVC Screen			12	2-2-2 N=4	25.3		48
34.5	1661.2									
36.0	1659.7	**CLAYEY SAND (SC)**, fine to medium grained, grayish blue, medium dense, waterbearing				18	8-11-13 N=24	25.1		23
		Boring Terminated at 36 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations were provided by others.

Water Level Observations
▽ While drilling

Drill Rig
DR #1174

Hammer Type
Automatic

Driller
J. Okeefe

Notes

Advancement Method
3¼" HSA, 0-34½'

Logged by
J. Hoeven

Boring Started

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Boring Completed

BORING LOG NO. MW-PB1

PROJECT: GRE Stanton Monitoring Well Installation

CLIENT: Golder Associates Inc
Lakewood, CO

SITE: 4001 Highway 200A
Stanton, ND

LOCATION See Exploration Plan

Latitude: 47.2866° Longitude: -101.3289°

Surface Elev.: 1696 (Ft.)

DEPTH	ELEVATION (Ft.)	
0.2	1696	**TOPSOIL**, brown
		LEAN CLAY (CL), brown, medium stiff
4.5	1691.5	
		SANDY LEAN CLAY (CL), light brown, soft
9.5	1686.5	
		CLAYEY SAND, light brown, loose
14.5	1681.5	
		SILT WITH SAND, gray, very loose, fine-grained, waterbearing at 15½'
24.5	1671.5	
26.0	1670	**SILTY SAND**, gray, very loose, fine to medium-grained, waterbearing, fat clay seams
		Boring Terminated at 26 Feet

INSTALLATION DETAILS: PVC Cap, Protective Casing, Concrete, PVC Riser, Bentonite, Silica Sand, PVC Screen, Sluff

DEPTH (Ft.)	FIELD TEST RESULTS
	3-4-5 N=9
5	2-2-2 N=4
10	2-2-2 N=4
15	1-2-1 N=3
20	0-1-2 N=3
25	0-1-1 N=2

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3¼" Inside Diameter, Hollow Stem Auger 0-24½

Abandonment Method:
Boring converted to monitoring well installation

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

While sampling

Terracon
1805 Hancock Dr PO Box 2084
Bismarck, ND

Boring Started: 08-11-2020 | Boring Completed: 08-11-2020

Drill Rig: B-57 | Driller: Mike R.

Project No.: M2205068

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-WELL M2205068 GRE STANTON MONIT.GPJ TERRACON_DATATEMPLATE.GDT 8/17/20



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APPENDIX H

Bottom Ash Impoundment Chemical and Mineralogical Testing Results

SGS proposal: 20191-02
SGS project #: 2550

Sample receipt date: 29-Sep-25
Report date: 14-Nov-15

Version: Final

Customer details

Name:	Erin Hunter
Address:	WSP

Project reference: WSP

P.O. number:

COC:

ANALYSIS REPORT

SGS WO: 1

Report Distribution

Name	Email
Lain Glossop, SGS	

Special notes:

Tessier Sequential extraction

3260 Production Way
Burnaby - British Columbia - V5A 4W4
Phone: 604-638-2349 FAX: 604-444-5486

SGS proposal: 20191-02
SGS project #: 2550

Sample receipt date: 29-Sep-25
Report date: 14-Nov-15

Version: Final

ANALYSIS REPORT

Method Summaries *Test method information available upon request.*

S(T) and C(T): Total sulfur and total carbon by LECO, Method CSA06V
S(SO4): Sulfate by HCl digestion with ICP finish, Method CSA07V
S(S2-): Sulfide by calculation of S(T) - S(SO4)

TIC: Total inorganic carbon by coulometry, Method CSB02V
AP: Acid generating potential based on sulfide sulfur
NP: Modified neutralisation potential by excess acid addition and back titration to pH 8.3
Net NP: Net neutralisation potential = NP - AP
NPR: Neutralisation potential ratio = NP/AP

Metals by Aqua regia digest with ICP-OES/MS finish, Method ICP21B20/ICM21B20
Metals by multi-acid digest with ICP-OES/MS finish, Method ICP40Q12/IMS40Q12
Tessier Sequential Extraction - method available on request

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offenders may be prosecuted to the fullest extent of the law. WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was(were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The
Findings constitute no warranty of the sample's representativeness of any goods and strictly relate to the sample(s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes

Preliminary Data

Noelene Ahern - Manager: ARD

Final Data Approval

Noelene Ahern - Manager: ARD

Tessier Extraction

Water Soluble Metals
Reagent: 15 mL of Nanopure Distilled Water

Sample			MW-206 5ft to 10ft	MW-207 15ft to 20ft	MW-208 10ft to 15ft
Sample weight (g)			1.0119	1.0054	1.0255
Reagent volume (mL)			15	15	15
Final diluted solution volume after wash and preservation (mL)			50	50	50
Parameter	**Units**	**RDL**			
Hardness CaCO3	mg/L	0.05	25.3	30	17.3
Aluminum Al	mg/L	0.001	3.15	2.7	0.48
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.004	0.004	< 0.002
Barium Ba	mg/L	0.00008	0.082	0.115	0.23
Beryllium Be	mg/L	0.000007	0.00019	0.00016	< 0.00007
Bismuth Bi	mg/L	0.00001	< 0.0001	< 0.0001	< 0.0001
Boron B	mg/L	0.002	0.02	0.02	< 0.02
Cadmium Cd	mg/L	0.000003	0.00015	0.00011	0.00003
Calcium Ca	mg/L	0.01	2.5	6.6	4.4
Chromium Cr	mg/L	0.00008	0.0096	0.008	0.0046
Cobalt Co	mg/L	0.000004	0.002	0.0024	0.00044
Copper Cu	mg/L	0.001	< 0.01	0.01	< 0.01
Iron Fe	mg/L	0.007	4.6	4.96	0.58
Lead Pb	mg/L	0.00009	0.0038	0.0039	< 0.0009
Lithium Li	mg/L	0.0001	0.003	0.003	0.002
Magnesium Mg	mg/L	0.001	4.64	3.27	1.56
Manganese Mn	mg/L	0.00001	0.0597	0.134	0.055
Mercury Hg	ug/L	0.01	< 0.1	< 0.1	< 0.1
Molybdenum Mo	mg/L	0.0004	< 0.004	< 0.004	< 0.004
Nickel Ni	mg/L	0.0001	0.006	0.009	0.001
Phosphorus P	mg/L	0.003	0.12	0.07	< 0.03
Potassium K	mg/L	0.009	2.88	2.1	2.36
Selenium Se	mg/L	0.00004	< 0.0004	< 0.0004	< 0.0004
Silicon Si	mg/L	0.02	8.8	8.4	2.8
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	11.2	12.4	2.5
Strontium Sr	mg/L	0.00008	0.0232	0.0356	0.0754
Sulphur (S)	mg/L	5	< 50	< 50	< 50
Thallium Tl	mg/L	0.000005	< 0.00005	0.00006	< 0.00005
Tin Sn	mg/L	0.00006	< 0.0006	< 0.0006	< 0.0006
Titanium Ti	mg/L	0.0001	0.049	0.0597	0.0113
Uranium U	mg/L	0.000002	0.00022	0.00154	0.00013
Vanadium V	mg/L	0.00001	0.013	0.0134	0.0025
Zinc Zn	mg/L	0.002	< 0.02	< 0.02	< 0.02
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02	< 0.02

Concentration leached relative to initial sample mass (no correction for blank is included)

Parameter	Units	RDL			
Aluminum Al	mg/kg		155.6	134.3	23.4
Antimony Sb	mg/kg		<DL	<DL	<DL
Arsenic As	mg/kg		0.2	0.2	<DL
Barium Ba	mg/kg		4.1	5.7	11.2
Beryllium Be	mg/kg		0.0	0.0	<DL
Bismuth Bi	mg/kg		<DL	<DL	<DL
Boron B	mg/kg		1.0	1.0	<DL
Cadmium Cd	mg/kg		0.0	0.0	0.0
Calcium Ca	mg/kg		123.5	328.2	214.5
Chromium Cr	mg/kg		0.5	0.4	0.2
Cobalt Co	mg/kg		0.1	0.1	0.0
Copper Cu	mg/kg		<DL	0.5	<DL
Iron Fe	mg/kg		227.3	246.7	28.3
Lead Pb	mg/kg		0.2	0.2	<DL
Lithium Li	mg/kg		0.1	0.1	0.1
Magnesium Mg	mg/kg		229.3	162.6	76.1
Manganese Mn	mg/kg		2.9	6.7	2.7

Tessier Extraction

Water Soluble Metals
Reagent: 15 mL of Nanopure Distilled Water

Sample			MW-225 10ft to 15ft	MW-226 10ft to 15ft	MW-227 5ft to 10ft
Sample weight (g)			1.0480	1.0466	1.0067
Reagent volume (mL)			15	15	15
Final diluted solution volume after wash and preservation (mL)			50	50	50
Parameter	**Units**	**RDL**			
Hardness CaCO3	mg/L	0.05	22.6	11.6	25
Aluminum Al	mg/L	0.001	5.19	1.94	2.71
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.005	0.003	0.002
Barium Ba	mg/L	0.00008	0.0944	0.0626	0.0604
Beryllium Be	mg/L	0.000007	0.00044	0.0001	0.00023
Bismuth Bi	mg/L	0.00001	< 0.0001	< 0.0001	< 0.0001
Boron B	mg/L	0.002	0.05	0.03	0.02
Cadmium Cd	mg/L	0.000003	0.00016	< 0.00003	0.00006
Calcium Ca	mg/L	0.01	4.5	2.9	6
Chromium Cr	mg/L	0.00008	0.0093	0.0068	0.0062
Cobalt Co	mg/L	0.000004	0.00271	0.00082	0.00161
Copper Cu	mg/L	0.001	0.01	< 0.01	< 0.01
Iron Fe	mg/L	0.007	7.2	2.67	4.56
Lead Pb	mg/L	0.00009	0.0044	0.0019	0.0033
Lithium Li	mg/L	0.0001	0.004	0.003	0.003
Magnesium Mg	mg/L	0.001	2.75	1.05	2.41
Manganese Mn	mg/L	0.00001	0.107	0.0521	0.0813
Mercury Hg	ug/L	0.01	< 0.1	< 0.1	< 0.1
Molybdenum Mo	mg/L	0.0004	< 0.004	< 0.004	< 0.004
Nickel Ni	mg/L	0.0001	0.01	0.004	0.006
Phosphorus P	mg/L	0.003	0.09	0.11	0.04
Potassium K	mg/L	0.009	2.51	2.56	3.28
Selenium Se	mg/L	0.00004	< 0.0004	< 0.0004	< 0.0004
Silicon Si	mg/L	0.02	14.4	5.5	9
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	16.7	5	4.4
Strontium Sr	mg/L	0.00008	0.0287	0.0201	0.0406
Sulphur (S)	mg/L	5	< 50	< 50	< 50
Thallium Tl	mg/L	0.000005	0.00005	< 0.00005	0.00005
Tin Sn	mg/L	0.00006	< 0.0006	< 0.0006	< 0.0006
Titanium Ti	mg/L	0.0001	0.0688	0.0363	0.0517
Uranium U	mg/L	0.000002	0.00063	0.00018	0.0003
Vanadium V	mg/L	0.00001	0.0177	0.0063	0.0094
Zinc Zn	mg/L	0.002	0.02	< 0.02	< 0.02
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02	< 0.02

Concentration leached relative to initial sample ma

Parameter	Units	RDL			
Aluminum Al	mg/kg		247.6	92.7	134.6
Antimony Sb	mg/kg		<DL	<DL	<DL
Arsenic As	mg/kg		0.2	0.1	0.1
Barium Ba	mg/kg		4.5	3.0	3.0
Beryllium Be	mg/kg		0.0	0.0	0.0
Bismuth Bi	mg/kg		<DL	<DL	<DL
Boron B	mg/kg		2.4	1.4	1.0
Cadmium Cd	mg/kg		0.0	<DL	0.0
Calcium Ca	mg/kg		214.7	138.5	298.0
Chromium Cr	mg/kg		0.4	0.3	0.3
Cobalt Co	mg/kg		0.1	0.0	0.1
Copper Cu	mg/kg		0.5	<DL	<DL
Iron Fe	mg/kg		343.5	127.6	226.5
Lead Pb	mg/kg		0.2	0.1	0.2
Lithium Li	mg/kg		0.2	0.1	0.1
Magnesium Mg	mg/kg		131.2	50.2	119.7
Manganese Mn	mg/kg		5.1	2.5	4.0

Tessier Extraction

Water Soluble Metals
Reagent: 15 mL of Nanopure Distilled Water

Sample			MW-230 10ft to 20ft	MW-230 35ft to 40ft	MW-302 14ft to 19ft
Sample weight (g)			1.0094	1.0171	1.0421
Reagent volume (mL)			15	15	15
Final diluted solution volume after wash and preservation (mL)			50	50	50
Parameter	**Units**	**RDL**			
Hardness CaCO3	mg/L	0.05	23	24.6	16.6
Aluminum Al	mg/L	0.001	4.23	1.19	1.28
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.003	0.003	< 0.002
Barium Ba	mg/L	0.00008	0.0628	0.0882	0.0309
Beryllium Be	mg/L	0.000007	0.00041	0.00007	< 0.00007
Bismuth Bi	mg/L	0.00001	< 0.0001	< 0.0001	< 0.0001
Boron B	mg/L	0.002	0.02	0.02	< 0.02
Cadmium Cd	mg/L	0.000003	0.00012	< 0.00003	0.00003
Calcium Ca	mg/L	0.01	4.9	6.3	3.9
Chromium Cr	mg/L	0.00008	0.009	0.0051	0.0044
Cobalt Co	mg/L	0.000004	0.0026	0.00123	0.00117
Copper Cu	mg/L	0.001	0.02	< 0.01	< 0.01
Iron Fe	mg/L	0.007	5.75	2.5	1.21
Lead Pb	mg/L	0.00009	0.0041	0.0016	0.0019
Lithium Li	mg/L	0.0001	0.004	0.003	0.003
Magnesium Mg	mg/L	0.001	2.61	2.17	1.66
Manganese Mn	mg/L	0.00001	0.087	0.0603	0.0366
Mercury Hg	ug/L	0.01	< 0.1	< 0.1	< 0.1
Molybdenum Mo	mg/L	0.0004	0.004	< 0.004	0.005
Nickel Ni	mg/L	0.0001	0.01	0.003	0.003
Phosphorus P	mg/L	0.003	0.07	< 0.03	< 0.03
Potassium K	mg/L	0.009	2.66	3.51	5.23
Selenium Se	mg/L	0.00004	< 0.0004	< 0.0004	< 0.0004
Silicon Si	mg/L	0.02	11.7	3.1	2.8
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	13.9	7	3.6
Strontium Sr	mg/L	0.00008	0.0393	0.0477	0.0198
Sulphur (S)	mg/L	5	< 50	< 50	< 50
Thallium Tl	mg/L	0.000005	0.00005	< 0.00005	< 0.00005
Tin Sn	mg/L	0.00006	< 0.0006	< 0.0006	< 0.0006
Titanium Ti	mg/L	0.0001	0.061	0.0231	0.0219
Uranium U	mg/L	0.000002	0.00061	0.00065	0.00016
Vanadium V	mg/L	0.00001	0.0134	0.0046	0.0045
Zinc Zn	mg/L	0.002	0.02	< 0.02	< 0.02
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02	< 0.02

Concentration leached relative to initial sample ma

Parameter	Units	RDL			
Aluminum Al	mg/kg		209.5	58.5	61.4
Antimony Sb	mg/kg		<DL	<DL	<DL
Arsenic As	mg/kg		0.1	0.1	<DL
Barium Ba	mg/kg		3.1	4.3	1.5
Beryllium Be	mg/kg		0.0	0.0	<DL
Bismuth Bi	mg/kg		<DL	<DL	<DL
Boron B	mg/kg		1.0	1.0	<DL
Cadmium Cd	mg/kg		0.0	<DL	0.0
Calcium Ca	mg/kg		242.7	309.7	187.1
Chromium Cr	mg/kg		0.4	0.3	0.2
Cobalt Co	mg/kg		0.1	0.1	0.1
Copper Cu	mg/kg		1.0	<DL	<DL
Iron Fe	mg/kg		284.8	122.9	58.1
Lead Pb	mg/kg		0.2	0.1	0.1
Lithium Li	mg/kg		0.2	0.1	0.1
Magnesium Mg	mg/kg		129.3	106.7	79.6
Manganese Mn	mg/kg		4.3	3.0	1.8

Tessier Extraction

Water Soluble Metals				
Reagent: 15 mL of Nanopure Distilled Water				
Sample			**MW-PB1R 26ft to 36ft**	**Blank**
Sample weight (g)			1.0059	0
Reagent volume (mL)			15	15
Final diluted solution volume after wash and preservation (mL)			50	50
Parameter	**Units**	**RDL**		
Hardness CaCO3	mg/L	0.05	22.4	0.92
Aluminum Al	mg/L	0.001	3.66	< 0.01
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.005	< 0.002
Barium Ba	mg/L	0.00008	0.111	< 0.0008
Beryllium Be	mg/L	0.000007	0.00035	< 0.00007
Bismuth Bi	mg/L	0.00001	< 0.0001	< 0.0001
Boron B	mg/L	0.002	0.06	< 0.02
Cadmium Cd	mg/L	0.000003	0.00009	< 0.00003
Calcium Ca	mg/L	0.01	5.6	0.4
Chromium Cr	mg/L	0.00008	0.0079	0.0019
Cobalt Co	mg/L	0.000004	0.00204	0.00005
Copper Cu	mg/L	0.001	0.03	< 0.01
Iron Fe	mg/L	0.007	5.42	< 0.07
Lead Pb	mg/L	0.00009	0.0058	< 0.0009
Lithium Li	mg/L	0.0001	0.005	< 0.001
Magnesium Mg	mg/L	0.001	2.01	0.01
Manganese Mn	mg/L	0.00001	0.08	0.0005
Mercury Hg	ug/L	0.01	< 0.1	< 0.1
Molybdenum Mo	mg/L	0.0004	< 0.004	< 0.004
Nickel Ni	mg/L	0.0001	0.007	< 0.001
Phosphorus P	mg/L	0.003	0.14	< 0.03
Potassium K	mg/L	0.009	3.67	< 0.09
Selenium Se	mg/L	0.00004	0.0004	< 0.0004
Silicon Si	mg/L	0.02	9.5	< 0.2
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	12.7	0.1
Strontium Sr	mg/L	0.00008	0.0513	< 0.0008
Sulphur (S)	mg/L	5	< 50	< 50
Thallium Tl	mg/L	0.000005	0.00007	< 0.00005
Tin Sn	mg/L	0.00006	< 0.0006	< 0.0006
Titanium Ti	mg/L	0.0001	0.061	< 0.0001
Uranium U	mg/L	0.000002	0.00103	< 0.00002
Vanadium V	mg/L	0.00001	0.0143	< 0.0001
Zinc Zn	mg/L	0.002	< 0.02	< 0.02
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02

Concentration leached relative to initial sample ma

Parameter	**Units**	**RDL**		
Aluminum Al	mg/kg		181.9	
Antimony Sb	mg/kg		<DL	
Arsenic As	mg/kg		0.2	
Barium Ba	mg/kg		5.5	
Beryllium Be	mg/kg		0.0	
Bismuth Bi	mg/kg		<DL	
Boron B	mg/kg		3.0	
Cadmium Cd	mg/kg		0.0	
Calcium Ca	mg/kg		278.4	
Chromium Cr	mg/kg		0.4	
Cobalt Co	mg/kg		0.1	
Copper Cu	mg/kg		1.5	
Iron Fe	mg/kg		269.4	
Lead Pb	mg/kg		0.3	
Lithium Li	mg/kg		0.2	
Magnesium Mg	mg/kg		99.9	
Manganese Mn	mg/kg		4.0	

Tessier Extraction

Water Soluble Metals
Reagent: 15 mL of Nanopure Distilled Water

Sample			MW-206 5ft to 10ft	MW-207 15ft to 20ft	MW-208 10ft to 15ft
Mercury Hg	ug/kg		<DL	<DL	<DL
Molybdenum Mo	mg/kg		<DL	<DL	<DL
Nickel Ni	mg/kg		0.3	0.4	0.0
Phosphorus P	mg/kg		5.9	3.5	<DL
Potassium K	mg/kg		142.3	104.4	115.1
Selenium Se	mg/kg		<DL	<DL	<DL
Silicon Si	mg/kg		434.8	417.7	136.5
Silver Ag	mg/kg		<DL	<DL	<DL
Sodium Na	mg/kg		553.4	616.7	121.9
Strontium Sr	mg/kg		1.1	1.8	3.7
Sulphur (S)	mg/kg		<DL	<DL	<DL
Thallium Tl	mg/kg		<DL	0.0	<DL
Tin Sn	mg/kg		<DL	<DL	<DL
Titanium Ti	mg/kg		2.4	3.0	0.6
Uranium U	mg/kg		0.0	0.1	0.0
Vanadium V	mg/kg		0.6	0.7	0.1
Zinc Zn	mg/kg		<DL	<DL	<DL
Zirconium Zr	mg/kg		<DL	<DL	<DL

Tessier Extraction

Water Soluble Metals
Reagent: 15 mL of Nanopure Distilled Water

Sample			MW-225 10ft to 15ft	MW-226 10ft to 15ft	MW-227 5ft to 10ft
Mercury Hg	ug/kg		<DL	<DL	<DL
Molybdenum Mo	mg/kg		<DL	<DL	<DL
Nickel Ni	mg/kg		0.5	0.2	0.3
Phosphorus P	mg/kg		4.3	5.3	2.0
Potassium K	mg/kg		119.8	122.3	162.9
Selenium Se	mg/kg		<DL	<DL	<DL
Silicon Si	mg/kg		687.0	262.8	447.0
Silver Ag	mg/kg		<DL	<DL	<DL
Sodium Na	mg/kg		796.8	238.9	218.5
Strontium Sr	mg/kg		1.4	1.0	2.0
Sulphur (S)	mg/kg		<DL	<DL	<DL
Thallium Tl	mg/kg		0.0	<DL	0.0
Tin Sn	mg/kg		<DL	<DL	<DL
Titanium Ti	mg/kg		3.3	1.7	2.6
Uranium U	mg/kg		0.0	0.0	0.0
Vanadium V	mg/kg		0.8	0.3	0.5
Zinc Zn	mg/kg		1.0	<DL	<DL
Zirconium Zr	mg/kg		<DL	<DL	<DL

Tessier Extraction

Water Soluble Metals
Reagent: 15 mL of Nanopure Distilled Water

Sample			MW-230 10ft to 20ft	MW-230 35ft to 40ft	MW-302 14ft to 19ft
Mercury Hg	ug/kg		<DL	<DL	<DL
Molybdenum Mo	mg/kg		0.2	<DL	0.2
Nickel Ni	mg/kg		0.5	0.1	0.1
Phosphorus P	mg/kg		3.5	<DL	<DL
Potassium K	mg/kg		131.8	172.5	250.9
Selenium Se	mg/kg		<DL	<DL	<DL
Silicon Si	mg/kg		579.6	152.4	134.3
Silver Ag	mg/kg		<DL	<DL	<DL
Sodium Na	mg/kg		688.5	344.1	172.7
Strontium Sr	mg/kg		1.9	2.3	1.0
Sulphur (S)	mg/kg		<DL	<DL	<DL
Thallium Tl	mg/kg		0.0	<DL	<DL
Tin Sn	mg/kg		<DL	<DL	<DL
Titanium Ti	mg/kg		3.0	1.1	1.1
Uranium U	mg/kg		0.0	0.0	0.0
Vanadium V	mg/kg		0.7	0.2	0.2
Zinc Zn	mg/kg		1.0	<DL	<DL
Zirconium Zr	mg/kg		<DL	<DL	<DL

Tessier Extraction

Water Soluble Metals Reagent: 15 mL of Nanopure Distilled Water				
Sample			**MW-PB1R 26ft to 36ft**	**Blank**
Mercury Hg	ug/kg		<DL	
Molybdenum Mo	mg/kg		<DL	
Nickel Ni	mg/kg		0.3	
Phosphorus P	mg/kg		7.0	
Potassium K	mg/kg		182.4	
Selenium Se	mg/kg		0.0	
Silicon Si	mg/kg		472.2	
Silver Ag	mg/kg		<DL	
Sodium Na	mg/kg		631.3	
Strontium Sr	mg/kg		2.5	
Sulphur (S)	mg/kg		<DL	
Thallium Tl	mg/kg		0.0	
Tin Sn	mg/kg		<DL	
Titanium Ti	mg/kg		3.0	
Uranium U	mg/kg		0.1	
Vanadium V	mg/kg		0.7	
Zinc Zn	mg/kg		<DL	
Zirconium Zr	mg/kg		<DL	

Tessier Extraction

Exchangeable Metals
Reagent: 15 mL of 1 M MgCl2 (pH 7)

Sample			MW-206 5ft to 10ft	MW-207 15ft to 20ft	MW-208 10ft to 15ft
Initial sample weight (g)			1.0119	1.0054	1.0255
Reagent volume (mL)			15	15	15
Final diluted solution volume after wash and preservation (mL)			50	50	50
Parameter	**Units**	**RDL**			
Hardness CaCO3	mg/L	0.05	31500	30600	30900
Aluminum Al	mg/L	0.001	0.13	0.12	0.13
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	< 0.002	0.002	0.003
Barium Ba	mg/L	0.00008	0.883	2.15	5.13
Beryllium Be	mg/L	0.000007	< 0.00007	< 0.00007	< 0.00007
Bismuth Bi	mg/L	0.00001	0.0001	< 0.0001	< 0.0001
Boron B	mg/L	0.002	< 0.02	< 0.02	< 0.02
Cadmium Cd	mg/L	0.000003	0.00049	0.00113	0.0002
Calcium Ca	mg/L	0.01	25.4	77.4	33.1
Chromium Cr	mg/L	0.00008	0.0106	0.0104	0.0129
Cobalt Co	mg/L	0.000004	0.00057	0.00137	0.00043
Copper Cu	mg/L	0.001	< 0.01	< 0.01	< 0.01
Iron Fe	mg/L	0.007	0.16	0.16	0.19
Lead Pb	mg/L	0.00009	< 0.0009	< 0.0009	0.0009
Lithium Li	mg/L	0.0001	0.004	0.004	0.003
Magnesium Mg	mg/L	0.001	7640	7390	7490
Manganese Mn	mg/L	0.00001	0.119	0.437	0.131
Mercury Hg	ug/L	0.01	< 0.1	< 0.1	< 0.1
Molybdenum Mo	mg/L	0.0004	< 0.004	< 0.004	< 0.004
Nickel Ni	mg/L	0.0001	0.004	0.007	0.003
Phosphorus P	mg/L	0.003	0.04	0.03	0.08
Potassium K	mg/L	0.009	4.67	3.47	1.97
Selenium Se	mg/L	0.00004	< 0.0004	0.0006	< 0.0004
Silicon Si	mg/L	0.02	1.2	1.3	1.3
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	3.7	3.6	1.4
Strontium Sr	mg/L	0.00008	0.27	0.511	0.417
Sulphur (S)	mg/L	5	< 50	< 50	< 50
Thallium Tl	mg/L	0.000005	0.00005	0.00006	0.00007
Tin Sn	mg/L	0.00006	< 0.0006	< 0.0006	< 0.0006
Titanium Ti	mg/L	0.0001	0.0025	0.0039	0.0031
Uranium U	mg/L	0.000002	0.00028	0.00204	0.00042
Vanadium V	mg/L	0.00001	0.0043	0.0054	0.0053
Zinc Zn	mg/L	0.002	< 0.02	< 0.02	< 0.02
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02	< 0.02

Concentration leached relative to initial sample mass (no correction for blank is included)

Parameter	Units	RDL			
Aluminum Al	mg/kg		6.4	6.0	6.3
Antimony Sb	mg/kg		<DL	<DL	<DL
Arsenic As	mg/kg		<DL	0.1	0.1
Barium Ba	mg/kg		43.6	106.9	250.1
Beryllium Be	mg/kg		<DL	<DL	<DL
Bismuth Bi	mg/kg		0.0	<DL	<DL
Boron B	mg/kg		<DL	<DL	<DL
Cadmium Cd	mg/kg		0.0	0.1	0.0
Calcium Ca	mg/kg		1255.1	3849.2	1613.8
Chromium Cr	mg/kg		0.5	0.5	0.6
Cobalt Co	mg/kg		0.0	0.1	0.0
Copper Cu	mg/kg		<DL	<DL	<DL
Iron Fe	mg/kg		7.9	8.0	9.3
Lead Pb	mg/kg		<DL	<DL	0.0
Lithium Li	mg/kg		0.2	0.2	0.1
Magnesium Mg	mg/kg		NA	NA	NA
Manganese Mn	mg/kg		5.9	21.7	6.4
Mercury Hg	ug/kg		<DL	<DL	<DL
Molybdenum Mo	mg/kg		<DL	<DL	<DL
Nickel Ni	mg/kg		0.2	0.3	0.1

Tessier Extraction

Exchangeable Metals
Reagent: 15 mL of 1 M MgCl2 (pH 7)

Sample			MW-225 10ft to 15ft	MW-226 10ft to 15ft	MW-227 5ft to 10ft
Initial sample weight (g)			1.0480	1.0466	1.0067
Reagent volume (mL)			15	15	15
Final diluted solution volume after wash and preservation (mL)			50	50	50
Parameter	**Units**	**RDL**			
Hardness CaCO3	mg/L	0.05	30400	31200	30200
Aluminum Al	mg/L	0.001	0.06	0.1	0.08
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.003	< 0.002	0.002
Barium Ba	mg/L	0.00008	1.42	1.34	1.05
Beryllium Be	mg/L	0.000007	< 0.00007	< 0.00007	< 0.00007
Bismuth Bi	mg/L	0.00001	< 0.0001	< 0.0001	< 0.0001
Boron B	mg/L	0.002	< 0.02	< 0.02	< 0.02
Cadmium Cd	mg/L	0.000003	0.001	0.00033	0.00053
Calcium Ca	mg/L	0.01	68.2	29.5	67.6
Chromium Cr	mg/L	0.00008	0.0103	0.0135	0.0125
Cobalt Co	mg/L	0.000004	0.0008	0.0008	0.00046
Copper Cu	mg/L	0.001	< 0.01	< 0.01	< 0.01
Iron Fe	mg/L	0.007	0.09	0.14	0.09
Lead Pb	mg/L	0.00009	0.0052	0.0031	0.0027
Lithium Li	mg/L	0.0001	0.003	0.003	0.003
Magnesium Mg	mg/L	0.001	7330	7550	7300
Manganese Mn	mg/L	0.00001	0.326	0.294	0.192
Mercury Hg	ug/L	0.01	< 0.1	< 0.1	< 0.1
Molybdenum Mo	mg/L	0.0004	< 0.004	< 0.004	< 0.004
Nickel Ni	mg/L	0.0001	0.005	0.007	0.003
Phosphorus P	mg/L	0.003	< 0.03	0.06	0.04
Potassium K	mg/L	0.009	7.3	3.6	5.41
Selenium Se	mg/L	0.00004	< 0.0004	< 0.0004	< 0.0004
Silicon Si	mg/L	0.02	1.3	1.1	1.3
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	9.8	1.8	1.8
Strontium Sr	mg/L	0.00008	0.447	0.254	0.444
Sulphur (S)	mg/L	5	< 50	< 50	< 50
Thallium Tl	mg/L	0.000005	0.00008	0.00007	< 0.00005
Tin Sn	mg/L	0.00006	0.0008	< 0.0006	< 0.0006
Titanium Ti	mg/L	0.0001	0.0012	0.0024	0.0015
Uranium U	mg/L	0.000002	0.00054	0.00008	0.00051
Vanadium V	mg/L	0.00001	0.005	0.0043	0.0054
Zinc Zn	mg/L	0.002	< 0.02	< 0.02	< 0.02
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02	< 0.02

Concentration leached relative to initial sample ma

Parameter	Units	RDL			
Aluminum Al	mg/kg		2.9	4.8	4.0
Antimony Sb	mg/kg		<DL	<DL	<DL
Arsenic As	mg/kg		0.1	<DL	0.1
Barium Ba	mg/kg		67.7	64.0	52.2
Beryllium Be	mg/kg		<DL	<DL	<DL
Bismuth Bi	mg/kg		<DL	<DL	<DL
Boron B	mg/kg		<DL	<DL	<DL
Cadmium Cd	mg/kg		0.0	0.0	0.0
Calcium Ca	mg/kg		3253.8	1409.3	3357.5
Chromium Cr	mg/kg		0.5	0.6	0.6
Cobalt Co	mg/kg		0.0	0.0	0.0
Copper Cu	mg/kg		<DL	<DL	<DL
Iron Fe	mg/kg		4.3	6.7	4.5
Lead Pb	mg/kg		0.2	0.1	0.1
Lithium Li	mg/kg		0.1	0.1	0.1
Magnesium Mg	mg/kg		NA	NA	NA
Manganese Mn	mg/kg		15.6	14.0	9.5
Mercury Hg	ug/kg		<DL	<DL	<DL
Molybdenum Mo	mg/kg		<DL	<DL	<DL
Nickel Ni	mg/kg		0.2	0.3	0.1

Tessier Extraction

Exchangeable Metals
Reagent: 15 mL of 1 M MgCl2 (pH 7)

Sample			MW-230 10ft to 20ft	MW-230 35ft to 40ft	MW-302 14ft to 19ft
Initial sample weight (g)			1.0094	1.0171	1.0421
Reagent volume (mL)			15	15	15
Final diluted solution volume after wash and preservation (mL)			50	50	50
Parameter	**Units**	**RDL**			
Hardness CaCO3	mg/L	0.05	29600	31000	30800
Aluminum Al	mg/L	0.001	0.07	0.09	0.11
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	< 0.002	0.004	0.002
Barium Ba	mg/L	0.00008	0.984	3.92	0.897
Beryllium Be	mg/L	0.000007	< 0.00007	< 0.00007	< 0.00007
Bismuth Bi	mg/L	0.00001	< 0.0001	< 0.0001	< 0.0001
Boron B	mg/L	0.002	< 0.02	< 0.02	< 0.02
Cadmium Cd	mg/L	0.000003	0.00082	0.0005	0.0005
Calcium Ca	mg/L	0.01	69.8	61.8	52.1
Chromium Cr	mg/L	0.00008	0.0117	0.0121	0.0129
Cobalt Co	mg/L	0.000004	0.00105	0.00194	0.0008
Copper Cu	mg/L	0.001	< 0.01	< 0.01	< 0.01
Iron Fe	mg/L	0.007	0.08	0.33	0.14
Lead Pb	mg/L	0.00009	< 0.0009	< 0.0009	0.0033
Lithium Li	mg/L	0.0001	0.004	0.004	0.004
Magnesium Mg	mg/L	0.001	7140	7480	7450
Manganese Mn	mg/L	0.00001	0.309	0.381	0.406
Mercury Hg	ug/L	0.01	< 0.1	< 0.1	< 0.1
Molybdenum Mo	mg/L	0.0004	< 0.004	< 0.004	< 0.004
Nickel Ni	mg/L	0.0001	0.005	0.007	0.004
Phosphorus P	mg/L	0.003	< 0.03	< 0.03	0.04
Potassium K	mg/L	0.009	6.56	3.75	4.88
Selenium Se	mg/L	0.00004	< 0.0004	< 0.0004	0.0004
Silicon Si	mg/L	0.02	1.3	0.8	0.9
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	7	1.8	1.3
Strontium Sr	mg/L	0.00008	0.563	0.462	0.212
Sulphur (S)	mg/L	5	< 50	< 50	< 50
Thallium Tl	mg/L	0.000005	0.00005	0.00005	0.00008
Tin Sn	mg/L	0.00006	< 0.0006	< 0.0006	< 0.0006
Titanium Ti	mg/L	0.0001	0.0013	0.0024	0.0024
Uranium U	mg/L	0.000002	0.00057	0.00214	0.00288
Vanadium V	mg/L	0.00001	0.0048	0.0055	0.0056
Zinc Zn	mg/L	0.002	< 0.02	< 0.02	< 0.02
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02	< 0.02

Concentration leached relative to initial sample ma

Parameter	Units	RDL			
Aluminum Al	mg/kg		3.5	4.4	5.3
Antimony Sb	mg/kg		<DL	<DL	<DL
Arsenic As	mg/kg		<DL	0.2	0.1
Barium Ba	mg/kg		48.7	192.7	43.0
Beryllium Be	mg/kg		<DL	<DL	<DL
Bismuth Bi	mg/kg		<DL	<DL	<DL
Boron B	mg/kg		<DL	<DL	<DL
Cadmium Cd	mg/kg		0.0	0.0	0.0
Calcium Ca	mg/kg		3457.5	3038.0	2499.8
Chromium Cr	mg/kg		0.6	0.6	0.6
Cobalt Co	mg/kg		0.1	0.1	0.0
Copper Cu	mg/kg		<DL	<DL	<DL
Iron Fe	mg/kg		4.0	16.2	6.7
Lead Pb	mg/kg		<DL	<DL	0.2
Lithium Li	mg/kg		0.2	0.2	0.2
Magnesium Mg	mg/kg		NA	NA	NA
Manganese Mn	mg/kg		15.3	18.7	19.5
Mercury Hg	ug/kg		<DL	<DL	<DL
Molybdenum Mo	mg/kg		<DL	<DL	<DL
Nickel Ni	mg/kg		0.2	0.3	0.2

Tessier Extraction

Exchangeable Metals Reagent: 15 mL of 1 M MgCl2 (pH 7)				
Sample			**MW-PB1R 26ft to 36ft**	**Blank**
Initial sample weight (g)			1.0059	0.0000
Reagent volume (mL)			15	15.00
Final diluted solution volume after wash and preservation (mL)			50	50
Parameter	**Units**	**RDL**		
Hardness CaCO3	mg/L	0.05	29700	31600
Aluminum Al	mg/L	0.001	0.09	0.01
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.002	< 0.002
Barium Ba	mg/L	0.00008	1.82	0.005
Beryllium Be	mg/L	0.000007	< 0.00007	< 0.00007
Bismuth Bi	mg/L	0.00001	< 0.0001	< 0.0001
Boron B	mg/L	0.002	0.02	< 0.02
Cadmium Cd	mg/L	0.000003	0.00082	< 0.00003
Calcium Ca	mg/L	0.01	74.4	0.8
Chromium Cr	mg/L	0.00008	0.0127	0.0106
Cobalt Co	mg/L	0.000004	0.00058	0.00006
Copper Cu	mg/L	0.001	< 0.01	0.01
Iron Fe	mg/L	0.007	0.13	< 0.07
Lead Pb	mg/L	0.00009	0.003	0.01
Lithium Li	mg/L	0.0001	0.005	0.002
Magnesium Mg	mg/L	0.001	7170	7680
Manganese Mn	mg/L	0.00001	0.388	0.0012
Mercury Hg	ug/L	0.01	< 0.1	< 0.1
Molybdenum Mo	mg/L	0.0004	< 0.004	< 0.004
Nickel Ni	mg/L	0.0001	0.004	0.003
Phosphorus P	mg/L	0.003	0.05	< 0.03
Potassium K	mg/L	0.009	7.32	< 0.09
Selenium Se	mg/L	0.00004	0.0006	< 0.0004
Silicon Si	mg/L	0.02	1.4	< 0.2
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	4	1
Strontium Sr	mg/L	0.00008	0.673	0.0011
Sulphur (S)	mg/L	5	< 50	< 50
Thallium Tl	mg/L	0.000005	0.00011	< 0.00005
Tin Sn	mg/L	0.00006	< 0.0006	< 0.0006
Titanium Ti	mg/L	0.0001	0.002	0.0002
Uranium U	mg/L	0.000002	0.00117	< 0.00002
Vanadium V	mg/L	0.00001	0.0057	0.0031
Zinc Zn	mg/L	0.002	< 0.02	< 0.02
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02

Concentration leached relative to initial sample ma

Parameter	**Units**	**RDL**		
Aluminum Al	mg/kg		4.5	
Antimony Sb	mg/kg		<DL	
Arsenic As	mg/kg		0.1	
Barium Ba	mg/kg		90.5	
Beryllium Be	mg/kg		<DL	
Bismuth Bi	mg/kg		<DL	
Boron B	mg/kg		1.0	
Cadmium Cd	mg/kg		0.0	
Calcium Ca	mg/kg		3698.2	
Chromium Cr	mg/kg		0.6	
Cobalt Co	mg/kg		0.0	
Copper Cu	mg/kg		<DL	
Iron Fe	mg/kg		6.5	
Lead Pb	mg/kg		0.1	
Lithium Li	mg/kg		0.2	
Magnesium Mg	mg/kg		NA	
Manganese Mn	mg/kg		19.3	
Mercury Hg	ug/kg		<DL	
Molybdenum Mo	mg/kg		<DL	
Nickel Ni	mg/kg		0.2	

Tessier Extraction

Exchangeable Metals
Reagent: 15 mL of 1 M MgCl2 (pH 7)

Sample			MW-206 5ft to 10ft	MW-207 15ft to 20ft	MW-208 10ft to 15ft
Phosphorus P	mg/kg		2.0	1.5	3.9
Potassium K	mg/kg		230.8	172.6	96.1
Selenium Se	mg/kg		<DL	0.0	<DL
Silicon Si	mg/kg		59.3	64.7	63.4
Silver Ag	mg/kg		<DL	<DL	<DL
Sodium Na	mg/kg		182.8	179.0	68.3
Strontium Sr	mg/kg		13.3	25.4	20.3
Sulphur (S)	mg/kg		<DL	<DL	<DL
Thallium Tl	mg/kg		0.0	0.0	0.0
Tin Sn	mg/kg		<DL	<DL	<DL
Titanium Ti	mg/kg		0.1	0.2	0.2
Uranium U	mg/kg		0.0	0.1	0.0
Vanadium V	mg/kg		0.2	0.3	0.3
Zinc Zn	mg/kg		<DL	<DL	<DL
Zirconium Zr	mg/kg		<DL	<DL	<DL

Tessier Extraction

Exchangeable Metals
Reagent: 15 mL of 1 M MgCl2 (pH 7)

Sample			MW-225 10ft to 15ft	MW-226 10ft to 15ft	MW-227 5ft to 10ft
Phosphorus P	mg/kg		<DL	2.9	2.0
Potassium K	mg/kg		348.3	172.0	268.7
Selenium Se	mg/kg		<DL	<DL	<DL
Silicon Si	mg/kg		62.0	52.6	64.6
Silver Ag	mg/kg		<DL	<DL	<DL
Sodium Na	mg/kg		467.6	86.0	89.4
Strontium Sr	mg/kg		21.3	12.1	22.1
Sulphur (S)	mg/kg		<DL	<DL	<DL
Thallium Tl	mg/kg		0.0	0.0	<DL
Tin Sn	mg/kg		0.0	<DL	<DL
Titanium Ti	mg/kg		0.1	0.1	0.1
Uranium U	mg/kg		0.0	0.0	0.0
Vanadium V	mg/kg		0.2	0.2	0.3
Zinc Zn	mg/kg		<DL	<DL	<DL
Zirconium Zr	mg/kg		<DL	<DL	<DL

Tessier Extraction

Exchangeable Metals
Reagent: 15 mL of 1 M MgCl2 (pH 7)

Sample			MW-230 10ft to 20ft	MW-230 35ft to 40ft	MW-302 14ft to 19ft
Phosphorus P	mg/kg		<DL	<DL	1.9
Potassium K	mg/kg		324.9	184.3	234.1
Selenium Se	mg/kg		<DL	<DL	0.0
Silicon Si	mg/kg		64.4	39.3	43.2
Silver Ag	mg/kg		<DL	<DL	<DL
Sodium Na	mg/kg		346.7	88.5	62.4
Strontium Sr	mg/kg		27.9	22.7	10.2
Sulphur (S)	mg/kg		<DL	<DL	<DL
Thallium Tl	mg/kg		0.0	0.0	0.0
Tin Sn	mg/kg		<DL	<DL	<DL
Titanium Ti	mg/kg		0.1	0.1	0.1
Uranium U	mg/kg		0.0	0.1	0.1
Vanadium V	mg/kg		0.2	0.3	0.3
Zinc Zn	mg/kg		<DL	<DL	<DL
Zirconium Zr	mg/kg		<DL	<DL	<DL

Tessier Extraction

Exchangeable Metals Reagent: 15 mL of 1 M MgCl2 (pH 7)				
Sample			**MW-PB1R 26ft to 36ft**	**Blank**
Phosphorus P	mg/kg		2.5	
Potassium K	mg/kg		363.9	
Selenium Se	mg/kg		0.0	
Silicon Si	mg/kg		69.6	
Silver Ag	mg/kg		<DL	
Sodium Na	mg/kg		198.8	
Strontium Sr	mg/kg		33.5	
Sulphur (S)	mg/kg		<DL	
Thallium Tl	mg/kg		0.0	
Tin Sn	mg/kg		<DL	
Titanium Ti	mg/kg		0.1	
Uranium U	mg/kg		0.1	
Vanadium V	mg/kg		0.3	
Zinc Zn	mg/kg		<DL	
Zirconium Zr	mg/kg		<DL	

Tessier Extraction

Metals Bound to Carbonates

Reagent: 15 mL of 1 M NaOAc (adjusted to pH 5.0 with Acetic Acid)

Sample			MW-206 5ft to 10ft	MW-207 15ft to 20ft	MW-208 10ft to 15ft
Initial sample weight (g)			1.0119	1.0054	1.0255
Reagent volume (mL)			15	15	15
Final diluted solution volume after wash and preservation (mL)			50	50	50
Parameter	**Units**	**RDL**			
Hardness CaCO3	mg/L	0.05	209	1730	1140
Aluminum Al	mg/L	0.001	5.33	2.61	3.27
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.003	0.003	0.008
Barium Ba	mg/L	0.00008	1	1.93	4.29
Beryllium Be	mg/L	0.000007	0.00111	0.00168	0.00079
Bismuth Bi	mg/L	0.00001	0.0002	0.0002	0.0001
Boron B	mg/L	0.002	0.03	0.03	0.03
Cadmium Cd	mg/L	0.000003	0.00081	0.00237	0.00066
Calcium Ca	mg/L	0.01	10.3	442	271
Chromium Cr	mg/L	0.00008	0.11	0.261	1.42
Cobalt Co	mg/L	0.000004	0.0181	0.0411	0.0426
Copper Cu	mg/L	0.001	0.05	0.03	0.09
Iron Fe	mg/L	0.007	11.3	5.71	30.1
Lead Pb	mg/L	0.00009	0.0168	0.027	0.0123
Lithium Li	mg/L	0.0001	0.009	0.009	0.009
Magnesium Mg	mg/L	0.001	44.4	152	111
Manganese Mn	mg/L	0.00001	0.678	4.5	7.21
Mercury Hg	ug/L	0.01	< 0.01	< 0.01	< 0.01
Molybdenum Mo	mg/L	0.0004	< 0.004	0.007	0.072
Nickel Ni	mg/L	0.0001	0.057	0.085	0.135
Phosphorus P	mg/L	0.003	0.1	0.07	0.17
Potassium K	mg/L	0.009	4.63	3.7	4.89
Selenium Se	mg/L	0.00004	< 0.0004	< 0.0004	< 0.0004
Silicon Si	mg/L	0.02	10.8	9.4	6.6
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	6580	6300	6500
Strontium Sr	mg/L	0.00008	0.0861	0.847	0.324
Sulphur (S)	mg/L	5	< 50	< 50	< 50
Thallium Tl	mg/L	0.000005	0.0001	0.00011	0.00021
Tin Sn	mg/L	0.00006	< 0.0006	< 0.0006	< 0.0006
Titanium Ti	mg/L	0.0001	0.006	0.009	0.009
Uranium U	mg/L	0.000002	0.0016	0.00567	0.0018
Vanadium V	mg/L	0.00001	0.0067	0.0091	0.0468
Zinc Zn	mg/L	0.002	0.04	0.07	0.06
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02	< 0.02

Tessier Extraction

Metals Bound to Carbonates

Reagent: 15 mL of 1 M NaOAc (adjusted to pH 5.0 with Acetic Acid)

Sample			**MW-225 10ft to 15ft**	**MW-226 10ft to 15ft**	**MW-227 5ft to 10ft**
Initial sample weight (g)			1.0480	1.0466	1.0067
Reagent volume (mL)			15	15	15
Final diluted solution volume after wash and preservation (mL)			50	50	50
Parameter	**Units**	**RDL**			
Hardness CaCO3	mg/L	0.05	1420	216	1580
Aluminum Al	mg/L	0.001	4.32	4.9	3.92
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.003	0.003	0.004
Barium Ba	mg/L	0.00008	1.17	1.18	1.25
Beryllium Be	mg/L	0.000007	0.00187	0.00135	0.00147
Bismuth Bi	mg/L	0.00001	0.0003	0.0002	0.0003
Boron B	mg/L	0.002	0.06	0.04	0.04
Cadmium Cd	mg/L	0.000003	0.00156	0.00061	0.0023
Calcium Ca	mg/L	0.01	143	11.4	356
Chromium Cr	mg/L	0.00008	0.135	0.115	0.106
Cobalt Co	mg/L	0.000004	0.0389	0.0199	0.0271
Copper Cu	mg/L	0.001	0.02	0.09	0.02
Iron Fe	mg/L	0.007	4.21	9.95	3.35
Lead Pb	mg/L	0.00009	0.0279	0.0096	0.0338
Lithium Li	mg/L	0.0001	0.012	0.01	0.013
Magnesium Mg	mg/L	0.001	259	45.5	169
Manganese Mn	mg/L	0.00001	3.16	2.23	3.45
Mercury Hg	ug/L	0.01	< 0.01	< 0.01	< 0.01
Molybdenum Mo	mg/L	0.0004	< 0.004	< 0.004	< 0.004
Nickel Ni	mg/L	0.0001	0.071	0.077	0.049
Phosphorus P	mg/L	0.003	0.07	0.17	0.12
Potassium K	mg/L	0.009	5.17	4.51	4.69
Selenium Se	mg/L	0.00004	< 0.0004	< 0.0004	< 0.0004
Silicon Si	mg/L	0.02	14.8	12.1	13
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	7200	7310	7210
Strontium Sr	mg/L	0.00008	0.213	0.0927	0.937
Sulphur (S)	mg/L	5	< 50	< 50	< 50
Thallium Tl	mg/L	0.000005	0.00007	0.00008	0.00006
Tin Sn	mg/L	0.00006	< 0.0006	< 0.0006	< 0.0006
Titanium Ti	mg/L	0.0001	0.006	0.009	0.007
Uranium U	mg/L	0.000002	0.00269	0.00153	0.00309
Vanadium V	mg/L	0.00001	0.0035	0.0018	0.0031
Zinc Zn	mg/L	0.002	0.04	0.06	0.04
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02	< 0.02

Tessier Extraction

Metals Bound to Carbonates

Reagent: 15 mL of 1 M NaOAc (adjusted to pH 5.0 with Acetic Acid)

Sample			MW-230 10ft to 20ft	MW-230 35ft to 40ft	MW-302 14ft to 19ft
Initial sample weight (g)			1.0094	1.0171	1.0421
Reagent volume (mL)			15	15	15
Final diluted solution volume after wash and preservation (mL)			50	50	50
Parameter	**Units**	**RDL**			
Hardness CaCO3	mg/L	0.05	1600	1610	3130
Aluminum Al	mg/L	0.001	4.01	4.61	5.26
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	< 0.002	0.022	0.003
Barium Ba	mg/L	0.00008	0.955	2.73	1.2
Beryllium Be	mg/L	0.000007	0.00174	0.0022	0.00193
Bismuth Bi	mg/L	0.00001	0.0002	0.0003	0.0005
Boron B	mg/L	0.002	0.04	0.05	0.03
Cadmium Cd	mg/L	0.000003	0.00151	0.00121	0.00142
Calcium Ca	mg/L	0.01	200	348	861
Chromium Cr	mg/L	0.00008	0.109	0.0948	0.0612
Cobalt Co	mg/L	0.000004	0.0329	0.0432	0.0372
Copper Cu	mg/L	0.001	0.05	< 0.01	0.08
Iron Fe	mg/L	0.007	3.55	57.8	14.2
Lead Pb	mg/L	0.00009	0.025	0.025	0.0379
Lithium Li	mg/L	0.0001	0.013	0.018	0.018
Magnesium Mg	mg/L	0.001	268	179	238
Manganese Mn	mg/L	0.00001	3.13	8.46	6.22
Mercury Hg	ug/L	0.01	< 0.01	< 0.01	< 0.01
Molybdenum Mo	mg/L	0.0004	< 0.004	0.005	< 0.004
Nickel Ni	mg/L	0.0001	0.071	0.095	0.069
Phosphorus P	mg/L	0.003	0.1	0.18	0.12
Potassium K	mg/L	0.009	5.46	7.33	5.86
Selenium Se	mg/L	0.00004	< 0.0004	< 0.0004	< 0.0004
Silicon Si	mg/L	0.02	14	12	10.1
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	7110	7190	6990
Strontium Sr	mg/L	0.00008	0.258	0.429	0.595
Sulphur (S)	mg/L	5	< 50	< 50	< 50
Thallium Tl	mg/L	0.000005	0.00006	0.00022	0.00012
Tin Sn	mg/L	0.00006	< 0.0006	< 0.0006	< 0.0006
Titanium Ti	mg/L	0.0001	0.005	0.014	0.01
Uranium U	mg/L	0.000002	0.0027	0.00653	0.00579
Vanadium V	mg/L	0.00001	0.0032	0.0087	0.013
Zinc Zn	mg/L	0.002	0.06	0.09	0.13
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02	< 0.02

Tessier Extraction

Metals Bound to Carbonates Reagent: 15 mL of 1 M NaOAc (adjusted to pH 5.0 with Acetic Acid)				
Sample			**MW-PB1R 26ft to 36ft**	**Blank**
Initial sample weight (g)			1.0059	0.0000
Reagent volume (mL)			15	15
Final diluted solution volume after wash and preservation (mL)			50	50
Parameter	**Units**	**RDL**		
Hardness CaCO3	mg/L	0.05	1640	1.5
Aluminum Al	mg/L	0.001	5.67	< 0.01
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.004	< 0.002
Barium Ba	mg/L	0.00008	1.82	0.0009
Beryllium Be	mg/L	0.000007	0.00268	< 0.00007
Bismuth Bi	mg/L	0.00001	0.0006	< 0.0001
Boron B	mg/L	0.002	0.08	< 0.02
Cadmium Cd	mg/L	0.000003	0.00172	< 0.00003
Calcium Ca	mg/L	0.01	305	0.5
Chromium Cr	mg/L	0.00008	0.277	0.0032
Cobalt Co	mg/L	0.000004	0.0271	< 0.00004
Copper Cu	mg/L	0.001	0.06	< 0.01
Iron Fe	mg/L	0.007	13.5	< 0.07
Lead Pb	mg/L	0.00009	0.0417	0.0023
Lithium Li	mg/L	0.0001	0.02	< 0.001
Magnesium Mg	mg/L	0.001	212	0.08
Manganese Mn	mg/L	0.00001	3.63	0.0007
Mercury Hg	ug/L	0.01	< 0.01	< 0.01
Molybdenum Mo	mg/L	0.0004	0.008	< 0.004
Nickel Ni	mg/L	0.0001	0.068	< 0.001
Phosphorus P	mg/L	0.003	0.14	0.07
Potassium K	mg/L	0.009	6.78	0.93
Selenium Se	mg/L	0.00004	0.0005	< 0.0004
Silicon Si	mg/L	0.02	15.7	< 0.2
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	7230	6640
Strontium Sr	mg/L	0.00008	0.41	0.0009
Sulphur (S)	mg/L	5	< 50	< 50
Thallium Tl	mg/L	0.000005	0.0001	< 0.00005
Tin Sn	mg/L	0.00006	< 0.0006	< 0.0006
Titanium Ti	mg/L	0.0001	0.006	< 0.001
Uranium U	mg/L	0.000002	0.00389	< 0.00002
Vanadium V	mg/L	0.00001	0.0216	< 0.0001
Zinc Zn	mg/L	0.002	0.1	< 0.02
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02

Tessier Extraction

Metals Bound to Carbonates

Reagent: 15 mL of 1 M NaOAc (adjusted to pH 5.0 with Acetic Acid)

Concentration leached relative to initial sample mass (no correction for blank is included)

Parameter	Units	RDL			
Aluminum Al	mg/kg		263.4	129.8	159.4
Antimony Sb	mg/kg		<DL	<DL	<DL
Arsenic As	mg/kg		0.1	0.1	0.4
Barium Ba	mg/kg		49.4	96.0	209.2
Beryllium Be	mg/kg		0.1	0.1	0.0
Bismuth Bi	mg/kg		0.0	0.0	0.0
Boron B	mg/kg		1.5	1.5	1.5
Cadmium Cd	mg/kg		0.0	0.1	0.0
Calcium Ca	mg/kg		508.9	21981.3	13213.1
Chromium Cr	mg/kg		5.4	13.0	69.2
Cobalt Co	mg/kg		0.9	2.0	2.1
Copper Cu	mg/kg		2.5	1.5	4.4
Iron Fe	mg/kg		558.4	284.0	1467.6
Lead Pb	mg/kg		0.8	1.3	0.6
Lithium Li	mg/kg		0.4	0.4	0.4
Magnesium Mg	mg/kg		2193.9	7559.2	5412.0
Manganese Mn	mg/kg		33.5	223.8	351.5
Mercury Hg	ug/kg		<DL	<DL	<DL
Molybdenum Mo	mg/kg		<DL	0.3	3.5
Nickel Ni	mg/kg		2.8	4.2	6.6
Phosphorus P	mg/kg		4.9	3.5	8.3
Potassium K	mg/kg		228.8	184.0	238.4
Selenium Se	mg/kg		<DL	<DL	<DL
Silicon Si	mg/kg		533.6	467.5	321.8
Silver Ag	mg/kg		<DL	<DL	<DL
Sodium Na	mg/kg		NA	NA	NA
Strontium Sr	mg/kg		4.3	42.1	15.8
Sulphur (S)	mg/kg		<DL	<DL	<DL
Thallium Tl	mg/kg		0.0	0.0	0.0
Tin Sn	mg/kg		<DL	<DL	<DL
Titanium Ti	mg/kg		0.3	0.4	0.4
Uranium U	mg/kg		0.1	0.3	0.1
Vanadium V	mg/kg		0.3	0.5	2.3
Zinc Zn	mg/kg		2.0	3.5	2.9
Zirconium Zr	mg/kg		<DL	<DL	<DL

Tessier Extraction

Metals Bound to Carbonates
Reagent: 15 mL of 1 M NaOAc (adjusted to pH 5.0 with Acetic Acid)

Concentration leached relative to initial sample mas

Parameter	Units	RDL			
Aluminum Al	mg/kg		206.1	234.1	194.7
Antimony Sb	mg/kg		<DL	<DL	<DL
Arsenic As	mg/kg		0.1	0.1	0.2
Barium Ba	mg/kg		55.8	56.4	62.1
Beryllium Be	mg/kg		0.1	0.1	0.1
Bismuth Bi	mg/kg		0.0	0.0	0.0
Boron B	mg/kg		2.9	1.9	2.0
Cadmium Cd	mg/kg		0.1	0.0	0.1
Calcium Ca	mg/kg		6822.5	544.6	17681.5
Chromium Cr	mg/kg		6.4	5.5	5.3
Cobalt Co	mg/kg		1.9	1.0	1.3
Copper Cu	mg/kg		1.0	4.3	1.0
Iron Fe	mg/kg		200.9	475.3	166.4
Lead Pb	mg/kg		1.3	0.5	1.7
Lithium Li	mg/kg		0.6	0.5	0.6
Magnesium Mg	mg/kg		12356.9	2173.7	8393.8
Manganese Mn	mg/kg		150.8	106.5	171.4
Mercury Hg	ug/kg		<DL	<DL	<DL
Molybdenum Mo	mg/kg		<DL	<DL	<DL
Nickel Ni	mg/kg		3.4	3.7	2.4
Phosphorus P	mg/kg		3.3	8.1	6.0
Potassium K	mg/kg		246.7	215.5	232.9
Selenium Se	mg/kg		<DL	<DL	<DL
Silicon Si	mg/kg		706.1	578.1	645.7
Silver Ag	mg/kg		<DL	<DL	<DL
Sodium Na	mg/kg		NA	NA	NA
Strontium Sr	mg/kg		10.2	4.4	46.5
Sulphur (S)	mg/kg		<DL	<DL	<DL
Thallium Tl	mg/kg		0.0	0.0	0.0
Tin Sn	mg/kg		<DL	<DL	<DL
Titanium Ti	mg/kg		0.3	0.4	0.3
Uranium U	mg/kg		0.1	0.1	0.2
Vanadium V	mg/kg		0.2	0.1	0.2
Zinc Zn	mg/kg		1.9	2.9	2.0
Zirconium Zr	mg/kg		<DL	<DL	<DL

Tessier Extraction

Metals Bound to Carbonates
Reagent: 15 mL of 1 M NaOAc (adjusted to pH 5.0 with Acetic Acid)

Concentration leached relative to initial sample mas

Parameter	Units	RDL			
Aluminum Al	mg/kg		198.6	226.6	252.4
Antimony Sb	mg/kg		<DL	<DL	<DL
Arsenic As	mg/kg		<DL	1.1	0.1
Barium Ba	mg/kg		47.3	134.2	57.6
Beryllium Be	mg/kg		0.1	0.1	0.1
Bismuth Bi	mg/kg		0.0	0.0	0.0
Boron B	mg/kg		2.0	2.5	1.4
Cadmium Cd	mg/kg		0.1	0.1	0.1
Calcium Ca	mg/kg		9906.9	17107.5	41310.8
Chromium Cr	mg/kg		5.4	4.7	2.9
Cobalt Co	mg/kg		1.6	2.1	1.8
Copper Cu	mg/kg		2.5	<DL	3.8
Iron Fe	mg/kg		175.8	2841.4	681.3
Lead Pb	mg/kg		1.2	1.2	1.8
Lithium Li	mg/kg		0.6	0.9	0.9
Magnesium Mg	mg/kg		13275.2	8799.5	11419.2
Manganese Mn	mg/kg		155.0	415.9	298.4
Mercury Hg	ug/kg		<DL	<DL	<DL
Molybdenum Mo	mg/kg		<DL	0.2	<DL
Nickel Ni	mg/kg		3.5	4.7	3.3
Phosphorus P	mg/kg		5.0	8.8	5.8
Potassium K	mg/kg		270.5	360.3	281.2
Selenium Se	mg/kg		<DL	<DL	<DL
Silicon Si	mg/kg		693.5	589.9	484.6
Silver Ag	mg/kg		<DL	<DL	<DL
Sodium Na	mg/kg		NA	NA	NA
Strontium Sr	mg/kg		12.8	21.1	28.5
Sulphur (S)	mg/kg		<DL	<DL	<DL
Thallium Tl	mg/kg		0.0	0.0	0.0
Tin Sn	mg/kg		<DL	<DL	<DL
Titanium Ti	mg/kg		0.2	0.7	0.5
Uranium U	mg/kg		0.1	0.3	0.3
Vanadium V	mg/kg		0.2	0.4	0.6
Zinc Zn	mg/kg		3.0	4.4	6.2
Zirconium Zr	mg/kg		<DL	<DL	<DL

Tessier Extraction

Metals Bound to Carbonates
Reagent: 15 mL of 1 M NaOAc (adjusted to pH 5.0 with Acetic Acid)

Concentration leached relative to initial sample mas

Parameter	Units	RDL		
Aluminum Al	mg/kg		281.8	
Antimony Sb	mg/kg		<DL	
Arsenic As	mg/kg		0.2	
Barium Ba	mg/kg		90.5	
Beryllium Be	mg/kg		0.1	
Bismuth Bi	mg/kg		0.0	
Boron B	mg/kg		4.0	
Cadmium Cd	mg/kg		0.1	
Calcium Ca	mg/kg		15160.6	
Chromium Cr	mg/kg		13.8	
Cobalt Co	mg/kg		1.3	
Copper Cu	mg/kg		3.0	
Iron Fe	mg/kg		671.0	
Lead Pb	mg/kg		2.1	
Lithium Li	mg/kg		1.0	
Magnesium Mg	mg/kg		10537.8	
Manganese Mn	mg/kg		180.4	
Mercury Hg	ug/kg		<DL	
Molybdenum Mo	mg/kg		0.4	
Nickel Ni	mg/kg		3.4	
Phosphorus P	mg/kg		7.0	
Potassium K	mg/kg		337.0	
Selenium Se	mg/kg		0.0	
Silicon Si	mg/kg		780.4	
Silver Ag	mg/kg		<DL	
Sodium Na	mg/kg		NA	
Strontium Sr	mg/kg		20.4	
Sulphur (S)	mg/kg		<DL	
Thallium Tl	mg/kg		0.0	
Tin Sn	mg/kg		<DL	
Titanium Ti	mg/kg		0.3	
Uranium U	mg/kg		0.2	
Vanadium V	mg/kg		1.1	
Zinc Zn	mg/kg		5.0	
Zirconium Zr	mg/kg		<DL	

Tessier Extraction

Metals Bound to Fe and Mn Oxides
Reagent: 15 mL of 0.04M NH2OH. HCl in 25% HOAc

Sample			MW-206 5ft to 10ft	MW-207 15ft to 20ft	MW-208 10ft to 15ft
Initial sample weight (g)			1.0119	1.0054	1.0255
Reagent volume (mL)			15	15	15
Final diluted solution volume after wash and preservation (mL)			50	50	50
Parameter	**Units**	**RDL**			
Hardness CaCO3	mg/L	0.05	81.9	292	106
Aluminum Al	mg/L	0.001	25.4	16.5	24.2
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.016	0.013	0.014
Barium Ba	mg/L	0.00008	0.358	0.94	1.8
Beryllium Be	mg/L	0.000007	0.00292	0.00512	0.00191
Bismuth Bi	mg/L	0.00001	0.0005	0.0005	0.0002
Boron B	mg/L	0.002	0.03	0.04	< 0.02
Cadmium Cd	mg/L	0.000003	0.00095	0.0009	0.00051
Calcium Ca	mg/L	0.01	10.6	60.4	23.1
Chromium Cr	mg/L	0.00008	1.92	0.625	1.37
Cobalt Co	mg/L	0.000004	0.0391	0.0423	0.0206
Copper Cu	mg/L	0.001	0.1	0.03	0.09
Iron Fe	mg/L	0.007	98.8	77.8	67.3
Lead Pb	mg/L	0.00009	0.0421	0.0421	0.0253
Lithium Li	mg/L	0.0001	0.037	0.047	0.027
Magnesium Mg	mg/L	0.001	13.4	34.3	11.6
Manganese Mn	mg/L	0.00001	0.892	1.16	1.37
Mercury Hg	ug/L	0.01	0.01	0.01	0.02
Molybdenum Mo	mg/L	0.0004	0.107	0.024	0.102
Nickel Ni	mg/L	0.0001	0.162	0.183	0.079
Phosphorus P	mg/L	0.003	2.71	2	2.77
Potassium K	mg/L	0.009	3.06	2.29	3.02
Selenium Se	mg/L	0.00004	< 0.0004	0.0005	0.0004
Silicon Si	mg/L	0.02	27.9	26.9	21.7
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	41.3	49.4	21.8
Strontium Sr	mg/L	0.00008	0.0848	0.109	0.157
Sulphur (S)	mg/L	5	< 50	< 50	< 50
Thallium Tl	mg/L	0.000005	0.00017	0.00024	0.00033
Tin Sn	mg/L	0.00006	< 0.0006	< 0.0006	< 0.0006
Titanium Ti	mg/L	0.0001	0.009	0.012	0.016
Uranium U	mg/L	0.000002	0.00187	0.00299	0.00282
Vanadium V	mg/L	0.00001	0.165	0.13	0.106
Zinc Zn	mg/L	0.002	0.21	0.24	0.1
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02	< 0.02

Tessier Extraction

Metals Bound to Fe and Mn Oxides					
Reagent: 15 mL of 0.04M NH2OH. HCl in 25% HOAc					
Sample			**MW-225 10ft to 15ft**	**MW-226 10ft to 15ft**	**MW-227 5ft to 10ft**
Initial sample weight (g)			1.0480	1.0466	1.0067
Reagent volume (mL)			15	15	15
Final diluted solution volume after wash and preservation (mL)			50	50	50
Parameter	**Units**	**RDL**			
Hardness CaCO3	mg/L	0.05	181	72	190
Aluminum Al	mg/L	0.001	19.2	23.8	20.2
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.017	0.02	0.018
Barium Ba	mg/L	0.00008	0.34	0.441	0.318
Beryllium Be	mg/L	0.000007	0.00651	0.00312	0.00559
Bismuth Bi	mg/L	0.00001	0.0012	0.0005	0.0013
Boron B	mg/L	0.002	0.06	0.03	0.05
Cadmium Cd	mg/L	0.000003	0.00121	0.00067	0.00086
Calcium Ca	mg/L	0.01	22.1	10.5	29.8
Chromium Cr	mg/L	0.00008	0.762	1.86	0.732
Cobalt Co	mg/L	0.000004	0.049	0.0291	0.042
Copper Cu	mg/L	0.001	0.1	0.14	0.13
Iron Fe	mg/L	0.007	106	98	104
Lead Pb	mg/L	0.00009	0.0621	0.0414	0.0553
Lithium Li	mg/L	0.0001	0.064	0.033	0.067
Magnesium Mg	mg/L	0.001	30.6	11.1	28.1
Manganese Mn	mg/L	0.00001	1.41	1.07	1.12
Mercury Hg	ug/L	0.01	0.03	0.02	0.03
Molybdenum Mo	mg/L	0.0004	0.039	0.101	0.041
Nickel Ni	mg/L	0.0001	0.201	0.147	0.182
Phosphorus P	mg/L	0.003	2.39	2.95	3.24
Potassium K	mg/L	0.009	3.11	2.71	2.92
Selenium Se	mg/L	0.00004	0.0004	< 0.0004	0.0007
Silicon Si	mg/L	0.02	35.7	25.5	38.3
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005	0.0006
Sodium Na	mg/L	0.01	95.3	47.2	65.2
Strontium Sr	mg/L	0.00008	0.0707	0.0899	0.103
Sulphur (S)	mg/L	5	< 50	< 50	< 50
Thallium Tl	mg/L	0.000005	0.0002	0.00022	0.00023
Tin Sn	mg/L	0.00006	< 0.0006	< 0.0006	< 0.0006
Titanium Ti	mg/L	0.0001	0.008	0.009	0.01
Uranium U	mg/L	0.000002	0.00296	0.00161	0.00267
Vanadium V	mg/L	0.00001	0.195	0.169	0.166
Zinc Zn	mg/L	0.002	0.34	0.19	0.38
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02	< 0.02

Tessier Extraction

Metals Bound to Fe and Mn Oxides
Reagent: 15 mL of 0.04M NH2OH. HCl in 25% HOAc

Sample			**MW-230 10ft to 20ft**	**MW-230 35ft to 40ft**	**MW-302 14ft to 19ft**
Initial sample weight (g)			1.0094	1.0171	1.0421
Reagent volume (mL)			15	15	15
Final diluted solution volume after wash and preservation (mL)			50	50	50
Parameter	**Units**	**RDL**			
Hardness CaCO3	mg/L	0.05	198	547	2140
Aluminum Al	mg/L	0.001	16.5	11.5	14
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.012	0.016	0.011
Barium Ba	mg/L	0.00008	0.264	1.33	0.328
Beryllium Be	mg/L	0.000007	0.00616	0.00571	0.00444
Bismuth Bi	mg/L	0.00001	0.0012	0.0005	0.0023
Boron B	mg/L	0.002	0.05	0.03	0.04
Cadmium Cd	mg/L	0.000003	0.00127	0.00053	0.00042
Calcium Ca	mg/L	0.01	30.2	125	439
Chromium Cr	mg/L	0.00008	0.768	1.3	0.88
Cobalt Co	mg/L	0.000004	0.0468	0.0363	0.0511
Copper Cu	mg/L	0.001	0.16	< 0.01	0.02
Iron Fe	mg/L	0.007	108	480	170
Lead Pb	mg/L	0.00009	0.0592	0.0301	0.074
Lithium Li	mg/L	0.0001	0.057	0.029	0.031
Magnesium Mg	mg/L	0.001	29.7	57.3	254
Manganese Mn	mg/L	0.00001	1.27	12.4	4.02
Mercury Hg	ug/L	0.01	0.03	< 0.01	0.01
Molybdenum Mo	mg/L	0.0004	0.033	0.038	0.065
Nickel Ni	mg/L	0.0001	0.197	0.105	0.128
Phosphorus P	mg/L	0.003	2.29	1.47	1.73
Potassium K	mg/L	0.009	2.78	2.03	2.64
Selenium Se	mg/L	0.00004	0.0007	< 0.0004	0.0005
Silicon Si	mg/L	0.02	34.6	15.1	16.6
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	98.5	39.2	25.2
Strontium Sr	mg/L	0.00008	0.0824	0.14	0.208
Sulphur (S)	mg/L	5	< 50	< 50	< 50
Thallium Tl	mg/L	0.000005	0.00022	0.00036	0.00016
Tin Sn	mg/L	0.00006	< 0.0006	< 0.0006	< 0.0006
Titanium Ti	mg/L	0.0001	0.008	0.012	0.015
Uranium U	mg/L	0.000002	0.00339	0.0062	0.00392
Vanadium V	mg/L	0.00001	0.179	0.209	0.147
Zinc Zn	mg/L	0.002	0.39	0.14	0.22
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02	< 0.02

Tessier Extraction

Metals Bound to Fe and Mn Oxides Reagent: 15 mL of 0.04M NH2OH. HCl in 25% HOAc				
Sample			**MW-PB1R 26ft to 36ft**	**Blank**
Initial sample weight (g)			1.0059	0.0000
Reagent volume (mL)			15	15
Final diluted solution volume after wash and preservation (mL)			50	50
Parameter	**Units**	**RDL**		
Hardness CaCO3	mg/L	0.05	290	2
Aluminum Al	mg/L	0.001	20.9	0.02
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.016	< 0.002
Barium Ba	mg/L	0.00008	0.793	< 0.0008
Beryllium Be	mg/L	0.000007	0.0056	< 0.00007
Bismuth Bi	mg/L	0.00001	0.0012	< 0.0001
Boron B	mg/L	0.002	0.1	< 0.02
Cadmium Cd	mg/L	0.000003	0.00118	< 0.00003
Calcium Ca	mg/L	0.01	54.3	0.7
Chromium Cr	mg/L	0.00008	0.478	0.0045
Cobalt Co	mg/L	0.000004	0.0498	0.00006
Copper Cu	mg/L	0.001	0.06	< 0.01
Iron Fe	mg/L	0.007	93	< 0.07
Lead Pb	mg/L	0.00009	0.0547	0.0016
Lithium Li	mg/L	0.0001	0.079	< 0.001
Magnesium Mg	mg/L	0.001	37.6	0.04
Manganese Mn	mg/L	0.00001	0.948	0.0006
Mercury Hg	ug/L	0.01	0.02	< 0.01
Molybdenum Mo	mg/L	0.0004	0.028	< 0.004
Nickel Ni	mg/L	0.0001	0.157	0.002
Phosphorus P	mg/L	0.003	2.39	< 0.03
Potassium K	mg/L	0.009	3.74	< 0.09
Selenium Se	mg/L	0.00004	0.0009	< 0.0004
Silicon Si	mg/L	0.02	32.3	< 0.2
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	64	< 0.1
Strontium Sr	mg/L	0.00008	0.152	< 0.0008
Sulphur (S)	mg/L	5	< 50	< 50
Thallium Tl	mg/L	0.000005	0.00024	< 0.00005
Tin Sn	mg/L	0.00006	< 0.0006	< 0.0006
Titanium Ti	mg/L	0.0001	0.011	< 0.001
Uranium U	mg/L	0.000002	0.00356	< 0.00002
Vanadium V	mg/L	0.00001	0.147	< 0.0001
Zinc Zn	mg/L	0.002	0.35	< 0.02
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02

Tessier Extraction

Metals Bound to Fe and Mn Oxides
Reagent: 15 mL of 0.04M NH2OH. HCl in 25% HOAc

Sample			MW-206 5ft to 10ft	MW-207 15ft to 20ft	MW-208 10ft to 15ft
Concentration leached relative to initial sample mass (no correction for blank is included)					
Parameter	**Units**	**RDL**			
Aluminum Al	mg/kg		1255.1	820.6	1179.9
Antimony Sb	mg/kg		<DL	<DL	<DL
Arsenic As	mg/kg		0.8	0.6	0.7
Barium Ba	mg/kg		17.7	46.7	87.8
Beryllium Be	mg/kg		0.1	0.3	0.1
Bismuth Bi	mg/kg		0.0	0.0	0.0
Boron B	mg/kg		1.5	2.0	<DL
Cadmium Cd	mg/kg		0.0	0.0	0.0
Calcium Ca	mg/kg		523.8	3003.8	1126.3
Chromium Cr	mg/kg		94.9	31.1	66.8
Cobalt Co	mg/kg		1.9	2.1	1.0
Copper Cu	mg/kg		4.9	1.5	4.4
Iron Fe	mg/kg		4881.9	3869.1	3281.3
Lead Pb	mg/kg		2.1	2.1	1.2
Lithium Li	mg/kg		1.8	2.3	1.3
Magnesium Mg	mg/kg		662.1	1705.8	565.6
Manganese Mn	mg/kg		44.1	57.7	66.8
Mercury Hg	ug/kg		0.5	0.5	1.0
Molybdenum Mo	mg/kg		5.3	1.2	5.0
Nickel Ni	mg/kg		8.0	9.1	3.9
Phosphorus P	mg/kg		133.9	99.5	135.1
Potassium K	mg/kg		151.2	113.9	147.2
Selenium Se	mg/kg		<DL	0.0	0.0
Silicon Si	mg/kg		1378.6	1337.8	1058.0
Silver Ag	mg/kg		<DL	<DL	<DL
Sodium Na	mg/kg		2040.7	2456.7	1062.9
Strontium Sr	mg/kg		4.2	5.4	7.7
Sulphur (S)	mg/kg		<DL	<DL	<DL
Thallium Tl	mg/kg		0.0	0.0	0.0
Tin Sn	mg/kg		<DL	<DL	<DL
Titanium Ti	mg/kg		0.4	0.6	0.8
Uranium U	mg/kg		0.1	0.1	0.1
Vanadium V	mg/kg		8.2	6.5	5.2
Zinc Zn	mg/kg		10.4	11.9	4.9
Zirconium Zr	mg/kg		<DL	<DL	<DL

Tessier Extraction

Metals Bound to Fe and Mn Oxides
Reagent: 15 mL of 0.04M NH2OH. HCl in 25% HOAc

Sample			MW-225 10ft to 15ft	MW-226 10ft to 15ft	MW-227 5ft to 10ft
Concentration leached relative to initial sample mas					
Parameter	**Units**	**RDL**			
Aluminum Al	mg/kg		916.0	1137.0	1003.3
Antimony Sb	mg/kg		<DL	<DL	<DL
Arsenic As	mg/kg		0.8	1.0	0.9
Barium Ba	mg/kg		16.2	21.1	15.8
Beryllium Be	mg/kg		0.3	0.1	0.3
Bismuth Bi	mg/kg		0.1	0.0	0.1
Boron B	mg/kg		2.9	1.4	2.5
Cadmium Cd	mg/kg		0.1	0.0	0.0
Calcium Ca	mg/kg		1054.4	501.6	1480.1
Chromium Cr	mg/kg		36.4	88.9	36.4
Cobalt Co	mg/kg		2.3	1.4	2.1
Copper Cu	mg/kg		4.8	6.7	6.5
Iron Fe	mg/kg		5057.3	4681.8	5165.4
Lead Pb	mg/kg		3.0	2.0	2.7
Lithium Li	mg/kg		3.1	1.6	3.3
Magnesium Mg	mg/kg		1459.9	530.3	1395.6
Manganese Mn	mg/kg		67.3	51.1	55.6
Mercury Hg	ug/kg		1.4	1.0	1.5
Molybdenum Mo	mg/kg		1.9	4.8	2.0
Nickel Ni	mg/kg		9.6	7.0	9.0
Phosphorus P	mg/kg		114.0	140.9	160.9
Potassium K	mg/kg		148.4	129.5	145.0
Selenium Se	mg/kg		0.0	<DL	0.0
Silicon Si	mg/kg		1703.2	1218.2	1902.3
Silver Ag	mg/kg		<DL	<DL	0.0
Sodium Na	mg/kg		4546.8	2254.9	3238.3
Strontium Sr	mg/kg		3.4	4.3	5.1
Sulphur (S)	mg/kg		<DL	<DL	<DL
Thallium Tl	mg/kg		0.0	0.0	0.0
Tin Sn	mg/kg		<DL	<DL	<DL
Titanium Ti	mg/kg		0.4	0.4	0.5
Uranium U	mg/kg		0.1	0.1	0.1
Vanadium V	mg/kg		9.3	8.1	8.2
Zinc Zn	mg/kg		16.2	9.1	18.9
Zirconium Zr	mg/kg		<DL	<DL	<DL

Tessier Extraction

Metals Bound to Fe and Mn Oxides
Reagent: 15 mL of 0.04M NH2OH. HCl in 25% HOAc

Sample			MW-230 10ft to 20ft	MW-230 35ft to 40ft	MW-302 14ft to 19ft
Concentration leached relative to initial sample mas					
Parameter	**Units**	**RDL**			
Aluminum Al	mg/kg		817.3	565.3	671.7
Antimony Sb	mg/kg		<DL	<DL	<DL
Arsenic As	mg/kg		0.6	0.8	0.5
Barium Ba	mg/kg		13.1	65.4	15.7
Beryllium Be	mg/kg		0.3	0.3	0.2
Bismuth Bi	mg/kg		0.1	0.0	0.1
Boron B	mg/kg		2.5	1.5	1.9
Cadmium Cd	mg/kg		0.1	0.0	0.0
Calcium Ca	mg/kg		1495.9	6144.9	21063.2
Chromium Cr	mg/kg		38.0	63.9	42.2
Cobalt Co	mg/kg		2.3	1.8	2.5
Copper Cu	mg/kg		7.9	<DL	1.0
Iron Fe	mg/kg		5349.7	23596.5	8156.6
Lead Pb	mg/kg		2.9	1.5	3.6
Lithium Li	mg/kg		2.8	1.4	1.5
Magnesium Mg	mg/kg		1471.2	2816.8	12186.9
Manganese Mn	mg/kg		62.9	609.6	192.9
Mercury Hg	ug/kg		1.5	<DL	0.5
Molybdenum Mo	mg/kg		1.6	1.9	3.1
Nickel Ni	mg/kg		9.8	5.2	6.1
Phosphorus P	mg/kg		113.4	72.3	83.0
Potassium K	mg/kg		137.7	99.8	126.7
Selenium Se	mg/kg		0.0	<DL	0.0
Silicon Si	mg/kg		1713.9	742.3	796.5
Silver Ag	mg/kg		<DL	<DL	<DL
Sodium Na	mg/kg		4879.1	1927.0	1209.1
Strontium Sr	mg/kg		4.1	6.9	10.0
Sulphur (S)	mg/kg		<DL	<DL	<DL
Thallium Tl	mg/kg		0.0	0.0	0.0
Tin Sn	mg/kg		<DL	<DL	<DL
Titanium Ti	mg/kg		0.4	0.6	0.7
Uranium U	mg/kg		0.2	0.3	0.2
Vanadium V	mg/kg		8.9	10.3	7.1
Zinc Zn	mg/kg		19.3	6.9	10.6
Zirconium Zr	mg/kg		<DL	<DL	<DL

Tessier Extraction

Metals Bound to Fe and Mn Oxides				
Reagent: 15 mL of 0.04M NH2OH. HCl in 25% HOAc				
Sample			**MW-PB1R 26ft to 36ft**	**Blank**
Concentration leached relative to initial sample mas				
Parameter	**Units**	**RDL**		
Aluminum Al	mg/kg		1038.9	
Antimony Sb	mg/kg		<DL	
Arsenic As	mg/kg		0.8	
Barium Ba	mg/kg		39.4	
Beryllium Be	mg/kg		0.3	
Bismuth Bi	mg/kg		0.1	
Boron B	mg/kg		5.0	
Cadmium Cd	mg/kg		0.1	
Calcium Ca	mg/kg		2699.1	
Chromium Cr	mg/kg		23.8	
Cobalt Co	mg/kg		2.5	
Copper Cu	mg/kg		3.0	
Iron Fe	mg/kg		4622.7	
Lead Pb	mg/kg		2.7	
Lithium Li	mg/kg		3.9	
Magnesium Mg	mg/kg		1869.0	
Manganese Mn	mg/kg		47.1	
Mercury Hg	ug/kg		1.0	
Molybdenum Mo	mg/kg		1.4	
Nickel Ni	mg/kg		7.8	
Phosphorus P	mg/kg		118.8	
Potassium K	mg/kg		185.9	
Selenium Se	mg/kg		0.0	
Silicon Si	mg/kg		1605.5	
Silver Ag	mg/kg		<DL	
Sodium Na	mg/kg		3181.2	
Strontium Sr	mg/kg		7.6	
Sulphur (S)	mg/kg		<DL	
Thallium Tl	mg/kg		0.0	
Tin Sn	mg/kg		<DL	
Titanium Ti	mg/kg		0.5	
Uranium U	mg/kg		0.2	
Vanadium V	mg/kg		7.3	
Zinc Zn	mg/kg		17.4	
Zirconium Zr	mg/kg		<DL	

Tessier Extraction

Metals Bound to Organics
Reagent: 3 mL of 0.02 M HNO3 + 5 mL 30% H2O2
+ 5 mL 1.2 M NH4OAc in 20% HNO3

Sample			MW-206 5ft to 10ft	MW-207 15ft to 20ft	MW-208 10ft to 15ft
Initial sample weight (g)			1.0119	1.0054	1.0255
Reagent volume (mL)			15	15	15
Final diluted solution volume after wash and preservation (mL)			50	50	50
Parameter	**Units**	**RDL**			
Hardness CaCO3	mg/L	0.05	49.8	97.2	40.2
Aluminum Al	mg/L	0.001	26.4	34	16
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.016	0.027	0.013
Barium Ba	mg/L	0.00008	0.198	0.466	1.53
Beryllium Be	mg/L	0.000007	0.00053	0.00095	0.0003
Bismuth Bi	mg/L	0.00001	< 0.0001	0.0004	< 0.0001
Boron B	mg/L	0.002	< 0.02	< 0.02	< 0.02
Cadmium Cd	mg/L	0.000003	0.0003	0.00034	0.00021
Calcium Ca	mg/L	0.01	5	14.7	7.1
Chromium Cr	mg/L	0.00008	0.22	0.557	0.127
Cobalt Co	mg/L	0.000004	0.0119	0.0202	0.00816
Copper Cu	mg/L	0.001	0.05	0.24	0.06
Iron Fe	mg/L	0.007	29	53.2	16.1
Lead Pb	mg/L	0.00009	0.0335	0.0611	0.0167
Lithium Li	mg/L	0.0001	0.021	0.031	0.013
Magnesium Mg	mg/L	0.001	9.03	14.7	5.47
Manganese Mn	mg/L	0.00001	0.268	0.412	0.2
Mercury Hg	ug/L	0.01	< 0.01	< 0.01	< 0.01
Molybdenum Mo	mg/L	0.0004	0.088	0.092	0.081
Nickel Ni	mg/L	0.0001	0.05	0.089	0.025
Phosphorus P	mg/L	0.003	7.62	10.4	7
Potassium K	mg/L	0.009	1.82	1.82	1.24
Selenium Se	mg/L	0.00004	0.0006	0.0033	0.0008
Silicon Si	mg/L	0.02	25.3	27.5	16
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	5.9	5.5	5.7
Strontium Sr	mg/L	0.00008	0.0515	0.0773	0.0963
Sulphur (S)	mg/L	5	< 50	< 50	< 50
Thallium Tl	mg/L	0.000005	0.00038	0.0007	0.00034
Tin Sn	mg/L	0.00006	0.0573	0.142	0.106
Titanium Ti	mg/L	0.0001	1.66	2.01	1.86
Uranium U	mg/L	0.000002	0.0034	0.0055	0.00246
Vanadium V	mg/L	0.00001	0.068	0.118	0.0399
Zinc Zn	mg/L	0.002	0.12	0.2	0.05
Zirconium Zr	mg/L	0.002	< 0.02	0.1	< 0.02

Concentration leached relative to initial sample mass (no correction for blank is included)

Parameter	Units	RDL			
Aluminum Al	mg/kg		1304.5	1690.9	780.1
Antimony Sb	mg/kg		<DL	<DL	<DL
Arsenic As	mg/kg		0.8	1.3	0.6
Barium Ba	mg/kg		9.8	23.2	74.6
Beryllium Be	mg/kg		0.0	0.0	0.0
Bismuth Bi	mg/kg		<DL	0.0	<DL
Boron B	mg/kg		<DL	<DL	<DL
Cadmium Cd	mg/kg		0.0	0.0	0.0
Calcium Ca	mg/kg		247.1	731.1	346.2
Chromium Cr	mg/kg		10.9	27.7	6.2
Cobalt Co	mg/kg		0.6	1.0	0.4
Copper Cu	mg/kg		2.5	11.9	2.9
Iron Fe	mg/kg		1432.9	2645.7	785.0
Lead Pb	mg/kg		1.7	3.0	0.8
Lithium Li	mg/kg		1.0	1.5	0.6
Magnesium Mg	mg/kg		446.2	731.1	266.7
Manganese Mn	mg/kg		13.2	20.5	9.8
Mercury Hg	ug/kg		<DL	<DL	<DL

Tessier Extraction

Metals Bound to Organics
Reagent: 3 mL of 0.02 M HNO3 + 5 mL 30% H2O2
+ 5 mL 1.2 M NH4OAc in 20% HNO3

Sample			MW-225 10ft to 15ft	MW-226 10ft to 15ft	MW-227 5ft to 10ft
Initial sample weight (g)			1.0480	1.0466	1.0067
Reagent volume (mL)			15	15	15
Final diluted solution volume after wash and preservation (mL)			50	50	50
Parameter	**Units**	**RDL**			
Hardness CaCO3	mg/L	0.05	108	46.9	91.6
Aluminum Al	mg/L	0.001	48.8	25.1	36
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.024	0.02	0.017
Barium Ba	mg/L	0.00008	0.236	0.218	0.222
Beryllium Be	mg/L	0.000007	0.00108	0.00046	0.00094
Bismuth Bi	mg/L	0.00001	0.0003	< 0.0001	0.0002
Boron B	mg/L	0.002	< 0.02	< 0.02	< 0.02
Cadmium Cd	mg/L	0.000003	0.00039	0.00028	0.0002
Calcium Ca	mg/L	0.01	11.1	5.3	9.7
Chromium Cr	mg/L	0.00008	0.274	0.284	0.192
Cobalt Co	mg/L	0.000004	0.0235	0.0109	0.0181
Copper Cu	mg/L	0.001	0.13	0.08	0.09
Iron Fe	mg/L	0.007	56.1	27.7	46.4
Lead Pb	mg/L	0.00009	0.0598	0.0315	0.0459
Lithium Li	mg/L	0.0001	0.035	0.018	0.032
Magnesium Mg	mg/L	0.001	19.5	8.2	16.4
Manganese Mn	mg/L	0.00001	0.551	0.247	0.429
Mercury Hg	ug/L	0.01	0.06	< 0.01	< 0.01
Molybdenum Mo	mg/L	0.0004	0.008	0.098	0.024
Nickel Ni	mg/L	0.0001	0.095	0.047	0.073
Phosphorus P	mg/L	0.003	9.02	7.89	8.79
Potassium K	mg/L	0.009	1.92	1.68	1.96
Selenium Se	mg/L	0.00004	0.0009	0.0008	0.0014
Silicon Si	mg/L	0.02	34.8	23.4	30.6
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	6.6	5.7	5.4
Strontium Sr	mg/L	0.00008	0.0655	0.0567	0.0595
Sulphur (S)	mg/L	5	< 50	< 50	< 50
Thallium Tl	mg/L	0.000005	0.00045	0.00039	0.00047
Tin Sn	mg/L	0.00006	0.0277	0.0542	0.0283
Titanium Ti	mg/L	0.0001	0.224	1.4	0.815
Uranium U	mg/L	0.000002	0.00405	0.00316	0.00367
Vanadium V	mg/L	0.00001	0.0978	0.066	0.0825
Zinc Zn	mg/L	0.002	0.26	0.11	0.21
Zirconium Zr	mg/L	0.002	0.03	0.02	< 0.02

Concentration leached relative to initial sample ma

Parameter	Units	RDL			
Aluminum Al	mg/kg		2328.2	1199.1	1788.0
Antimony Sb	mg/kg		<DL	<DL	<DL
Arsenic As	mg/kg		1.1	1.0	0.8
Barium Ba	mg/kg		11.3	10.4	11.0
Beryllium Be	mg/kg		0.1	0.0	0.0
Bismuth Bi	mg/kg		0.0	<DL	0.0
Boron B	mg/kg		<DL	<DL	<DL
Cadmium Cd	mg/kg		0.0	0.0	0.0
Calcium Ca	mg/kg		529.6	253.2	481.8
Chromium Cr	mg/kg		13.1	13.6	9.5
Cobalt Co	mg/kg		1.1	0.5	0.9
Copper Cu	mg/kg		6.2	3.8	4.5
Iron Fe	mg/kg		2676.5	1323.3	2304.6
Lead Pb	mg/kg		2.9	1.5	2.3
Lithium Li	mg/kg		1.7	0.9	1.6
Magnesium Mg	mg/kg		930.3	391.7	814.5
Manganese Mn	mg/kg		26.3	11.8	21.3
Mercury Hg	ug/kg		2.9	<DL	<DL

Tessier Extraction

Metals Bound to Organics
Reagent: 3 mL of 0.02 M HNO3 + 5 mL 30% H2O2
+ 5 mL 1.2 M NH4OAc in 20% HNO3

Sample			MW-230 10ft to 20ft	MW-230 35ft to 40ft	MW-302 14ft to 19ft
Initial sample weight (g)			1.0094	1.0171	1.0421
Reagent volume (mL)			15	15	15
Final diluted solution volume after wash and preservation (mL)			50	50	50
Parameter	**Units**	**RDL**			
Hardness CaCO3	mg/L	0.05	110	109	157
Aluminum Al	mg/L	0.001	42.6	29.5	33.2
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.019	0.338	0.027
Barium Ba	mg/L	0.00008	0.217	0.311	0.122
Beryllium Be	mg/L	0.000007	0.00118	0.00089	0.00084
Bismuth Bi	mg/L	0.00001	0.0003	0.0002	0.0003
Boron B	mg/L	0.002	< 0.02	< 0.02	< 0.02
Cadmium Cd	mg/L	0.000003	0.0003	0.00039	0.00036
Calcium Ca	mg/L	0.01	13.8	16.6	23.7
Chromium Cr	mg/L	0.00008	0.289	0.328	0.118
Cobalt Co	mg/L	0.000004	0.0213	0.0426	0.0234
Copper Cu	mg/L	0.001	0.26	0.3	0.25
Iron Fe	mg/L	0.007	51.2	240	55.6
Lead Pb	mg/L	0.00009	0.0729	0.0369	0.0407
Lithium Li	mg/L	0.0001	0.032	0.038	0.054
Magnesium Mg	mg/L	0.001	18.5	16.3	23.8
Manganese Mn	mg/L	0.00001	0.517	0.792	0.467
Mercury Hg	ug/L	0.01	0.09	0.11	< 0.01
Molybdenum Mo	mg/L	0.0004	0.011	0.061	0.026
Nickel Ni	mg/L	0.0001	0.091	0.126	0.06
Phosphorus P	mg/L	0.003	9.23	11	12.4
Potassium K	mg/L	0.009	1.81	1.76	1.89
Selenium Se	mg/L	0.00004	0.0013	0.0029	0.0011
Silicon Si	mg/L	0.02	32.7	28.4	27.2
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	6.8	6	4.7
Strontium Sr	mg/L	0.00008	0.0783	0.0936	0.0516
Sulphur (S)	mg/L	5	< 50	182	< 50
Thallium Tl	mg/L	0.000005	0.00041	0.00339	0.00055
Tin Sn	mg/L	0.00006	0.0294	0.149	0.0968
Titanium Ti	mg/L	0.0001	0.245	0.381	1.23
Uranium U	mg/L	0.000002	0.00594	0.00387	0.00367
Vanadium V	mg/L	0.00001	0.0866	0.0904	0.0633
Zinc Zn	mg/L	0.002	0.31	0.19	0.24
Zirconium Zr	mg/L	0.002	0.03	0.07	0.03

Concentration leached relative to initial sample ma

Parameter	Units	RDL			
Aluminum Al	mg/kg		2110.2	1450.2	1592.9
Antimony Sb	mg/kg		<DL	<DL	<DL
Arsenic As	mg/kg		0.9	16.6	1.3
Barium Ba	mg/kg		10.7	15.3	5.9
Beryllium Be	mg/kg		0.1	0.0	0.0
Bismuth Bi	mg/kg		0.0	0.0	0.0
Boron B	mg/kg		<DL	<DL	<DL
Cadmium Cd	mg/kg		0.0	0.0	0.0
Calcium Ca	mg/kg		683.6	816.0	1137.1
Chromium Cr	mg/kg		14.3	16.1	5.7
Cobalt Co	mg/kg		1.1	2.1	1.1
Copper Cu	mg/kg		12.9	14.7	12.0
Iron Fe	mg/kg		2536.2	11798.2	2667.7
Lead Pb	mg/kg		3.6	1.8	2.0
Lithium Li	mg/kg		1.6	1.9	2.6
Magnesium Mg	mg/kg		916.4	801.3	1141.9
Manganese Mn	mg/kg		25.6	38.9	22.4
Mercury Hg	ug/kg		4.5	5.4	<DL

Tessier Extraction

Metals Bound to Organics Reagent: 3 mL of 0.02 M HNO3 + 5 mL 30% H2O2 + 5 mL 1.2 M NH4OAc in 20% HNO3				
Sample			**MW-PB1R 26ft to 36ft**	**Blank**
Initial sample weight (g)			1.0059	0.0000
Reagent volume (mL)			15	15
Final diluted solution volume after wash and preservation (mL)			50	50
Parameter	**Units**	**RDL**		
Hardness CaCO3	mg/L	0.05	111	3.2
Aluminum Al	mg/L	0.001	44.5	0.05
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.024	< 0.002
Barium Ba	mg/L	0.00008	0.526	0.0015
Beryllium Be	mg/L	0.000007	0.00098	< 0.00007
Bismuth Bi	mg/L	0.00001	0.0003	< 0.0001
Boron B	mg/L	0.002	< 0.02	< 0.02
Cadmium Cd	mg/L	0.000003	0.00031	0.00008
Calcium Ca	mg/L	0.01	16.9	0.9
Chromium Cr	mg/L	0.00008	0.215	0.0093
Cobalt Co	mg/L	0.000004	0.0226	0.00013
Copper Cu	mg/L	0.001	0.24	< 0.01
Iron Fe	mg/L	0.007	51.1	< 0.07
Lead Pb	mg/L	0.00009	0.066	0.0023
Lithium Li	mg/L	0.0001	0.037	< 0.001
Magnesium Mg	mg/L	0.001	16.8	0.23
Manganese Mn	mg/L	0.00001	0.377	0.0009
Mercury Hg	ug/L	0.01	< 0.01	< 0.01
Molybdenum Mo	mg/L	0.0004	0.041	< 0.004
Nickel Ni	mg/L	0.0001	0.079	0.007
Phosphorus P	mg/L	0.003	10.5	6.55
Potassium K	mg/L	0.009	2.21	< 0.09
Selenium Se	mg/L	0.00004	0.0022	< 0.0004
Silicon Si	mg/L	0.02	29.6	< 0.2
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	5.6	4.7
Strontium Sr	mg/L	0.00008	0.116	0.0053
Sulphur (S)	mg/L	5	< 50	< 50
Thallium Tl	mg/L	0.000005	0.00059	< 0.00005
Tin Sn	mg/L	0.00006	0.0313	3.68
Titanium Ti	mg/L	0.0001	1.22	0.0011
Uranium U	mg/L	0.000002	0.00609	< 0.00002
Vanadium V	mg/L	0.00001	0.0969	0.0002
Zinc Zn	mg/L	0.002	0.24	< 0.02
Zirconium Zr	mg/L	0.002	0.05	< 0.02

Concentration leached relative to initial sample ma

Parameter	**Units**	**RDL**		
Aluminum Al	mg/kg		2211.9	
Antimony Sb	mg/kg		<DL	
Arsenic As	mg/kg		1.2	
Barium Ba	mg/kg		26.1	
Beryllium Be	mg/kg		0.0	
Bismuth Bi	mg/kg		0.0	
Boron B	mg/kg		<DL	
Cadmium Cd	mg/kg		0.0	
Calcium Ca	mg/kg		840.0	
Chromium Cr	mg/kg		10.7	
Cobalt Co	mg/kg		1.1	
Copper Cu	mg/kg		11.9	
Iron Fe	mg/kg		2540.0	
Lead Pb	mg/kg		3.3	
Lithium Li	mg/kg		1.8	
Magnesium Mg	mg/kg		835.1	
Manganese Mn	mg/kg		18.7	
Mercury Hg	ug/kg		<DL	

Tessier Extraction

Metals Bound to Organics
Reagent: 3 mL of 0.02 M HNO3 + 5 mL 30% H2O2
+ 5 mL 1.2 M NH4OAc in 20% HNO3

Sample			MW-206 5ft to 10ft	MW-207 15ft to 20ft	MW-208 10ft to 15ft
Molybdenum Mo	mg/kg		4.3	4.6	3.9
Nickel Ni	mg/kg		2.5	4.4	1.2
Phosphorus P	mg/kg		376.5	517.2	341.3
Potassium K	mg/kg		89.9	90.5	60.5
Selenium Se	mg/kg		0.0	0.2	0.0
Silicon Si	mg/kg		1250.1	1367.6	780.1
Silver Ag	mg/kg		<DL	<DL	<DL
Sodium Na	mg/kg		291.5	273.5	277.9
Strontium Sr	mg/kg		2.5	3.8	4.7
Sulphur (S)	mg/kg		<DL	<DL	<DL
Thallium Tl	mg/kg		0.0	0.0	0.0
Tin Sn	mg/kg		2.8	7.1	5.2
Titanium Ti	mg/kg		82.0	100.0	90.7
Uranium U	mg/kg		0.2	0.3	0.1
Vanadium V	mg/kg		3.4	5.9	1.9
Zinc Zn	mg/kg		5.9	9.9	2.4
Zirconium Zr	mg/kg		<DL	5.0	<DL

Tessier Extraction

Metals Bound to Organics
Reagent: 3 mL of 0.02 M HNO3 + 5 mL 30% H2O2
+ 5 mL 1.2 M NH4OAc in 20% HNO3

Sample			MW-225 10ft to 15ft	MW-226 10ft to 15ft	MW-227 5ft to 10ft
Molybdenum Mo	mg/kg		0.4	4.7	1.2
Nickel Ni	mg/kg		4.5	2.2	3.6
Phosphorus P	mg/kg		430.3	376.9	436.6
Potassium K	mg/kg		91.6	80.3	97.3
Selenium Se	mg/kg		0.0	0.0	0.1
Silicon Si	mg/kg		1660.3	1117.9	1519.8
Silver Ag	mg/kg		<DL	<DL	<DL
Sodium Na	mg/kg		314.9	272.3	268.2
Strontium Sr	mg/kg		3.1	2.7	3.0
Sulphur (S)	mg/kg		<DL	<DL	<DL
Thallium Tl	mg/kg		0.0	0.0	0.0
Tin Sn	mg/kg		1.3	2.6	1.4
Titanium Ti	mg/kg		10.7	66.9	40.5
Uranium U	mg/kg		0.2	0.2	0.2
Vanadium V	mg/kg		4.7	3.2	4.1
Zinc Zn	mg/kg		12.4	5.3	10.4
Zirconium Zr	mg/kg		1.4	1.0	<DL

Tessier Extraction

Metals Bound to Organics
Reagent: 3 mL of 0.02 M HNO3 + 5 mL 30% H2O2
+ 5 mL 1.2 M NH4OAc in 20% HNO3

Sample			MW-230 10ft to 20ft	MW-230 35ft to 40ft	MW-302 14ft to 19ft
Molybdenum Mo	mg/kg		0.5	3.0	1.2
Nickel Ni	mg/kg		4.5	6.2	2.9
Phosphorus P	mg/kg		457.2	540.8	595.0
Potassium K	mg/kg		89.7	86.5	90.7
Selenium Se	mg/kg		0.1	0.1	0.1
Silicon Si	mg/kg		1619.8	1396.1	1305.1
Silver Ag	mg/kg		<DL	<DL	<DL
Sodium Na	mg/kg		336.8	295.0	225.5
Strontium Sr	mg/kg		3.9	4.6	2.5
Sulphur (S)	mg/kg		<DL	8947.0	<DL
Thallium Tl	mg/kg		0.0	0.2	0.0
Tin Sn	mg/kg		1.5	7.3	4.6
Titanium Ti	mg/kg		12.1	18.7	59.0
Uranium U	mg/kg		0.3	0.2	0.2
Vanadium V	mg/kg		4.3	4.4	3.0
Zinc Zn	mg/kg		15.4	9.3	11.5
Zirconium Zr	mg/kg		1.5	3.4	1.4

Tessier Extraction

Metals Bound to Organics Reagent: 3 mL of 0.02 M HNO3 + 5 mL 30% H2O2 + 5 mL 1.2 M NH4OAc in 20% HNO3				
Sample			**MW-PB1R 26ft to 36ft**	**Blank**
Molybdenum Mo	mg/kg		2.0	
Nickel Ni	mg/kg		3.9	
Phosphorus P	mg/kg		521.9	
Potassium K	mg/kg		109.9	
Selenium Se	mg/kg		0.1	
Silicon Si	mg/kg		1471.3	
Silver Ag	mg/kg		<DL	
Sodium Na	mg/kg		278.4	
Strontium Sr	mg/kg		5.8	
Sulphur (S)	mg/kg		<DL	
Thallium Tl	mg/kg		0.0	
Tin Sn	mg/kg		1.6	
Titanium Ti	mg/kg		60.6	
Uranium U	mg/kg		0.3	
Vanadium V	mg/kg		4.8	
Zinc Zn	mg/kg		11.9	
Zirconium Zr	mg/kg		2.5	

SGS proposal: 20191-02 Sample receipt date: 29-Sep-25
SGS project #: 2550 Report date: 14-Nov-15

Version: Final

Metals - Multi-Acid Digestion with ICP-OES/MS Finish

Test	Residual wt	Al	Ba	Ca	Cr	Cu	Fe	K	Li	Mg	Mn	Na	Ni	P	S	Sr	Ti
Units	g	%	mg/kg	%	mg/kg	mg/kg	%	%	mg/kg	%	mg/kg	%	mg/kg	%	%	mg/kg	%
Method Code		ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12
Lower detection		0.01	1	0.01	1	0.5	0.01	0.01	1	0.01	2	0.01	1	0.01	0.01	0.5	0.01
Upper detection		15	10000	15	10000	10000	15	15	10000	15	10000	15	10000	15	5	10000	15
Measured concentration																	
MW-206 5ft to 10ft	0.9511	4.04	604	0.39	70	3.7	1.17	1.47	10	0.24	128	1.16	7	0.02	<0.01	174	0.17
MW-207 15ft to 20ft	0.8401	4.96	637	0.35	81	11.2	1.69	1.74	15	0.37	138	1.15	32	0.03	<0.01	156	0.22
MW-208 10ft to 15ft	0.9366	3.29	480	0.55	74	3.4	1.21	1.37	9	0.19	154	1.14	6	0.02	<0.01	162	0.08
MW-225 10ft to 15ft	0.927	6.02	621	0.32	79	10.8	1.84	1.86	18	0.54	130	0.99	13	0.03	<0.01	148	0.27
MW-226 10ft to 15ft	0.9875	3.88	583	0.39	66	5.2	1.14	1.46	10	0.23	118	1.10	6	0.02	<0.01	165	0.16
MW-227 5ft to 10ft	0.8723	6.05	654	0.3	102	8.9	1.81	1.96	19	0.53	126	1.03	12	0.03	<0.01	151	0.27
MW-230 10ft to 20ft	0.8418	6.45	646	0.34	89	12.1	1.87	1.88	19	0.57	137	1.09	42	0.03	<0.01	158	0.29
MW-230 35ft to 40ft	0.7189	5.31	691	0.6	121	5.9	1.75	1.89	18	0.63	169	1.29	21	0.02	0.02	168	0.21
MW-302 14ft to 19ft	0.727	5.99	479	0.11	65	5.8	1.35	2.73	29	0.62	92	0.91	9	0.02	<0.01	67.6	0.28
MW-PB1R 26ft to 36ft	0.8598	5.99	616	0.32	68	11.9	1.89	2.06	23	0.51	122	0.92	12	0.03	<0.01	144	0.31
*Rep MW-207 15ft to 20ft Residue		4.96	639	0.35	81	11.3	1.69	1.74	14	0.37	143	1.15	34	0.03	<0.01	157	0.22
Concentration relative to initial mass																	
MW-206 5ft to 10ft	1.0119	3.80	567.71	0.37	65.79	3.48	1.10	1.38	9.40	0.23	120.31	1.09	6.58	0.02	<DL	163.55	0.16
MW-207 15ft to 20ft	1.0054	4.14	532.27	0.29	67.68	9.36	1.41	1.45	12.53	0.31	115.31	0.96	26.74	0.03	<DL	130.35	0.18
MW-208 10ft to 15ft	1.0255	3.00	438.39	0.50	67.58	3.11	1.11	1.25	8.22	0.17	140.65	1.04	5.48	0.02	<DL	147.96	0.07
MW-225 10ft to 15ft	1.048	5.32	549.30	0.28	69.88	9.55	1.63	1.65	15.92	0.48	114.99	0.88	11.50	0.03	<DL	130.91	0.24
MW-226 10ft to 15ft	1.0466	3.66	550.08	0.37	62.27	4.91	1.08	1.38	9.44	0.22	111.34	1.04	5.66	0.02	<DL	155.68	0.15
MW-227 5ft to 10ft	1.0067	5.24	566.69	0.26	88.38	7.71	1.57	1.70	16.46	0.46	109.18	0.89	10.40	0.03	<DL	130.84	0.23
MW-230 10ft to 20ft	1.0094	5.38	538.74	0.28	74.22	10.09	1.56	1.57	15.85	0.48	114.25	0.91	35.03	0.03	<DL	131.77	0.24
MW-230 35ft to 40ft	1.0171	3.75	488.41	0.42	85.52	4.17	1.24	1.34	12.72	0.45	119.45	0.91	14.84	0.01	0.01	118.74	0.15
MW-302 14ft to 19ft	1.0421	4.18	334.16	0.08	45.35	4.05	0.94	1.90	20.23	0.43	64.18	0.63	6.28	0.01	<DL	47.16	0.20
MW-PB1R 26ft to 36ft	1.0059	5.12	526.53	0.27	58.12	10.17	1.62	1.76	19.66	0.44	104.28	0.79	10.26	0.03	<DL	123.08	0.26
QA/QC																	
Blank		<0.01	<1	<0.01	<1	<0.5	<0.01	<0.01	<1	<0.01	<2	<0.01	<1	<0.01	<0.01	<0.5	<0.01
Certified standards																	
*Std OREAS 681		7.96	408	5.73	1912	264.0	7.03	1.44	14	5.21	1332.0	1.63	477.0	0.2	0.12	461	0.59
*Std OREAS 609b		6.58	253	0.9	17	4700.0	2.72	2.71	32	0.14	230.0	1.86	7.0	0.0	2.31	214	0.12

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Test	V	Zn	Zr	Ag	As	Be	Bi	Cd	Ce	Co	Cs	Ga	Hf	In	La	Lu
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Method Code	ICP40Q12	ICP40Q12	ICP40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12
Lower detection	2	1	0.5	0.02	1	0.1	0.04	0.02	0.05	0.1	1	0.1	0.02	0.01	0.05	0.1
Upper detection	10000	10000	10000	100	10000	2500	10000	10000	1000	10000	1000	1000	500	1000	10000	1000
Measured concentration																
MW-206 5ft to 10ft	48	23	39.1	0.07	5	0.8	<0.04	<0.02	25.08	2.3	2	8.5	1.20	0.04	12.9	0.12
MW-207 15ft to 20ft	64	34	60.3	0.07	11	1	0.08	0.02	32.18	3.5	3	10.8	1.84	0.08	16.7	0.14
MW-208 10ft to 15ft	37	15	39.9	0.06	6	0.8	<0.04	0.03	17.23	2.4	<1	7.2	1.25	0.04	9.5	0.08
MW-225 10ft to 15ft	82	42	64.1	0.05	9	1.1	0.10	0.03	34.73	3.7	4	14.2	2.02	0.05	18.2	0.16
MW-226 10ft to 15ft	47	22	42.4	0.04	6	0.8	<0.04	0.02	24.61	2.3	2	8.4	1.23	0.04	12.9	0.13
MW-227 5ft to 10ft	79	39	66.1	0.05	6	1.1	0.10	<0.02	29.87	3.6	4	14.0	2.05	0.03	15.8	0.15
MW-230 10ft to 20ft	86	44	69.5	0.04	9	1.1	0.11	0.02	32.79	4.2	4	15.3	2.24	0.04	17.1	0.16
MW-230 35ft to 40ft	63	30	75.2	0.07	14	1.2	0.08	<0.02	34.15	4.8	3	12.5	2.20	0.08	17.7	0.15
MW-302 14ft to 19ft	58	26	99.7	0.07	3	1.5	0.08	<0.02	56.51	3.3	6	14.1	3.14	0.06	28.2	0.25
MW-PB1R 26ft to 36ft	88	44	88.5	0.08	9	1.3	0.13	0.03	39.54	4.1	5	14.5	2.71	0.07	21.1	0.21
*Rep MW-207 15ft to 20ft Residue	64	34	59.7	0.06	11	0.9	0.09	<0.02	30.93	3.5	3	11.1	1.84	0.07	16.4	0.15
Concentration relative to initial mass																
MW-206 5ft to 10ft	45.12	21.62	36.75	0.07	4.70	0.75	<DL	<DL	23.57	2.16	1.88	7.99	1.13	0.04	12.12	0.11
MW-207 15ft to 20ft	53.48	28.41	50.39	0.06	9.19	0.84	0.07	0.02	26.89	2.92	2.51	9.02	1.54	0.07	13.95	0.12
MW-208 10ft to 15ft	33.79	13.70	36.44	0.05	5.48	0.73	<DL	0.03	15.74	2.19	<DL	6.58	1.14	0.04	8.68	0.07
MW-225 10ft to 15ft	72.53	37.15	56.70	0.04	7.96	0.97	0.09	0.03	30.72	3.27	3.54	12.56	1.79	0.04	16.10	0.14
MW-226 10ft to 15ft	44.35	20.76	40.01	0.04	5.66	0.75	<DL	0.02	23.22	2.17	1.89	7.93	1.16	0.04	12.17	0.12
MW-227 5ft to 10ft	68.45	33.79	57.28	0.04	5.20	0.95	0.09	<DL	25.88	3.12	3.47	12.13	1.78	0.03	13.69	0.13
MW-230 10ft to 20ft	71.72	36.69	57.96	0.03	7.51	0.92	0.09	0.02	27.35	3.50	3.34	12.76	1.87	0.03	14.26	0.13
MW-230 35ft to 40ft	44.53	21.20	53.15	0.05	9.90	0.85	0.06	<DL	24.14	3.39	2.12	8.84	1.55	0.06	12.51	0.11
MW-302 14ft to 19ft	40.46	18.14	69.55	0.05	2.09	1.05	0.06	<DL	39.42	2.30	4.19	9.84	2.19	0.04	19.67	0.17
MW-PB1R 26ft to 36ft	75.22	37.61	75.65	0.07	7.69	1.11	0.11	0.03	33.80	3.50	4.27	12.39	2.32	0.06	18.04	0.18
QA/QC																
Blank	<2	<1	<0.5	<0.02	<1	<0.1	<0.04	<0.02	<0.05	<0.1	<1	<0.1	<0.02	<0.02	<0.1	<0.01
Certified standards																
*Std OREAS 681	254	88	54.9	0.14	1	1.7	0.09	0.07	41.29	49.8	4.00	17.3	1.68	0.0	19.2	0.29
*Std OREAS 609b	14	1307	175	24.46	1386	2.6	109	8.23	70.76	5.2	6.00	22.7	4.94	2.1	36.2	0.08

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Test	Mo	Nb	Pb	Rb	Sb	Sc	Se	Sn	Ta	Tb	Te	Th	Tl	U	W	Y	Yb
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ppm	ppm
Method Code	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12
Lower detection	0.5	0.2	0.05	0.5	2	0.3	0.05	0.05	0.05	0.2	0.02	0.05	0.1	0.1	0.1	0.05	0.1
Upper detection	10000	10000	10000	10000	1000	1000	10000	10000	1000	10000	10000	10000	10000	10000	1000	10000	100
Measured concentration																	
MW-206 5ft to 10ft	6.92	4.9	5.6	49.3	0.83	4.2	<2	213	0.37	0.19	<0.05	3.4	0.33	0.9	0.8	5.4	0.7
MW-207 15ft to 20ft	5.62	7.6	6.5	63.5	1.32	5.9	<2	246	0.55	0.22	<0.05	5.0	0.42	1.2	1.1	6.7	1.0
MW-208 10ft to 15ft	9.02	3.1	7.2	41.6	1.18	3.0	<2	203	0.23	0.13	<0.05	3.3	0.27	1.0	0.7	4.3	0.5
MW-225 10ft to 15ft	6.98	8.7	6.2	72.5	1.16	8.6	<2	226	0.71	0.21	<0.05	5.0	0.49	1.3	1.6	7.5	1.0
MW-226 10ft to 15ft	6.29	4.8	5.8	49.3	0.82	4.2	<2	202	0.32	0.16	<0.05	3.4	0.31	0.9	0.8	5.2	0.8
MW-227 5ft to 10ft	4.69	8.1	6.3	75.2	1.06	7.9	<2	262	0.58	0.20	<0.05	4.8	0.52	1.3	1.6	7.1	0.9
MW-230 10ft to 20ft	7.87	9.9	6.6	74.7	1.16	8.9	<2	250	0.80	0.22	<0.05	5.6	0.48	1.4	1.5	7.4	1.0
MW-230 35ft to 40ft	9.77	7.6	8.2	67.3	3.07	6.4	<2	281	0.52	0.23	<0.05	5.1	0.43	1.6	1.6	7.3	1.0
MW-302 14ft to 19ft	3.72	10.5	5.6	110.0	1.17	7.4	<2	289	0.80	0.35	<0.05	6.9	0.57	2.2	1.9	11.2	1.6
MW-PB1R 26ft to 36ft	3.85	10.5	7.9	85.7	0.99	8.2	<2	243	0.76	0.25	<0.05	6.5	0.57	2.0	1.6	8.9	1.3
*Rep MW-207 15ft to 20ft Residue	5.39	7.4	6.5	63.5	1.31	6.0	<2	251	0.51	0.20	<0.05	5.1	0.44	1.3	1.1	6.8	0.9
Concentration relative to initial mass																	
MW-206 5ft to 10ft	6.50	4.61	5.26	46.34	0.78	3.95	<DL	200.20	0.35	0.18	<DL	3.20	0.31	0.80	0.75	5.08	0.66
MW-207 15ft to 20ft	4.70	6.35	5.43	53.06	1.10	4.93	<DL	205.55	0.46	0.18	<DL	4.18	0.35	1.00	0.92	5.60	0.84
MW-208 10ft to 15ft	8.24	2.83	6.58	37.99	1.08	2.74	<DL	185.40	0.21	0.12	<DL	3.01	0.25	0.92	0.64	3.93	0.46
MW-225 10ft to 15ft	6.17	7.70	5.48	64.13	1.03	7.61	<DL	199.91	0.63	0.19	<DL	4.42	0.43	1.14	1.42	6.63	0.88
MW-226 10ft to 15ft	5.93	4.53	5.47	46.52	0.77	3.96	<DL	190.59	0.30	0.15	<DL	3.21	0.29	0.85	0.75	4.91	0.75
MW-227 5ft to 10ft	4.06	7.02	5.46	65.16	0.92	6.85	<DL	227.02	0.50	0.17	<DL	4.16	0.45	1.14	1.39	6.15	0.78
MW-230 10ft to 20ft	6.56	8.26	5.50	62.30	0.97	7.42	<DL	208.49	0.67	0.18	<DL	4.67	0.40	1.18	1.25	6.17	0.83
MW-230 35ft to 40ft	6.91	5.37	5.80	47.57	2.17	4.52	<DL	198.61	0.37	0.16	<DL	3.60	0.30	1.16	1.13	5.16	0.71
MW-302 14ft to 19ft	2.60	7.33	3.91	76.74	0.82	5.16	<DL	201.62	0.56	0.24	<DL	4.81	0.40	1.56	1.33	7.81	1.12
MW-PB1R 26ft to 36ft	3.29	8.97	6.75	73.25	0.85	7.01	<DL	207.71	0.65	0.21	<DL	5.56	0.49	1.67	1.37	7.61	1.11
QA/QC																	
Blank	<0.05	<0.1	<0.5	<0.2	<0.05	<0.5	<2	<0.3	<0.05	<0.05	<0.05	<0.2	<0.02	<0.05	<0.1	<0.1	<0.1
Certified standards																	
*Std OREAS 681	1.57	7.5	9.700	79.80	0.35	28.5	<2	2	1.41	0.61	0.15	6.2	0.18	1.4	1.1	17.00	1.9
*Std OREAS 609b	5.57	14.4	425.000	108.00	165	3.9	13.0	11.7	1.11	0.59	22.30	12.1	1.46	4.4	4.2	11.20	0.6

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Metals - Multi Acid Digestion with ICP-OES/MS Finish - CRM Expected Values and Tolerance

CRM	Test	Al	Ba	Ca	Cr	Cu	Fe	K	Li	Mg	Mn	Na	Ni	P	S	Sr	Ti	V
	Units	%	ppm	%	ppm	ppm	%	%	ppm	%	ppm	%	ppm	%	%	ppm	%	ppm
Method Code	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12
	Lower detection	0.01	1	0.01	1	0.5	0.01	0.01	1	0.01	2	0.01	1	0.01	0.01	0.5	0.01	2
	Upper detection	15	10000	15	10000	10000	15	15	10000	15	10000	15	10000	15	5	10000	15	10000
OREAS 905	Expected value	7.42	2699.0	0.59	19.2	1533	4.08	2.88	20	0.28	380	2.40	9.5	0.028	0.07	157	0.12	10.1
	Tolerance (%)	10.7	14.0	14.2	49.1	11.9	11.5	12.1	23.9	17.2	13.0	14.1	26.5	24.6	29.4	12.5	15.4	28.6
OREAS 601B	Expected value	6.63	BDL	0.887	23.7	1010	2.29	2.41	22.6	0.10	222	1.90	6.5	0.029	1.50	241	0.14	12.1
	Tolerance (%)	10.1		14.9	37.6	6.8	10.7	9.4	26.3	20.0	11.1	14.3	30.9	15.1	7.2	14.7	11.8	21.7
OREAS 609B	Expected value	6.71		0.939	19.9	4980	2.89	2.53	30.9	0.147	230	1.91	7.35	0.033	2.27	219	0.122	14.4
	Tolerance (%)	10.37		11.33	<=28	10.03	10.87	10.99	18.09	13.40	12.17	10.65	44.01	17.58	10.55	10.57	12.05	44.72
OREAS 681	Expected value	7.91	442	5.98	1642	264	7.47	1.35	13	5.19	1310	1.61	503	0.141	0.109	478	0.588	253
	Tolerance (%)	10.32	10.57	10.21	15.15	10.47	10.33	11.85	29.23	10.10	10.38	10.78	10.50	11.77	21.47	10.26	10.43	11.98

CRM	Test	Zn	Zr	Ag	As	Be	Bi	Cd	Ce	Co	Cs	Ga	Hf	In	La	Lu	Mo	Nb
	Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Method Code	ICP40Q12	ICP40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12
	Lower detection	1	0.5	0.02	1	0.1	0.04	0.02	0.05	0.1	1	0.1	0.02	0.02	0.1	0.01	0.05	0.1
	Upper detection	10000	10000	100	10000	2500	10000	10000	1000	10000	1000	1000	500	500	10000	1000	10000	1000
OREAS 905	Expected value	138	252.000	0.52	34.7	3.04	5.7	0.36	92	14.8	6.78	25.1	6.8	0.64	46	0.1	3.27	18.1
	Tolerance (%)	14.5	13.7	55.1	15.0	31.2	17.7	37.7	14.0	16.3	18.0	12.2	16.5	22.3	19.4	43.4	24.0	18.1
OREAS 601B	Expected value	318	186.000	50.10	284	2.24	18.0	2.05	70	2.97	4.88	23.4	5.1	0.47	33.5	0.0731	5.22	14.4
	Tolerance (%)	5.6	17.0	10.4	19.2	44.2	19.0	16.3	35.5	18.6	11.4	22.9	17.4	17.0	22.6	54.6	27.1	21.7
OREAS 609B	Expected value	1,308	181	24.6	1,500	2.43	110	8.16	71	5.43	5.28	23	5	2.05	35.3	0.083	5.54	14.6
	Tolerance (%)	10.19	10.69	10.20	10.17	15.14	10.02	10.61	10.18	14.60	12.37	10.54	11.00	10.61	10.35	40.12	12.26	11.71
OREAS 681	Expected value	88	58	0.118		1.41	0.098		40.6	51	4.02	17.6	1.7	0.042	18.8	0.27	1.38	6.17
	Tolerance (%)	12.84	12.16	52.37		18.87	35.51		10.31	10.49	13.11	10.71	12.94	39.76	10.66	19.26	19.06	14.05

CRM	Test	Pb	Rb	Sb	Sc	Se	Sn	Ta	Tb	Te	Th	Tl	U	W	Y	Yb
	Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Method Code	ICP40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	
	Lower detection	0.5	0.2	0.05	0.5	2	0.3	0.05	0.05	0.05	0.2	0.02	0.05	0.1	0.1	0.1
	Upper detection	10000	10000	10000	10000	1000	1000	10000	10000	1000	10000	10000	10000	10000	10000	1000
OREAS 905	Expected value	30.40	138	1.95	4.9	2.84	3.96	1.34	0.77	0.1	14.60	0.7	5.0	2.78	15.7	0.68
	Tolerance (%)	20.7	13.8	19.7	28.2	34.0	20.5	18.5	27.1	58.3	15.6	22.9	18.4	18.8	15.4	21.2
OREAS 601B	Expected value	318.0	98	22.9	3.8	10.6	3.36	1.11	0.52	12.6	11.90	1.4	4.6	6.13	11.1	0.54
	Tolerance (%)	14.7	10.9	27.4	19.0	31.2	15.8	20.6	40.4	22.8	20.7	19.2	14.0	16.6	13.7	30.4
OREAS 609B	Expected value	448	109	158	3.73	15.5	11.6	1.07	0.57	21.5	12.2		4.26	4.42	11.4	0.56
	Tolerance (%)	10.28	10.23	10.08	16.70	26.13	14.31	26.68	31.93	10.58	10.20		12.93	20.66	12.19	54.64
OREAS 681	Expected value	10.2	80	0.24	27.7		1.89	0.42	0.58		6.55		1.44	1.09	17.5	1.77
	Tolerance (%)	22.25	10.31	62.08	10.90		36.46	44.76	31.55		10.38		18.68	37.94	11.43	24.12

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Quantitative X-Ray Diffraction by Rietveld Refinement

Report Prepared for:	*WSP USA Inc* *7245 West Alaska Druive, Suite 200 Lakewood, CO 80226, USA*
Project Number/ LIMS No.	*20191-02/MI7023-AUG25*
Sample Receipt:	*August 28, 2025*
Sample Analysis:	*August 28, 2025*
Reporting Date:	*December 3, 2025*

Instrument:	Panalytical X'pert Pro Diffractometer
Test Conditions:	Co radiation, 40 kV, 45 mA Regular Scanning: Step: 0.033°, Step time:0.15s, 2θ range: 5-80° Clay Section Scanning: Step: 0.02°, Step time:0.5s, 2θ range: 3-40°
Interpretations :	PDF2/PDF4 powder diffraction databases issued by the International Center for Diffraction Data (ICDD). Diffrac Eva and Topas software.
Detection Limit :	0.5-2%. Strongly dependent on crystallinity.

Contents:

1) Method Summary
2) Quantitative XRD Results
3) XRD Pattern(s)

Zhihai (Adrian) Zhang, Ph.D.
Mineralogist

Huyun Zhou, Ph.D., P.Geo.
Senior Mineralogist

Method Summary

Mineral Identification and Interpretation:

Mineral identification and interpretation involves matching the diffraction pattern of an unknown material to patterns of single-phase reference materials. The reference patterns are compiled by the Joint Committee on Powder Diffraction Standards - International Center for Diffraction Data (JCPDS-ICDD) database and released on software as Powder Diffraction Files (PDF).

Interpretations do not reflect the presence of non-crystalline and/or amorphous compounds, except when internal standards have been added by request. Mineral proportions may be strongly influenced by crystallinity, crystal structure and preferred orientations. Mineral or compound identification and quantitative analysis results should be accompanied by supporting chemical assay data or other additional tests.

Clay Mineral Separation and Identification:

Clay minerals are typically fine-grained (<2 µm) phyllosilicates in sedimentary rock. Due to the poor crystallinity and fine size of clay minerals, separation of the clay fraction from bulk samples by centrifuge is required. A slide of the oriented clay fraction is prepared and scanned followed by a series of procedures (the addition of ethylene glycol and high temperature heating). Clay minerals are identified by their individual diffraction patterns and changes in their diffraction pattern after different treatments. Clay speciation and mineral identification of the bulk sample are performed using Diffrac Eva (Bruker).

Quantitative Rietveld Analysis:

Quantitative Rietveld Analysis is performed by using Diffrac Topas 7 (Bruker), a graphics based profile analysis program built around a non-linear least squares fitting system, to determine the amount of different phases present in a multicomponent sample. Whole pattern analyses are predicated by the fact that the X-ray diffraction pattern is a total sum of both instrumental and specimen factors. Unlike other peak intensity-based methods, the Rietveld method uses a least squares approach to refine a theoretical line profile until it matches the obtained experimental patterns.

Rietveld refinement is completed with a set of minerals specifically identified for the sample. Zero values indicate that the mineral was included in the refinement calculations, but the calculated concentration was less than 0.05wt%. Minerals not identified by the analyst are not included in refinement calculations for specific samples and are indicated with a dash.

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WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was(were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativeness of any goods and strictly relate to the sample(s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted.

Summary of Rietveld Quantitative Analysis X-Ray Diffraction Results

Mineral/Compound	MW-206 5ft to 10ft AUG7023-1 (wt %)	MW-207 15ft to 20ft AUG7023-2 (wt %)	MW-208 10ft to 15ft AUG7023-3 (wt %)	MW-225 10ft to 15ft AUG7023-4 (wt %)	MW-226 10ft to 15ft AUG7023-5 (wt %)
Quartz	61.4	49.7	63.6	43.0	65.3
Albite	14.9	15.3	15.4	11.9	11.4
Microcline	5.3	4.0	3.0	4.8	6.0
Biotite	1.8	1.3	1.7	1.1	2.1
Muscovite	5.0	7.9	2.9	15.4	5.1
Chlorite	1.2	1.8	0.9	2.0	1.5
Diopside	1.3	1.1	2.3	1.3	1.5
Calcite	0.4	5.1	1.9	1.9	0.3
Magnetite	0.2	0.2	0.2	0.3	0.3
Ankerite	0.6	0.9	1.5	0.8	0.0
Dolomite	0.0	3.1	2.5	0.6	0.0
Rhodochrosite	0.5	0.7	0.6	0.3	0.4
Rutile	0.1	0.3	0.3	0.2	0.1
Ilmenite	0.4	0.2	0.5	0.4	0.6
Pyrite	0.1	0.1	0.0	0.1	-
Amphibole	-	-	1.2	0.2	-
Fluorapatite	-	-	-	-	-
Gehlenite	-	-	-	-	-
Pyrrhotite	-	-	-	-	0.2
Clay					
Illite	3.5	2.1	0.8	4.2	2.5
Illite-Montmorillonite	0.1	0.6	0.1	2.1	1.5
Montmorillonite	2.0	4.4	0.0	6.8	0.4
Kaolinite	1.2	1.5	0.7	2.6	0.9
TOTAL	100	100	100	100	100

Zero values indicate that the mineral was included in the refinement, but the calculated concentration is below a measurable value.

Dashes indicate that the mineral was not identified by the analyst and not included in the refinement calculation for the sample.

The weight percent quantities indicated have been normalized to a sum of 100%. The quantity of amorphous material has not been determined.

Mineral/Compound	Formula
Quartz	SiO_2
Albite	$NaAlSi_3O_8$
Microcline	$KAlSi_3O_8$
Biotite	$K(Mg,Fe)_3(AlSi_3O_{10})(OH)_2$
Muscovite	$KAl_2(AlSi_3O_{10})(OH)_2$
Chlorite	$(Fe,(Mg,Mn)_5,Al)(Si_3Al)O_{10}(OH)_8$
Diopside	$CaMgSi_2O_6$
Calcite	$CaCO_3$
Magnetite	Fe_3O_4
Ankerite	$CaFe(CO_3)_2$
Dolomite	$CaMg(CO_3)_2$
Rhodochrosite	$MnCO_3$
Rutile	TiO_2
Ilmenite	$FeTiO_3$
Pyrite	FeS_2
Amphibole	$(Na,K)Ca_2(Fe,Mg)_5(Al,Si)_8O_{22}(OH)_2$
Fluorapatite	$Ca_5(PO_4)_3F$
Gehlenite	$Ca_2Al(AlSi)O_7$
Pyrrhotite	Fe_8S_9
Illite	$(K,H_3O)(Al,Mg,Fe)_2(Si,Al)_4O_{10}[(OH)_2,(H_2O)]$
Illite-Montmorillonite	$KAl_4(Si,Al)_8O_{20}(OH)_4 \cdot 8H_2O$
Montmorillonite	$(Na,Ca)_{0.3}(Al,Mg)_2Si_2O_{10}(OH)_2 \cdot nH_2O$
Kaolinite	$Al_2Si_2O_5(OH)_4$

Summary of Rietveld Quantitative Analysis X-Ray Diffraction Results

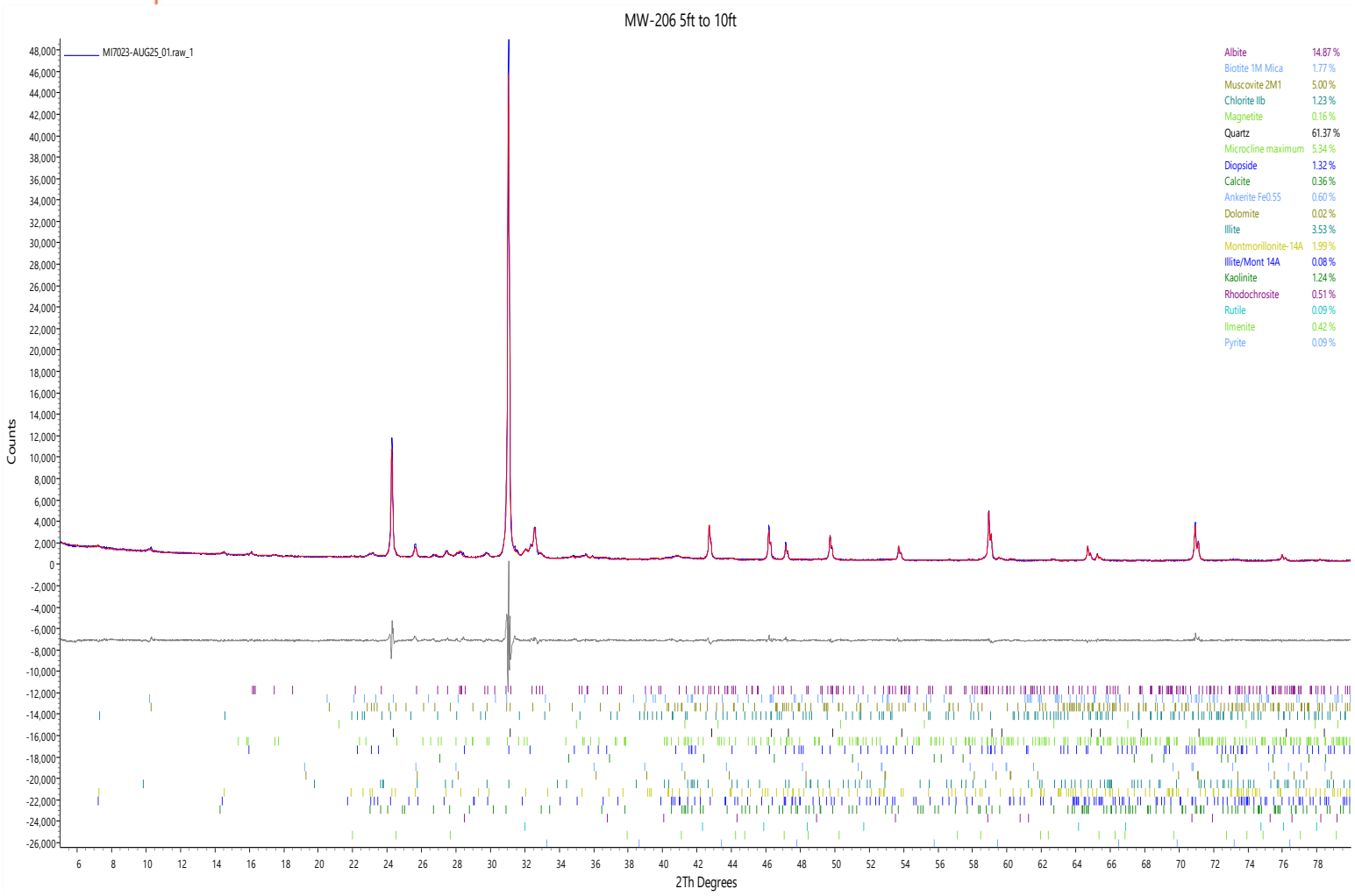
Mineral/Compound	MW-227 5ft to 10ft AUG7023-6 (wt %)	MW-230 10ft to 20ft AUG7023-7 (wt %)	MW-230 35ft to 40ft AUG7023-8 (wt %)	MW-302 14ft to 19ft AUG7023-9 (wt %)	MW-PB1R 26ft to 36ft AUG7023-10 (wt %)
Quartz	45.9	41.9	43.2	38.8	46.3
Albite	12.5	12.8	12.2	8.2	10.4
Microcline	6.0	5.3	5.2	4.7	5.5
Biotite	0.7	0.6	0.7	0.9	1.2
Muscovite	15.1	15.2	10.1	12.4	12.2
Chlorite	1.2	2.5	2.0	2.8	3.1
Diopside	1.2	0.9	1.4	0.8	0.8
Calcite	4.4	1.9	1.2	6.9	2.6
Magnetite	0.0	0.1	0.0	0.0	0.2
Ankerite	1.0	0.8	1.3	2.2	0.5
Dolomite	1.0	1.1	3.3	16.1	2.8
Rhodochrosite	0.1	0.3	-	-	-
Rutile	0.3	0.4	0.1	0.0	0.3
Ilmenite	0.3	0.3	0.5	0.4	0.3
Pyrite	0.1	0.0	1.6	0.1	0.2
Amphibole	-	-	0.8	0.5	0.3
Fluorapatite	-	-	2.8	0.3	0.1
Gehlenite	-	-	5.1	1.1	0.9
Pyrrhotite	-	-	-	-	-
Clay					
Illite	2.3	5.6	5.3	2.2	4.1
Illite-Montmorillonite	0.7	0.3	0.1	0.0	0.0
Montmorillonite	5.7	8.8	2.8	1.1	6.8
Kaolinite	1.6	1.1	0.3	0.4	1.6
TOTAL	100	100	100	100	100

Zero values indicate that the mineral was included in the refinement, but the calculated concentration is below a measurable value.

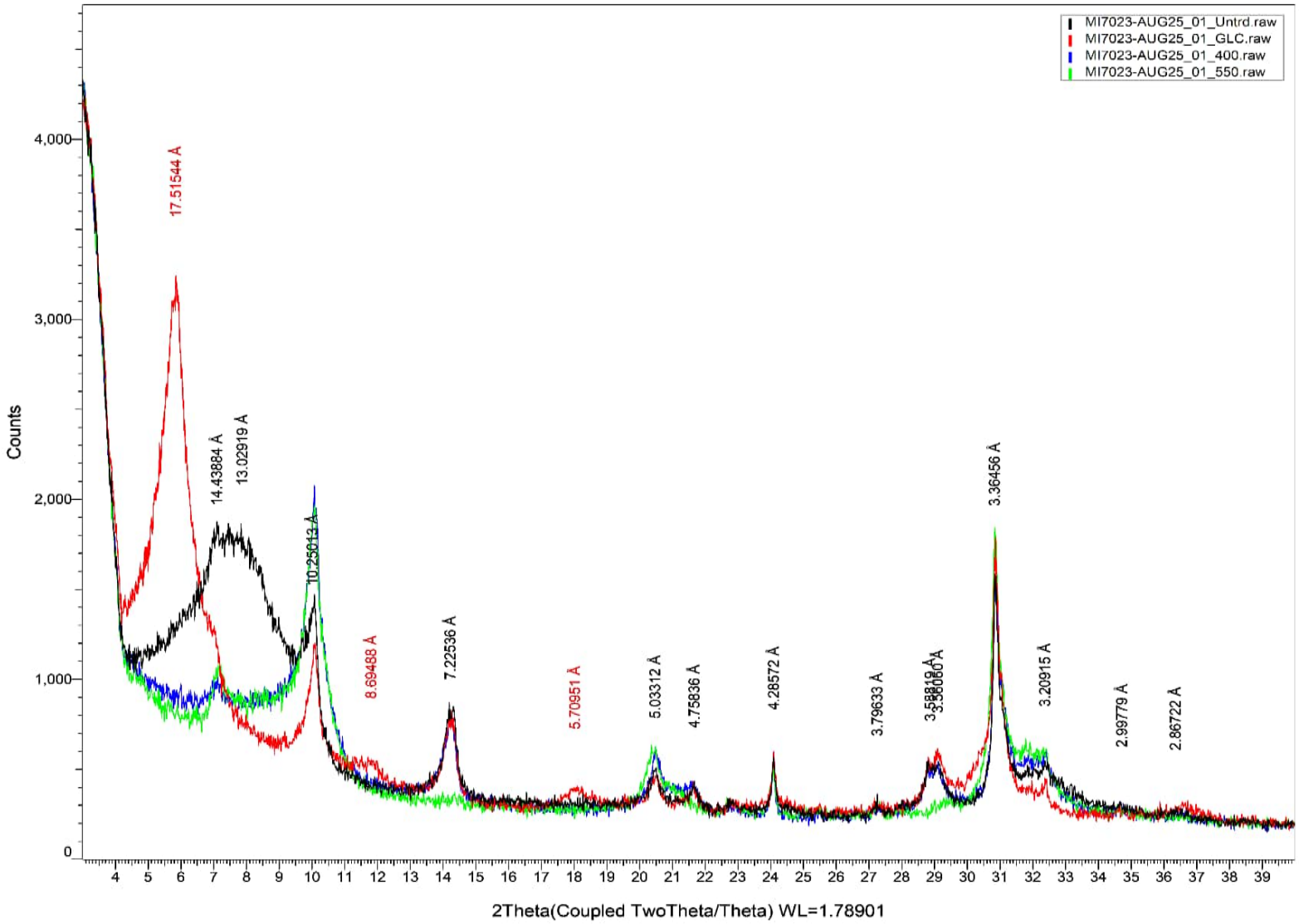
Dashes indicate that the mineral was not identified by the analyst and not included in the refinement calculation for the sample.

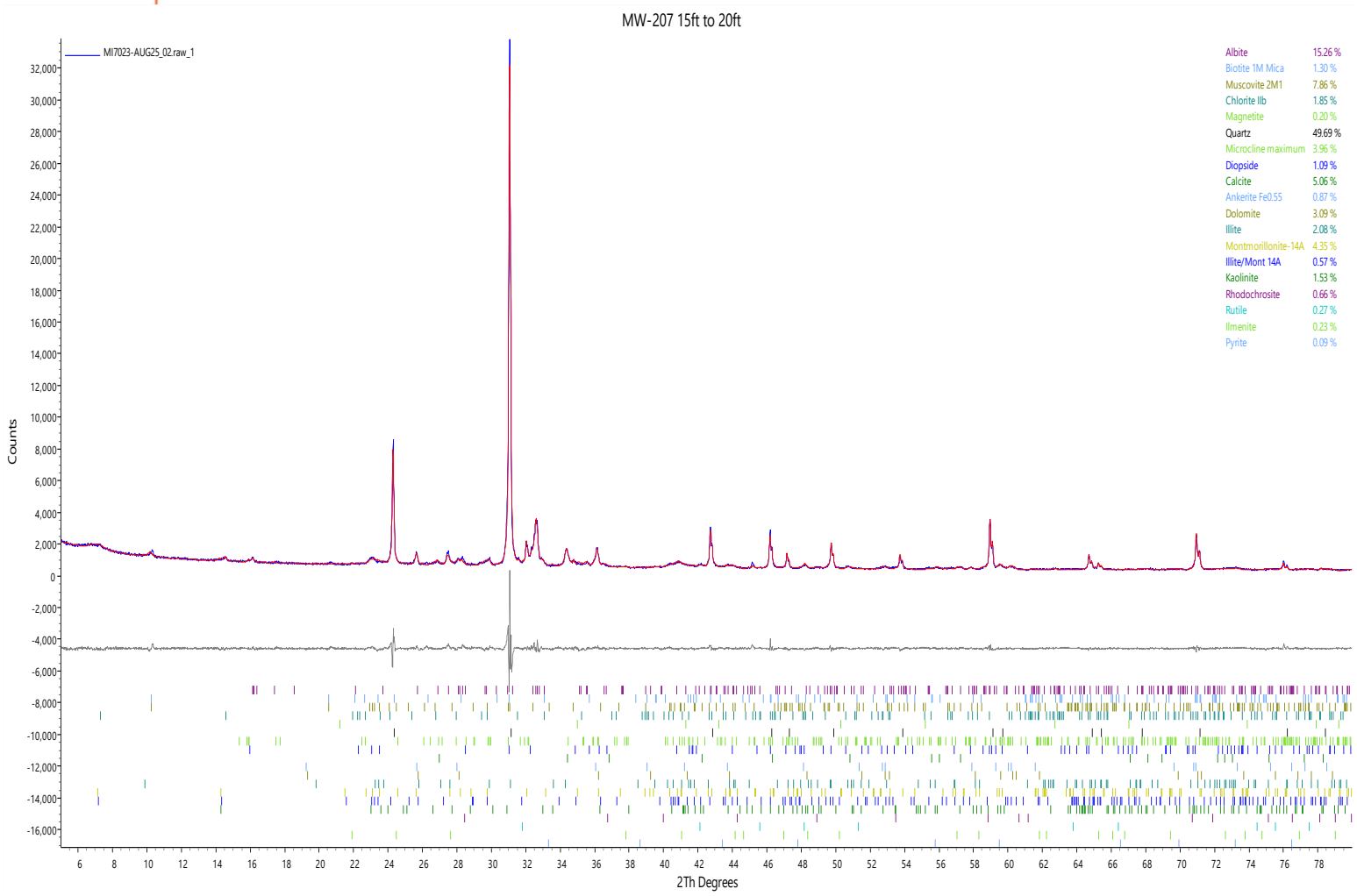
The weight percent quantities indicated have been normalized to a sum of 100%. The quantity of amorphous material has not been determined.

Mineral/Compound	Formula
Quartz	SiO_2
Albite	$NaAlSi_3O_8$
Microcline	$KAlSi_3O_8$
Biotite	$K(Mg,Fe)_3(AlSi_3O_{10})(OH)_2$
Muscovite	$KAl_2(AlSi_3O_{10})(OH)_2$
Chlorite	$(Fe,(Mg,Mn)_5,Al)(Si_3Al)O_{10}(OH)_8$
Diopside	$CaMgSi_2O_6$
Calcite	$CaCO_3$
Magnetite	Fe_3O_4
Ankerite	$CaFe(CO_3)_2$
Dolomite	$CaMg(CO_3)_2$
Rhodochrosite	$MnCO_3$
Rutile	TiO_2
Ilmenite	$FeTiO_3$
Pyrite	FeS_2
Amphibole	$(Na,K)Ca_2(Fe,Mg)_5(Al,Si)_8O_{22}(OH)_2$
Fluorapatite	$Ca_5(PO_4)_3F$
Gehlenite	$Ca_2Al(AlSi)O_7$
Pyrrhotite	Fe_8S_9
Illite	$(K,H_3O)(Al,Mg,Fe)_2(Si,Al)_4O_{10}[(OH)_2,(H_2O)]$
Illite-Montmorillonite	$KAl_4(Si,Al)_8O_{20}(OH)_4 \cdot 8H_2O$
Montmorillonite	$(Na,Ca)_{0.3}(Al,Mg)_2Si_2O_{10}(OH)_2 \cdot nH_2O$
Kaolinite	$Al_2Si_2O_5(OH)_4$

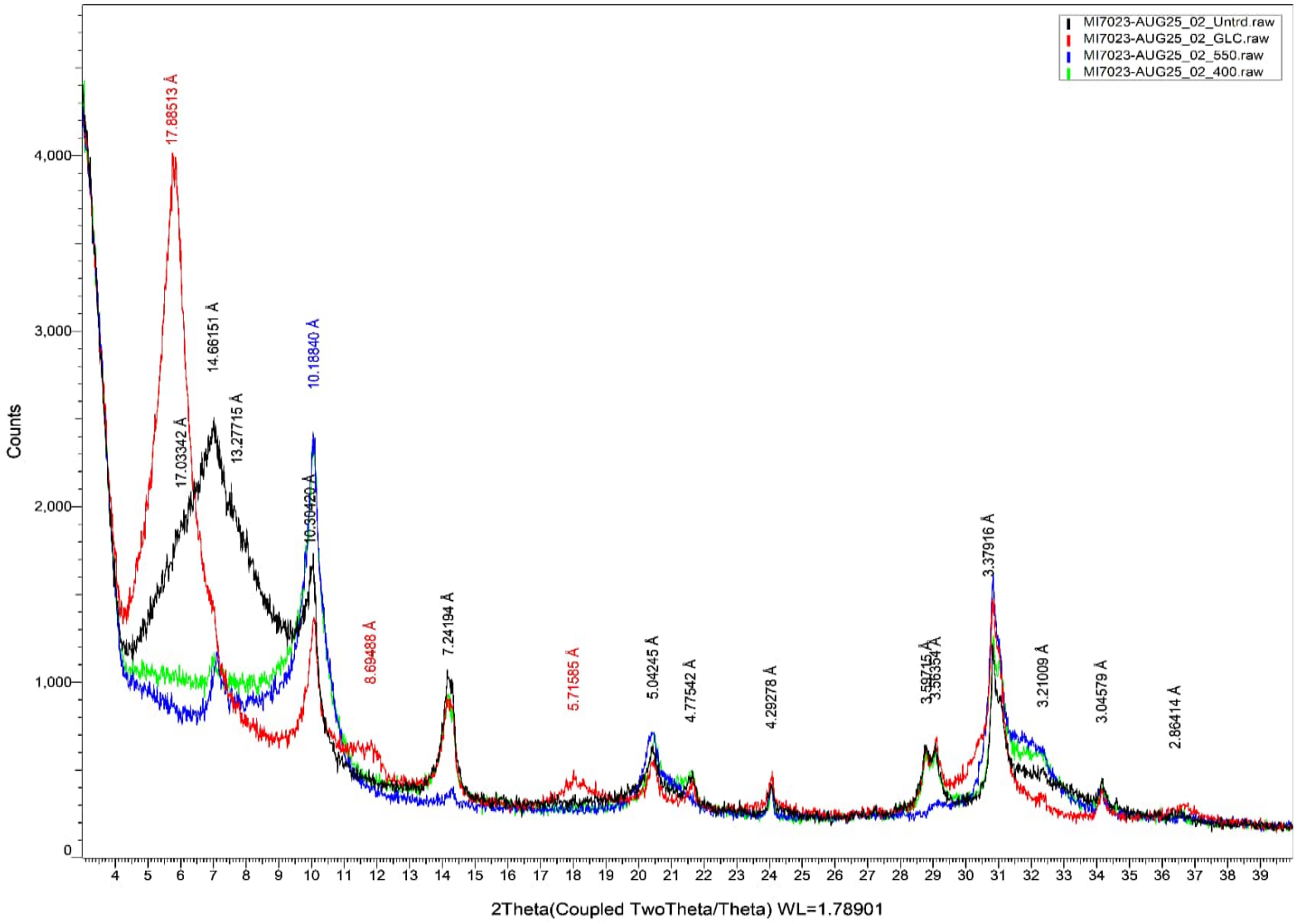

MW-206 5ft to 10ft
MI7023-AUG25_01.raw_1
Albite 14.87 %
Biotite 1M Mica 1.77 %
Muscovite 2M1 5.00 %
Chlorite IIb 1.23 %
Magnetite 0.16 %
Quartz 61.37 %
Microcline maximum 5.34 %
Diopside 1.32 %
Calcite 0.36 %
Ankerite Fe0.55 0.60 %
Dolomite 0.02 %
Illite 3.53 %
Montmorillonite-14A 1.99 %
Illite/Mont 14A 0.08 %
Kaolinite 1.24 %
Rhodochrosite 0.51 %
Rutile 0.09 %
Ilmenite 0.42 %
Pyrite 0.09 %
Counts
2Th Degrees

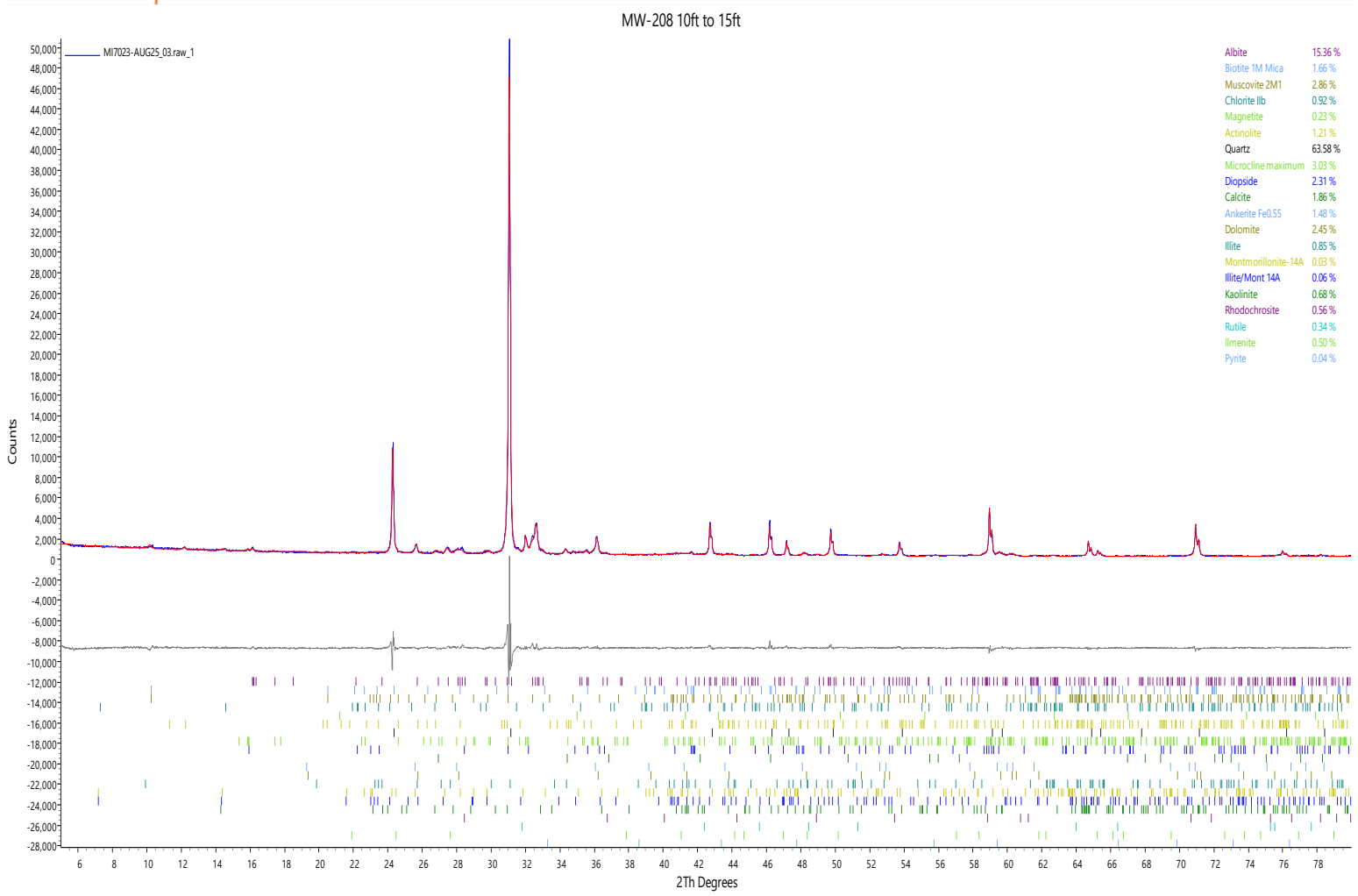
MI7023-AUG25_01_Clay.raw **MW-206 5ft to 10ft**



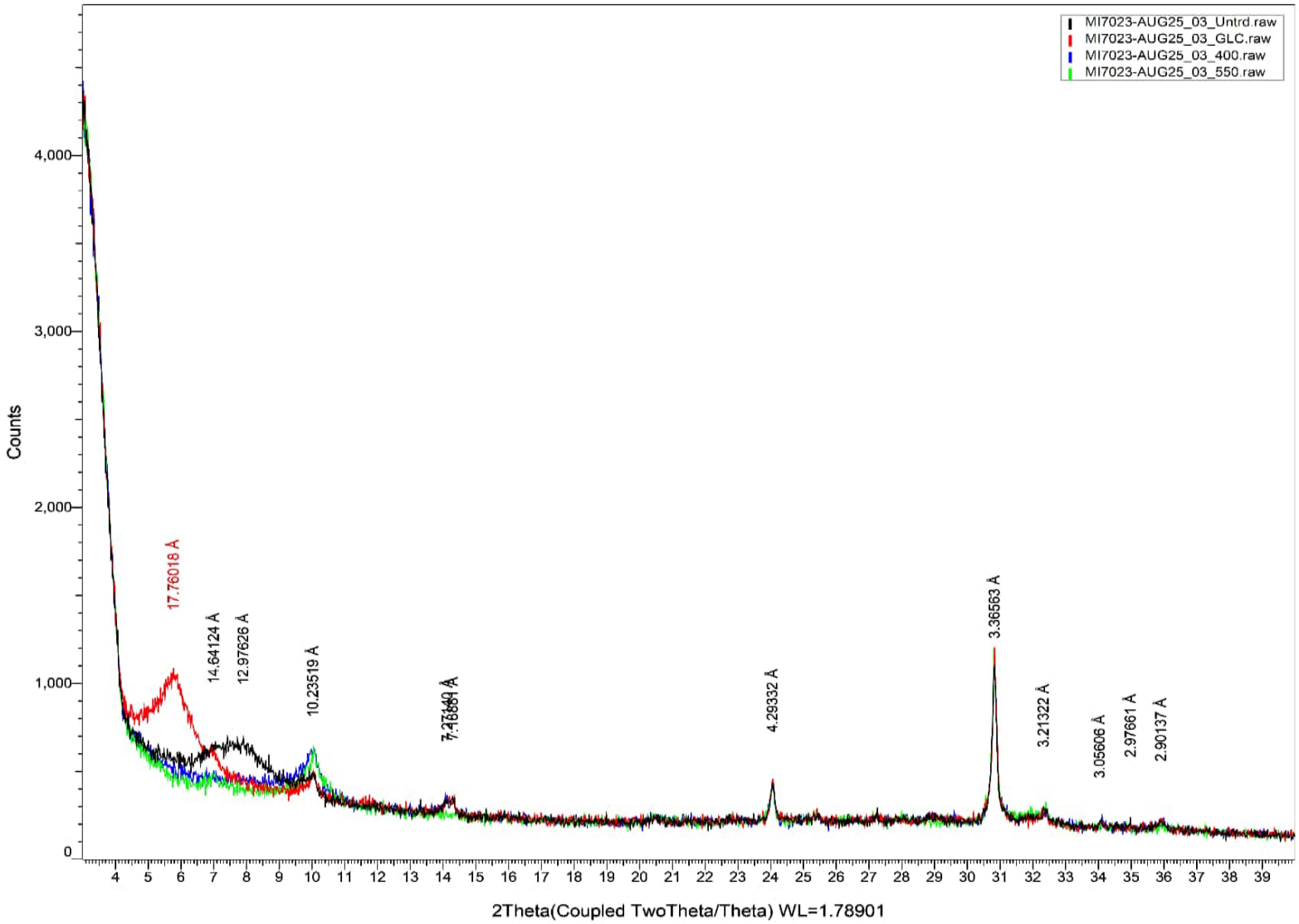

MW-207 15ft to 20ft
MI7023-AUG25_02.raw_1
Albite 15.26 %
Biotite 1M Mica 1.30 %
Muscovite 2M1 7.86 %
Chlorite IIb 1.85 %
Magnetite 0.20 %
Quartz 49.69 %
Microcline maximum 3.96 %
Diopside 1.09 %
Calcite 5.06 %
Ankerite Fe0.55 0.87 %
Dolomite 3.09 %
Illite 2.08 %
Montmorillonite-14A 4.35 %
Illite/Mont 14A 0.57 %
Kaolinite 1.53 %
Rhodochrosite 0.66 %
Rutile 0.27 %
Ilmenite 0.23 %
Pyrite 0.09 %
Counts
2Th Degrees

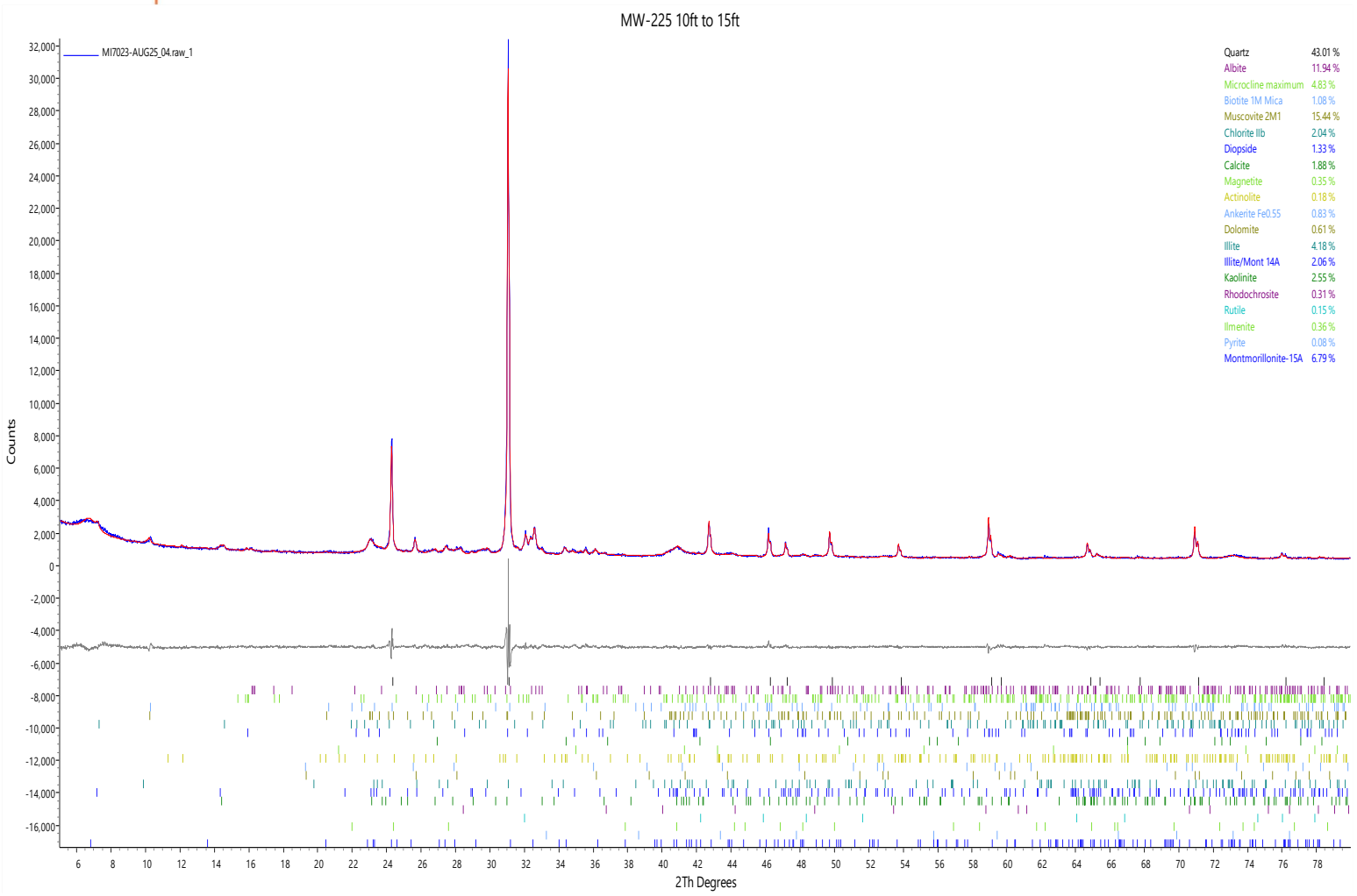
MI7023-AUG25_02_Clay.raw **MW-207 15ft to 20ft**



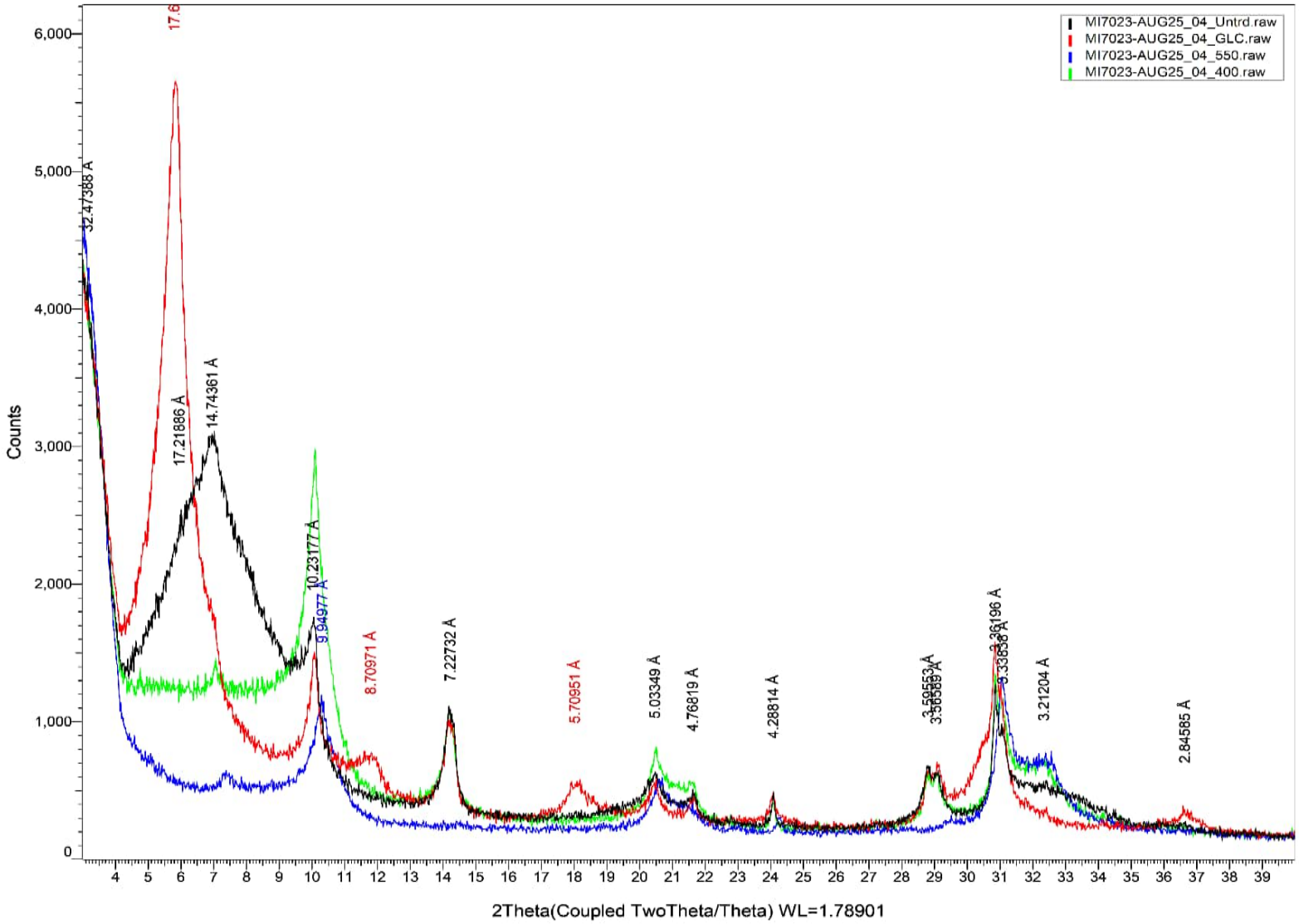

MW-208 10ft to 15ft
MI7023-AUG25_03.raw_1
Counts
2Th Degrees
Albite 15.36 %
Biotite 1M Mica 1.66 %
Muscovite 2M1 2.86 %
Chlorite IIb 0.92 %
Magnetite 0.23 %
Actinolite 1.21 %
Quartz 63.58 %
Microcline maximum 3.03 %
Diopside 2.31 %
Calcite 1.86 %
Ankerite Fe0.55 1.48 %
Dolomite 2.45 %
Illite 0.85 %
Montmorillonite-14A 0.03 %
Illite/Mont 14A 0.06 %
Kaolinite 0.68 %
Rhodochrosite 0.56 %
Rutile 0.34 %
Ilmenite 0.50 %
Pyrite 0.04 %

MI7023-AUG25_03_Clay.raw **MW-208 10ft to 15ft**

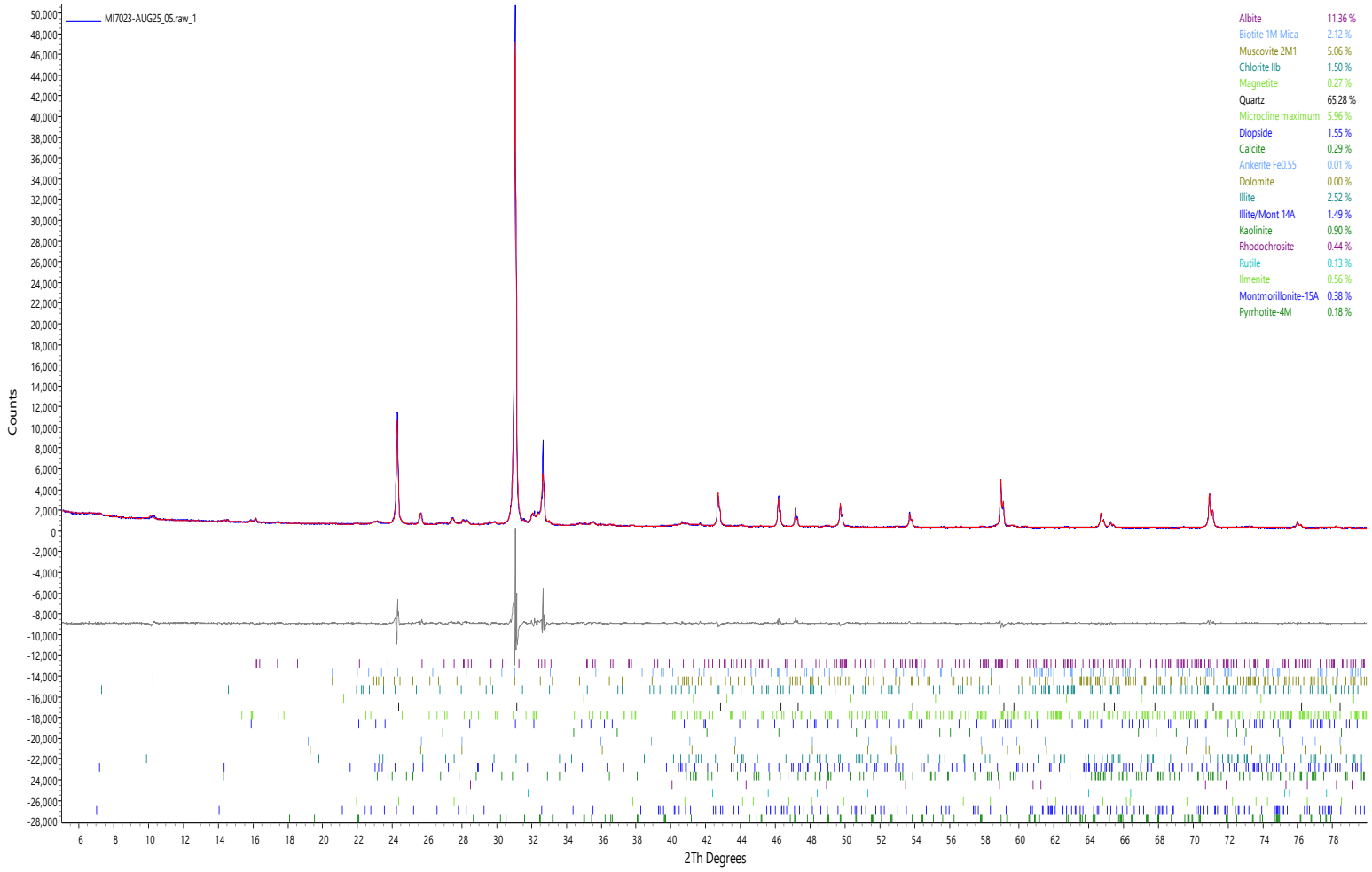



MW-225 10ft to 15ft
MI7023-AUG25_04.raw_1
Counts
2Th Degrees
Quartz 43.01 %
Albite 11.94 %
Microcline maximum 4.83 %
Biotite 1M Mica 1.08 %
Muscovite 2M1 15.44 %
Chlorite IIb 2.04 %
Diopside 1.33 %
Calcite 1.88 %
Magnetite 0.35 %
Actinolite 0.18 %
Ankerite Fe0.55 0.83 %
Dolomite 0.61 %
Illite 4.18 %
Illite/Mont 14A 2.06 %
Kaolinite 2.55 %
Rhodochrosite 0.31 %
Rutile 0.15 %
Ilmenite 0.36 %
Pyrite 0.08 %
Montmorillonite-15A 6.79 %

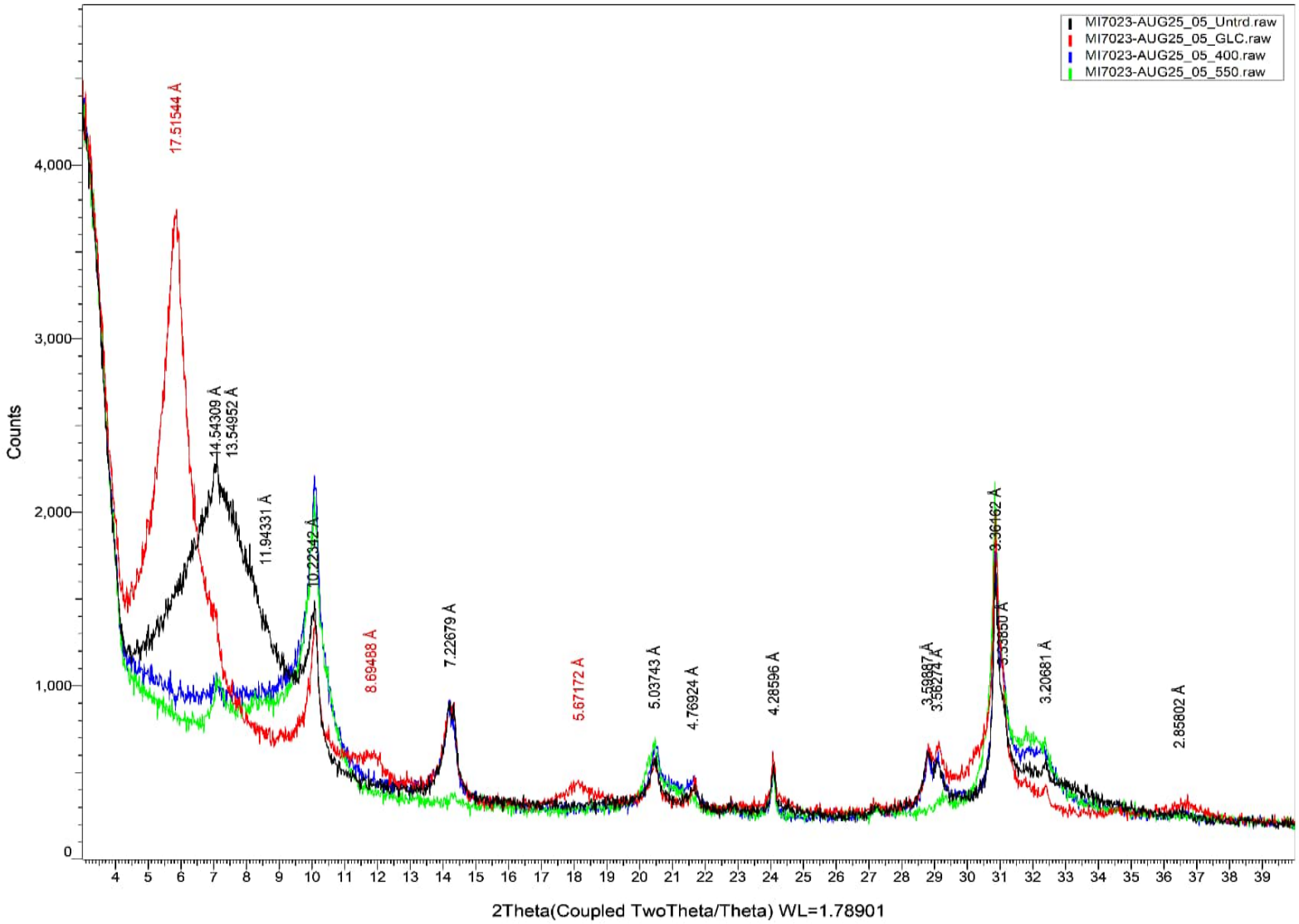
MI7023-AUG25_04_Clay.raw **MW-225 10ft to 15ft**

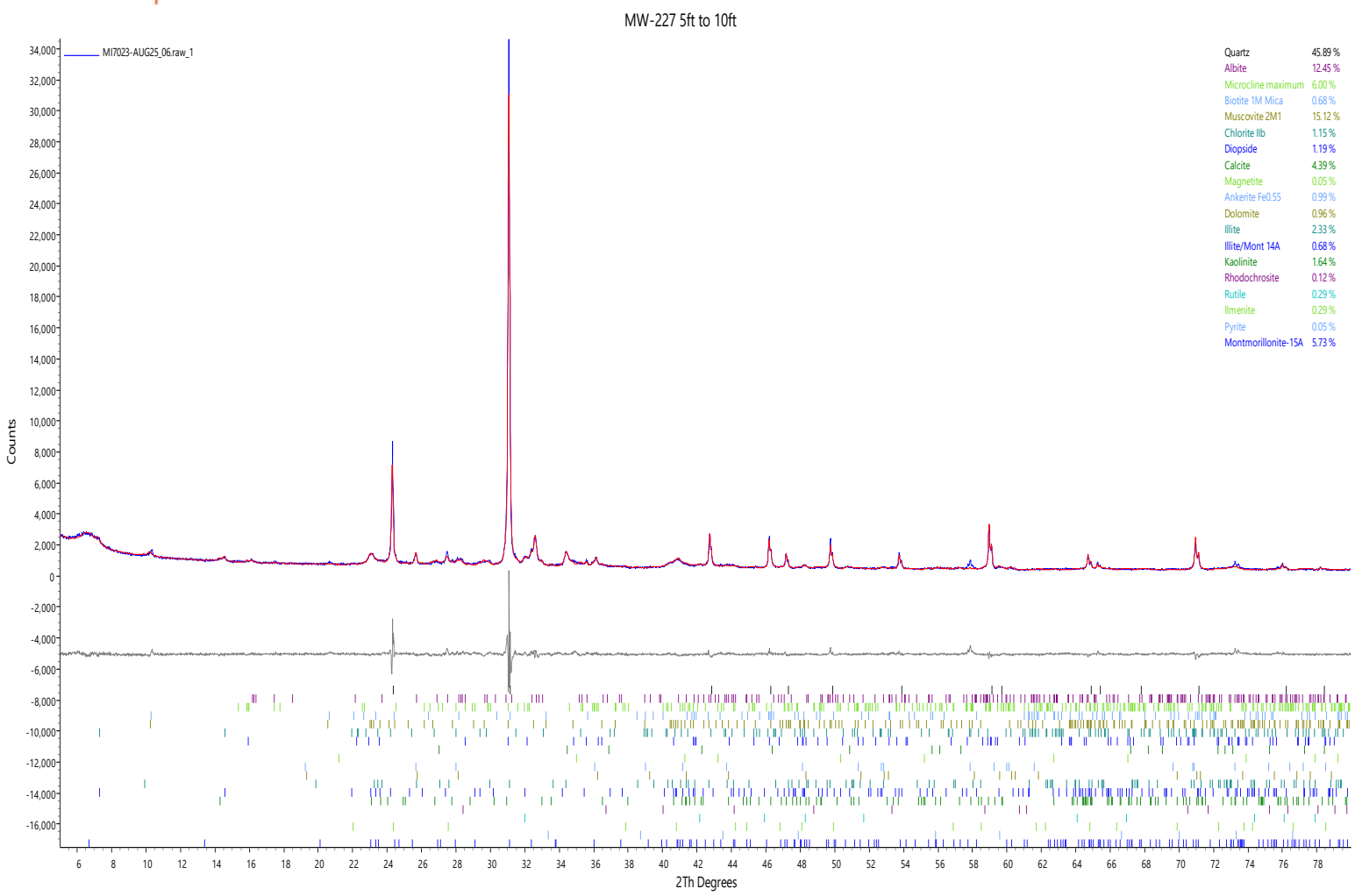


MW-226 10ft to 15ft

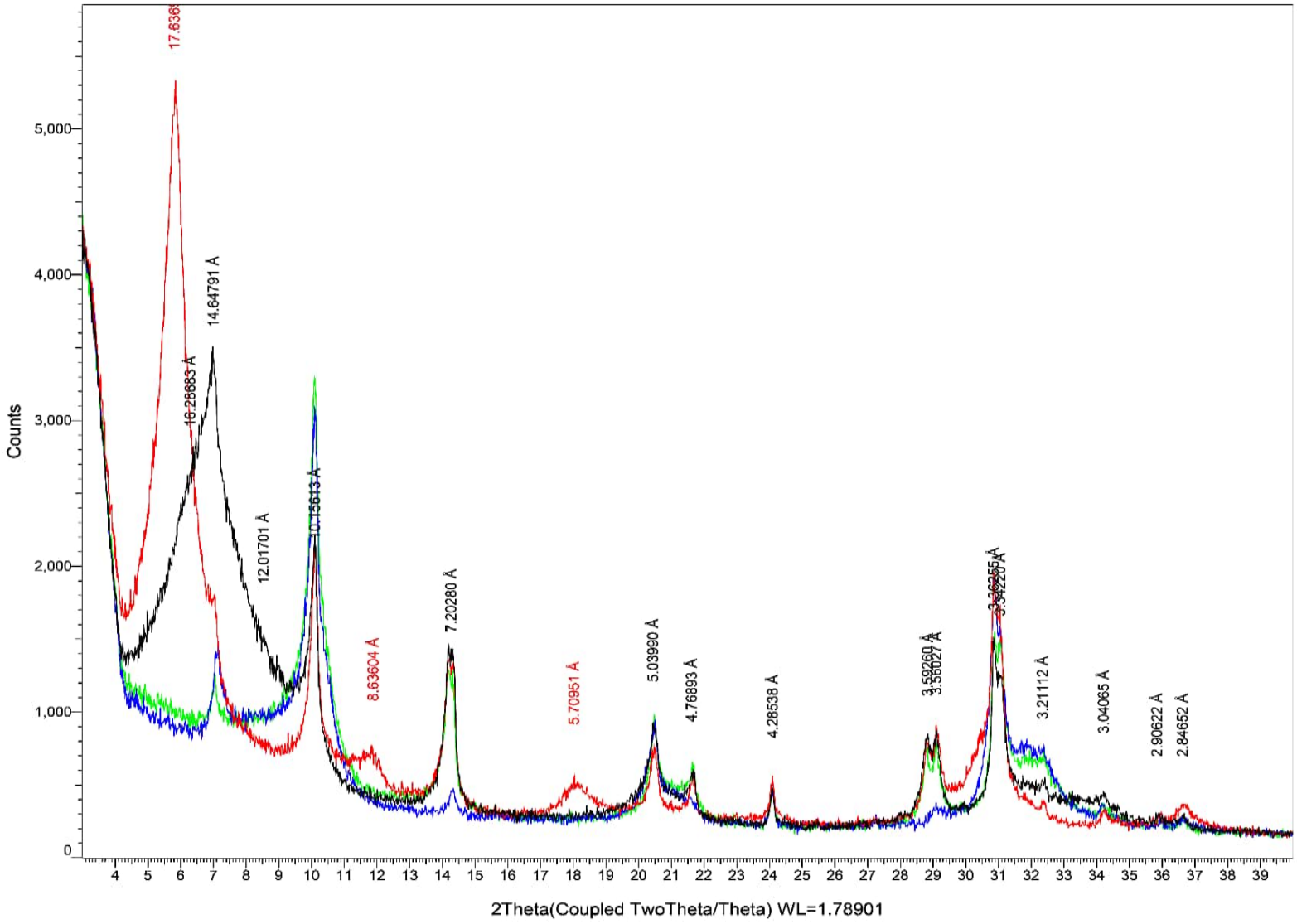


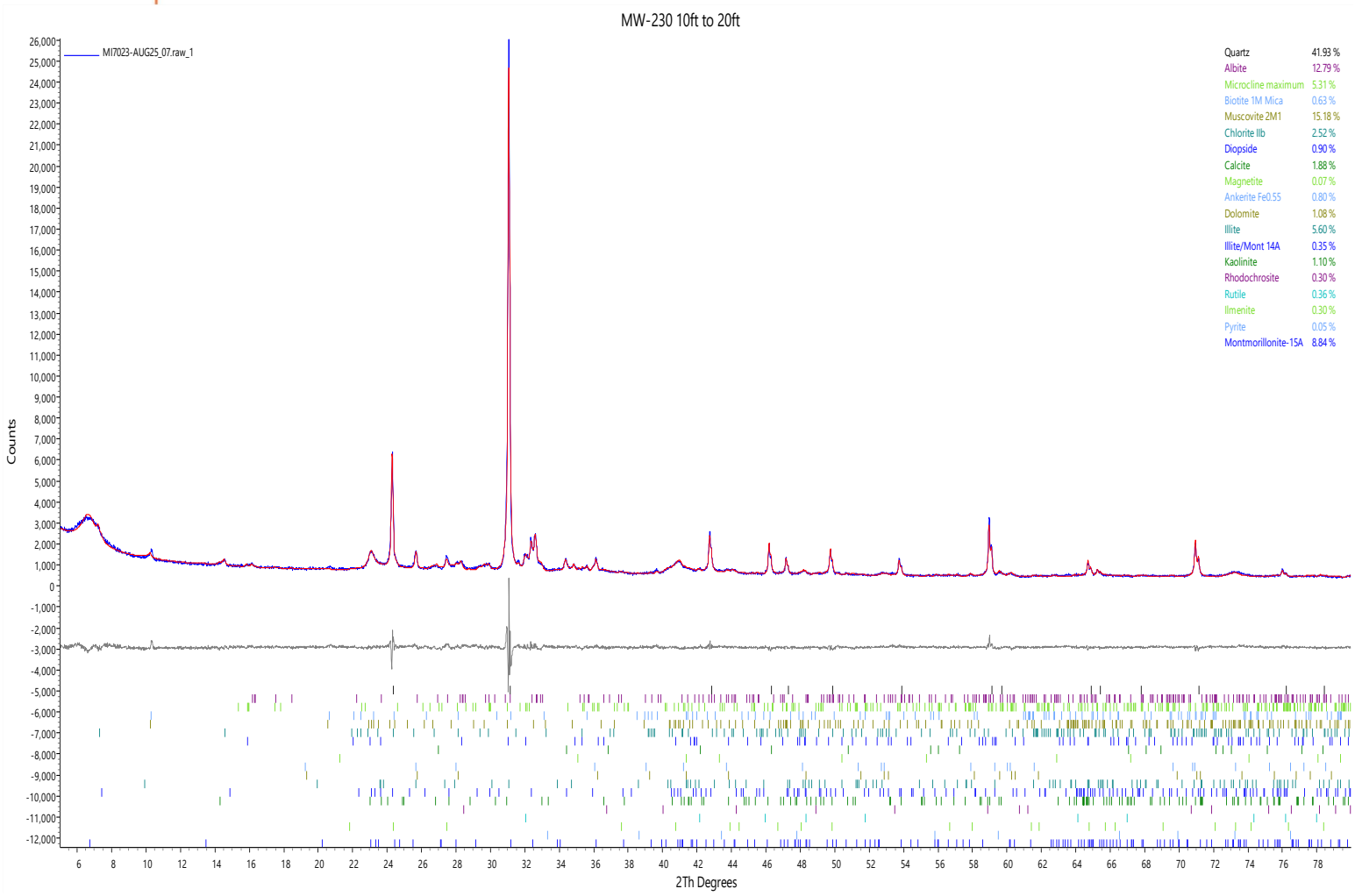
MI7023-AUG25_05_Clay.raw **MW-226 10ft to 15ft**



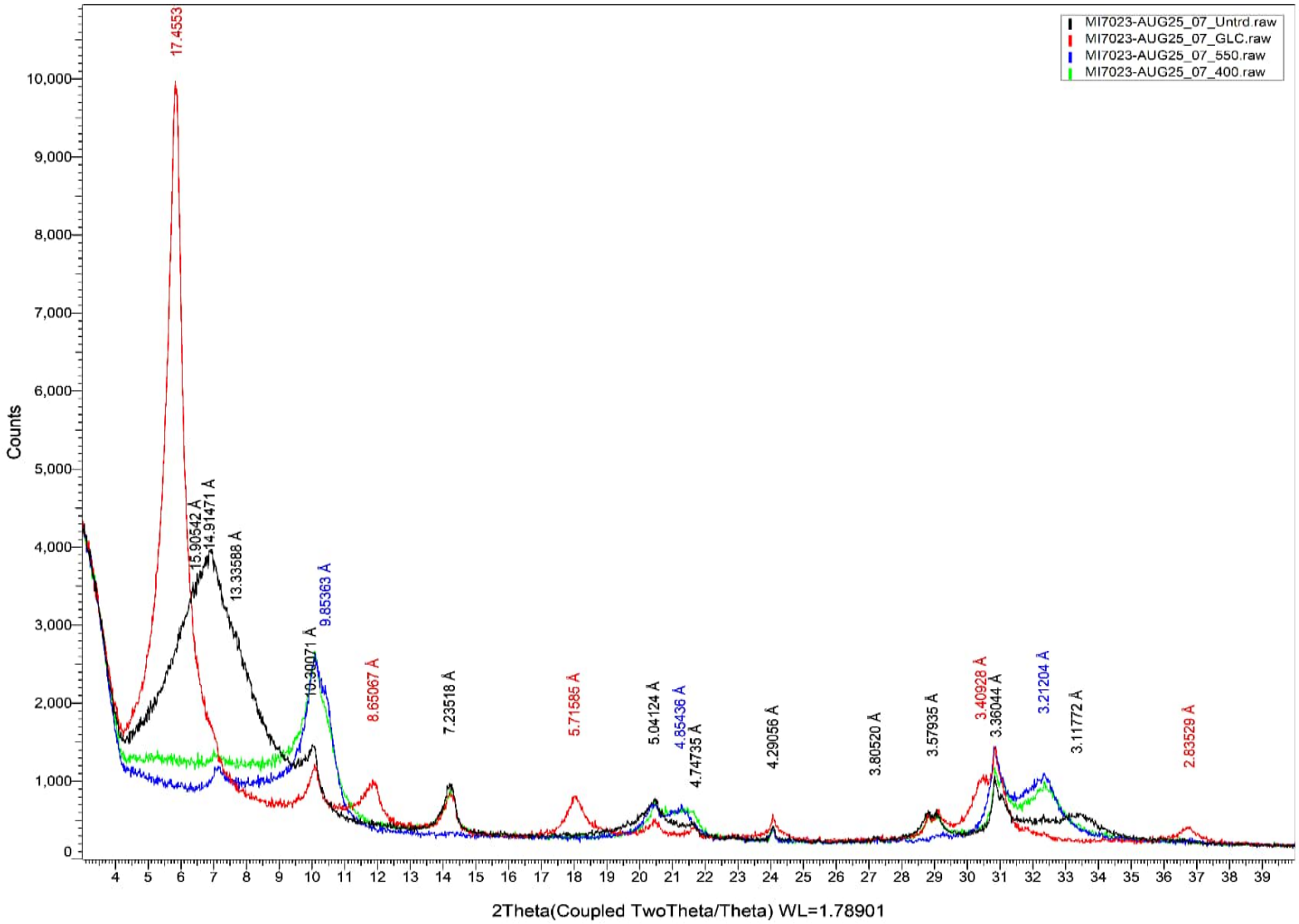

MW-227 5ft to 10ft
MI7023-AUG25_06.raw_1
Counts
2Th Degrees
Quartz 45.89 %
Albite 12.45 %
Microcline maximum 6.00 %
Biotite 1M Mica 0.68 %
Muscovite 2M1 15.12 %
Chlorite IIb 1.15 %
Diopside 1.19 %
Calcite 4.39 %
Magnetite 0.05 %
Ankerite Fe0.55 0.99 %
Dolomite 0.96 %
Illite 2.33 %
Illite/Mont 14A 0.68 %
Kaolinite 1.64 %
Rhodochrosite 0.12 %
Rutile 0.29 %
Ilmenite 0.29 %
Pyrite 0.05 %
Montmorillonite-15A 5.73 %

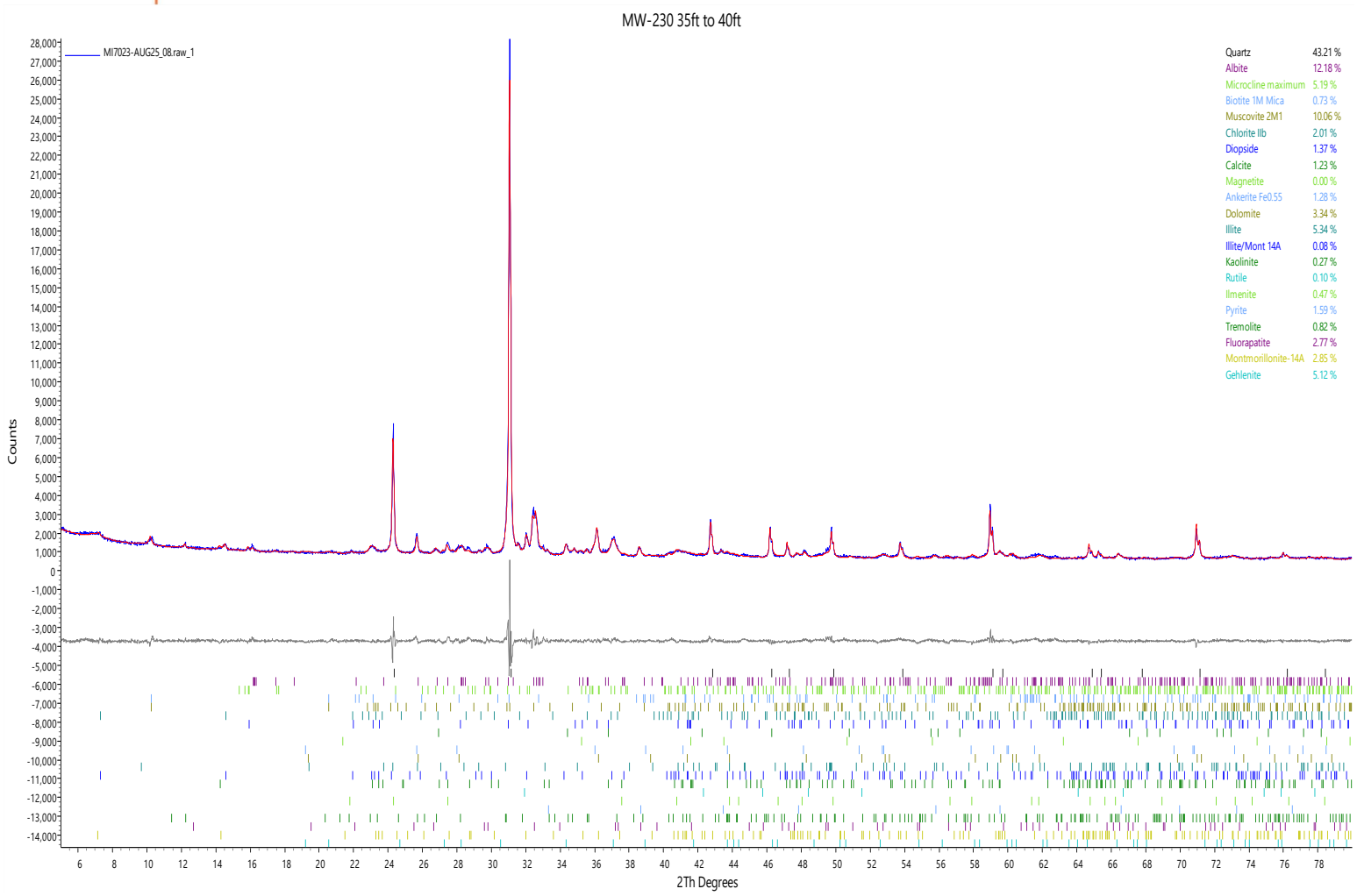
MI7023-AUG25_06_Clay.raw **MW-227 5ft to 10ft**



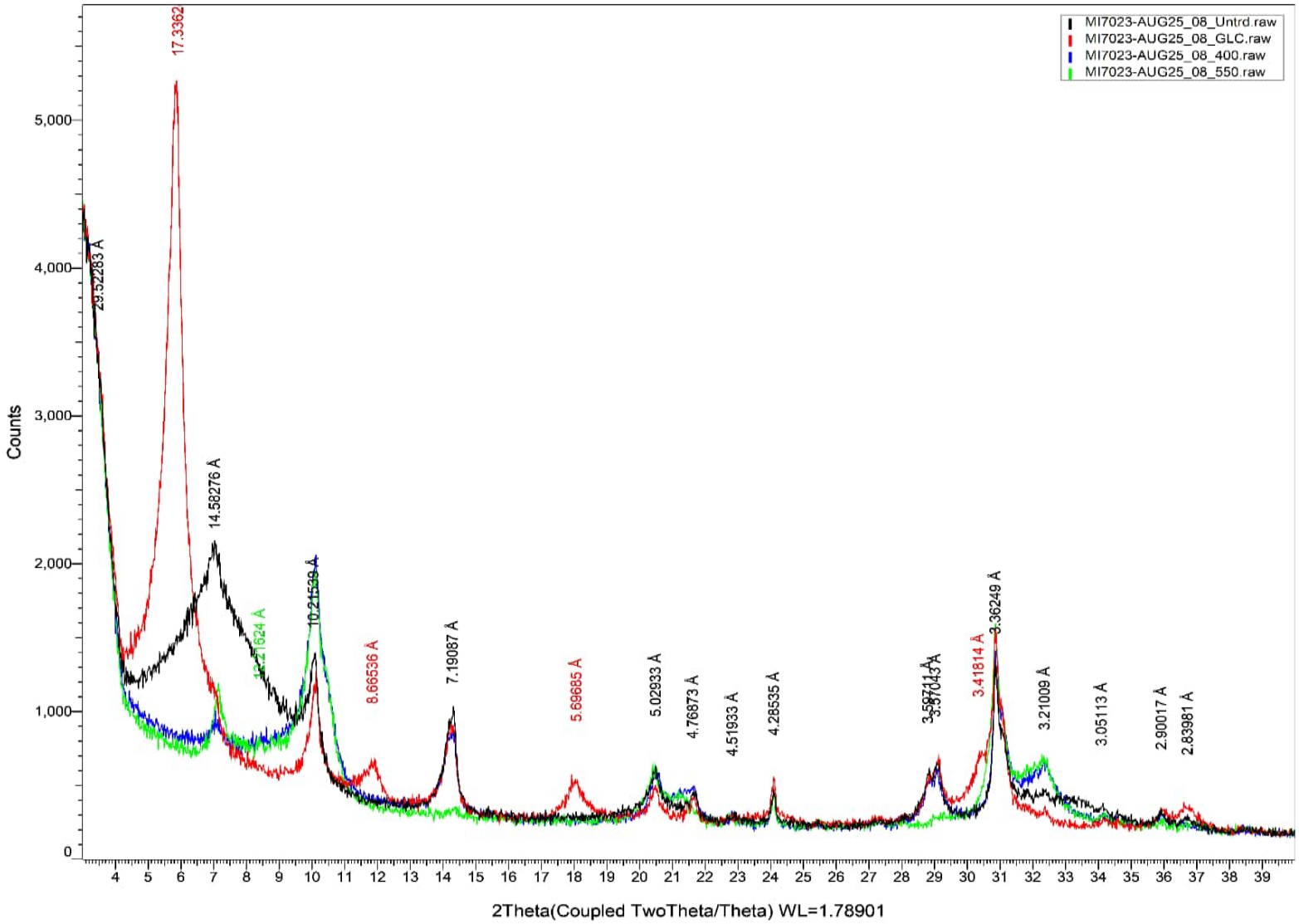

MW-230 10ft to 20ft
MI7023-AUG25_07.raw_1
Counts
2Th Degrees
Quartz 41.93 %
Albite 12.79 %
Microcline maximum 5.31 %
Biotite 1M Mica 0.63 %
Muscovite 2M1 15.18 %
Chlorite IIb 2.52 %
Diopside 0.90 %
Calcite 1.88 %
Magnetite 0.07 %
Ankerite Fe0.55 0.80 %
Dolomite 1.08 %
Illite 5.60 %
Illite/Mont 14A 0.35 %
Kaolinite 1.10 %
Rhodochrosite 0.30 %
Rutile 0.36 %
Ilmenite 0.30 %
Pyrite 0.05 %
Montmorillonite-15A 8.84 %

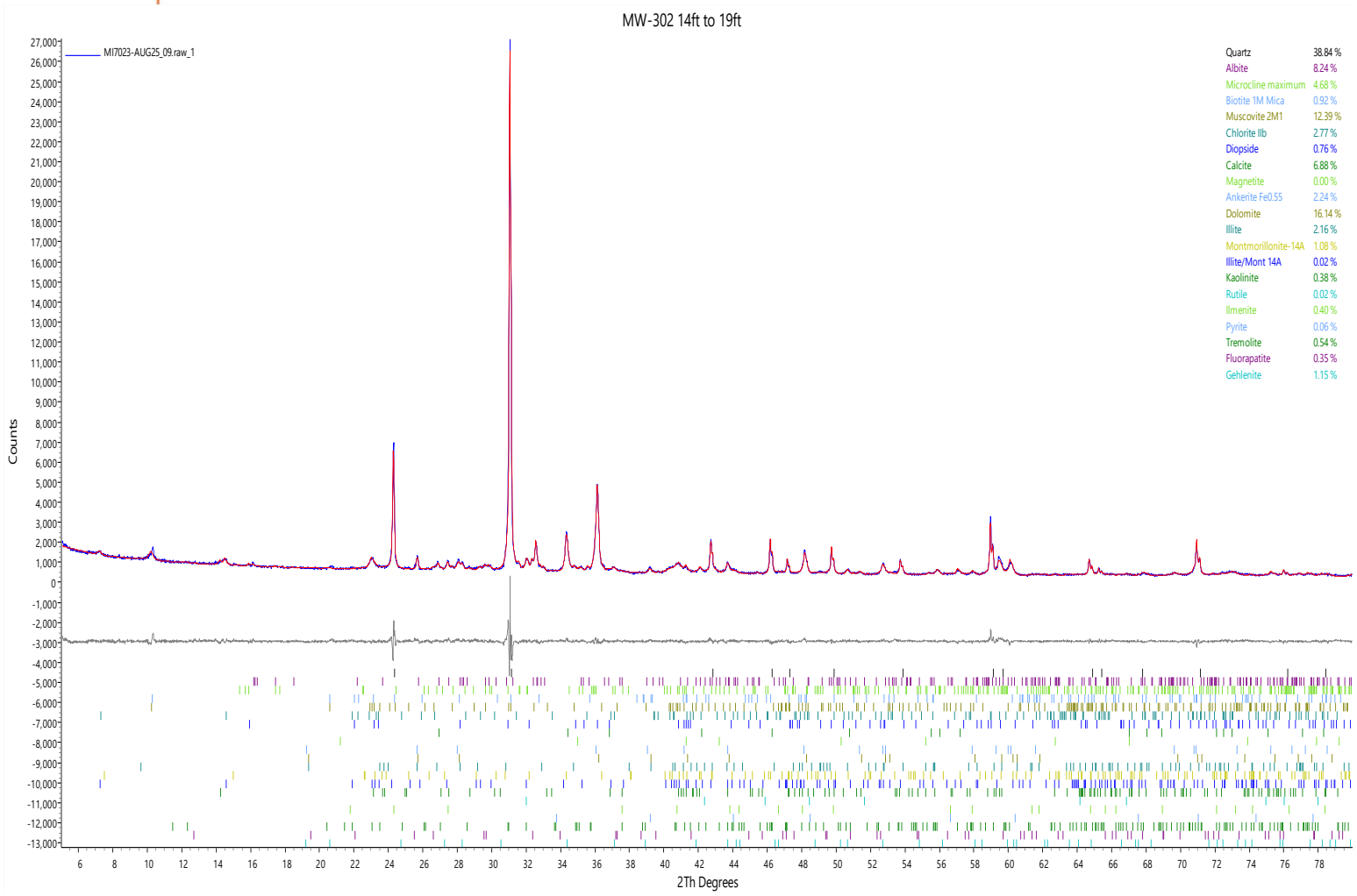
MI7023-AUG25_07_Clay.raw **MW-230 10ft to 20ft**



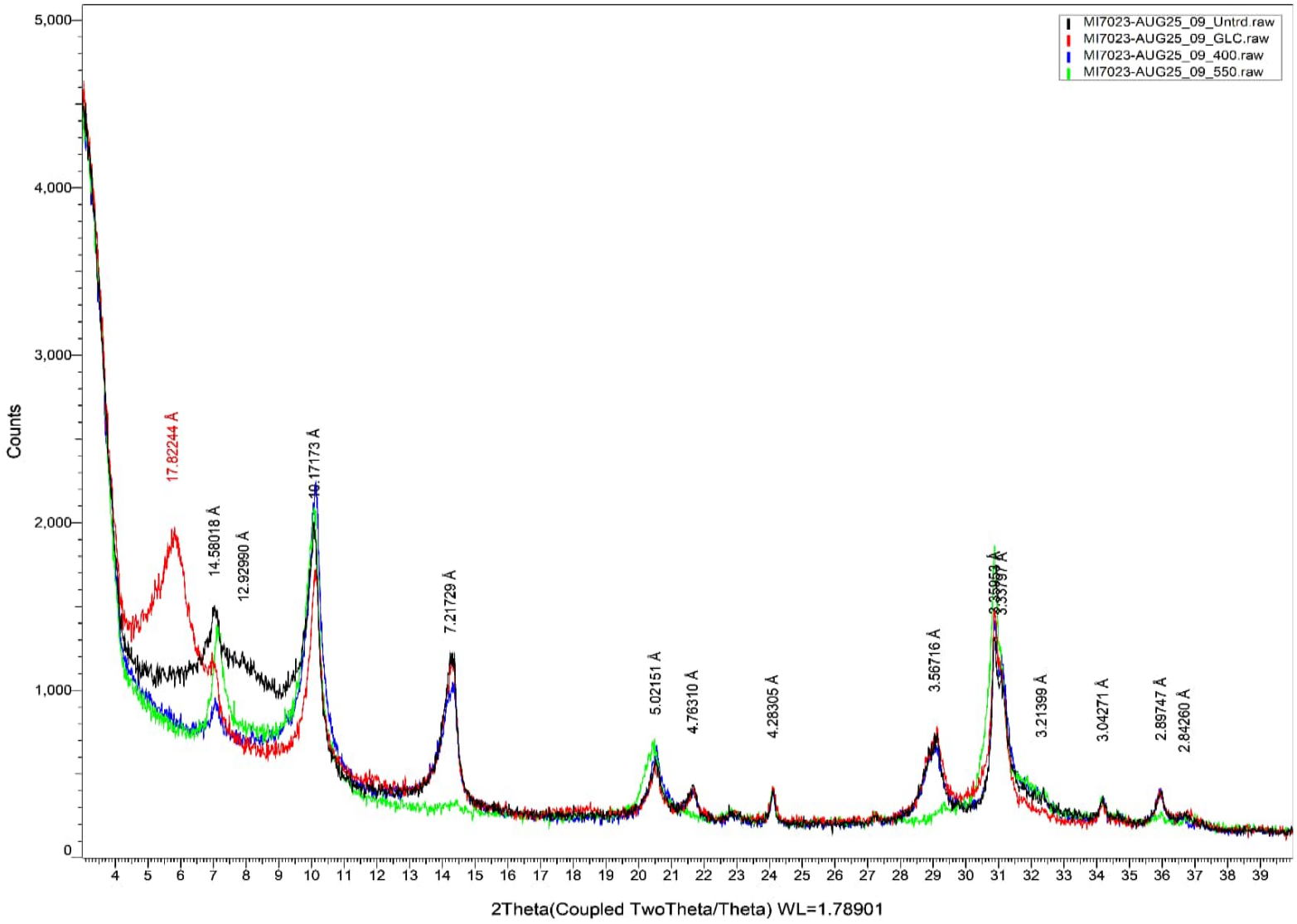

MW-230 35ft to 40ft
MI7023-AUG25_08.raw_1
Counts
2Th Degrees
Quartz 43.21 %
Albite 12.18 %
Microcline maximum 5.19 %
Biotite 1M Mica 0.73 %
Muscovite 2M1 10.06 %
Chlorite IIb 2.01 %
Diopside 1.37 %
Calcite 1.23 %
Magnetite 0.00 %
Ankerite Fe0.55 1.28 %
Dolomite 3.34 %
Illite 5.34 %
Illite/Mont 14A 0.08 %
Kaolinite 0.27 %
Rutile 0.10 %
Ilmenite 0.47 %
Pyrite 1.59 %
Tremolite 0.82 %
Fluorapatite 2.77 %
Montmorillonite-14A 2.85 %
Gehlenite 5.12 %

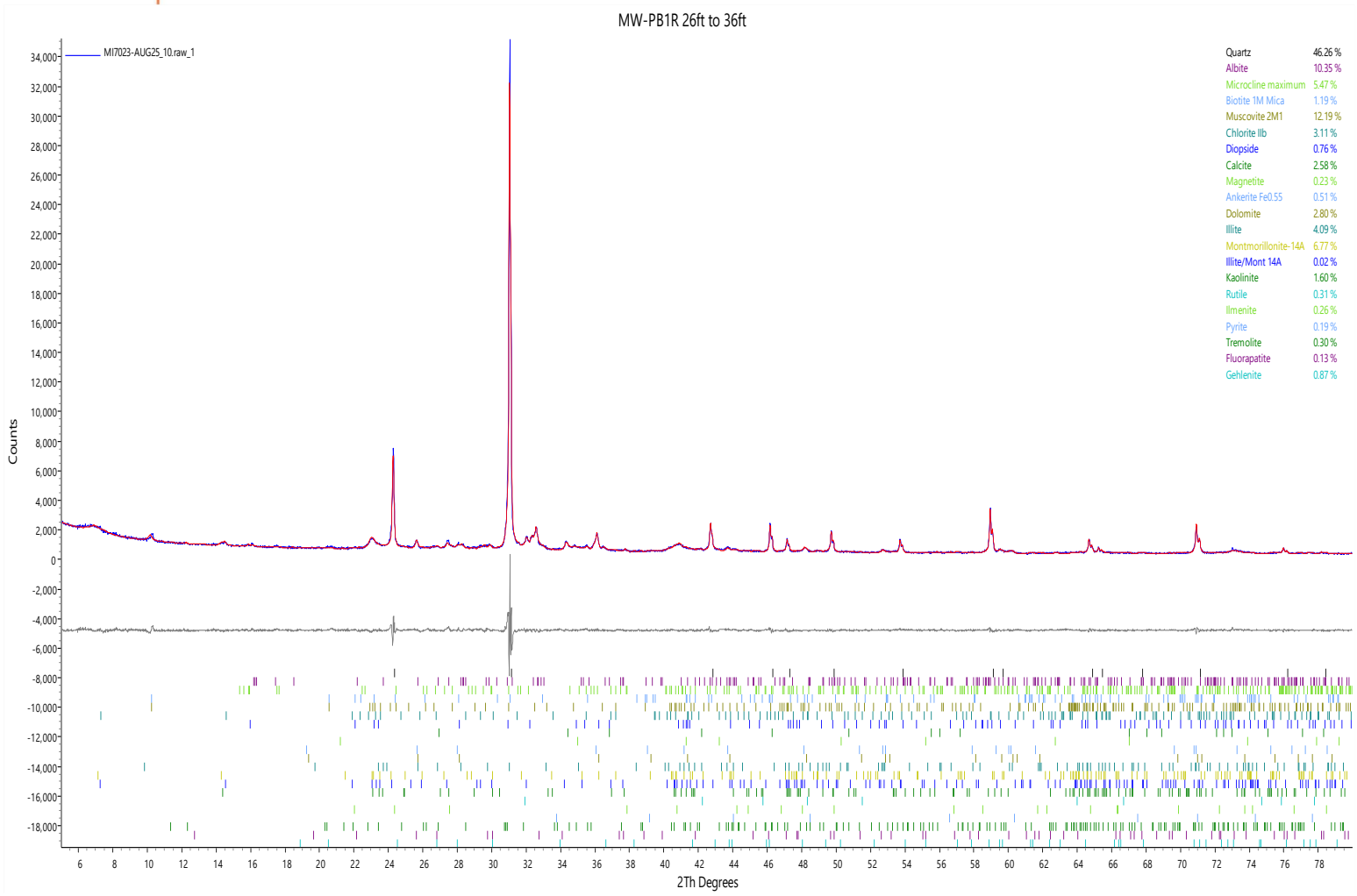
MI7023-AUG25_08_Clay.raw **MW-230 35ft to 40ft**



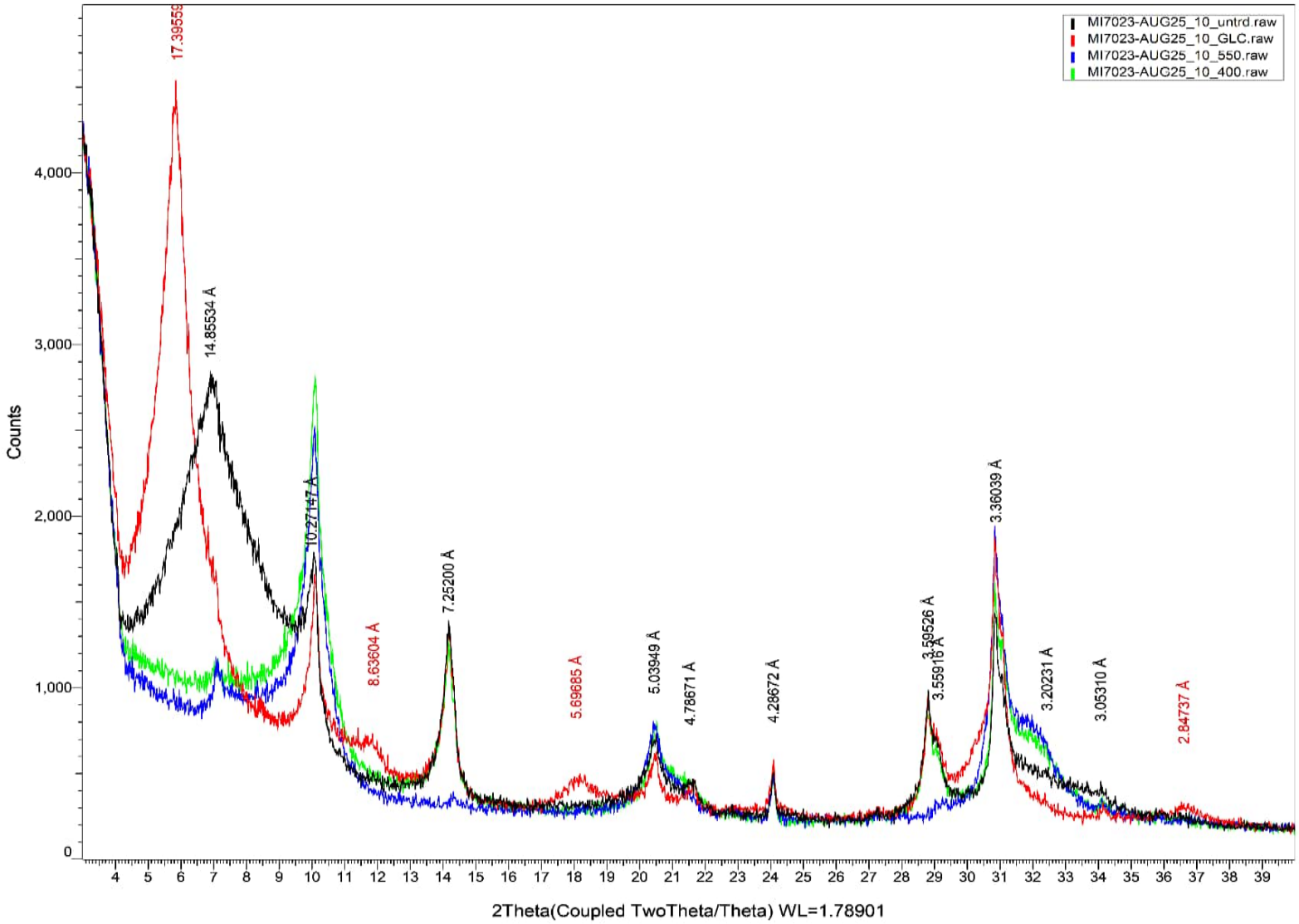

MW-302 14ft to 19ft
MI7023-AUG25_09.raw_1
Counts
2Th Degrees
Quartz 38.84 %
Albite 8.24 %
Microcline maximum 4.68 %
Biotite 1M Mica 0.92 %
Muscovite 2M1 12.39 %
Chlorite IIb 2.77 %
Diopside 0.76 %
Calcite 6.88 %
Magnetite 0.00 %
Ankerite Fe0.55 2.24 %
Dolomite 16.14 %
Illite 2.16 %
Montmorillonite-14A 1.08 %
Illite/Mont 14A 0.02 %
Kaolinite 0.38 %
Rutile 0.02 %
Ilmenite 0.40 %
Pyrite 0.06 %
Tremolite 0.54 %
Fluorapatite 0.35 %
Gehlenite 1.15 %

MI7023-AUG25_09_Clay.raw **MW-302 14ft to 19ft**




MW-PB1R 26ft to 36ft
MI7023-AUG25_10.raw_1
Counts
2Th Degrees
Quartz 46.26 %
Albite 10.35 %
Microcline maximum 5.47 %
Biotite 1M Mica 1.19 %
Muscovite 2M1 12.19 %
Chlorite IIb 3.11 %
Diopside 0.76 %
Calcite 2.58 %
Magnetite 0.23 %
Ankerite Fe0.55 0.51 %
Dolomite 2.80 %
Illite 4.09 %
Montmorillonite-14A 6.77 %
Illite/Mont 14A 0.02 %
Kaolinite 1.60 %
Rutile 0.31 %
Ilmenite 0.26 %
Pyrite 0.19 %
Tremolite 0.30 %
Fluorapatite 0.13 %
Gehlenite 0.87 %

MI7023-AUG25_10_Clay.raw **MW-PB1R 26ft to 36ft**





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