2022 CCR Annual Groundwater Monitoring and Corrective Action Report

Mount Storm Power Station
Low Volume Waste Settling Ponds

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TABLE OF CONTENTS

TABLE OF CONTENTS – CONTINUED

LIST OF TABLES

LIST OF DRAWINGS

LIST OF APPENDICES

TABLE OF CONTENTS – CONTINUED

EXECUTIVE SUMMARY

This *2022 CCR Annual Groundwater Monitoring and Corrective Action Report* (Report) was prepared on behalf of Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy) for the Mt. Storm Power Station (Station) Low Volume Waste Settling Ponds (LVWSP) located in Mt. Storm, West Virginia. As active settling ponds that accept CCR, the LVWSP are considered existing surface impoundments under Title 40 Code of Federal Regulations (CFR) Part 257.50 *et seq.* [Disposal of Coal Combustion Residuals (CCR) from Electric Utilities (CCR Rule; Federal Register Vol. 80, No. 74, 21302-21501 on April 17, 2015, as amended)], as well as Title 33 Subsection 33-1B-1 *et seq*. of the West Virginia Legislative Rule Department of Waste Management (effective date of March 1, 2022). Pursuant to the CCR Rule, the Station is required to complete an *Annual Groundwater Monitoring and Corrective Action Report* (Report) by January 31st annually.

The Report documents the status of the CCR groundwater monitoring program for the LVWSP, summarizes key actions completed, describes issues encountered, actions taken to resolve identified concerns, and proposed key activities for calendar year 2022. More specifically, this Report describes the results of the CCR Rule Assessment Monitoring Program (AMP) activities performed in 2022 to comply with CCR Rule requirements, and the progression of future sampling activities pursuant to the CCR Rule and the LVWSP's *Groundwater Monitoring Program* (GMP).

In accordance with 40 CFR Part 257.90(e)(6), the following information is being provided as an overview of the current status of groundwater monitoring and corrective action for the Unit:

i. *At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in §257.95.*
   - At the start of 2022, the Unit was operating under the AMP in accordance with §257.95.

ii. *At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in accordance with §257.95.*
   - At the end of 2022, the Unit was operating under the AMP in §257.95.

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

   (A) Identify those constituents listed in appendix III to this part and the names of the monitoring wells associated with such an increase
   - In 2022, there were statistically significant increases identified over background for the following Appendix III constituents at the following wells during the second semi-annual 2021 event and the first semi-annual 2022 event:
     - Boron – well OW-12
     - pH – wells OW-7A, OW-2A, OW-12
     - Chloride – upgradient well OW-8

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

- The Unit initiated the AMP on April 20, 2018.

iv. If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in appendix IV to this part pursuant to §257.95(g)

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

- In 2022, there were no confirmed statistically significant increases over the groundwater protection standards.

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

- Not applicable

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

- Not applicable

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

- Not applicable

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

- Not applicable

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

- Not applicable

Based on the 2022 sampling and data analysis results, WSP recommends that Dominion Energy continue to maintain an AMP at this Unit.

1.0 INTRODUCTION

This *2022 CCR Annual Groundwater Monitoring and Corrective Action Report* (Report) was prepared on behalf of Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy) for the Mt. Storm Power Station (Station) Low Volume Waste Settling Ponds (LVWSP), located in Mt. Storm, West Virginia. The existing LVWSP are subject to the groundwater monitoring requirements in Title 40 Code of Federal Regulations (CFR) Part 257.50 *et seq.* [Disposal of Coal Combustion Residuals (CCR) from Electric Utilities (CCR Rule; Federal Register Vol. 80, No. 74, 21302-21501 on April 17, 2015, as amended)] (EPA, 2015, 2016, 2018, 2020a, 2020b), as well as Title 33 Subsection 33-1B-1 *et seq*. of the West Virginia Legislative Rule Department of Waste Management (WV CCR Rule; effective date of March 1, 2022). Pursuant to the CCR Rule, no later than January 31st annually, the owner or operator of CCR surface impoundments must prepare an annual groundwater monitoring and corrective action report for the CCR surface impoundments documenting the status of groundwater monitoring and corrective action programs for the preceding year.

WSP USA Inc. (WSP) has prepared this Report for the LVWSP on behalf of Dominion Energy in accordance with CCR Rule Part 257.90(e). This Report presents relevant data evaluations from the second semi-annual 2021 event that were completed in 2022, provides the monitoring data and required data evaluations for the first semi-annual 2022 CCR monitoring compliance event performed in April 2022, and provides the monitoring data for the second semi-annual 2022 CCR monitoring compliance event performed in November 2022.

1.1 Site Location

The Station is located at 436 Dominion Boulevard in Mt. Storm, West Virginia approximately 40 miles south-southwest of Cumberland, Maryland. The LVWSP are located directly south of the Station. A Site Location Map is presented as Drawing 1.

1.2 Site History

The Station and adjoining 1,200-acre Mt. Storm Lake were constructed in 1965. Historically, the LVWSP consisted of five low volume waste settling ponds (Pyrite Pond and Ponds A, B, C, and D) which collected wastewater from the Station that included CCR carryover from the fly ash silos and bottom ash hydrobins. The Station has reconfigured the LVWSP by retrofitting the Pyrite Pond, closing the remaining ponds, and reconstructing Ponds A and B in compliance with the CCR Rule. Construction of the new ponds was completed in 2019. Groundwater monitoring at the LVWSP is required under the CCR Rule and was initiated in 2015.

1.3 Key Actions

Key actions for this Facility to date are as follows:

- Permitted for management of CCR by the West Virginia Department of Environmental Protection (DEP) under National Discharge Elimination System (NPDES) permit No. WV0005525;
- Initiated the Detection Monitoring Program (DMP) on November 3, 2015, with the collection of eight (8) baseline/background samples and completed the background monitoring activities on August 15, 2017, pursuant to the CCR Rule [257.94(b)];
- Conducted the initial DMP compliance sampling event between October 10-11, 2017, and completed the sample analyses on October 24, 2017, pursuant to the CCR Rule [257.94];
- Placed a copy of the LVWSP's *Groundwater Monitoring Program* (GMP) documenting the design information for the monitoring wells pursuant to the CCR Rule [257.91(e)(1)] in the Station's operating record on October 17, 2017, pursuant to the CCR Rule [257.105(h)(2)];
- Certified the groundwater monitoring system pursuant to the CCR Rule [257.91(f) and posted the Certification in the Station's operating record on October 17, 2017, pursuant to the CCR Rule [257.105(h)(3)];
- Certified the selection of a statistical method pursuant to the CCR Rule [257.93(f)(6)] and posted the Certification in the Station's operating record on October 17, 2017, pursuant to the CCR Rule [257.105(h)(4)];
- Placed a notification of a Statistically Significant Increase (SSI) over the LVWSP's background concentrations under the DMP in the Station's operating record on January 22, 2018;
- Conducted the initial Assessment Monitoring Program (AMP) compliance sampling event on March 19-20, 2018, and completed the sample analyses on April 20, 2018, pursuant to the CCR Rule [257.95(b)];
- Established groundwater protection standards (GWPS) for detected constituents in Appendix IV of Part 257 on October 17, 2018, pursuant to the CCR Rule [257.95(d)(2)];
- Background concentrations of Appendix III and IV constituents were updated using United States Environmental Protection Agency-approved statistical procedures on November 19, 2019;
- Background concentrations of Appendix III and IV constituents were updated using United States Environmental Protection Agency-approved statistical procedures on September 14, 2020;

- Conducted the first semi-annual 2022 AMP compliance sampling event on April 28, 2022, and completed the sample analyses on June 3, 2022, pursuant to the CCR Rule [257.95(d)(1)];
- Conducted the second semi-annual 2022 AMP compliance sampling event on November 10, 2022, and completed the sample analyses on December 13, 2022, pursuant to the CCR Rule [257.95(d)(1)]; and
- Conducted the second semi-annual 2022 AMP verification sampling event on December 21, 2022, and completed the sample analyses on January 4, 2023, pursuant to the CCR Rule {257.95(d)(1)].

1.4 Monitoring Program Concerns

There were no monitoring program concerns identified during the 2022 AMP compliance events.

2.0 SITE INFORMATION

The Station is a coal-fired power station with a generating capacity of approximately 1,600 megawatts. The first power generation turbine at the Station went online in September 1965 and was followed by the second turbine in June 1966. The third turbine went online December 1973. The LVWSP are located on the Station property directly south of the Station. The LVWSP consist of five low volume waste settling ponds (Pyrite Pond and Ponds A, B, C, and D). The Pyrite Pond is primarily intended to collect materials that cannot be processed by the coal grinding mill and consists of primarily rock but can also be configured to accept receiving water intended for Ponds A or B in an emergency. Under normal conditions, the Pyrite Pond is not considered a CCR surface impoundment per se, but it has the potential to be a CCR surface impoundment based upon LVWSP configuration. As originally designed, Ponds A and B were the primary settling ponds and Ponds C and D were the secondary settling ponds. Discharge from the secondary settling ponds is to Mount Storm Lake pursuant to West Virginia/National Pollutant Discharge Elimination System (WV/NPDES) Permit Number WV0005525. The Station has since reconfigured the LVWSP by retrofitting the Pyrite Pond, closing the remaining ponds, and reconstructing Ponds A and B in compliance with the CCR Rule. Construction of the new ponds was completed in 2019.

As part of the Station operations, Dominion Energy operates the LVWSP for CCR storage. As existing CCR surface impoundments, the LVWSP were subject to the groundwater monitoring provisions of the CCR Rule by October 17, 2017. The DEP incorporated the Federal CCR Rule, by reference, as part of the West Virginia Solid Waste Management Regulations in legislative rule Title 33 Subsection 33-1B-1 *et seq*., effective date of March 1, 2022. As such, the unit is now also subject to the WV CCR Rule.

2.1 Monitoring Well Network

The LVWSP's GMP (TRC, 2017a) details the design of the CCR Rule groundwater monitoring network. As presented in the GMP, the monitoring network is comprised of two (2) upgradient/background wells (OW-7A and OW-8) and five (5) monitoring wells (OW-2A, OW-4A, OW-10, OW-12, and OW-13) located on the natural downgradient boundary of the Unit that are designed to monitor the uppermost aquifer beneath the LVWSP. The groundwater monitoring well locations relative to the LVWSP are shown on Drawing 2.

In addition, the Station maintains fifteen (15) additional observation wells that are presently used for periodic water level monitoring activities.

2.1.1 Monitoring Well Installation and Decommissioning Activities

No groundwater monitoring wells associated with the CCR compliance well network were installed or decommissioned in calendar year 2022.

2.2 Geology and Hydrogeology

A summary of the geology and hydrogeology for the LVWSP is presented in the following sections.

2.2.1 Geology

As presented on the West Virginia geologic map, the Station is located within the high plateau region of the Appalachian High Plateau physiographic province (Cardwell, 1968). The high plateau area is underlain by Paleozoic sedimentary rocks (Ordovician to Mississippian age) and the rocks are folded into a sequence of northeasterly trending parallel anticline and synclines. Locally the area is referred to as the Allegheny Mountains. The Station is located on the eastern limb of the Blackwater Anticline which parallels the Little Blackwater River.

The area is underlain by formations of the Pennsylvanian-age Conemaugh and Allegheny Groups, which include, in descending order:

- Conemaugh Group
  - Buffalo Sandstone
  - Brush Creek shale and sandstone
  - Upper and Lower Mahoning Sandstones
  - Uffington Shale
- Allegheny Group
  - Upper Freeport Coal
  - Bolivar Claystone
  - Upper Freeport Sandstone
  - Lower Freeport Coal

The near surface geology is comprised of unconsolidated colluvium sediments that locally overlie decomposed (saprolitic) sandstone and shale transitioning to fractured competent sandstone and shale interbedded with coal beds. At the Station, the upper Brush Creek and Mahoning coal beds of the Conemaugh Group are absent, while the Upper Freeport and Lower Freeport coal beds of the Allegheny Group are present. The Upper Freeport coal bed is reported to have been mined using a combination of open pit and longwall mining technology, while the Lower Freeport coal bed is reported to be unmined.

2.2.2 Hydrogeology

Two (2) regional aquifers have been identified at the LVWSP; the water table aquifer made up of shale and sandstone units of the Conemaugh Group and a lower leaky confined coal aquifer located within the Upper Freeport Coal of the underlying Allegheny Formation (USGS, 1991). As reported in the Hydrogeological Evaluation Report (TRC, 2016), the Upper Freeport Coal is located immediately below the base of the Conemaugh Group and ranges in thickness from approximately 3.5 to 8 feet. The remainder of the Allegheny Formation and upper portion of the underlying Pottsville Group consists predominately of shale and fire clay with a few relatively thin layers of coal and sandstone. These shale and clay layers effectively impede the vertical migration of groundwater and represent the lower boundary for the uppermost aquifer at the LVWSP. Therefore, the uppermost aquifer underlying the LVWSP consists of the water table aquifer and the underlying leaky confined Upper Freeport Coal. The uppermost aquifer is unconfined and extends vertically into the lowered fractured bedrock formations with the uppermost shale formation acting as an aquitard.

Prior to retrofit of the LVWSPs in 2019, the groundwater flow direction in the uppermost aquifer beneath the LVWSP was towards the south and east. As part of the LVWSP retrofit activities in 2018 and 2019 a dewatering system was installed to maintain a depressed groundwater table beneath the lined LVWSPs. Following installation of the dewatering system the groundwater flow direction in the uppermost aquifer beneath the LVWSP changed from the historical southerly and easterly flow directions to a convergent flow direction that is convergent from all four (4) compass points on the dewatering system installed beneath the LVWSP.

2.2.3 Potentiometric Surface Evaluation

Historical static water level data for the LVWSP are summarized in Table 1. Consistent with the requirements of the CCR Rule, the rate and direction of groundwater flow within the uppermost aquifer beneath the LVWSP was determined after each sampling event. The Potentiometric Surface Map presented as Drawing 2 was prepared using static water level data obtained during the first semi-annual AMP event on April 27, 2022. The Potentiometric Surface Map presented as Drawing 3 was prepared using static water level data obtained during the second semi-annual AMP event on November 9, 2022.

Prior to May 2017 when construction dewatering activities associated with Ponds A, B, and C were initiated, the groundwater gradient and flow direction was generally from the north towards the south and east in the direction of the adjoining Mt. Storm Lake. The monitoring network for the LVWSPs was designed on the basis of this “historical” gradient direction. Beginning around May 2017, construction dewatering activities coupled with the subsequent operation of a permanent dewatering system and the decommissioning of Pond D resulted in an inward gradient developing beneath the LVWSPs, such that the downgradient wells are now upgradient from the LVWSPs and recovered groundwater from the system is managed per Station permits. This condition is expected to continue until such time as the operation of the LVWSPs ceases and the dewatering system operation is terminated.

Dominion Energy continues to evaluate the hydrogeologic conditions for the ponds and will make changes to the monitoring program as appropriate.

Therefore, based on network review and regulatory requirements, WSP believes that the groundwater monitoring wells continue to be operated and maintained so that they perform to the design specifications in the Groundwater Monitoring System Certification for the LVWSPs (TRC, 2017b) consistent with 40CFR Part 257.91(e)(2) of the CCR Rule.

Using the groundwater contours presented as an overlay on Drawings 2 and 3, the average hydraulic gradient for the uppermost aquifer in the study area was calculated for each monitoring event using the following equations.

$$i = {}^{h_L}/_{L}$$

Where: i = hydraulic gradient (unitless)
h_L = head loss (elevation difference in feet)
L = length (horizontal distance in feet)

The groundwater flow rate was calculated using the following formula:

$$V = {}^{ki}/_{\theta}$$

Where: V= Groundwater Velocity (cm/s)
k = hydraulic conductivity (cm/s)
i = hydraulic gradient (unitless)
θ = assumed porosity (unitless)

Using the estimated effective porosity value of 10% for gravelly clay and 20% for weathered rock, the estimated average (geometric) hydraulic conductivity value of 7.06E-04 cm/s calculated from aquifer test data obtained from 15 wells, and the calculated gradients, the average rate of groundwater flow (*Vgw*) for the uppermost aquifer beneath the LVWSP was calculated and is summarized in the following table.

Groundwater Flow	Hydraulic Conductivity (k, cm/s)	Contour lines (feet amsl)	Flow Length (feet)	Average Gradient (i)	Assumed Porosity (Ø)	Estimated Groundwater Velocity	
						(cm/s)	(feet/year)
1st Semi-Annual Assessment Monitoring Program Event (April 2022)							
Vgw	7.06E-04	3252-3242	195	0.043	0.10	3.04E-04	315
		3258-3242	243				
		3244-3242	178		0.20	1.52E-04	157

Groundwater Flow	Hydraulic Conductivity (k, cm/s)	Contour lines (feet amsl)	Flow Length (feet)	Average Gradient (i)	Assumed Porosity (Ø)	Estimated Groundwater Velocity	
						(cm/s)	(feet/year)
2nd Semi-Annual Assessment Monitoring Program Event (November 2022)							
Vgw	7.06E-04	3252-3242	311	0.033	0.10	2.333-04	241
		3256-3242	259				
		3244-3242	164		0.20	1.16E-04	121

As presented, the estimated average groundwater flow rate in the uppermost aquifer north of the LVWSP was variable depending on lithology and ranged from approximately 121 to 315 feet per year. The calculated flow rate for the events conducted in 2022 is generally consistent with previous calculations for the LVWSP.

3.0 FIELD ACTIVITIES

Pursuant to the requirements in 40 CFR 257.95(d)(1) two (2) semi-annual AMP monitoring events and one (1) verification event were completed for the LVWSP in 2022 for the constituents and parameters listed in Appendix III and Appendix IV of the CCR Rule. Summaries of the 2022 AMP sampling events are presented below.

Monitoring Event	Sample Dates	Final Laboratory Package Receipt Date
1st Semi-Annual Assessment Monitoring Program Event	April 28, 2022	June 3, 2022
2nd Semi-Annual Assessment Monitoring Program Event	November 10, 2022	December 13, 2022
2nd Semi-Annual Verification Event	December 21, 2022	January 4, 2023

During each of the AMP sampling events, the compliance monitoring wells were sampled in accordance with the procedures presented in the Station's GMP (TRC, 2017a).

Samples collected during each of the sampling events were shipped via FedEx on ice in secured coolers under chain-of-custody control to Eurofins TestAmerica Laboratories Inc. (TestAmerica) in North Canton, Ohio (#210). Total dissolved solids and radium samples were then shipped to the Pittsburgh, Pennsylvania (#142) and St. Louis, Missouri (#381) locations of TestAmerica for analysis. The three (3) TestAmerica locations are DEP accredited laboratories for CCR Rule Appendix III and IV constituents analyzed.

4.0 LABORATORY ANALYTICAL RESULTS

Laboratory analytical results from the AMP sampling events conducted and/or evaluated 2022 are summarized in the following sections.

4.1 2nd Semi-Annual 2021 Assessment Monitoring Program Event

The groundwater samples collected during the second semi-annual 2021 AMP event were analyzed by TestAmerica for the presence of concentrations of the constituents and parameters listed in Appendix III of the CCR rule and previously detected constituents and parameters of the following Appendix IV of the CCR Rule detects. The laboratory certificates of analysis, chain-of-custody forms, and field logs for the sampling event were previously submitted in the *2021 CCR Annual Groundwater Monitoring and Corrective Action Report*. A summary of the CCR sampling data for the Unit is presented in Table 2.

4.2 1st Semi-Annual 2022 Assessment Monitoring Program Event

The groundwater samples collected during the first semi-annual 2022 AMP event were analyzed by TestAmerica for the presence of concentrations of the constituents and parameters listed in Appendix III and Appendix IV of the CCR Rule. The laboratory certificates of analysis, chain-of-custody forms, and field logs for the sampling event are presented in Appendix A. A summary of the CCR sampling data for the LVWSP is presented in Table 3.

4.3 2nd Semi-Annual 2022 Assessment Monitoring Program Event

The groundwater samples collected during the second semi-annual 2022 AMP event were analyzed by TestAmerica for the presence of concentrations of the constituents and parameters listed in Appendix III of the CCR rule and previously detected CCR Rule Appendix IV constituents. The current list of Appendix IV detects is as follows:

- Arsenic
- Barium
- Beryllium
- Cadmium
- Chromium
- Cobalt
- Fluoride
- Lead
- Lithium
- Molybdenum
- Selenium
- Thallium
- Radium 226 and 228 (combined)

The laboratory certificates of analysis, chain-of-custody forms, and field logs for the sampling event are presented in Appendix B. A summary of the CCR sampling data for the LVWSP is presented in Table 4.

4.3.1 2nd Semi-Annual 2022 Verification Event

The groundwater samples collected during the second semi-annual verification event were analyzed by TestAmerica for the presence of concentrations of cobalt. The laboratory certificates of analysis, chain-of-custody

forms, and field logs for the sampling event are presented in Appendix B.1. A summary of the CCR sampling data for the LVWSP is presented in Table 5.

5.0 DATA QUALITY VALIDATION

The Quality Assurance (QA) and quality control (QC) data provided by the laboratory for the AMP sampling events were reviewed to ensure that the analytical results met the project's data quality objectives as outlined in the Station's GMP (TRC, 2017a). The review process was performed by Environmental Standards, Inc. (ESI) in general accordance with procedures outlined in the National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA, 2017).

5.1 1st Semi-Annual 2022 Compliance Event Findings

The laboratory and field QA/QC data for the first semi-annual compliance monitoring event samples collected April 28, 2022, were reviewed by ESI in accordance with United States Environmental Protection Agency (EPA) Protocol. Field QA/QC samples for this event included a field blank and a duplicate sample that was collected from compliance well OW-10 that were collected at the LVWSP on April 28, 2022. These QA/QC samples were analyzed for the same constituents as the groundwater samples. Based on review of the laboratory-provided QC data and EPA guidance recommendations, the data for this sampling event were determined to meet the data quality objectives for the project with the provided data qualifiers. It is noted that recorded results for calcium were flagged as estimated, biased high, due to matrix spike/matrix spike duplicate (MS/MSD) recoveries outside of acceptable limits. In addition, due to field duplicate imprecision, the recorded radium analysis for OW-10 was flagged as estimated. A copy of the data validation record is presented in Appendix A.

5.2 2nd Semi-Annual 2022 Compliance Event Findings

The laboratory and field QA/QC data for the second semi-annual compliance monitoring event samples collected November 10, 2022, were reviewed by ESI in accordance with EPA Protocol. Field QA/QC samples for this event included a field blank and a duplicate sample that was collected from compliance well OW-2A that were collected at the LVWSP on November 10, 2022. These QA/QC samples were analyzed for the same constituents as the groundwater samples. Based on review of the laboratory-provided QC data and EPA guidance recommendations, the data for this sampling event were determined to meet the data quality objectives for the project with the provided data qualifiers. It is noted that due to laboratory blank contamination, radium results for several samples were flagged as estimated. In addition, the cadmium result recorded for OW-2A was flagged as estimated due to field duplicate imprecision. A copy of the data validation record is presented in Appendix B.

5.3 2nd Semi-Annual 2022 Verification Event Findings

The laboratory and field QA/QC data for the second semi-annual verification event samples collected December 21, 2022, were reviewed by ESI in accordance with EPA Protocol. Field QA/QC samples for this event included a field blank and a duplicate sample that was collected from compliance well OW-2A that were collected

at the LVWSP on December 21, 2022. These QA/QC samples were analyzed for the same constituents as the groundwater samples. Based on review of the laboratory-provided QC data and EPA guidance recommendations, the data for this sampling event were determined to meet the data quality objectives for the project with the provided data qualifiers. A copy of the data validation record is presented in Appendix B.1.

6.0 STATISTICAL EVALUATION OF GROUNDWATER DATA

Per 40 CFR Part 257.94(e)(1), the LVWSP transitioned into the AMP in March 2018. Consistent with the CCR Rule requirements (and as adopted by the WV CCR Rule), the second semi-annual 2021 event data and the 2022 monitoring results were compared to Facility background concentrations and GWPS established on October 17, 2018, as updated.

6.1 2nd Semi-Annual 2021 Assessment Monitoring Data Evaluations

The results from the Unit's monitoring wells were compared to established background concentrations and SSIs were identified over the Unit's background for the second semi-annual 2021 AMP sampling event. Concentrations above background are identified in Table 2.

The following potential GWPS exceedance was identified for the 2nd semi-annual 2021 AMP sampling event based on a value-to-standard evaluation.

Constituent	October 17, 2018 Background Based CCR GWPS (ug/L)	Assessment Monitoring Well	2SA2021 Concentration
Cobalt (µg/L)	34	OW-2A	180
		OW-12	49

Note: ug/L = Microgram per liter

Pursuant to 40 CFR Subpart 257.95(e,f,g), the second semi-annual 2021 results were evaluated against the GWPS. Based on the potential value-to-standard exceedance for cobalt, the cobalt detections at OW-2A and OW-12 were statistically evaluated with a lower confidence limit (LCL) statistical approach. As presented in Appendix C, the LCL calculated for OW-2A was 12.255 ug/L and the LCL calculated for OW-12 was 14.024 ug/L. Both of the LCLs are less than the GWPS and therefore, the potential cobalt GWPS exceedances for cobalt have been refuted.

6.2 1st Semi-Annual 2022 Assessment Monitoring Data Evaluations

Pursuant to 40 CFR Subpart 257.95(e,f,g), the results from the Unit's monitoring wells were compared to updated background concentrations and SSIs were identified over the Unit's background for the first semi-annual AMP sampling event. Concentrations above background are identified in Table 3.

The following potential GWPS exceedance was identified for the 1st semi-annual 2022 AMP sampling event based on a value-to-standard evaluation.

Constituent	October 17, 2018 Background Based CCR GWPS (ug/L)	Assessment Monitoring Well	1SA2022 Concentration
Cobalt (µg/L)	34	OW-2A	36

Note: ug/L = Microgram per liter

Pursuant to 40 CFR Subpart 257.95(e,f,g), the first semi-annual 2022 results were evaluated against the GWPS. Based on the potential value-to-standard exceedance for cobalt, the cobalt detections at OW-2A were statistically evaluated with a lower confidence limit (LCL) statistical approach. As presented in Appendix D, the LCL calculated for OW-2A was 13.1 ug/L, which is lower than the GWPS. Therefore, the potential cobalt GWPS exceedances for cobalt have been refuted.

6.3 2nd Semi-Annual 2022 Assessment Monitoring Data Evaluations

The data for the second semi-annual 2022 AMP sampling event are being evaluated against the GWPS for the LVWSP and the Facility background concentrations in accordance with the CCR Rule timeframes. The results from those evaluations, including the results of the verification sampling, will be presented in the *2023 Annual Groundwater Monitoring and Corrective Action Report*.

7.0 CONCLUSIONS

7.1 Findings

The first semi-annual 2022 AMP compliance sampling event was completed on April 28, 2022, with sample analyses completed on June 3, 2022. The second semi-annual 2022 AMP compliance sampling event was completed on November 10, 2022, with sample analyses complete on December 15, 2022. A verification sampling event was conducted on December 21, 2022, to address suspected exceedances of cobalt at wells OW-2A and OW-12, with sample analysis complete on January 4, 2023. These groundwater sampling and analysis activities were conducted in general accordance with the requirements of the LVWSP's GMP for the CCR network.

Comparisons of the laboratory analytical results from the 2021 second semi-annual and 2022 first semi-annual sampling events to Federal and WV CCR GWPS identified no statistically confirmed GWPS exceedances. Monitoring results from the second semi-annual 2022 AMP event conducted in November 2022 and a verification sampling event conducted in December 2022 are being evaluated against site-specific GWPS in accordance with the applicable CCR Rule timeframe.

7.2 Planned Activities

Based on the results presented herein, Dominion Energy intends to complete the required data evaluations for the second semi-annual 2022 AMP verification sampling event within the CCR Rule prescribed timeframes and continue with semi-annual groundwater monitoring activities in 2023 that are consistent with the provisions in the CCR Rule [Part 257.95 *et. seq*], the WV CCR Rule, and the LVWSP's GMP.

8.0 REFERENCES

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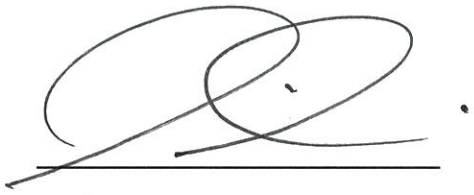
9.0 SIGNATURE SECTION

This *2022 Annual CCR Groundwater Monitoring and Corrective Action Report* (Report) has been prepared by WSP USA Inc. on the behalf of Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy) for the Mt. Storm Power Station Low Volume Waste Settling Ponds. This Report satisfies the reporting requirements specified in Title 40 Code of Federal Regulations (CFR) Part 257.90(e) *et seq.* [Disposal of Coal Combustion Residuals (CCR) from Electric Utilities (CCR Rule; Federal Register Vol. 80, No. 74, 21302-21501 on April 17, 2015, as amended)] and the WV CCR Rule.

Signature	Name & Title
	Michael G. Williams, C.P.G. (VA) Practice Lead, Senior Hydrogeologist
	Crystal Shadle Lead Consultant, Geologist

https://golderassociates.sharepoint.com/sites/142954/project files/6 deliverables/lvwsp/2022-1-xx amr/2022-01-31 mount storm lvwsp ccr amr.docx

TABLES

TABLE 1

SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA

MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS

Monitoring Well	Top of Casing Elevation (ft ASML)	Date	Depth to Water (feet)	Static Water Level Elevation (ft AMSL)
OW-2	3257.85	11/03/2015	12.59	3245.26
		02/01/2016	11.70	3246.15
		05/02/2016	10.99	3246.86
		08/23/2016	10.91	3246.94
		11/28/2016	12.44	3245.41
		02/13/2017	11.69	3246.16
		05/16/2017	11.62	3246.23
		08/15/2017	14.03	3243.82
		10/10/2017	14.17	3243.68
		03/19/2018	11.38	3246.47
		06/04/2018	10.04	3247.81
		10/30/2018	13.71	3244.14
		04/17/2019	11.78	3246.07
		10/30/2019	12.70	3245.15
		04/15/2020	11.20	3246.65
		10/12/2020	12.32	3245.53
		04/28/2021	10.88	3246.97
		11/04/2021	11.50	3246.35
		04/27/2022	10.45	3247.40
		11/09/2022	13.69	3244.16
OW-2A	3257.41	11/03/2015	12.77	3244.64
		02/01/2016	13.54	3243.87
		05/02/2016	12.46	3244.95
		08/23/2016	13.54	3243.87
		11/28/2016	12.79	3244.62
		02/13/2017	11.79	3245.62
		05/16/2017	12.14	3245.27
		08/15/2017	14.19	3243.22
		10/10/2017	14.01	3243.40
		03/19/2018	13.21	3244.20
		06/05/2018	11.96	3245.45
		10/31/2018	16.19	3241.22
		04/17/2019	12.41	3245.00
		10/30/2019	13.72	3243.69
		04/15/2020	12.52	3244.89
		10/12/2020	13.62	3243.79
		04/28/2021	12.70	3244.71
		11/04/2021	11.93	3245.48
		04/27/2022	12.51	3244.90
		11/09/2022	14.39	3243.02

TABLE 1

SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA

MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS

Monitoring Well	Top of Casing Elevation (ft ASML)	Date	Depth to Water (feet)	Static Water Level Elevation (ft AMSL)
OW-4	3258.73	11/03/2015	14.25	3244.48
		02/01/2016	15.52	3243.21
		05/02/2016	14.10	3244.63
		08/23/2016	15.01	3243.72
		11/28/2016	14.47	3244.26
		02/13/2017	12.87	3245.86
		05/16/2017	13.38	3245.35
		08/15/2017	14.89	3243.84
		10/10/2017	14.69	3244.04
		03/19/2018	14.22	3244.51
		06/04/2018	12.57	3246.16
		10/30/2018	13.04	3245.69
		04/17/2019	13.43	3245.30
		10/30/2019	14.59	3244.14
		04/15/2020	13.01	3245.72
		10/12/2020	14.33	3244.40
		04/28/2021	12.79	3245.94
		11/04/2021	11.80	3246.93
		04/27/2022	12.79	3245.94
		11/09/2022	16.66	3242.07
OW-4A	3257.40	11/03/2015	12.76	3244.64
		02/01/2016	14.00	3243.40
		05/02/2016	12.57	3244.83
		08/23/2016	13.53	3243.87
		11/28/2016	12.97	3244.43
		02/13/2017	11.71	3245.69
		05/16/2017	11.89	3245.51
		08/15/2017	13.40	3244.00
		10/10/2017	13.23	3244.17
		03/20/2018	13.01	3244.39
		06/05/2018	11.39	3246.01
		10/31/2018	11.84	3245.56
		04/17/2019	12.25	3245.15
		10/30/2019	13.41	3243.99
		04/15/2020	11.81	3245.59
		10/12/2020	13.13	3244.27
		04/28/2021	11.61	3245.79
		11/04/2021	10.63	3246.77
		04/27/2022	11.63	3245.77
		11/09/2022	14.41	3242.99

TABLE 1

SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA

MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS

Monitoring Well	Top of Casing Elevation (ft ASML)	Date	Depth to Water (feet)	Static Water Level Elevation (ft AMSL)
OW-6A	3251.88	11/03/2015	6.21	3245.67
		02/01/2016	6.16	3245.72
		05/02/2016	5.60	3246.28
		08/23/2016	6.01	3245.87
		11/28/2016	6.45	3245.43
		02/13/2017	5.38	3246.50
		05/16/2017	5.47	3246.41
		08/15/2017	10.11	3241.77
		10/10/2017	8.95	3242.93
		03/19/2018	6.50	3245.38
		06/04/2018	4.65	3247.23
		10/30/2018	8.71	3243.17
		04/17/2019	6.33	3245.55
	3251.84	10/30/2019	6.86	3244.98
		04/15/2020	5.72	3246.12
		10/12/2020	7.10	3244.74
		04/28/2021	6.46	3245.38
		11/04/2021	6.98	3244.86
		04/27/2022	7.02	3244.82
		11/09/2022	7.94	3243.90
OW-6B	3252.68	11/03/2015	7.67	3245.01
		02/01/2016	8.28	3244.40
		05/02/2016	7.34	3245.34
		08/23/2016	8.33	3244.35
		11/28/2016	7.67	3245.01
		02/13/2017	6.98	3245.70
		05/16/2017	7.11	3245.57
		08/15/2017	9.65	3243.03
		10/10/2017	9.17	3243.51
		03/19/2018	8.05	3244.63
		06/04/2018	6.78	3245.90
		10/30/2018	9.97	3242.71
		04/17/2019	7.73	3244.95
		10/30/2019	8.65	3244.03
		04/15/2020	7.37	3245.31
		10/12/2020	8.51	3244.17
		04/29/2021	7.59	3245.09
		11/04/2021	6.78	3245.90
		04/27/2022	7.39	3245.29
		11/09/2022	9.31	3243.37

TABLE 1

SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA

MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS

Monitoring Well	Top of Casing Elevation (ft ASML)	Date	Depth to Water (feet)	Static Water Level Elevation (ft AMSL)
OW-7A	3288.04	11/03/2015	34.01	3254.03
		02/01/2016	32.93	3255.11
		05/02/2016	33.03	3255.01
		08/23/2016	33.64	3254.40
		11/28/2016	34.10	3253.94
		02/13/2017	33.10	3254.94
		05/16/2017	36.99	3251.05
		08/15/2017	37.10	3250.94
		10/10/2017	37.11	3250.93
		03/19/2018	36.08	3251.96
		06/05/2018	35.92	3252.12
		10/31/2018	36.85	3251.19
		04/17/2019	36.93	3251.11
		10/30/2019	37.62	3250.42
		04/15/2020	36.45	3251.59
		10/12/2020	37.30	3250.74
		04/28/2021	36.57	3251.47
		11/04/2021	37.27	3250.77
		04/27/2022	36.49	3251.55
		11/09/2022	37.68	3250.36
OW-7B	3289.31	11/03/2015	34.43	3254.88
		02/01/2016	32.66	3256.65
		05/02/2016	32.50	3256.81
		08/23/2016	33.65	3255.66
		11/28/2016	34.90	3254.41
		02/13/2017	32.20	3257.11
		05/16/2017	35.24	3254.07
		08/15/2017	36.95	3252.36
		10/10/2017	37.29	3252.02
		03/19/2018	35.41	3253.90
		06/04/2018	35.18	3254.13
		10/30/2018	36.10	3253.21
		04/17/2019	36.04	3253.27
		10/30/2019	37.12	3252.19
		04/15/2020	35.67	3253.64
		10/12/2020	36.55	3252.76
		04/28/2021	35.08	3254.23
		11/04/2021	35.71	3253.60
		04/27/2022	34.79	3254.52
		11/09/2022	36.61	3252.70

TABLE 1

SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA

MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS

Monitoring Well	Top of Casing Elevation (ft ASML)	Date	Depth to Water (feet)	Static Water Level Elevation (ft AMSL)
OW-8	3305.03	11/03/2015	44.36	3260.67
		02/01/2016	42.80	3262.23
		05/02/2016	42.58	3262.45
		08/23/2016	43.64	3261.39
		11/28/2016	44.96	3260.07
		02/13/2017	41.16	3263.87
		05/16/2017	41.09	3263.94
		08/15/2017	43.32	3261.71
		10/10/2017	44.85	3260.18
		03/19/2018	41.75	3263.28
		06/05/2018	42.24	3262.79
		10/30/2018	44.93	3260.10
		04/17/2019	45.23	3259.80
		10/30/2019	48.49	3256.54
		04/15/2020	43.49	3261.54
		10/12/2020	46.94	3258.09
		04/28/2021	44.44	3260.59
		11/04/2021	45.03	3260.00
		04/27/2022	44.30	3260.73
		11/09/2022	48.04	3256.99
OW-8A	3305.40	11/03/2015	55.98	3249.42
		02/01/2016	55.46	3249.94
		05/02/2016	54.15	3251.25
		08/23/2016	54.43	3250.97
		11/28/2016	55.55	3249.85
		02/13/2017	54.06	3251.34
		05/16/2017	55.72	3249.68
		08/15/2017	57.24	3248.16
		10/10/2017	58.01	3247.39
		03/19/2018	56.45	3248.95
		06/04/2018	55.91	3249.49
		10/30/2018	58.23	3247.17
		04/17/2019	58.36	3247.04
		10/30/2019	59.53	3245.87
		04/15/2020	57.89	3247.51
		10/12/2020	59.92	3245.48
		04/28/2021	57.50	3247.90
		11/04/2021	58.16	3247.24
		04/27/2022	57.44	3247.96
		11/09/2022	59.46	3245.94

TABLE 1

SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA

MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS

Monitoring Well	Top of Casing Elevation (ft ASML)	Date	Depth to Water (feet)	Static Water Level Elevation (ft AMSL)
OW-9A	3257.56	11/03/2015	12.26	3245.30
		02/01/2016	12.72	3244.84
		05/02/2016	12.19	3245.37
		08/23/2016	12.53	3245.03
		11/28/2016	13.13	3244.43
		02/13/2017	11.89	3245.67
		05/16/2017	Dry	--
		08/15/2017	Dry	--
		10/10/2017	Dry	--
		03/19/2018	13.49	3244.07
		06/04/2018	12.44	3245.22
		10/30/2018	13.33	3244.33
		04/17/2019	>13.24	<3244.32
		10/30/2019	>13.24	<3244.32
		04/15/2020	>13.22	<3244.34
		10/12/2020	>14.23	<3243.33
		04/28/2021	>13.23	<3244.33
		11/04/2021	12.79	3244.77
		04/27/2022	13.28	3244.28
		11/09/2022	>13.33	<3244.43
OW-9B	3257.57	11/03/2015	12.30	3245.27
		02/01/2016	13.42	3244.15
		05/02/2016	12.15	3245.42
		08/23/2016	13.16	3244.41
		11/28/2016	12.77	3244.80
		02/13/2017	11.42	3246.15
		05/16/2017	11.68	3245.89
		08/15/2017	13.35	3244.22
		10/10/2017	13.21	3244.36
		03/19/2018	12.20	3245.37
		06/04/2018	10.83	3246.74
		10/30/2018	11.55	3246.02
		04/17/2019	12.11	3245.46
		10/30/2019	13.06	3244.51
		04/15/2020	11.47	3246.10
		10/12/2020	13.05	3244.52
		04/28/2021	20.52	3237.05
		11/04/2021	10.73	3246.84
		04/27/2022	11.52	3246.05
		11/09/2022	14.01	3243.56

TABLE 1

SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA

MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS

Monitoring Well	Top of Casing Elevation (ft ASML)	Date	Depth to Water (feet)	Static Water Level Elevation (ft AMSL)
OW-10	3256.86	11/03/2015	12.24	3244.62
		02/01/2016	13.38	3243.48
		05/02/2016	11.99	3244.87
		08/23/2016	12.99	3243.87
		11/28/2016	12.35	3244.51
		02/13/2017	11.18	3245.68
		05/16/2017	11.37	3245.49
		08/15/2017	12.93	3243.93
		10/10/2017	12.77	3244.09
		03/19/2018	12.49	3244.37
		06/05/2018	10.90	3245.96
		10/31/2018	12.60	3244.26
		04/17/2019	11.75	3245.11
		10/30/2019	12.88	3243.98
		04/15/2020	11.39	3245.47
		10/12/2020	12.65	3244.21
		04/28/2021	11.23	3245.63
		11/04/2021	10.25	3246.61
		04/27/2022	11.20	3245.66
		11/09/2022	13.90	3242.96
OW-11	3260.48	11/03/2015	15.30	3245.18
		02/01/2016	15.70	3244.78
		05/02/2016	15.14	3245.34
		08/23/2016	15.75	3244.73
		11/28/2016	16.10	3244.38
		02/13/2017	14.90	3245.58
		05/16/2017	22.27	3238.21
		08/15/2017	21.83	3238.65
		10/10/2017	19.43	3241.05
		03/19/2018	16.81	3243.67
		06/04/2018	15.70	3244.78
		10/30/2018	16.71	3243.77
		04/17/2019	17.03	3243.45
		10/30/2019	17.27	3243.21
		04/15/2020	16.69	3243.79
		10/12/2020	17.14	3243.34
		04/28/2021	15.71	3244.77
		11/04/2021	16.06	3244.42
		04/27/2022	16.55	3243.93
		11/09/2022	16.61	3243.87

TABLE 1

SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA

MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS

Monitoring Well	Top of Casing Elevation (ft ASML)	Date	Depth to Water (feet)	Static Water Level Elevation (ft AMSL)
OW-12	3270.00	11/28/2016	25.20	3244.80
		02/13/2017	23.81	3246.19
		05/16/2017	24.05	3245.95
		08/15/2017	25.65	3244.35
		10/10/2017	25.53	3244.47
		03/20/2018	25.29	3244.71
		06/05/2018	23.89	3246.11
		10/31/2018	24.94	3245.06
		04/17/2019	25.42	3244.58
		10/30/2019	25.85	3244.15
		04/15/2020	25.02	3244.98
		10/12/2020	26.10	3243.90
		04/28/2021	25.00	3245.00
		11/04/2021	24.33	3245.67
		04/27/2022	25.05	3244.95
		11/09/2022	27.03	3242.97
OW-13	3260.47	02/13/2017	14.83	3245.64
		05/16/2017	21.19	3239.28
		08/15/2017	18.88	3241.59
		10/10/2017	18.31	3242.16
		03/20/2018	13.89	3246.58
		06/05/2018	13.51	3246.96
		10/31/2018	16.10	3244.37
		04/17/2019	16.31	3244.16
		10/30/2019	16.75	3243.72
		04/15/2020	15.75	3244.72
		10/12/2020	16.62	3243.85
		04/28/2021	16.12	3244.35
		11/04/2021	15.59	3244.88
		04/27/2022	15.95	3244.52
		11/09/2022	17.06	3243.41
OW-14	3261.61	10/30/2018	17.75	3243.86
		04/17/2019	18.00	3243.61
		10/30/2019	18.32	3243.29
		04/15/2020	17.75	3243.86
		10/12/2020	18.37	3243.24
		04/28/2021	17.90	3243.71
		11/04/2021	17.22	3244.39
		04/27/2022	17.75	3243.86
		11/09/2022	17.21	3244.40

TABLE 1

SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA

MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS

Monitoring Well	Top of Casing Elevation (ft ASML)	Date	Depth to Water (feet)	Static Water Level Elevation (ft AMSL)
OW-15	3254.08	10/30/2018	8.53	3245.55
		04/17/2019	8.53	3245.55
		10/30/2019	10.12	3243.96
		04/15/2020	8.54	3245.54
		10/12/2020	9.87	3244.21
		04/29/2021	8.98	3245.10
		11/04/2021	7.42	3246.66
		04/27/2022	8.34	3245.74
		11/09/2022	11.15	3242.93
OW-16A	3262.91	10/30/2018	24.21	3238.70
		04/17/2019	20.50	3242.41
	3264.07	10/30/2019	22.23	3241.84
		04/15/2020	20.74	3243.33
		10/12/2020	22.15	3241.92
		04/28/2021	21.72	3242.35
		11/04/2021	21.41	3242.66
		04/27/2022	21.69	3242.38
		11/09/2022	23.63	3240.44
OW-17A	3262.83	10/30/2018	24.20	3238.63
		04/17/2019	20.48	3242.35
	3264.42	10/30/2019	22.58	3241.84
		04/15/2020	22.07	3242.35
		10/12/2020	22.52	3241.90
		04/28/2021	22.07	3242.35
		11/04/2021	20.78	3243.64
		04/27/2022	22.04	3242.38
		11/09/2022	22.76	3241.66
OW-18A	3263.25	10/30/2018	21.09	3242.16
		04/17/2019	20.71	3242.54
	3264.48	10/30/2019	22.23	3242.25
		04/15/2020	21.78	3242.70
		10/12/2020	22.04	3242.44
		04/28/2021	21.73	3242.75
		11/04/2021	21.56	3242.92
		04/27/2022	21.64	3242.84
		11/09/2022	22.20	3242.28

TABLE 1

SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA

MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS

Monitoring Well	Top of Casing Elevation (ft ASML)	Date	Depth to Water (feet)	Static Water Level Elevation (ft AMSL)
OW-19	3269.70	10/30/2018	28.02	3241.68
		04/17/2019	27.98	3241.72
		10/30/2019	27.98	3241.72
		04/15/2020	27.70	3242.00
		10/12/2020	27.96	3241.74
		04/28/2021	27.75	3241.95
		11/04/2021	27.69	3242.01
		04/27/2022	27.72	3241.98
		11/09/2022	19.96	3249.74
Note:	ft AMSL = feet Above Mean Sea Level			
	< = Water level elevation is below the top of pump			

Table 2
Summary of 2nd Semi-Annual 2021 Assessment Monitoring Program Event Data (November 2021)
Low Volume Waste Settling Ponds, Mount Storm Power Station

				Upgradient Wells								Downgradient Wells																Field Quality Control							
		Sample ID:		OW-7A				OW-8				OW-2A				OW-4A				OW-10				OW-12				OW-13				OW-4A - DUP				Field Blank			
		Sample Date:		11/4/2021				11/4/2021				11/4/2021				11/4/2021				11/4/2021				11/4/2021				11/4/2021				11/4/2021				11/4/2021			
Parameter Name	**Units**	**CCR Site-Specific BKGD**	**CCR GWPS**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**
CCR Appendix III Constituents																																							
Boron	mg/L	0.17	--	< 0.057	U	0.057	0.10	**0.10**		0.057	0.10	**0.099**	J	0.057	0.10	**0.085**	J	0.057	0.10	**0.097**	J	0.057	0.10	**0.26**		0.057	0.10	**0.065**	J	0.057	0.10	**0.082**	J	0.057	0.10	< 0.057	U	0.057	0.10
Calcium	mg/L	460	--	**43**		0.58	1.0	**310**		0.58	1.0	**59**		0.58	1.0	**24**		0.58	1.0	**39**		0.58	1.0	**88**		0.58	1.0	**20**		0.58	1.0	**24**		0.58	1.0	< 0.58	U	0.58	1.0
Chloride	mg/L	208.1	--	**95**		0.28	1.0	**190**		0.28	1.0	**49**		0.28	1.0	**4.8**		0.28	1.0	**6.7**		0.28	1.0	**110**		0.28	1.0	**23**		0.28	1.0	**5.1**		0.28	1.0	< 0.28	U	0.28	1.0
Fluoride	mg/L	0.540	4.0	**0.11**		0.024	0.050	**0.050**		0.024	0.050	**0.036**	J	0.024	0.050	**0.074**		0.024	0.050	**0.21**		0.024	0.050	**0.056**		0.024	0.050	**0.044**	J	0.024	0.050	**0.10**		0.024	0.050	< 0.024	U	0.024	0.050
pH	SU	5.77-7.17	--	5.57		0.01	0.01	6.36		0.01	0.01	5.72		0.01	0.01	6.38		0.01	0.01	6.51		0.01	0.01	5.46		0.01	0.01	5.91		0.01	0.01	--		0.01	0.01	--		0.01	0.01
Sulfate	mg/L	1000	--	**9.6**		0.35	1.0	**690**		1.7	5.0	**80**		0.35	1.0	**42**		0.35	1.0	0.35	U	0.35	1.0	**240**		1.7	5.0	< 0.35	U	0.35	1.0	**46**		0.35	1.0	< 0.35	U	0.35	1.0
Total Dissolved Solids	mg/L	1819	--	**270**		10	10	**1500**		10	10	**350**		10	10	**110**		10	10	**200**		10	10	**610**		10	10	**380**		10	10	**110**		10	10	< 10	U	10	10
Detected CCR Appendix IV Constituents																																							
Arsenic	ug/L	QL (5)	10	< 0.75	U	0.75	5.0	< 0.75	U	0.75	5.0	**1.7**	J	0.75	5.0	**1.5**	J	0.75	5.0	**1.0**	J	0.75	5.0	**2.4**	J	0.75	5.0	**8.0**		0.75	5.0	**1.6**	J	0.75	5.0	< 0.75	U	0.75	5.0
Barium	ug/L	370	2,000	**280**		2.2	5.0	**11**		2.2	5.0	**200**		2.2	5.0	**79**		2.2	5.0	**280**		2.2	5.0	**59**		2.2	5.0	**170**		2.2	5.0	**74**		2.2	5.0	< 2.2	U	2.2	5.0
Beryllium	ug/L	QL (4)	4	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0
Cadmium	ug/L	QL (3)	5	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	**3.9**		0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0
Chromium	ug/L	11	100	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0	**5.5**		2.5	5.0	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0
Cobalt	ug/L	34	34	**3.6**		0.19	1.0	**25**		0.19	1.0	**180**		0.19	1.0	**0.34**	J	0.19	1.0	**0.23**	J	0.19	1.0	**49**		0.19	1.0	**4.1**		0.19	1.0	**0.34**	J	0.19	1.0	< 0.19	U	0.19	1.0
Fluoride	mg/L	0.540	4.0	**0.11**		0.024	0.050	**0.050**		0.024	0.050	**0.036**	J	0.024	0.050	**0.074**		0.024	0.050	**0.21**		0.024	0.050	**0.056**		0.024	0.050	**0.044**	J	0.024	0.050	**0.10**		0.024	0.050	< 0.024	U	0.024	0.050
Lead	ug/L	QL (10)	15	< 0.45	U	0.45	1.0	< 0.45	U	0.45	1.0	**0.94**	J	0.45	1.0	< 0.45	U	0.45	1.0	< 0.45	U	0.45	1.0	< 0.45	U	0.45	1.0	**0.56**	J	0.45	1.0	< 0.45	U	0.45	1.0	< 0.45	U	0.45	1.0
Lithium	ug/L	QL (40)	40	**14**		1.7	8.0	**8.7**		1.7	8.0	**2.6**	J	1.7	8.0	**1.9**	J	1.7	8.0	**8.8**		1.7	8.0	**2.4**	J	1.7	8.0	< 1.7	U	1.7	8.0	**2.3**	J	1.7	8.0	< 1.7	U	1.7	8.0
Molybdenum	ug/L	QL (50)	100	< 1.1	U	1.1	5.0	< 1.1	U	1.1	5.0	**1.3**	J	1.1	5.0	**1.4**	J	1.1	5.0	< 1.1	U	1.1	5.0	**3.3**	J	1.1	5.0	< 1.1	U	1.1	5.0	**1.5**	J	1.1	5.0	< 1.1	U	1.1	5.0
Selenium	ug/L	QL (5)	50	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	**1.2**	J	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0
Thallium	ug/L	QL (1)	2	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	0.62	U	0.62	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0
Radium 226 and 228 (combined)	pCi/L	QL (5)	5	< 0.879	U	--	--	< 0.0226	U	--	--	**0.694**	J	--	--	< 0.424	U	--	--	< 0.501	U	--	--	< 0.637	U	--	--	< 1.19	U	--	--	< 0.502	U	--	--	< 0.0662	U	--	--
Field Parameters																																								
Conductivity	uS/cm	--	--	577		0.1	0.1	2065		0.1	0.1	580		0.1	0.1	308.2		0.1	0.1	337.8		0.1	0.1	930		0.1	0.1	802		0.1	0.1	--		--	--	--		--	--
Depth to Water*	ft btoc	--	--	37.27		0.01	0.01	45.03		0.01	0.01	11.93		0.01	0.01	10.63		0.01	0.01	10.25		0.01	0.01	24.33		0.01	0.01	15.59		0.01	0.01	--		--	--	--		--	--
Dissolved Oxygen	mg/L	--	--	3.35		0.01	0.01	1.46		0.01	0.01	1.23		0.01	0.01	3.63		0.01	0.01	1.48		0.01	0.01	2.09		0.01	0.01	2.15		0.01	0.01	--		--	--	--		--	--
Groundwater Elevation*	ft msl	--	--	3250.77		0.01	0.01	3260.00		0.01	0.01	3245.48		0.01	0.01	3246.77		0.01	0.01	3246.61		0.01	0.01	3245.67		0.01	0.01	3244.88		0.01	0.01	--		--	--	--		--	--
Oxidation Reduction Potential	millivolts	--	--	12.4		0.1	0.1	-48.0		0.1	0.1	39.4		0.1	0.1	-58.0		0.1	0.1	-90.2		0.1	0.1	31.2		0.1	0.1	-79.8		0.1	0.1	--		--	--	--		--	--
Temperature	C	--	--	6.5		0.01	0.01	11.3		0.01	0.01	12.9		0.01	0.01	14.4		0.01	0.01	15.0		0.01	0.01	10.5		0.01	0.01	9.3		0.01	0.01	--		--	--	--		--	--
Turbidity	NTU	--	--	1.99		0.1	0.1	8.2		0.1	0.1	50.2		0.1	0.1	9.04		0.1	0.1	8.9		0.1	0.1	2.31		0.1	0.1	24.63		0.1	0.1	--		--	--	--		--	--

Notes:
BKGD = Background
CCR = Coal Combustion Residuals
GWPS = Groundwater Protection Standards
QL = Quantitation Limit
MDL = Method Detection Limit
RL = Reporting Limit
mg/L = Milligram per liter
µg/L = Microgram per liter
pCi/L = picoCurie per liter
µS/cm = MicroSiemen per centimeter
SU = Standard Units
C = Degrees Celsius
NTU = Nephelometric Turbidity Unit
ft btoc = feet below top of casing
ft msl = feet above mean sea level
Bold font = Detected laboratory constituent
* - Groundwater Elevation data collected on November 1, 2021

Qualifiers (Qual):
J = Quantitation is approximate due to limitations identified during data validation
U = The analyte was not detected above the level of the sample reporting limit

= Concentration greater than site specific background

= Concentration greater than CCR GWPS and site background

Table 3
Summary of 1st Semi-Annual 2022 Assessment Monitoring Program Event Data (April 2022)
Low Volume Waste Settling Ponds, Mount Storm Power Station

					Upgradient Wells								Downgradient Wells																Field Quality Control							
				Sample ID:	OW-7A				OW-8				OW-2A				OW-4A				OW-10				OW-12				OW-13				OW-10 DUP				Field Blank			
				Sample Date:	4/28/2022				4/28/2022				4/28/2022				4/28/2022				4/28/2022				4/28/2022				4/28/2022				4/28/2022				4/28/2022			
Parameter Name	**Units**	**CCR Site-Specific BKGD**	**Federal GWPS**	**WV CCR GWPS**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**
CCR Appendix III Constituents																																								
Boron	ug/L	170	--	--	< 57	U	57	100	< 57	U	57	100	**76**	J	57	100	< 57	U	57	100	< 57	U	57	100	**170**		57	100	< 57	U	57	100	< 57	U	57	100	< 57	U	57	100
Calcium	ug/L	460,000	--	--	**40000**	J+	580	1000	**400000**	J+	580	1000	**120000**	J+	580	1000	**23000**	J+	580	1000	**32000**	J+	580	1000	**71000**	J+	580	1000	**23000**	J+	580	1000	**38000**	J+	580	1000	< 580	U	580	1000
Chloride	mg/L	208.1	--	--	**100**		0.28	1.0	**230**		2.8	10	**26**		0.28	1.0	**6.5**		0.28	1.0	**6.7**		0.28	1.0	**100**		0.28	1.0	**23**		0.28	1.0	**6.7**		0.28	1.0	< 0.28	U	0.28	1.0
Fluoride	mg/L	0.540	--	4.0	**0.15**		0.024	0.050	**0.089**		0.024	0.050	**0.22**		0.024	0.050	**0.10**		0.024	0.050	**0.18**		0.024	0.050	**0.063**		0.024	0.050	**0.056**		0.024	0.050	**0.18**		0.024	0.050	< 0.024	U	0.024	0.050
pH	SU	5.77-7.17	--	--	6.08		0.01	0.01	6.47		0.01	0.01	6.49		0.01	0.01	6.96		0.01	0.01	6.55		0.01	0.01	5.96		0.01	0.01	6.36		0.01	0.01	--		--	--	--		--	--
Sulfate	mg/L	1000	--	--	**11**		0.35	1.0	**920**		3.5	10	**130**		0.35	1.0	**39**		0.35	1.0	**0.43**	J	0.35	1.0	**190**		0.35	1.0	**1.1**		0.35	1.0	**0.57**	J	0.35	1.0	< 0.35	U	0.35	1.0
Total Dissolved Solids	mg/L	1819	--	--	**250**		10	10	**1800**		20	20	**470**		10	10	**120**		10	10	**140**		10	10	**510**		10	10	**440**		10	10	**140**		10	10	< 10	U	10	10
CCR Appendix IV Constituents																																								
Antimony	ug/L	QL (2)	--	--	< 0.57	U	0.57	2.0	< 0.57	U	0.57	2.0	< 0.57	U	0.57	2.0	< 0.57	U	0.57	2.0	< 0.57	U	0.57	2.0	< 0.57	U	0.57	2.0	< 0.57	U	0.57	2.0	< 0.57	U	0.57	2.0	< 0.57	U	0.57	2.0
Arsenic	ug/L	QL (5)	10	10	< 0.75	U	0.75	5.0	**0.99**	J	0.75	5.0	**0.90**	J	0.75	5.0	**0.94**	J	0.75	5.0	< 0.75	U	0.75	5.0	**1.4**	J	0.75	5.0	**4.2**	J	0.75	5.0	< 0.75	U	0.75	5.0	< 0.75	U	0.75	5.0
Barium	ug/L	370	2000	2,000	**270**		2.2	5.0	**11**		2.2	5.0	**260**		2.2	5.0	**75**		2.2	5.0	**200**		2.2	5.0	**45**		2.2	5.0	**120**		2.2	5.0	**240**		2.2	5.0	< 2.2	U	2.2	5.0
Beryllium	ug/L	QL (4)	4	4	<0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0
Cadmium	ug/L	QL (3)	5	5	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	**0.90**	J	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0
Chromium	ug/L	11	100	100	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0	**4.2**	J	2.5	5.0	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0
Cobalt	ug/L	34	34	34	**3.2**		0.19	1.0	**30**		0.19	1.0	**36**		0.19	1.0	**0.35**	J	0.19	1.0	< 0.19	U	0.19	1.0	**32**		0.19	1.0	**1.6**		0.19	1.0	< 0.19	U	0.19	1.0	< 0.19	U	0.19	1.0
Fluoride	mg/L	0.540	4.0	4.0	**0.15**		0.024	0.050	**0.089**		0.024	0.050	**0.22**		0.024	0.050	**0.10**		0.024	0.050	**0.18**		0.024	0.050	**0.063**		0.024	0.050	**0.056**		0.024	0.050	**0.18**		0.024	0.050	< 0.024	U	0.024	0.050
Lead	ug/L	QL (10)	15	QL (10)	< 0.45	U	0.45	1.0	< 0.45	U	0.45	1.0	< 0.45	U	0.45	1.0	< 0.45	U	0.45	1.0	< 0.45	U	0.45	1.0	< 0.45	U	0.45	1.0	< 0.45	U	0.45	1.0	< 0.45	U	0.45	1.0	< 0.45	U	0.45	1.0
Lithium	ug/L	QL (40)	40	QL (40)	**14**		1.7	8.0	**10**		1.7	8.0	**8.2**		1.7	8.0	**1.9**	J	1.7	8.0	**4.8**	J	1.7	8.0	< 1.7	U	1.7	8.0	**2.2**	J	1.7	8.0	**7.5**	J	1.7	8.0	< 1.7	U	1.7	8.0
Mercury	ug/L	QL (0.2)	2	2	< 0.13	U	0.13	0.20	< 0.13	U	0.13	0.20	**0.14**	J	0.13	0.20	< 0.13	U	0.13	0.20	< 0.13	U	0.13	0.20	< 0.13	U	0.13	0.20	< 0.13	U	0.13	0.20	< 0.13	U	0.13	0.20	< 0.13	U	0.13	0.20
Molybdenum	ug/L	QL (50)	100	QL (50)	< 1.1	U	1.1	5.0	< 1.1	U	1.1	5.0	**3.0**	J	1.1	5.0	< 1.1	U	1.1	5.0	< 1.1	U	1.1	5.0	**3.2**	J	1.1	5.0	< 1.1	U	1.1	5.0	< 1.1	U	1.1	5.0	< 1.1	U	1.1	5.0
Selenium	ug/L	QL (5)	50	50	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0
Thallium	ug/L	QL (1)	2	2	**0.37**	J	0.20	1.0	**0.52**	J	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0
Radium 226 and 228 (Combined)	pCi/L	QL (5)	5	5	0.469	U	--	--	0.410	U	--	--	**1.29**		--	--	0.593	U	--	--	**1.61**	J	--	--	**1.13**	J	--	--	**1.70**		--	--	0.898	UJ	--	--	0.403	U	--	--
Field Parameters																																								
Conductivity	uS/cm	--	--	--	492.3		0.1	0.1	2121		0.1	0.1	740		0.1	0.1	198.9		0.1	0.1	329.5		0.1	0.1	719		0.1	0.1	549		0.1	0.1	--		--	--	--		--	--
Depth to Water*	ft btoc	--	--	--	36.49		0.01	0.01	44.30		0.01	0.01	12.51		0.01	0.01	11.63		0.01	0.01	11.20		0.01	0.01	25.05		0.01	0.01	15.95		0.01	0.01	--		--	--	--		--	--
Dissolved Oxygen	mg/L	--	--	--	1.45		0.01	0.01	1.54		0.01	0.01	0.40		0.01	0.01	0.91		0.01	0.01	1.32		0.01	0.01	0.33		0.01	0.01	0.28		0.01	0.01	--		--	--	--		--	--
Groundwater Elevation*	ft msl	--	--	--	3251.55		0.01	0.01	3260.73		0.01	0.01	3244.90		0.01	0.01	3245.77		0.01	0.01	3245.66		0.01	0.01	3244.95		0.01	0.01	3244.53		0.01	0.01	--		--	--	--		--	--
Oxidation Reduction Potential	millivolts	--	--	--	-21.0		0.1	0.1	-65.3		0.1	0.1	-53.3		0.1	0.1	-84.9		0.1	0.1	-86.7		0.1	0.1	32.6		0.1	0.1	-101.6		0.1	0.1	--		--	--	--		--	--
Temperature	C	--	--	--	9.2		0.1	0.1	10.3		0.1	0.1	9.2		0.1	0.1	12.2		0.1	0.1	9.8		0.1	0.1	13.4		0.1	0.1	11.6		0.1	0.1	--		--	--	--		--	--
Turbidity	NTU	--	--	--	5.14		0.01	0.01	9.89		0.01	0.01	9.95		0.01	0.01	8.38		0.01	0.01	6.23		0.01	0.01	2.92		0.01	0.01	9.56		0.01	0.01	--		--	--	--		--	--

Notes:
BKGD = Background
CCR = Coal Combustion Residuals
GWPS = Groundwater Protection Standards
QL = Quantitation Limit
MDL = Method Detection Limit
RL = Reporting Limit
mg/L = Milligram per liter
µg/L = Microgram per liter
pCi/L = picoCurie per liter
µS/cm = MicroSiemen per centimeter
SU = Standard Units
C = Degrees Celsius
NTU = Nephelometric Turbidity Unit
ft btoc = feet below top of casing
ft msl = feet above mean sea level
Bold font = Detected laboratory constituent
* - Groundwater Elevation data collected on April 28, 2022

Qualifiers (Qual):
J = Quantitation is approximate due to limitations identified during data validation.
U = The analyte was not detected above the level of the sample reporting limit.
J+ = The result is an estimate quantity; the result may be based high.
UJ = The analyte was not detected; the reporting limit is approximate and may be inaccurate or imprecise.

= Concentration greater than site specific background

= Concentration greater than WV CCR GWPS and site background

= Concentration greather than Federal GWPS, WV CCR GWPS, and site background

Table 4
Summary of 2nd Semi-Annual 2022 Assessment Monitoring Program Event Data (November 2022)
Low Volume Waste Settling Ponds, Mount Storm Power Station

		Upgradient Wells								Downgradient Wells																Field Quality Control							
Sample ID:		**OW-7A**				**OW-8**				**OW-2A**				**OW-4A**				**OW-10**				**OW-12**				**OW-13**				**OW-2A - DUP**				**Field Blank**			
Sample Date:		**11/10/2022**				**11/10/2022**				**11/10/2022**				**11/10/2022**				**11/10/2022**				**11/10/2022**				**11/10/2022**				**11/10/2022**				**11/11/2022**			
Parameter Name	**Units**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**
CCR Appendix III Constituents																																					
Boron	mg/L	< 0.057	U	0.057	0.100	< 0.057	U	0.057	0.100	< 0.057	U	0.057	0.100	**0.068**	J	0.057	0.100	**0.069**	J	0.057	0.100	**0.14**		0.057	0.100	< 0.057	U	0.057	0.100	< 0.057	U	0.057	0.100	< 0.057	U	0.057	0.100
Calcium	mg/L	**45**		0.58	1.0	**160**		0.58	1.0	**28**		0.58	1.0	**28**		0.58	1.0	**75**		0.58	1.0	**99**		0.58	1.0	**25**		0.58	1.0	**33**	J	0.58	1.0	< 0.58	U	0.58	1.0
Chloride	mg/L	**100**		0.28	1.0	**110**		0.28	1.0	**92**		0.28	1.0	**7.6**		0.28	1.0	**57**		0.28	1.0	**130**		0.28	1.0	**21**		0.28	1.0	**81**		0.94	1.0	**26**		0.28	1.0
Fluoride	mg/L	**0.14**		0.024	0.050	**0.095**		0.024	0.050	**0.13**		0.024	0.050	**0.087**		0.024	0.050	**0.11**		0.024	0.050	**0.027**	J	0.024	0.050	**0.049**	J	0.024	0.050	**0.12**		0.024	0.050	< 0.024	U	0.024	0.050
pH	SU	6.12		0.01	0.01	6.45		0.01	0.01	4.63		0.01	0.01	6.84		0.01	0.01	6.22		0.01	0.01	5.12		0.01	0.01	6.17		0.01	0.01	--		--	--	--		--	--
Sulfate	mg/L	**11**		0.35	1.0	**310**		1.7	1.0	**130**		0.35	1.0	**25**		0.35	1.0	**34**		0.35	1.0	**240**		1.7	1.0	**1.1**		0.35	1.0	**120**		0.35	1.0	< 0.35	U	0.35	1.0
Total Dissolved Solids	mg/L	**230**		10	10	**710**		10	10	**370**		10	10	**130**		10	10	**400**		10	10	**580**		10	10	**480**		10	10	**360**		10	10	**120**		10	10
CCR Appendix IV Constituents																																					
Antimony	ug/L	< 0.57	U	0.57	2.0	**0.61**	J	0.57	2.0	< 0.57	U	0.57	2.0	< 0.57	U	0.57	2.0	< 0.57	U	0.57	2.0	< 0.57	U	0.57	2.0	< 0.57	U	0.57	2.0	< 0.57	U	0.57	2.0	< 0.57	U	0.57	2.0
Arsenic	ug/L	< 0.75	U	0.75	5.0	**0.82**	J	0.75	5.0	**0.81**	J	0.75	5.0	**0.99**	J	0.75	5.0	< 0.75	U	0.75	5.0	**1.3**	J	0.75	5.0	**4.2**	J	0.75	5.0	< 0.75	U	0.75	5.0	< 0.75	U	0.75	5.0
Barium	ug/L	**300**		2.2	5.0	**13**		2.2	5.0	**180**		2.2	5.0	**85**		2.2	5.0	**450**		2.2	5.0	**63**		2.2	5.0	**120**		2.2	5.0	**190**		2.2	5.0	< 2.2	U	2.2	5.0
Beryllium	ug/L	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0	< 0.62	U	0.62	1.0
Cadmium	ug/L	**0.21**	J	0.20	1.0	< 0.20	U	0.20	1.0	**4.4**	J	0.20	1.0	< 0.20	U	0.20	1.0	**0.26**	J	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	**3.2 J**		0.20	1.0	< 0.20	U	0.20	1.0
Chromium	ug/L	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0	**3.7**	J	2.5	5.0	< 2.5	U	2.5	5.0	< 2.5	U	2.5	5.0
Cobalt	ug/L	**4.8**		0.19	1.0	**11**		0.19	1.0	**440**		0.19	1.0	**0.55**	J	0.19	1.0	**0.66**	J	0.19	1.0	**69**		0.19	1.0	**1.3**		0.19	1.0	**420**		0.19	1.0	< 0.19	U	0.19	1.0
Fluoride	mg/L	**0.14**		0.024	0.05	**0.095**		0.024	0.05	**0.13**		0.024	0.05	**0.087**		0.024	0.05	**0.11**		0.024	0.05	**0.027**	J	0.024	0.05	**0.049**	J	0.024	0.05	**0.12**		0.024	0.05	< 0.024	U	0.024	0.05
Lead	ug/L	**0.84**	J	0.45	1.0	< 0.45	U	0.45	1.0	**0.88**	J	0.45	1.0	< 0.45	U	0.45	1.0	< 0.45	U	0.45	1.0	< 0.45	U	0.45	1.0	< 0.45	U	0.45	1.0	**0.55**	J	0.45	1.0	< 0.45	U	0.45	1.0
Lithium	ug/L	**14**		1.7	8.0	**5.7**	J	1.7	8.0	< 1.7	U	1.7	8.0	< 1.7	U	1.7	8.0	**4.5**	J	1.7	8.0	< 1.7	U	1.7	8.0	< 1.7	U	1.7	8.0	< 1.7	U	1.7	8.0	< 1.7	U	1.7	8.0
Mercury	ug/L	< 0.13	U	0.13	0.20	< 0.13	U	0.13	0.20	< 0.13	U	0.13	0.20	< 0.13	U	0.13	0.20	< 0.13	U	0.13	0.20	< 0.13	U	0.13	0.20	< 0.13	U	0.13	0.20	< 0.13	U	0.13	0.20	< 0.13	U	0.13	0.20
Molybdenum	ug/L	< 1.1	U	1.1	5.0	< 1.1	U	1.1	5.0	< 1.1	U	1.1	5.0	**1.9**	J	1.1	5.0	< 1.1	U	1.1	5.0	< 1.1	U	1.1	5.0	< 1.1	U	1.1	5.0	< 1.1	U	1.1	5.0	< 1.1	U	1.1	5.0
Selenium	ug/L	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0	< 0.89	U	0.89	5.0
Thallium	ug/L	**0.31**	J	0.20	1.0	**0.60**	J	0.20	1.0	**0.45**	J	0.20	1.0	< 0.20	U	0.20	1.0	**0.55**	J	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0	< 0.20	U	0.20	1.0
Radium 226 and 228 (combined)	pCi/L	1.71	U	--	--	0.411	U	--	--	**3.28**		--	--	0.424	U	--	--	**1.54**	J	--	--	**1.16**	J	--	--	**1.54**	J	--	--	**2.25**		--	--	0.575	U	--	--
Field Parameters																																					
Conductivity	uS/cm	477.0		0.1	0.1	1183		0.1	0.1	586		0.1	0.1	241.0		0.1	0.1	801		0.1	0.1	679		0.1	0.1	536		0.1	0.1	--		--	--	--		--	--
Depth to Water*	ft btoc	37.68		0.01	0.01	48.04		0.01	0.01	14.39		0.01	0.01	14.41		0.01	0.01	13.90		0.01	0.01	27.03		0.01	0.01	17.06		0.01	0.01	--		--	--	--		--	--
Dissolved Oxygen	mg/L	0.51		0.01	0.01	1.59		0.01	0.01	0.14		0.01	0.01	0.66		0.01	0.01	0.62		0.01	0.01	0.26		0.01	0.01	0.65		0.01	0.01	--		--	--	--		--	--
Groundwater Elevation*	ft msl	3250.36		0.01	0.01	3256.99		0.01	0.01	3243.02		0.01	0.01	3242.99		0.01	0.01	3242.96		0.01	0.01	3242.97		0.01	0.01	3243.41		0.01	0.01	--		--	--	--		--	--
Oxidation Reduction Potential	millivolts	-24.9		0.1	0.1	-39.3		0.1	0.1	228.4		0.1	0.1	-93.7		0.1	0.1	-71.2		0.1	0.1	102.8		0.1	0.1	-73.6		0.1	0.1	--		--	--	--		--	--
Temperature	C	10.8		0.01	0.01	12.8		0.01	0.01	14.6		0.01	0.01	17.0		0.01	0.01	14.5		0.01	0.01	15.5		0.01	0.01	14.7		0.01	0.01	--		--	--	--		--	--
Turbidity	NTU	6.29		0.1	0.1	9.64		0.1	0.1	9.79		0.1	0.1	7.68		0.1	0.1	9.76		0.1	0.1	6.56		0.1	0.1	9.85		0.1	0.1	--		--	--	--		--	--

Notes:
BKGD = Background
CCR = Coal Combustion Residuals
GWPS = Groundwater Protection Standards
QL = Quantitation Limit
MDL = Method Detection Limit
RL = Reporting Limit
mg/L = Milligram per liter
µg/L = Microgram per liter
pCi/L = picoCurie per liter
µS/cm = MicroSiemen per centimeter
SU = Standard Units
C = Degrees Celsius
NTU = Nephelometric Turbidity Unit
ft btoc = feet below top of casing
ft msl = feet above mean sea level
Bold font = Detected laboratory constituent
* - Groundwater Elevation data collected on November 9, 2022

Qualifiers (Qual):
J = Quantitation is approximate due to limitations identified during the data validation.
U = The analyte was not detected above the level of the sample reporting limit.

Table 5
Summary of 2nd Semi-Annual 2022 Verification Event Data (December 2022)
Low Volume Waste Settling Ponds, Mount Storm Power Station

		Downgradient Wells								Field Quality Control							
	Sample ID:	**OW-2A**				**OW-12**				**OW-2A - DUP**				**Field Blank**			
	Sample Date:	**12/21/2022**				**12/21/2022**				**12/21/2022**				**12/21/2022**			
Parameter Name	**Units**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**	**Result**	**Qual**	**MDL**	**RL**
CCR Appendix IV Constituents																	
Cobalt	ug/L	**15**		0.19	1.0	**66**		0.19	1.0	**15**		0.19	1.0	< 0.19	U	0.19	1.0
Field Parameters																	
Conductivity	uS/cm	894		0.1	0.1	1100		0.1	0.1	--		--	--	--		--	--
Depth to Water*	ft btoc	13.19		0.01	0.01	>26.27		0.01	0.01	--		--	--	--		--	--
Dissolved Oxygen	mg/L	0.45		0.01	0.01	0.47		0.01	0.01	--		--	--	--		--	--
pH	SU	6.90		0.01	0.01	5.93		0.01	0.01	--		--	--	--		--	--
Oxidation Reduction Potential	millivolts	-93.1		0.1	0.1	12.7		0.1	0.1	--		--	--	--		--	--
Temperature	C	10.5		0.01	0.01	13.6		0.01	0.01	--		--	--	--		--	--
Turbidity	NTU	14.35		0.1	0.1	3.49		0.1	0.1	--		--	--	--		--	--

Notes:

MDL = Method Detection Limit

RL = Reporting Limit

mg/L = Milligram per liter

µg/L = Microgram per liter

µS/cm = MicroSiemen per centimeter

SU = Standard Units

C = Degrees Celsius

NTU = Nephelometric Turbidity Unit

ft btoc = feet below top of casing

ft msl = feet above mean sea level

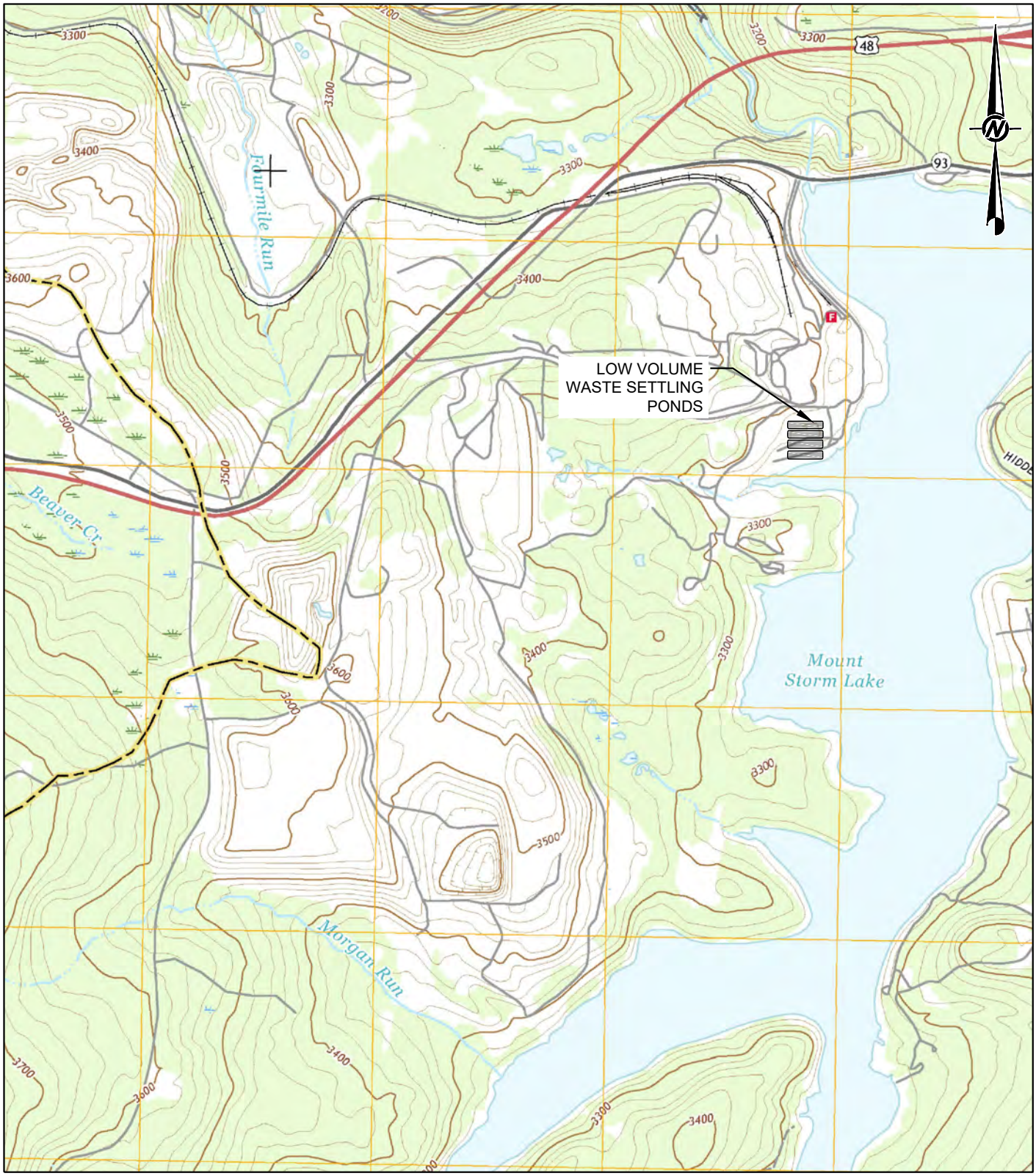
Bold font = Detected laboratory constituent

* - Groundwater Elevation data collected on December 21, 2022

Qualifiers (Qual):

U = The analyte was not detected above the level of the sample reporting limit.

DRAWINGS



REFERENCE

BASE MAP CONSISTS OF USGS TOPOGRAPHIC QUADRANGLES
MOUNT STORM LAKE AND GREENLAND GAP, WEST VIRGINIA, DATED 2016.

2000 0 2000
SCALE FEET

CLIENT
DOMINION ENERGY

PROJECT
MOUNT STORM POWER STATION
LOW VOLUME WASTE SETTLING PONDS

CONSULTANT
GOLDER

YYYY-MM-DD	2018-12-28
DESIGNED	-
PREPARED	BPG
REVIEWED	MGW
APPROVED	MGW

TITLE
SITE LOCATION MAP

PROJECT NO. 20-13993622
REV. 0
DRAWING 1

Path: G:\Plan Production Data Files\Drawing Data Files\17-89754 - MT STORMG - LOW VOLUME WASTE SETTLING PONDS (SA18 CCR\Active Drawings\178975\4MS_G00.dwg

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI A
0 1in

LEGEND

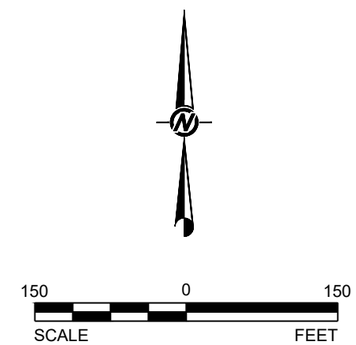
3250	POTENTIOMETRIC SURFACE CONTOUR
→	APPROXIMATE GROUNDWATER FLOW LINE
$i_1$gw = 195'	GROUNDWATER FLOW PATH LENGTH (FEET)
OW-9A	EXISTING GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION (SHALLOW AQUIFER)
OW-4A	EXISTING GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION (DEEP AQUIFER)
(3244.15)	STATIC GROUNDWATER ELEVATION FOR APRIL 27, 2022 (FEET ABOVE MEAN SEA LEVEL)
OW-9B	EXISTING OBSERVATION WELL LOCATION AND IDENTIFICATION (DEEP AQUIFER)
OW-15	EXISTING OBSERVATION WELL LOCATION AND IDENTIFICATION (SHALLOW AQUIFER)

REFERENCE

1. AERIAL IMAGE TAKEN FROM SATELLITES.PRO ON 01/25/2022.
2. GROUNDWATER CONTOURS BASED ON LINEAR INTERPOLATION BETWEEN AND EXTRAPOLATION FROM KNOWN DATUM, TOPOGRAPHIC CONTOURS, AND KNOWN FIELD CONDITIONS. THEREFORE, GROUNDWATER CONTOURS MAY NOT REFLECT ACTUAL GROUNDWATER CONDITIONS.
3. GROUNDWATER CONTOUR LINES SHOW THE WATER TABLE SHAPE AND ELEVATION. THESE CONTOURS ARE INFERRED LINES FOLLOWING THE GROUNDWATER SURFACE AT A CONSTANT ELEVATION ABOVE SEA LEVEL. THE GROUNDWATER FLOW DIRECTION IS GENERALLY PERPENDICULAR TO THE GROUNDWATER SURFACE CONTOURS, SIMILAR TO THE RELATIONSHIP BETWEEN SURFACE WATER FLOW AND TOPOGRAPHIC CONTOURS.

NOTES

1. SURFACE WATER ELEVATION = 3,244 FEET ABOVE MEAN SEA LEVEL.



YYYY-MM-DD 2022-12-20
DESIGNED CS
PREPARED SIB
REVIEWED MGW
APPROVED MGW

CLIENT
DOMINION ENERGY

CONSULTANT
WSP GOLDER

PROJECT
MOUNT STORM POWER STATION
LOW VOLUME WASTE SETTLING PONDS

TITLE
POTENTIOMETRIC SURFACE MAP
APRIL 27, 2022

PROJECT NO.
20-13993622

REV.
0

DRAWING
2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

1 in
0

Path: G:\Plan Production Data Files\Drawing Data Files\20-13993622\C - GW Map\Active Drawings\20139936222C01.dwg

LEGEND

3250	POTENTIOMETRIC SURFACE CONTOUR
→	APPROXIMATE GROUNDWATER FLOW LINE
$i_1$gw = 195'	GROUNDWATER FLOW PATH LENGTH (FEET)
OW-9A	EXISTING GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION (SHALLOW AQUIFER)
OW-4A	EXISTING GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION (DEEP AQUIFER)
(3244.15)	STATIC GROUNDWATER ELEVATION FOR NOVEMBER 9, 2022 (FEET ABOVE MEAN SEA LEVEL)
OW-9B	EXISTING OBSERVATION WELL LOCATION AND IDENTIFICATION (DEEP AQUIFER)
OW-15	EXISTING OBSERVATION WELL LOCATION AND IDENTIFICATION (SHALLOW AQUIFER)

150 0 150 FEET
SCALE

REFERENCE

1. AERIAL IMAGE TAKEN FROM SATELLITES.PRO ON 01/25/2022.
2. GROUNDWATER CONTOURS BASED ON LINEAR INTERPOLATION BETWEEN AND EXTRAPOLATION FROM KNOWN DATUM, TOPOGRAPHIC CONTOURS, AND KNOWN FIELD CONDITIONS. THEREFORE, GROUNDWATER CONTOURS MAY NOT REFLECT ACTUAL GROUNDWATER CONDITIONS.
3. GROUNDWATER CONTOUR LINES SHOW THE WATER TABLE SHAPE AND ELEVATION. THESE CONTOURS ARE INFERRED LINES FOLLOWING THE GROUNDWATER SURFACE AT A CONSTANT ELEVATION ABOVE SEA LEVEL. THE GROUNDWATER FLOW DIRECTION IS GENERALLY PERPENDICULAR TO THE GROUNDWATER SURFACE CONTOURS, SIMILAR TO THE RELATIONSHIP BETWEEN SURFACE WATER FLOW AND TOPOGRAPHIC CONTOURS.

NOTES

1. SURFACE WATER ELEVATION = 3,244 FEET ABOVE MEAN SEA LEVEL.

YYYY-MM-DD	2023-01-24
DESIGNED	CS
PREPARED	SIB
REVIEWED	MGW
APPROVED	MGW

CLIENT
DOMINION ENERGY

CONSULTANT
wsp

PROJECT
MOUNT STORM POWER STATION
LOW VOLUME WASTE SETTLING PONDS

TITLE
POTENTIOMETRIC SURFACE MAP
NOVEMBER 9, 2022

PROJECT NO.
20-13993622

REV.
0

DRAWING
3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

1 in
0

Path: G:\Plan Production Data Files\Drawing Data Files\20-13993622\C - GW Map\Active Drawings\20139936222C05.dwg

APPENDIX A

FIRST SEMI-ANNUAL 2022 ASSESSMENT MONITORING PROGRAM EVENT FIELD DATA SHEETS, LABORATORY CERTIFICATES OF ANALYSIS, CHAIN-OF-CUSTODY FORMS, AND DATA VALIDATION FORMS

Date: 04/27/22

GOLDER

WELL GAUGING LOG

Project Name: MSPS LVWSP

Project No./Task No.: GL2013993622

Sampler(s): C. Megee, M. Knez

Equipment: Water Level Indicator

Well ID	Personnel (initials)	Time	DTW (feet)	DTB (feet)	Well Condition Summary				
					Protective Casing	Well Casing	Label	Lock	Pad Condition
OW-7A	MK	1619	36.49	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-8	MK	1626	44.30	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-2A	MK	1609	12.51	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-4A	MK	1602	11.63	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-10	MK	1606	11.20	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-12	MK	1640	25.05	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-13	MK	1552	15.95	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-2	MK	1610	10.45	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-4	MK	1600	12.79	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-6A	MK	1613	7.02	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-6B	MK	1614	7.39	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-7B	MK	1621	34.79	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-8A	MK	1624	57.44	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-9A	CM	1548	13.28	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-9B	~~1547~~ CM	1547	11.51'	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-11	MK	1556	16.55	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged

Observations/Notes:

Signature: [signature]

Date: 04/27/2022

QA/QC Signature: M. Knez

Date: 5/9/2022

Date: 04/27/22

GOLDER

WELL GAUGING LOG

Project Name: MSPS LVWSP

Project No./Task No.: GL2013993622

Sampler(s): C. Megee, M. Knez

Equipment: Water Level Indicator

Well ID	Personnel (initials)	Time	DTW (feet)	DTB (feet)	Well Condition Summary				
					Protective Casing	Well Casing	Label	Lock	Pad Condition
OW-14	MK	1553	17.75	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-15	MK	1550	8.34	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-16A	MK	1634	21.69	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-17	MK	1558	22.04'	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-18	MK	1631	21.64'	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-19	MK	1616	27.72	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-16B	MK	1636	20.62'	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged

Observations/Notes:

Signature:

Date: 04/27/22

QA/QC Signature: M. Knez

Date: 5/4/2022

Page 2 of 2

GOLDER

MICROPURGE SAMPLING LOG

Date: 04/28/22

Weather: Sunny 30's

Project Name: MSPS

Project No./Task No.: GLR01399622

Event: 1SA22 LVWSP

Sampler(s): C. Magee

Well ID: DW-2A

Field Calibration Completed: 04/28/22 @ 0805

Well Diameter: 2.0 inches

Initial Depth to Water: 12.55 feet

Depth to Bottom: — feet

Water Column Thickness: — feet

Equipment Used:
- [X] WL Indicator
- [ ] Turbidity Meter
- [ ] Air Tank
- [X] Dedicated Bladder Pump
- [X] YSI ProDSS 16K102748
- [ ] Peristaltic Pump
- [ ] Compressor
- [ ] Non-dedicated BP
- [ ] In-Situ —
- [ ] MP-10 Controller Box
- [X] MP-15 Controller Box
- [ ] —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)°C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1138	6.20	686	32.11	2.29	9.6	10.9	12.82	~320
1141	6.41	732	26.09	1.05	9.5	18.6	12.90	~320
1144	6.48	738	43.51	0.66	9.6	-35.7	12.97	~300
1149	6.49	738	28.69	0.59	9.2	-41.2	12.90	~200
1154	6.49	738	37.50	0.54	9.1	-43.9	12.90	~200
1159	6.51	739	20.06	0.49	9.1	-48.4	12.90	~200
1204	6.51	739	15.93	0.47	9.1	-50.3	12.70	~200
1209	6.51	740	15.73	0.45	9.2	-51.6	12.70	~200
1214	6.51	739	14.98	0.44	9.1	-52.1	12.70	~200
1219	6.50	739	12.64	0.42	9.2	-52.5	12.70	~200
1224	6.49	740	11.17	0.41	9.2	-52.7	12.70	~200
1229	6.49	740	9.95	0.40	9.2	-53.3	12.70	~200
1235	—	S	A	M	P	L	E	—
1246	6.45	744	10.42	1.17	10.2	-51.1	12.70	~200

Purge Cycle (End): 54/6 Secs @ 20 psi

Flow Rate (ml/min End): ~200

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): (27.80)(0.006) = ~0.17

Total Purge Volume (Gallons): ~3.0 gal

Purge Water Management: On site Containment

Purge Observations (color, odor, turbidity, sheen): Clear grab Sample

Purge time: 1130

Sample Time: 1235

Field Filtered (0.45um): [ ] Yes [X] No

Sample Parameters/Analyte(s):
- [ ] Petro (DRO)
- [ ] CCR Appendix III
- [ ] CCR Appendix IV
- [ ] Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- [ ] Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- [ ] Variance (Diss [Be, Cd, Cr, Pb, Ni])
- [X] LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- [ ] Phase A IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- [ ] Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems: Switch to 5 mn. readings

Sample ID: 042822NDW2A

Sampler Signature: [signature] Date: 04/28/22

QA/QC Signature: [signature] Date: 5/3/2022

MICROPURGE SAMPLING LOG

GOLDER

Date: 4/28/22

Weather: Sunny, 30's SNK 40's

Project Name: ~~2~~ SNK Mount Storm

Project No./Task No.: 20139936 22

Event: ISA22 LVWSP

Sampler(s): M. Kmetz

Well ID: OW-4A

Field Calibration Completed: 4/28/22 @ 0805

Well Diameter: 2.0 inches

Initial Depth to Water: 11.71 feet

Depth to Bottom: ~~—~~ feet

Water Column Thickness: ~~—~~ feet

Equipment Used:
- [x] WL Indicator
- [ ] Turbidity Meter
- [ ] Air Tank
- [ ] ~~Dedicated~~ Bladder Pump
- [x] YSI ProDSS 21B103491
- [ ] Peristaltic Pump
- [ ] Compressor
- [ ] Non-dedicated BP
- [ ] In-Situ ~~—~~
- [ ] MP-10 Controller Box
- [x] MP-15 Controller Box
- [ ] ~~—~~

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)°C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1325	6.94	216.5	22.89	1.01	12.1	-53.1	11.73	~280
1330	6.98	208.2	13.09	0.91	12.3	~~-76.5~~ SNK	11.71	~280
1335	7.01	202.2	9.17	0.95	12.1	-78.9	11.72	~280
1340	6.96	200.6	9.98	0.99	12.2	-82.0	11.71	~280
1345	6.96	198.9	8.38	0.91	12.2	-84.9	11.73	~280
1350	—	—	— SAMPLE	—	—	—	—	—
1406	6.92	195.0	8.53	1.12	12.0	-85.4	11.2	~280

Purge Cycle (End): 23/7 @ 19 psi Flow Rate (ml/min End): ~280

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): ~~—~~

Total Purge Volume (Gallons): ~2.5 Purge Water Management: on site containment

Purge Observations (color, odor, turbidity, sheen): purge time: 1314 clear grab sample

Sample ID: 042822NOW4A

Sample Time: 1350 Field Filtered (0.45um): [ ] Yes [x] ~~No~~

Sample Parameters/Analyte(s):
- [ ] Petro (DRO)
- [ ] CCR Appendix III
- [ ] CCR Appendix IV
- [x] TDS; Cl, Fl, SO4
- [ ] Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- [ ] Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- [ ] Variance (Diss [Be, Cd, Cr, Pb, Ni])
- [x] LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- [ ] Phase A IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- [ ] Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems: ~~—~~

Sampler Signature: M. Kmetz Date: 4/28/22 Page 1 of 1

QA/QC Signature: [signature] Date: 5/3/22

GOLDER

MICROPURGE SAMPLING LOG

Date: 04/28/22

Weather: Cloudy 20's

Project Name: MSPS

Project No./Task No.: CL2013993622

Event: ISA22 LVWSP

Sampler(s): C. Magee

Well ID: DW-7A

Field Calibration Completed: 04/28/22 @ 0805

Well Diameter: 2.0 inches

Initial Depth to Water: 36.60 feet

Depth to Bottom: — feet

Water Column Thickness: — feet

Equipment Used:
- [x] WL Indicator
- [x] YSI ProDSS 16B102743
- [ ] In-Situ —
- [ ] Turbidity Meter
- [ ] Peristaltic Pump
- [ ] MP-10 Controller Box
- [ ] Air Tank
- [ ] Compressor
- [x] MP-15 Controller Box
- [x] Dedicated Bladder Pump
- [ ] Non-dedicated BP
- [ ] —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
0924	5.96	575	26.18	1.64	8.9	-17.2	39.52	~360
0927	5.99	566	18.16	1.31	8.9	-22.2	40.15	~360
0930	5.99	558	14.98	1.24	9.0	-21.7	40.40	~360
0933	5.99	530	10.06	1.35	9.0	-18.7	40.91	~360
0936	6.02	507	6.62	1.41	9.1	-18.2	40.95	~360
0939	6.06	493.9	4.50	1.45	9.1	-20.1	41.20	~360
0942	6.08	492.3	5.14	1.45	9.2	-21.0	41.30	~360
0950	—	S	A	M	P	L	E	—
1012	6.02	522	16.10	1.98	9.4	-15.8	41.50	~360

Purge Cycle (End): 25/5 Secs @ 35 psi Flow Rate (ml/min End): ~360

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): 4520(0.006)=~6.30

Total Purge Volume (Gallons): ~3.5 Purge Water Management: On Site D.W.S.

Purge Observations (color, odor, turbidity, sheen): Clear to lt. tan grab Sample

Purge time: 0919

Sample Time: 0950 Field Filtered (0.45um): [ ] Yes [x] No

Sample Parameters/Analyte(s):
- [ ] Petro (DRO)
- [ ] CCR Appendix III
- [ ] CCR Appendix IV
- [ ] Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- [ ] Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- [ ] Variance (Diss [Be, Cd, Cr, Pb, Ni])
- [x] LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- [ ] Phase A IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- [ ] Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems: 042822MS matrix sp. Pic / 042822MSD matrix sp. Pic Only taken @ DW-7A

Sample ID: 042822NDW7A

Sampler Signature: Date: 04/28/22 Page 1 of 1

QA/QC Signature: Date: 5/3/2022

MICROPURGE SAMPLING LOG

GOLDER

Date: 4/28/22

Weather: Sunny, ~~5~~ ~~Snow~~ 20's

Project Name: Mount Storm

Project No./Task No.: 20139362 22

Event: ISA22 ~~LVSWP~~ LVWSP

Sampler(s): M. Kinez

Well ID: O.V-8

Field Calibration Completed: 4/28/22 @ 0805

Well Diameter: 2.0 inches

Initial Depth to Water: ~~44.05~~ 44.51 feet

Depth to Bottom: — feet

Water Column Thickness: — feet

Equipment Used:
- [x] WL Indicator
- [x] YSI DSS 21D103491
- [ ] In-Situ —
- [ ] Turbidity Meter
- [ ] Peristaltic Pump
- [ ] MP-10 Controller Box
- [ ] Air Tank
- [ ] Compressor
- [x] MP-15 Controller Box
- [x] Dedicated Bladder Pump
- [ ] Non-dedicated BP
- [ ] —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
0932	6.36	2199	57.87	2.26	10.2	-49.6	45.49	~280
0937	6.42	2182	31.31	1.88	10.3	-61.9	45.61	~280
0942	6.47	2125	27.41	1.67	10.2	-66.4	45.69	~280
0947	6.49	2100	21.97	1.66	10.3	-67.5	45.65	~280
0952	6.48	2110	14.01	1.57	10.3	-67.0	45.60	~280
0957	6.47	2116	12.79	1.66	10.3	-66.2	45.60	~280
1002	6.47	2121	9.89	1.54	10.3	-65.3	45.67	~280
1005			SAMPLE					
1024	6.47	2102	5.94	1.57	10.1	-61.0	45.81	~280

Purge Cycle (End): 25/5 @ 30 psi Flow Rate (ml/min End): ~280

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): —

Total Purge Volume (Gallons): ~3.0 Purge Water Management: On site containment

Purge Observations (color, odor, turbidity, sheen): Purge time: 0922 clear grab

Sample ID: 042722NOW8

Sample Time: 1005 Field Filtered (0.45um): [ ] Yes [x] No

Sample Parameters/Analyte(s):
- [ ] Petro (DRO)
- [ ] CCR Appendix III
- [ ] CCR Appendix IV
- [x] TDS, Fl, Cl, SO4
- [ ] Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- [ ] Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- [ ] Variance (Diss [Be, Cd, Cr, Pb, Ni])
- [x] LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- [ ] Phase A IV Detects (As, Ba, B Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems: —

Sampler Signature: M. Kinez Date: 4/28/22

QA/QC Signature: [signature] Date: 5/3/22

MICROPURGE SAMPLING LOG

GOLDER

Date: 04/28/22
Weather: Sunny 30's

Project Name: MSPS
Project No./Task No.: GLD13993622
Event: ISA22 LVWSP
Sampler(s): CMagee
Well ID: OW-10
Field Calibration Completed: 04/28/22 @ 0805
Well Diameter: 2.0 inches
Initial Depth to Water: 11.28 feet
Depth to Bottom: — feet
Water Column Thickness: — feet

Equipment Used:
- [x] WL Indicator
- [x] YSI ProDSS 16A102743
- [ ] In-Situ —
- [ ] Turbidity Meter
- [ ] Peristaltic Pump
- [ ] MP-10 Controller Box
- [ ] Air Tank
- [ ] Compressor
- [x] MP-15 Controller Box
- [x] Dedicated Bladder Pump
- [ ] Non-dedicated BP
- [ ] —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)°C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1035	6.39	322.2	29.62	1.64	9.6	-57.2	11.35	~300
1038	6.48	327.9	18.44	1.36	9.9	-72.9	11.30	~300
1041	6.52	329.9	9.80	1.32	9.9	-81.5	11.32	~300
1044	6.55	329.5	6.23	1.32	9.8	-86.7	11.32	~300
1050	—	S	A	M	P	L	E	—
1114	6.61	332.4	5.57	2.14	9.8	-81.7	11.35	~300

Purge Cycle (End): 14/6 Secs. @ 20 psi
Flow Rate (ml/min End): ~300
Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): 28.0 (0.006) = ~0.17
Total Purge Volume (Gallons): ~1.0
Purge Water Management: On site O.W.S.
Purge Observations (color, odor, turbidity, sheen): Clear grab Sample
Purge time: 1030

Sample Time: 1050
Field Filtered (0.45um): [ ] Yes [x] No

Sample Parameters/Analyte(s):
- [ ] Petro (DRO)
- [ ] CCR Appendix III
- [ ] CCR Appendix IV
- [ ] Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- [ ] Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- [ ] Variance (Diss [Be, Cd, Cr, Pb, Ni])
- [x] LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- [ ] Phase A IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems:
Sample ID: 042822 NOW10

Sampler Signature: [signature] Date: 04/28/22
QA/QC Signature: [signature] Date: 5/3/2022

MICROPURGE SAMPLING LOG

GOLDER

Date: 4/28/22
Weather: Sunny, 40's

Project Name: Mount Storm PS
Project No./Task No.: 20139936.22
Event: ISA22 LVWSP
Sampler(s): M. Kmetz
Well ID: OW-12
Field Calibration Completed: 4/28/22 @ 0805
Well Diameter: 2.0 inches
Initial Depth to Water: 25.10 feet
Depth to Bottom: — feet
Water Column Thickness: — feet

Equipment Used:
- [x] WL Indicator
- [x] YSI ProDSS 21D103491
- [ ] In-Situ —
- [ ] Turbidity Meter
- [ ] Peristaltic Pump
- [ ] MP-10 Controller Box
- [ ] Air Tank
- [ ] Compressor
- [x] MP-15 Controller Box
- [ ] Dedicated Bladder Pump
- [x] Non-dedicated BP
- [ ] —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm) °C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1431	5.88	563	5.89	0.50	13.2	55.0	25.23	~260
1436	5.89	596	7.11	0.47	13.2	52.4	25.25	~260
* 1441	~~5.90~~	~~618~~	7.10	~~0.50~~	~~13.4~~ 13.0	~~46.9~~	~~25.15~~	~~~260~~ MK
1446	5.91	632	3.84	0.65	12.8	46.6	25.31	~260
1451	5.92	650	3.78	0.38	13.4	43.6	25.19	~260
1456	5.93	680	3.07	0.36	13.4	39.6	25.26	~260
1501	5.95	700	3.09	0.34	13.4	34.8	25.23	~260
1506	5.96	711	2.84	0.34	13.4	33.3	25.19	~260
1511	5.96	719	2.92	0.33	13.4	32.6	25.22	~260
1515	—	—	— SAMPLE	—	—	—	—	—
1530	5.98	744	2.79	0.57	13.6	29.3	25.26	~260

Purge Cycle (End): 2515 @ 30 psi
Flow Rate (ml/min End): ~260
Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): —
Total Purge Volume (Gallons): ~2.5
Purge Water Management: on site containment
Purge Observations (color, odor, turbidity, sheen): Purge time: 1421
Sample ID: 042822 NOW12

Sample Time: 1515
Field Filtered (0.45um): [ ] Yes [x] No

Sample Parameters/Analyte(s):
- [ ] Petro (DRO)
- [ ] CCR Appendix III
- [ ] CCR Appendix IV
- [x] TDS, Cl, F, SO4
- [ ] Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- [ ] Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- [ ] Variance (Diss [Be, Cd, Cr, Pb, Ni])
- [x] LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- [ ] Phase A IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- [ ] Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems: * empty air tank

Sampler Signature: M. Kmetz Date: 4/28/22
QA/QC Signature: Date: 5/3/22

MICROPURGE SAMPLING LOG

GOLDER

Date: 4/28/22
Weather: Sunny, ~~20's MK~~ 30's

Project Name: Mount Storm
Project No./Task No.: 201399 3622
Event: 1SA22 ~~1WMK~~ LVWSP
Sampler(s): M KnCZ
Well ID: ~~OW-8 MK~~ OW-15
Field Calibration Completed: 4/28/22 @ 0805
Well Diameter: 2.0 inches
Initial Depth to Water: 16.17 feet
Depth to Bottom: — feet
Water Column Thickness: — feet

Equipment Used:
- [x] WL Indicator
- [x] YSI ProDSS 21D103491
- [ ] In-Situ —
- [ ] Turbidity Meter
- [ ] Peristaltic Pump
- [ ] MP-10 Controller Box
- [ ] Air Tank
- [ ] Compressor
- [x] MP-15 Controller Box
- [x] ~~Dedicated Bladder Pump~~ MK
- [x] Non-dedicated BP
- [ ] —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm) °C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
~~1055 MK~~	6.47	879	94.57	1.03	10.6	-104.0	16.89	~260
1100	6.45	871	~~49.93 10.55 MK~~	0.59	11.0	-106.2	16.91	~260
1105	6.42	854	32.57	0.41	11.1	-106.7	16.91	~240
1110	6.40	827	24.74	0.35	11.3	-107.1	16.94	~240
1115	6.39	795	16.83	0.34	11.3	-106.9	16.90	~240
1120	6.39	753	20.95	0.35	11.4	-106.7	16.85	~240
1125	6.38	708	21.95	0.37	11.3	-106.2	16.89	~240
1130	6.43	687	18.35	0.31	11.5	-105.8	16.87	~240
1135	6.38	668	19.69	0.30	11.4	-105.6	16.89	~240
1140	6.37	638	17.50	0.30	11.4	-104.4	16.92	~240
1145	6.36	616	16.40	0.29	11.6	-102.2	16.91	~240
1150	6.36	592	13.64	0.28	11.6	-102.3	16.89	~240
1155	6.36	577	11.11	0.28	11.5	-102.1	16.93	~240
1200	6.35	564	11.55	0.28	11.6	-101.7	16.91	~240
1205	6.35	556	11.18	0.26	11.7	-102.2	16.57	~240
1210	6.36	549	9.56	0.28	11.6	-101.6	16.89	~240
1215	—	—	— SAMPLE	—	—	—	—	—

Purge Cycle (End): 2515 @ 20 psi
Flow Rate (ml/min End): ~240
Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): —
Total Purge Volume (Gallons): ~7.5
Purge Water Management: on site containment
Purge Observations (color, odor, turbidity, sheen): purge time: 1045 yellowish clear grab sample
Sample ID: 042822NOW13
Sample Time: 1215
Field Filtered (0.45um): [ ] Yes [x] No

Sample Parameters/Analyte(s):
- [ ] Petro (DRO)
- [ ] CCR Appendix III
- [ ] CCR Appendix IV
- TDS, Fl, Cl, Sulfa
- [ ] Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- [ ] Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- [ ] Variance (Diss [Be, Cd, Cr, Pb, Ni])
- [x] LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- [ ] Phase A IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems: —

Sampler Signature: M. Knez Date: 4/28/22
QA/QC Signature: [signature] Date: 5/3/22

GOLDER

MICROPURGE SAMPLING LOG

Date: 4/28/22

Weather: Sunny, 30's

Project Name: Mount Storm

Project No./Task No.: 2013993622

Event: ISA22 LVWSP

Sampler(s): M. Knez

Well ID: OW-13

Field Calibration Completed: 4/28/22 @ 0805

Well Diameter: 2.0 inches

Initial Depth to Water: 16.17 feet

Depth to Bottom: ~~—~~ feet

Water Column Thickness: ~~—~~ feet

Equipment Used:
- ☑ WL Indicator
- ☑ YSI ProDSS 21D103491
- ☐ In-Situ ~~—~~
- ☐ Turbidity Meter
- ☐ Peristaltic Pump
- ☐ MP-10 Controller Box
- ☐ Air Tank
- ☐ Compressor
- ☑ MP-15 Controller Box
- ☐ Dedicated Bladder Pump
- ☑ Non-dedicated BP
- ☐ ~~—~~

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1235	6.36	525	9.01	0.57	11.7	-99.1	~16.92	~240

Purge Cycle (End): 2515 @ 20 psi Flow Rate (ml/min End): ~240

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): ~~—~~

Total Purge Volume (Gallons): ~7.5 Purge Water Management: on site containment O.W.S.

Purge Observations (color, odor, turbidity, sheen): see page 1

Sample Time: 1215 Field Filtered (0.45um): ☐ Yes ☑ No

Sample Parameters/Analyte(s):
- ☐ Petro (DRO)
- ☐ CCR Appendix III
- ☐ CCR Appendix IV
- ☑ TDS, Cl, Fl, SO4
- ☐ Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- ☐ Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- ☐ Variance (Diss [Be, Cd, Cr, Pb, Ni])
- ☑ LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- ☐ Phase A IV Detects (As, Ba, Pb, Li, Se, Rad 226-228)
- ☐ Cd, Cr, Co,
- Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems:

Sampler Signature: M. Knez Date:

QA/QC Signature: Date: 5/3/22

GOLDER

MICROPURGE SAMPLING LOG

Date: 04/28/22

Weather: Sunny 30's

Project Name: MSPS

Project No./Task No.: GL20139362.2

Event: ISA22 LVWSP

Sampler(s): C. Meyer

Well ID: FD Duplicate

Field Calibration Completed: 04/28/22 @ 0805

Well Diameter: — inches

Initial Depth to Water: — feet

Depth to Bottom: — feet

Water Column Thickness: — feet

Equipment Used:
- ☐ WL Indicator
- ☐ YSI —
- ☐ In-Situ —
- ☐ Turbidity Meter
- ☐ Peristaltic Pump
- ☐ MP-10 Controller Box
- ☐ Air Tank
- ☐ Compressor
- ☐ MP-15 Controller Box
- ☐ Dedicated Bladder Pump
- ☐ Non-dedicated BP
- ☐ —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1100	—	S	A	M	P	L	E	—

Purge Cycle (End): — @ — psi Flow Rate (ml/min End): —

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): —

Total Purge Volume (Gallons): — Purge Water Management: On Site O.W.S.

Purge Observations (color, odor, turbidity, sheen): Clear grab Sample taken @ MW-10

Sample Time: 1100 Field Filtered (0.45um): ☐ Yes ☒ No

Sample Parameters/Analyte(s):
- ☐ Petro (DRO)
- ☐ CCR Appendix III
- ☐ CCR Appendix IV
- ☐ Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- ☐ Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- ☐ Variance (Diss [Be, Cd, Cr, Pb, Ni])
- ☒ LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- ☐ Phase A IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- ☐ Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems:

Sample ID: 042822FD Duplicate

Sampler Signature: [signature] Date: 04/28/22

QA/QC Signature: [signature] Date: 5/3/2022

GOLDER

MICROPURGE SAMPLING LOG

Date: 04/28/22

Weather: Sunny 80's

Project Name: MSPS

Project No./Task No.: GL2013993622

Event: 1SA22 LVWSP

Sampler(s): C. Magee

Well ID: FB Field Blank

Field Calibration Completed: 04/28/22 @ 0805

Well Diameter: — inches

Initial Depth to Water: — feet

Depth to Bottom: — feet

Water Column Thickness: — feet

Equipment Used:
- ☐ WL Indicator
- ☐ YSI —
- ☐ In-Situ —
- ☐ Turbidity Meter
- ☐ Peristaltic Pump
- ☐ MP-10 Controller Box
- ☐ Air Tank
- ☐ Compressor
- ☐ MP-15 Controller Box
- ☐ Dedicated Bladder Pump
- ☐ Non-dedicated BP
- ☐ —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1225								

Purge Cycle (End): — @ — psi Flow Rate (ml/min End): —

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): —

Total Purge Volume (Gallons): — Purge Water Management: —

Purge Observations (color, odor, turbidity, sheen): Clear grab Sample taken near DW-24 W/ lab provided D.I. Water

Sample Time: 1225 Field Filtered (0.45um): ☐ Yes ☒ No

Sample Parameters/Analyte(s):
- ☐ Petro (DRO)
- ☐ CCR Appendix III
- ☐ CCR Appendix IV
- ☐ Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- ☐ Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- ☐ Variance (Diss [Be, Cd, Cr, Pb, Ni])
- ☒ LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- ☐ Phase A IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- ☐ Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems:

Sample ID: 042822 FB Field Blank

Sampler Signature: Date: 04/28/22

Page 1 of 1

QA/QC Signature: Date: 5/3/2022

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ANALYTICAL REPORT

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Tel: (330)497-9396

Laboratory Job ID: 240-165804-1
Laboratory Sample Delivery Group: Group D
Client Project/Site: MSPS - LVWSP CCR

For:
Dominion Energy Services, Inc.
5000 Dominion Blvd
Glen Allen, Virginia 23060

Attn: Kelly Hicks

Roxanne Cisneros

Authorized for release by:
6/3/2022 4:58:16 PM

Roxanne Cisneros, Senior Project Manager
(615)301-5761
roxanne.cisneros@et.eurofinsus.com

Table of Contents

Definitions/Glossary

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Qualifiers

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

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

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

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

Job ID: 240-165804-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-165804-1

Comments
No additional comments.

Receipt
The samples were received on 4/30/2022 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.1º C, 0.1º C, 0.9º C and 4.1º C.

RAD
Methods 9320: Radium-228 BATCH 563668: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. 042822NOW7A (240-165804-1), 042822NOW7A (240-165804-1[MS]), 042822NOW7A (240-165804-1[MSD]), 042822NOW8 (240-165804-2), 042822NOW2A (240-165804-3), 042822NOW4A (240-165804-4), 042822NOW10 (240-165804-5), 042822NOW12 (240-165804-6), 042822NOW13 (240-165804-7), 042822FBFieldBlank (240-165804-8), 042822FDDuplicate (240-165804-9), (LCS 160-563668/1-A) and (MB 160-563668/22-A)

Methods 9315: Radium-226 batch 563661: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
042822NOW7A (240-165804-1), 042822NOW7A (240-165804-1[MS]), 042822NOW7A (240-165804-1[MSD]), 042822NOW8 (240-165804-2), 042822NOW2A (240-165804-3), 042822NOW4A (240-165804-4), 042822NOW10 (240-165804-5), 042822NOW12 (240-165804-6), 042822NOW13 (240-165804-7), 042822FBFieldBlank (240-165804-8), 042822FDDuplicate (240-165804-9), (LCS 160-563661/1-A) and (MB 160-563661/22-A)

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

Metals
Methods 6020B: The laboratory control sample (LCS) for 240-524889 recovered outside control limits for Antimony.These analytes were biased high in the LCS and were below the reporting limit in the associated samples; therefore, the data have been reported.

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

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

Method Summary

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	TAL CAN
6020B	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
9056A	Anions, Ion Chromatography	SW846	TAL CAN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
Pos			
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
7470A	Preparation, Mercury	SW846	TAL CAN
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

TAL SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-165804-1	042822NOW7A	Water	04/28/22 09:50	04/30/22 09:30
240-165804-2	042822NOW8	Water	04/28/22 10:05	04/30/22 09:30
240-165804-3	042822NOW2A	Water	04/28/22 12:35	04/30/22 09:30
240-165804-4	042822NOW4A	Water	04/28/22 13:50	04/30/22 09:30
240-165804-5	042822NOW10	Water	04/28/22 10:50	04/30/22 09:30
240-165804-6	042822NOW12	Water	04/28/22 15:15	04/30/22 09:30
240-165804-7	042822NOW13	Water	04/28/22 12:15	04/30/22 09:30
240-165804-8	042822FBFieldBlank	Water	04/28/22 12:25	04/30/22 09:30
240-165804-9	042822FDDuplicate	Water	04/28/22 11:00	04/30/22 09:30

Detection Summary

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Client Sample ID: 042822NOW7A — Lab Sample ID: 240-165804-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	270		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	40000	F1	1000	580	ug/L	1		6020B	Total Recoverable
Cobalt	3.2		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	14		8.0	1.7	ug/L	1		6020B	Total Recoverable
Thallium	0.37	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Chloride	100		1.0	0.28	mg/L	1		9056A	Total/NA
Fluoride	0.15		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	11		1.0	0.35	mg/L	1		9056A	Total/NA
Total Dissolved Solids	250		10	10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 042822NOW8 — Lab Sample ID: 240-165804-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.99	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	11		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	400000		1000	580	ug/L	1		6020B	Total Recoverable
Cobalt	30		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	10		8.0	1.7	ug/L	1		6020B	Total Recoverable
Thallium	0.52	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Chloride	230		10	2.8	mg/L	10		9056A	Total/NA
Fluoride	0.089		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	920		10	3.5	mg/L	10		9056A	Total/NA
Total Dissolved Solids	1800		20	20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 042822NOW2A — Lab Sample ID: 240-165804-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	76	J	100	57	ug/L	1		6010D	Total Recoverable
Arsenic	0.90	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	260		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cadmium	0.90	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	120000		1000	580	ug/L	1		6020B	Total Recoverable
Cobalt	36		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	8.2		8.0	1.7	ug/L	1		6020B	Total Recoverable
Molybdenum	3.0	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Mercury	0.14	J	0.20	0.13	ug/L	1		7470A	Total/NA
Chloride	26		1.0	0.28	mg/L	1		9056A	Total/NA
Fluoride	0.22		0.050	0.024	mg/L	1		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Canton

Detection Summary

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Client Sample ID: 042822NOW2A (Continued) — Lab Sample ID: 240-165804-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	130		1.0	0.35	mg/L	1		9056A	Total/NA
Total Dissolved Solids	470		10	10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 042822NOW4A — Lab Sample ID: 240-165804-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.94	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	75		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	23000		1000	580	ug/L	1		6020B	Total Recoverable
Cobalt	0.35	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	1.9	J	8.0	1.7	ug/L	1		6020B	Total Recoverable
Chloride	6.5		1.0	0.28	mg/L	1		9056A	Total/NA
Fluoride	0.10		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	39		1.0	0.35	mg/L	1		9056A	Total/NA
Total Dissolved Solids	120		10	10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 042822NOW10 — Lab Sample ID: 240-165804-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	200		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	32000		1000	580	ug/L	1		6020B	Total Recoverable
Lithium	4.8	J	8.0	1.7	ug/L	1		6020B	Total Recoverable
Chloride	6.7		1.0	0.28	mg/L	1		9056A	Total/NA
Fluoride	0.18		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	0.43	J	1.0	0.35	mg/L	1		9056A	Total/NA
Total Dissolved Solids	140		10	10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 042822NOW12 — Lab Sample ID: 240-165804-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	170		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.4	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	45		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	71000		1000	580	ug/L	1		6020B	Total Recoverable
Cobalt	32		1.0	0.19	ug/L	1		6020B	Total Recoverable
Molybdenum	3.2	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Chloride	100		1.0	0.28	mg/L	1		9056A	Total/NA
Fluoride	0.063		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	190		1.0	0.35	mg/L	1		9056A	Total/NA
Total Dissolved Solids	510		10	10	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Client Sample ID: 042822NOW13 — Lab Sample ID: 240-165804-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.2	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	120		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	23000		1000	580	ug/L	1		6020B	Total Recoverable
Chromium	4.2	J	5.0	2.5	ug/L	1		6020B	Total Recoverable
Cobalt	1.6		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	2.2	J	8.0	1.7	ug/L	1		6020B	Total Recoverable
Chloride	23		1.0	0.28	mg/L	1		9056A	Total/NA
Fluoride	0.056		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	1.1		1.0	0.35	mg/L	1		9056A	Total/NA
Total Dissolved Solids	440		10	10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 042822FBFieldBlank — Lab Sample ID: 240-165804-8

No Detections.

Client Sample ID: 042822FDDuplicate — Lab Sample ID: 240-165804-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	240		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	38000		1000	580	ug/L	1		6020B	Total Recoverable
Lithium	7.5	J	8.0	1.7	ug/L	1		6020B	Total Recoverable
Chloride	6.7		1.0	0.28	mg/L	1		9056A	Total/NA
Fluoride	0.18		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	0.57	J	1.0	0.35	mg/L	1		9056A	Total/NA
Total Dissolved Solids	140		10	10	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 042822NOW7A

Date Collected: 04/28/22 09:50
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-1

Matrix: Water

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		05/03/22 12:00	05/04/22 14:52	1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57	*+	2.0	0.57	ug/L		05/03/22 12:00	05/04/22 11:45	1
Arsenic	<0.75		5.0	0.75	ug/L		05/03/22 12:00	05/04/22 11:45	1
Barium	**270**		5.0	2.2	ug/L		05/03/22 12:00	05/04/22 11:45	1
Beryllium	<0.62		1.0	0.62	ug/L		05/03/22 12:00	05/04/22 11:45	1
Cadmium	<0.20		1.0	0.20	ug/L		05/03/22 12:00	05/04/22 11:45	1
Calcium	**40000**	**F1**	1000	580	ug/L		05/03/22 12:00	05/04/22 11:45	1
Chromium	<2.5		5.0	2.5	ug/L		05/03/22 12:00	05/04/22 11:45	1
Cobalt	**3.2**		1.0	0.19	ug/L		05/03/22 12:00	05/04/22 11:45	1
Lead	<0.45		1.0	0.45	ug/L		05/03/22 12:00	05/04/22 11:45	1
Lithium	**14**		8.0	1.7	ug/L		05/03/22 12:00	05/04/22 11:45	1
Molybdenum	<1.1		5.0	1.1	ug/L		05/03/22 12:00	05/04/22 11:45	1
Selenium	<0.89		5.0	0.89	ug/L		05/03/22 12:00	05/04/22 11:45	1
Thallium	**0.37**	**J**	1.0	0.20	ug/L		05/03/22 12:00	05/04/22 11:45	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13	F1	0.20	0.13	ug/L		05/03/22 12:00	05/04/22 18:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**100**		1.0	0.28	mg/L			05/19/22 01:05	1
Fluoride	**0.15**		0.050	0.024	mg/L			05/19/22 01:05	1
Sulfate	**11**		1.0	0.35	mg/L			05/19/22 01:05	1
Total Dissolved Solids	**250**		10	10	mg/L			05/04/22 16:03	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.215	U	0.158	0.159	1.00	0.219	pCi/L	05/04/22 09:57	06/02/22 08:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*40 - 110*	*05/04/22 09:57*	*06/02/22 08:21*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.254	U	0.277	0.278	1.00	0.451	pCi/L	05/04/22 10:30	06/01/22 11:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*40 - 110*	*05/04/22 10:30*	*06/01/22 11:56*	*1*
Y Carrier	*83.7*		*40 - 110*	*05/04/22 10:30*	*06/01/22 11:56*	*1*

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Client Sample ID: 042822NOW7A
Date Collected: 04/28/22 09:50
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-1
Matrix: Water

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.469		0.319	0.320	5.00	0.451	pCi/L		06/03/22 12:50	1

Client Sample ID: 042822NOW8

Date Collected: 04/28/22 10:05
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-2

Matrix: Water

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		05/03/22 12:00	05/04/22 15:22	1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57	*+	2.0	0.57	ug/L		05/03/22 12:00	05/04/22 12:01	1
Arsenic	**0.99**	**J**	5.0	0.75	ug/L		05/03/22 12:00	05/04/22 12:01	1
Barium	**11**		5.0	2.2	ug/L		05/03/22 12:00	05/04/22 12:01	1
Beryllium	<0.62		1.0	0.62	ug/L		05/03/22 12:00	05/04/22 12:01	1
Cadmium	<0.20		1.0	0.20	ug/L		05/03/22 12:00	05/04/22 12:01	1
Calcium	**400000**		1000	580	ug/L		05/03/22 12:00	05/04/22 12:01	1
Chromium	<2.5		5.0	2.5	ug/L		05/03/22 12:00	05/04/22 12:01	1
Cobalt	**30**		1.0	0.19	ug/L		05/03/22 12:00	05/04/22 12:01	1
Lead	<0.45		1.0	0.45	ug/L		05/03/22 12:00	05/04/22 12:01	1
Lithium	**10**		8.0	1.7	ug/L		05/03/22 12:00	05/04/22 12:01	1
Molybdenum	<1.1		5.0	1.1	ug/L		05/03/22 12:00	05/04/22 12:01	1
Selenium	<0.89		5.0	0.89	ug/L		05/03/22 12:00	05/04/22 12:01	1
Thallium	**0.52**	**J**	1.0	0.20	ug/L		05/03/22 12:00	05/04/22 12:01	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		05/03/22 12:00	05/04/22 18:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**230**		10	2.8	mg/L			05/19/22 02:32	10
Fluoride	**0.089**		0.050	0.024	mg/L			05/19/22 02:10	1
Sulfate	**920**		10	3.5	mg/L			05/19/22 02:32	10
Total Dissolved Solids	**1800**		20	20	mg/L			05/04/22 15:58	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00217	U	0.129	0.129	1.00	0.275	pCi/L	05/04/22 09:57	06/02/22 08:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.6*		*40 - 110*	*05/04/22 09:57*	*06/02/22 08:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.407	U	0.361	0.363	1.00	0.564	pCi/L	05/04/22 10:30	06/01/22 11:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.6*		*40 - 110*	*05/04/22 10:30*	*06/01/22 11:57*	*1*
Y Carrier	*81.5*		*40 - 110*	*05/04/22 10:30*	*06/01/22 11:57*	*1*

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Client Sample ID: 042822NOW8
Date Collected: 04/28/22 10:05
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-2
Matrix: Water

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.410	U	0.383	0.385	5.00	0.564	pCi/L		06/03/22 12:50	1

Client Sample ID: 042822NOW2A

Date Collected: 04/28/22 12:35
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-3

Matrix: Water

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**76**	**J**	100	57	ug/L		05/03/22 12:00	05/04/22 15:27	1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57	*+	2.0	0.57	ug/L		05/03/22 12:00	05/04/22 12:09	1
Arsenic	**0.90**	**J**	5.0	0.75	ug/L		05/03/22 12:00	05/04/22 12:09	1
Barium	**260**		5.0	2.2	ug/L		05/03/22 12:00	05/04/22 12:09	1
Beryllium	<0.62		1.0	0.62	ug/L		05/03/22 12:00	05/04/22 12:09	1
Cadmium	**0.90**	**J**	1.0	0.20	ug/L		05/03/22 12:00	05/04/22 12:09	1
Calcium	**120000**		1000	580	ug/L		05/03/22 12:00	05/04/22 12:09	1
Chromium	<2.5		5.0	2.5	ug/L		05/03/22 12:00	05/04/22 12:09	1
Cobalt	**36**		1.0	0.19	ug/L		05/03/22 12:00	05/04/22 12:09	1
Lead	<0.45		1.0	0.45	ug/L		05/03/22 12:00	05/04/22 12:09	1
Lithium	**8.2**		8.0	1.7	ug/L		05/03/22 12:00	05/04/22 12:09	1
Molybdenum	**3.0**	**J**	5.0	1.1	ug/L		05/03/22 12:00	05/04/22 12:09	1
Selenium	<0.89		5.0	0.89	ug/L		05/03/22 12:00	05/04/22 12:09	1
Thallium	<0.20		1.0	0.20	ug/L		05/03/22 12:00	05/04/22 12:09	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.14**	**J**	0.20	0.13	ug/L		05/03/22 12:00	05/04/22 18:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**26**		1.0	0.28	mg/L			05/19/22 02:54	1
Fluoride	**0.22**		0.050	0.024	mg/L			05/19/22 02:54	1
Sulfate	**130**		1.0	0.35	mg/L			05/19/22 02:54	1
Total Dissolved Solids	**470**		10	10	mg/L			05/04/22 15:58	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.305**		0.197	0.199	1.00	0.276	pCi/L	05/04/22 09:57	06/02/22 13:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.5*		*40 - 110*	*05/04/22 09:57*	*06/02/22 13:34*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.988**		0.382	0.393	1.00	0.476	pCi/L	05/04/22 10:30	06/01/22 11:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.5*		*40 - 110*	*05/04/22 10:30*	*06/01/22 11:57*	*1*
Y Carrier	*82.2*		*40 - 110*	*05/04/22 10:30*	*06/01/22 11:57*	*1*

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Client Sample ID: 042822NOW2A
Date Collected: 04/28/22 12:35
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-3
Matrix: Water

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.29		0.430	0.441	5.00	0.476	pCi/L		06/03/22 12:50	1

Client Sample ID: 042822NOW4A

Date Collected: 04/28/22 13:50
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-4

Matrix: Water

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		05/03/22 12:00	05/04/22 15:31	1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57	*+	2.0	0.57	ug/L		05/03/22 12:00	05/04/22 12:11	1
Arsenic	**0.94**	**J**	5.0	0.75	ug/L		05/03/22 12:00	05/04/22 12:11	1
Barium	**75**		5.0	2.2	ug/L		05/03/22 12:00	05/04/22 12:11	1
Beryllium	<0.62		1.0	0.62	ug/L		05/03/22 12:00	05/04/22 12:11	1
Cadmium	<0.20		1.0	0.20	ug/L		05/03/22 12:00	05/04/22 12:11	1
Calcium	**23000**		1000	580	ug/L		05/03/22 12:00	05/04/22 12:11	1
Chromium	<2.5		5.0	2.5	ug/L		05/03/22 12:00	05/04/22 12:11	1
Cobalt	**0.35**	**J**	1.0	0.19	ug/L		05/03/22 12:00	05/04/22 12:11	1
Lead	<0.45		1.0	0.45	ug/L		05/03/22 12:00	05/04/22 12:11	1
Lithium	**1.9**	**J**	8.0	1.7	ug/L		05/03/22 12:00	05/04/22 12:11	1
Molybdenum	<1.1		5.0	1.1	ug/L		05/03/22 12:00	05/04/22 12:11	1
Selenium	<0.89		5.0	0.89	ug/L		05/03/22 12:00	05/04/22 12:11	1
Thallium	<0.20		1.0	0.20	ug/L		05/03/22 12:00	05/04/22 12:11	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		05/03/22 12:00	05/04/22 18:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.5**		1.0	0.28	mg/L			05/19/22 03:16	1
Fluoride	**0.10**		0.050	0.024	mg/L			05/19/22 03:16	1
Sulfate	**39**		1.0	0.35	mg/L			05/19/22 03:16	1
Total Dissolved Solids	**120**		10	10	mg/L			05/04/22 15:58	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.112	U	0.133	0.133	1.00	0.216	pCi/L	05/04/22 09:57	06/02/22 13:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.3*		*40 - 110*	*05/04/22 09:57*	*06/02/22 13:34*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.482	U	0.347	0.350	1.00	0.528	pCi/L	05/04/22 10:30	06/01/22 12:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.3*		*40 - 110*	*05/04/22 10:30*	*06/01/22 12:00*	*1*
Y Carrier	*83.0*		*40 - 110*	*05/04/22 10:30*	*06/01/22 12:00*	*1*

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Client Sample ID: 042822NOW4A
Date Collected: 04/28/22 13:50
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-4
Matrix: Water

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.593		0.372	0.374	5.00	0.528	pCi/L		06/03/22 12:50	1

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Client Sample ID: 042822NOW10

Date Collected: 04/28/22 10:50
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-5

Matrix: Water

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		05/03/22 12:00	05/04/22 15:36	1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57	*+	2.0	0.57	ug/L		05/03/22 12:00	05/04/22 12:14	1
Arsenic	<0.75		5.0	0.75	ug/L		05/03/22 12:00	05/04/22 12:14	1
Barium	**200**		5.0	2.2	ug/L		05/03/22 12:00	05/04/22 12:14	1
Beryllium	<0.62		1.0	0.62	ug/L		05/03/22 12:00	05/04/22 12:14	1
Cadmium	<0.20		1.0	0.20	ug/L		05/03/22 12:00	05/04/22 12:14	1
Calcium	**32000**		1000	580	ug/L		05/03/22 12:00	05/04/22 12:14	1
Chromium	<2.5		5.0	2.5	ug/L		05/03/22 12:00	05/04/22 12:14	1
Cobalt	<0.19		1.0	0.19	ug/L		05/03/22 12:00	05/04/22 12:14	1
Lead	<0.45		1.0	0.45	ug/L		05/03/22 12:00	05/04/22 12:14	1
Lithium	**4.8**	**J**	8.0	1.7	ug/L		05/03/22 12:00	05/04/22 12:14	1
Molybdenum	<1.1		5.0	1.1	ug/L		05/03/22 12:00	05/04/22 12:14	1
Selenium	<0.89		5.0	0.89	ug/L		05/03/22 12:00	05/04/22 12:14	1
Thallium	<0.20		1.0	0.20	ug/L		05/03/22 12:00	05/04/22 12:14	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		05/03/22 12:00	05/04/22 18:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.7**		1.0	0.28	mg/L			05/19/22 03:38	1
Fluoride	**0.18**		0.050	0.024	mg/L			05/19/22 03:38	1
Sulfate	**0.43**	**J**	1.0	0.35	mg/L			05/19/22 03:38	1
Total Dissolved Solids	**140**		10	10	mg/L			05/04/22 15:58	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.763**		0.305	0.312	1.00	0.339	pCi/L	05/04/22 09:57	06/02/22 13:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*05/04/22 09:57*	*06/02/22 13:34*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.852**		0.457	0.463	1.00	0.642	pCi/L	05/04/22 10:30	06/01/22 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*05/04/22 10:30*	*06/01/22 12:02*	*1*
Y Carrier	*83.0*		*40 - 110*	*05/04/22 10:30*	*06/01/22 12:02*	*1*

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Client Sample ID: 042822NOW10
Date Collected: 04/28/22 10:50
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-5
Matrix: Water

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.61		0.549	0.558	5.00	0.642	pCi/L		06/03/22 12:50	1

Client Sample ID: 042822NOW12

Date Collected: 04/28/22 15:15
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-6

Matrix: Water

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**170**		100	57	ug/L		05/03/22 12:00	05/04/22 15:40	1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57	*+	2.0	0.57	ug/L		05/03/22 12:00	05/04/22 12:16	1
Arsenic	**1.4**	**J**	5.0	0.75	ug/L		05/03/22 12:00	05/04/22 12:16	1
Barium	**45**		5.0	2.2	ug/L		05/03/22 12:00	05/04/22 12:16	1
Beryllium	<0.62		1.0	0.62	ug/L		05/03/22 12:00	05/04/22 12:16	1
Cadmium	<0.20		1.0	0.20	ug/L		05/03/22 12:00	05/04/22 12:16	1
Calcium	**71000**		1000	580	ug/L		05/03/22 12:00	05/04/22 12:16	1
Chromium	<2.5		5.0	2.5	ug/L		05/03/22 12:00	05/04/22 12:16	1
Cobalt	**32**		1.0	0.19	ug/L		05/03/22 12:00	05/04/22 12:16	1
Lead	<0.45		1.0	0.45	ug/L		05/03/22 12:00	05/04/22 12:16	1
Lithium	<1.7		8.0	1.7	ug/L		05/03/22 12:00	05/04/22 12:16	1
Molybdenum	**3.2**	**J**	5.0	1.1	ug/L		05/03/22 12:00	05/04/22 12:16	1
Selenium	<0.89		5.0	0.89	ug/L		05/03/22 12:00	05/04/22 12:16	1
Thallium	<0.20		1.0	0.20	ug/L		05/03/22 12:00	05/04/22 12:16	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		05/03/22 12:00	05/04/22 18:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**100**		1.0	0.28	mg/L			05/19/22 04:43	1
Fluoride	**0.063**		0.050	0.024	mg/L			05/19/22 04:43	1
Sulfate	**190**		1.0	0.35	mg/L			05/19/22 04:43	1
Total Dissolved Solids	**510**		10	10	mg/L			05/04/22 16:03	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.182	U	0.182	0.183	1.00	0.288	pCi/L	05/04/22 09:57	06/02/22 15:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.8*		*40 - 110*	*05/04/22 09:57*	*06/02/22 15:18*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.951**		0.387	0.397	1.00	0.488	pCi/L	05/04/22 10:30	06/01/22 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.8*		*40 - 110*	*05/04/22 10:30*	*06/01/22 12:02*	*1*
Y Carrier	*84.9*		*40 - 110*	*05/04/22 10:30*	*06/01/22 12:02*	*1*

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Client Sample ID: 042822NOW12
Date Collected: 04/28/22 15:15
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-6
Matrix: Water

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.13		0.428	0.437	5.00	0.488	pCi/L		06/03/22 12:50	1

Client Sample ID: 042822NOW13

Date Collected: 04/28/22 12:15
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-7

Matrix: Water

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		05/03/22 12:00	05/04/22 15:45	1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57	*+	2.0	0.57	ug/L		05/03/22 12:00	05/04/22 12:19	1
Arsenic	**4.2**	**J**	5.0	0.75	ug/L		05/03/22 12:00	05/04/22 12:19	1
Barium	**120**		5.0	2.2	ug/L		05/03/22 12:00	05/04/22 12:19	1
Beryllium	<0.62		1.0	0.62	ug/L		05/03/22 12:00	05/04/22 12:19	1
Cadmium	<0.20		1.0	0.20	ug/L		05/03/22 12:00	05/04/22 12:19	1
Calcium	**23000**		1000	580	ug/L		05/03/22 12:00	05/04/22 12:19	1
Chromium	**4.2**	**J**	5.0	2.5	ug/L		05/03/22 12:00	05/04/22 12:19	1
Cobalt	**1.6**		1.0	0.19	ug/L		05/03/22 12:00	05/04/22 12:19	1
Lead	<0.45		1.0	0.45	ug/L		05/03/22 12:00	05/04/22 12:19	1
Lithium	**2.2**	**J**	8.0	1.7	ug/L		05/03/22 12:00	05/04/22 12:19	1
Molybdenum	<1.1		5.0	1.1	ug/L		05/03/22 12:00	05/04/22 12:19	1
Selenium	<0.89		5.0	0.89	ug/L		05/03/22 12:00	05/04/22 12:19	1
Thallium	<0.20		1.0	0.20	ug/L		05/03/22 12:00	05/04/22 12:19	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		05/03/22 12:00	05/04/22 18:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**23**		1.0	0.28	mg/L			05/19/22 05:04	1
Fluoride	**0.056**		0.050	0.024	mg/L			05/19/22 05:04	1
Sulfate	**1.1**		1.0	0.35	mg/L			05/19/22 05:04	1
Total Dissolved Solids	**440**		10	10	mg/L			05/04/22 16:03	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.389**		0.220	0.222	1.00	0.269	pCi/L	05/04/22 09:57	06/02/22 15:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*05/04/22 09:57*	*06/02/22 15:19*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.31**		0.487	0.502	1.00	0.603	pCi/L	05/04/22 10:30	06/01/22 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*05/04/22 10:30*	*06/01/22 12:02*	*1*
Y Carrier	*84.1*		*40 - 110*	*05/04/22 10:30*	*06/01/22 12:02*	*1*

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Client Sample ID: 042822NOW13
Date Collected: 04/28/22 12:15
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-7
Matrix: Water

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.70		0.534	0.549	5.00	0.603	pCi/L		06/03/22 12:50	1

Client Sample ID: 042822FBFieldBlank

Date Collected: 04/28/22 12:25
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-8

Matrix: Water

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		05/03/22 12:00	05/04/22 15:58	1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57	*+	2.0	0.57	ug/L		05/03/22 12:00	05/04/22 12:21	1
Arsenic	<0.75		5.0	0.75	ug/L		05/03/22 12:00	05/04/22 12:21	1
Barium	<2.2		5.0	2.2	ug/L		05/03/22 12:00	05/04/22 12:21	1
Beryllium	<0.62		1.0	0.62	ug/L		05/03/22 12:00	05/04/22 12:21	1
Cadmium	<0.20		1.0	0.20	ug/L		05/03/22 12:00	05/04/22 12:21	1
Calcium	<580		1000	580	ug/L		05/03/22 12:00	05/04/22 12:21	1
Chromium	<2.5		5.0	2.5	ug/L		05/03/22 12:00	05/04/22 12:21	1
Cobalt	<0.19		1.0	0.19	ug/L		05/03/22 12:00	05/04/22 12:21	1
Lead	<0.45		1.0	0.45	ug/L		05/03/22 12:00	05/04/22 12:21	1
Lithium	<1.7		8.0	1.7	ug/L		05/03/22 12:00	05/04/22 12:21	1
Molybdenum	<1.1		5.0	1.1	ug/L		05/03/22 12:00	05/04/22 12:21	1
Selenium	<0.89		5.0	0.89	ug/L		05/03/22 12:00	05/04/22 12:21	1
Thallium	<0.20		1.0	0.20	ug/L		05/03/22 12:00	05/04/22 12:21	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		05/03/22 12:00	05/04/22 18:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.28		1.0	0.28	mg/L			05/19/22 05:26	1
Fluoride	<0.024		0.050	0.024	mg/L			05/19/22 05:26	1
Sulfate	<0.35		1.0	0.35	mg/L			05/19/22 05:26	1
Total Dissolved Solids	<10		10	10	mg/L			05/04/22 16:03	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0634	U	0.143	0.143	1.00	0.259	pCi/L	05/04/22 09:57	06/02/22 15:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.5*		*40 - 110*	*05/04/22 09:57*	*06/02/22 15:19*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.340	U	0.324	0.325	1.00	0.517	pCi/L	05/04/22 10:30	06/01/22 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.5*		*40 - 110*	*05/04/22 10:30*	*06/01/22 12:02*	*1*
Y Carrier	*84.5*		*40 - 110*	*05/04/22 10:30*	*06/01/22 12:02*	*1*

Client Sample ID: 042822FBFieldBlank
Date Collected: 04/28/22 12:25
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-8
Matrix: Water

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.403	U	0.354	0.355	5.00	0.517	pCi/L		06/03/22 12:50	1

Client Sample ID: 042822FDDuplicate

Date Collected: 04/28/22 11:00
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-9

Matrix: Water

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		05/03/22 12:00	05/04/22 16:02	1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57	*+	2.0	0.57	ug/L		05/03/22 12:00	05/04/22 12:24	1
Arsenic	<0.75		5.0	0.75	ug/L		05/03/22 12:00	05/04/22 12:24	1
Barium	**240**		5.0	2.2	ug/L		05/03/22 12:00	05/04/22 12:24	1
Beryllium	<0.62		1.0	0.62	ug/L		05/03/22 12:00	05/04/22 12:24	1
Cadmium	<0.20		1.0	0.20	ug/L		05/03/22 12:00	05/04/22 12:24	1
Calcium	**38000**		1000	580	ug/L		05/03/22 12:00	05/04/22 12:24	1
Chromium	<2.5		5.0	2.5	ug/L		05/03/22 12:00	05/04/22 12:24	1
Cobalt	<0.19		1.0	0.19	ug/L		05/03/22 12:00	05/04/22 12:24	1
Lead	<0.45		1.0	0.45	ug/L		05/03/22 12:00	05/04/22 12:24	1
Lithium	**7.5**	**J**	8.0	1.7	ug/L		05/03/22 12:00	05/04/22 12:24	1
Molybdenum	<1.1		5.0	1.1	ug/L		05/03/22 12:00	05/04/22 12:24	1
Selenium	<0.89		5.0	0.89	ug/L		05/03/22 12:00	05/04/22 12:24	1
Thallium	<0.20		1.0	0.20	ug/L		05/03/22 12:00	05/04/22 12:24	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		05/03/22 12:00	05/04/22 18:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.7**		1.0	0.28	mg/L			05/19/22 05:48	1
Fluoride	**0.18**		0.050	0.024	mg/L			05/19/22 05:48	1
Sulfate	**0.57**	**J**	1.0	0.35	mg/L			05/19/22 05:48	1
Total Dissolved Solids	**140**		10	10	mg/L			05/04/22 16:03	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.256	U	0.238	0.239	1.00	0.371	pCi/L	05/04/22 09:57	06/02/22 17:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.0*		*40 - 110*	*05/04/22 09:57*	*06/02/22 17:14*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.642	U	0.442	0.445	1.00	0.660	pCi/L	05/04/22 10:30	06/01/22 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.0*		*40 - 110*	*05/04/22 10:30*	*06/01/22 12:02*	*1*
Y Carrier	*86.7*		*40 - 110*	*05/04/22 10:30*	*06/01/22 12:02*	*1*

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Client Sample ID: 042822FDDuplicate
Date Collected: 04/28/22 11:00
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-9
Matrix: Water

Method: Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.898		0.502	0.505	5.00	0.660	pCi/L		06/03/22 12:50	1

Tracer/Carrier Summary

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Method: 9315 - Radium-226 (GFPC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba (40-110)
240-165804-1	042822NOW7A	96.3
240-165804-1 MS	042822NOW7A	95.5
240-165804-1 MSD	042822NOW7A	92.8
240-165804-2	042822NOW8	72.6
240-165804-3	042822NOW2A	90.5
240-165804-4	042822NOW4A	90.3
240-165804-5	042822NOW10	93.8
240-165804-6	042822NOW12	84.8
240-165804-7	042822NOW13	95.3
240-165804-8	042822FBFieldBlank	89.5
240-165804-9	042822FDDuplicate	86.0
LCS 160-563661/1-A	Lab Control Sample	96.3
MB 160-563661/22-A	Method Blank	94.5

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
240-165804-1	042822NOW7A	96.3	83.7
240-165804-1 MS	042822NOW7A	95.5	85.2
240-165804-1 MSD	042822NOW7A	92.8	83.7
240-165804-2	042822NOW8	72.6	81.5
240-165804-3	042822NOW2A	90.5	82.2
240-165804-4	042822NOW4A	90.3	83.0
240-165804-5	042822NOW10	93.8	83.0
240-165804-6	042822NOW12	84.8	84.9
240-165804-7	042822NOW13	95.3	84.1
240-165804-8	042822FBFieldBlank	89.5	84.5
240-165804-9	042822FDDuplicate	86.0	86.7
LCS 160-563668/1-A	Lab Control Sample	96.3	83.7
MB 160-563668/22-A	Method Blank	94.5	87.5

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-524889/1-A
Matrix: Water
Analysis Batch: 525125

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 524889

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		05/03/22 12:00	05/04/22 14:44	1

Lab Sample ID: LCS 240-524889/2-A
Matrix: Water
Analysis Batch: 525125

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 524889

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1010		ug/L		101	80 - 120

Lab Sample ID: 240-165804-1 MS
Matrix: Water
Analysis Batch: 525125

Client Sample ID: 042822NOW7A
Prep Type: Total Recoverable
Prep Batch: 524889

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	<57		1000	950		ug/L		95	75 - 125

Lab Sample ID: 240-165804-1 MSD
Matrix: Water
Analysis Batch: 525125

Client Sample ID: 042822NOW7A
Prep Type: Total Recoverable
Prep Batch: 524889

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	<57		1000	1050		ug/L		105	75 - 125	10	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-524889/1-A
Matrix: Water
Analysis Batch: 525227

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 524889

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57		2.0	0.57	ug/L		05/03/22 12:00	05/04/22 11:40	1
Arsenic	<0.75		5.0	0.75	ug/L		05/03/22 12:00	05/04/22 11:40	1
Barium	<2.2		5.0	2.2	ug/L		05/03/22 12:00	05/04/22 11:40	1
Beryllium	<0.62		1.0	0.62	ug/L		05/03/22 12:00	05/04/22 11:40	1
Cadmium	<0.20		1.0	0.20	ug/L		05/03/22 12:00	05/04/22 11:40	1
Calcium	<580		1000	580	ug/L		05/03/22 12:00	05/04/22 11:40	1
Chromium	<2.5		5.0	2.5	ug/L		05/03/22 12:00	05/04/22 11:40	1
Cobalt	<0.19		1.0	0.19	ug/L		05/03/22 12:00	05/04/22 11:40	1
Lead	<0.45		1.0	0.45	ug/L		05/03/22 12:00	05/04/22 11:40	1
Lithium	<1.7		8.0	1.7	ug/L		05/03/22 12:00	05/04/22 11:40	1
Molybdenum	<1.1		5.0	1.1	ug/L		05/03/22 12:00	05/04/22 11:40	1
Selenium	<0.89		5.0	0.89	ug/L		05/03/22 12:00	05/04/22 11:40	1
Thallium	<0.20		1.0	0.20	ug/L		05/03/22 12:00	05/04/22 11:40	1

Lab Sample ID: LCS 240-524889/3-A
Matrix: Water
Analysis Batch: 525227

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 524889

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	124	*+	ug/L		124	80 - 120

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

Lab Sample ID: LCS 240-524889/3-A
Matrix: Water
Analysis Batch: 525227

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 524889

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1000	992		ug/L		99	80 - 120
Barium	1000	1070		ug/L		107	80 - 120
Beryllium	500	495		ug/L		99	80 - 120
Cadmium	500	521		ug/L		104	80 - 120
Calcium	25000	26000		ug/L		104	80 - 120
Chromium	500	523		ug/L		105	80 - 120
Cobalt	500	510		ug/L		102	80 - 120
Lead	500	532		ug/L		106	80 - 120
Lithium	500	544		ug/L		109	80 - 120
Molybdenum	500	520		ug/L		104	80 - 120
Selenium	1000	1000		ug/L		100	80 - 120
Thallium	1000	1000		ug/L		100	80 - 120

Lab Sample ID: 240-165804-1 MS
Matrix: Water
Analysis Batch: 525227

Client Sample ID: 042822NOW7A
Prep Type: Total Recoverable
Prep Batch: 524889

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.57	*+	100	103		ug/L		103	80 - 120
Arsenic	<0.75		1000	939		ug/L		94	80 - 120
Barium	270		1000	1330		ug/L		106	80 - 120
Beryllium	<0.62		500	494		ug/L		99	80 - 120
Cadmium	<0.20		500	495		ug/L		99	80 - 120
Calcium	40000	F1	25000	68200		ug/L		113	80 - 120
Chromium	<2.5		500	501		ug/L		100	80 - 120
Cobalt	3.2		500	490		ug/L		97	80 - 120
Lead	<0.45		500	513		ug/L		103	80 - 120
Lithium	14		500	522		ug/L		102	80 - 120
Molybdenum	<1.1		500	503		ug/L		101	80 - 120
Selenium	<0.89		1000	957		ug/L		96	80 - 120
Thallium	0.37	J	1000	971		ug/L		97	80 - 120

Lab Sample ID: 240-165804-1 MSD
Matrix: Water
Analysis Batch: 525227

Client Sample ID: 042822NOW7A
Prep Type: Total Recoverable
Prep Batch: 524889

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.57	*+	100	109		ug/L		109	80 - 120	6	20
Arsenic	<0.75		1000	976		ug/L		98	80 - 120	4	20
Barium	270		1000	1400		ug/L		113	80 - 120	5	20
Beryllium	<0.62		500	510		ug/L		102	80 - 120	3	20
Cadmium	<0.20		500	518		ug/L		104	80 - 120	5	20
Calcium	40000	F1	25000	73700	F1	ug/L		135	80 - 120	8	20
Chromium	<2.5		500	521		ug/L		104	80 - 120	4	20
Cobalt	3.2		500	507		ug/L		101	80 - 120	4	20
Lead	<0.45		500	537		ug/L		107	80 - 120	5	20
Lithium	14		500	551		ug/L		107	80 - 120	5	20
Molybdenum	<1.1		500	530		ug/L		106	80 - 120	5	20
Selenium	<0.89		1000	994		ug/L		99	80 - 120	4	20

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

Lab Sample ID: 240-165804-1 MSD — **Client Sample ID: 042822NOW7A**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 525227 — **Prep Batch: 524889**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Thallium	0.37	J	1000	1010		ug/L		101	80 - 120	4	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-524890/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 525141 — **Prep Batch: 524890**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		05/03/22 12:00	05/04/22 18:09	1

Lab Sample ID: LCS 240-524890/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 525141 — **Prep Batch: 524890**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.55		ug/L		111	80 - 120

Lab Sample ID: 240-165804-1 MS — **Client Sample ID: 042822NOW7A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 525141 — **Prep Batch: 524890**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.13	F1	1.00	1.08		ug/L		108	80 - 120

Lab Sample ID: 240-165804-1 MSD — **Client Sample ID: 042822NOW7A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 525141 — **Prep Batch: 524890**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.13	F1	1.00	1.29	F1	ug/L		129	80 - 120	17	20

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-526998/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 526998

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.28		1.0	0.28	mg/L			05/19/22 00:22	1
Fluoride	<0.024		0.050	0.024	mg/L			05/19/22 00:22	1
Sulfate	<0.35		1.0	0.35	mg/L			05/19/22 00:22	1

Lab Sample ID: LCS 240-526998/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 526998

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.2		mg/L		100	90 - 110
Fluoride	2.50	2.59		mg/L		104	90 - 110
Sulfate	50.0	51.5		mg/L		103	90 - 110

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: 240-165804-1 MS
Matrix: Water
Analysis Batch: 526998

Client Sample ID: 042822NOW7A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	100		50.0	149		mg/L		93	80 - 120
Fluoride	0.15		2.50	2.74		mg/L		104	80 - 120
Sulfate	11		50.0	62.7		mg/L		103	80 - 120

Lab Sample ID: 240-165804-1 MSD
Matrix: Water
Analysis Batch: 526998

Client Sample ID: 042822NOW7A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	100		50.0	151		mg/L		96	80 - 120	1	15
Fluoride	0.15		2.50	2.82		mg/L		107	80 - 120	3	15
Sulfate	11		50.0	64.4		mg/L		106	80 - 120	3	15

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

Lab Sample ID: MB 180-397671/2
Matrix: Water
Analysis Batch: 397671

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			05/04/22 15:58	1

Lab Sample ID: LCS 180-397671/1
Matrix: Water
Analysis Batch: 397671

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	469	460		mg/L		98	85 - 115

Lab Sample ID: 180-137464-C-11 DU
Matrix: Water
Analysis Batch: 397671

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	400		399		mg/L		0.7	10

Lab Sample ID: MB 180-397672/2
Matrix: Water
Analysis Batch: 397672

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			05/04/22 16:03	1

Lab Sample ID: LCS 180-397672/1
Matrix: Water
Analysis Batch: 397672

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	469	474		mg/L		101	85 - 115

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

Lab Sample ID: 240-165804-1 DU
Matrix: Water
Analysis Batch: 397672

Client Sample ID: 042822NOW7A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	250			256		mg/L				3	10

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-563661/22-A
Matrix: Water
Analysis Batch: 568089

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 563661

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.07266	U	0.108	0.108	1.00	0.185	pCi/L	05/04/22 09:57	06/02/22 19:34	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.5*		*40 - 110*	*05/04/22 09:57*	*06/02/22 19:34*	*1*

Lab Sample ID: LCS 160-563661/1-A
Matrix: Water
Analysis Batch: 568089

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 563661

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	10.29		1.25	1.00	0.281	pCi/L	91	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*96.3*		*40 - 110*

Lab Sample ID: 240-165804-1 MS
Matrix: Water
Analysis Batch: 568089

Client Sample ID: 042822NOW7A
Prep Type: Total/NA
Prep Batch: 563661

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226	0.215	U	11.4	10.26		1.25	1.00	0.260	pCi/L	88	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*95.5*		*40 - 110*

Lab Sample ID: 240-165804-1 MSD
Matrix: Water
Analysis Batch: 568089

Client Sample ID: 042822NOW7A
Prep Type: Total/NA
Prep Batch: 563661

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	0.215	U	11.4	9.421		1.18	1.00	0.276	pCi/L	81	60 - 140	0.35	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*92.8*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-563668/22-A
Matrix: Water
Analysis Batch: 567930

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 563668

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2700	U	0.282	0.283	1.00	0.455	pCi/L	05/04/22 10:30	06/01/22 12:23	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.5*		*40 - 110*	*05/04/22 10:30*	*06/01/22 12:23*	*1*
Y Carrier	*87.5*		*40 - 110*	*05/04/22 10:30*	*06/01/22 12:23*	*1*

Lab Sample ID: LCS 160-563668/1-A
Matrix: Water
Analysis Batch: 567930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 563668

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.57	8.885		1.19	1.00	0.448	pCi/L	104	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*96.3*		*40 - 110*
Y Carrier	*83.7*		*40 - 110*

Lab Sample ID: 240-165804-1 MS
Matrix: Water
Analysis Batch: 567930

Client Sample ID: 042822NOW7A
Prep Type: Total/NA
Prep Batch: 563668

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228	0.254	U	8.63	8.821		1.18	1.00	0.453	pCi/L	99	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*95.5*		*40 - 110*
Y Carrier	*85.2*		*40 - 110*

Lab Sample ID: 240-165804-1 MSD
Matrix: Water
Analysis Batch: 567930

Client Sample ID: 042822NOW7A
Prep Type: Total/NA
Prep Batch: 563668

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	0.254	U	8.63	10.89		1.39	1.00	0.449	pCi/L	123	60 - 140	0.80	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*92.8*		*40 - 110*
Y Carrier	*83.7*		*40 - 110*

Metals

Prep Batch: 524889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-165804-1	042822NOW7A	Total Recoverable	Water	3005A	
240-165804-2	042822NOW8	Total Recoverable	Water	3005A	
240-165804-3	042822NOW2A	Total Recoverable	Water	3005A	
240-165804-4	042822NOW4A	Total Recoverable	Water	3005A	
240-165804-5	042822NOW10	Total Recoverable	Water	3005A	
240-165804-6	042822NOW12	Total Recoverable	Water	3005A	
240-165804-7	042822NOW13	Total Recoverable	Water	3005A	
240-165804-8	042822FBFieldBlank	Total Recoverable	Water	3005A	
240-165804-9	042822FDDuplicate	Total Recoverable	Water	3005A	
MB 240-524889/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-524889/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-524889/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-165804-1 MS	042822NOW7A	Total Recoverable	Water	3005A	
240-165804-1 MS	042822NOW7A	Total Recoverable	Water	3005A	
240-165804-1 MSD	042822NOW7A	Total Recoverable	Water	3005A	
240-165804-1 MSD	042822NOW7A	Total Recoverable	Water	3005A	

Prep Batch: 524890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-165804-1	042822NOW7A	Total/NA	Water	7470A	
240-165804-2	042822NOW8	Total/NA	Water	7470A	
240-165804-3	042822NOW2A	Total/NA	Water	7470A	
240-165804-4	042822NOW4A	Total/NA	Water	7470A	
240-165804-5	042822NOW10	Total/NA	Water	7470A	
240-165804-6	042822NOW12	Total/NA	Water	7470A	
240-165804-7	042822NOW13	Total/NA	Water	7470A	
240-165804-8	042822FBFieldBlank	Total/NA	Water	7470A	
240-165804-9	042822FDDuplicate	Total/NA	Water	7470A	
MB 240-524890/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-524890/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-165804-1 MS	042822NOW7A	Total/NA	Water	7470A	
240-165804-1 MSD	042822NOW7A	Total/NA	Water	7470A	

Analysis Batch: 525125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-165804-1	042822NOW7A	Total Recoverable	Water	6010D	524889
240-165804-2	042822NOW8	Total Recoverable	Water	6010D	524889
240-165804-3	042822NOW2A	Total Recoverable	Water	6010D	524889
240-165804-4	042822NOW4A	Total Recoverable	Water	6010D	524889
240-165804-5	042822NOW10	Total Recoverable	Water	6010D	524889
240-165804-6	042822NOW12	Total Recoverable	Water	6010D	524889
240-165804-7	042822NOW13	Total Recoverable	Water	6010D	524889
240-165804-8	042822FBFieldBlank	Total Recoverable	Water	6010D	524889
240-165804-9	042822FDDuplicate	Total Recoverable	Water	6010D	524889
MB 240-524889/1-A	Method Blank	Total Recoverable	Water	6010D	524889
LCS 240-524889/2-A	Lab Control Sample	Total Recoverable	Water	6010D	524889
240-165804-1 MS	042822NOW7A	Total Recoverable	Water	6010D	524889
240-165804-1 MSD	042822NOW7A	Total Recoverable	Water	6010D	524889

Metals

Analysis Batch: 525141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-165804-1	042822NOW7A	Total/NA	Water	7470A	524890
240-165804-2	042822NOW8	Total/NA	Water	7470A	524890
240-165804-3	042822NOW2A	Total/NA	Water	7470A	524890
240-165804-4	042822NOW4A	Total/NA	Water	7470A	524890
240-165804-5	042822NOW10	Total/NA	Water	7470A	524890
240-165804-6	042822NOW12	Total/NA	Water	7470A	524890
240-165804-7	042822NOW13	Total/NA	Water	7470A	524890
240-165804-8	042822FBFieldBlank	Total/NA	Water	7470A	524890
240-165804-9	042822FDDuplicate	Total/NA	Water	7470A	524890
MB 240-524890/1-A	Method Blank	Total/NA	Water	7470A	524890
LCS 240-524890/2-A	Lab Control Sample	Total/NA	Water	7470A	524890
240-165804-1 MS	042822NOW7A	Total/NA	Water	7470A	524890
240-165804-1 MSD	042822NOW7A	Total/NA	Water	7470A	524890

Analysis Batch: 525227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-165804-1	042822NOW7A	Total Recoverable	Water	6020B	524889
240-165804-2	042822NOW8	Total Recoverable	Water	6020B	524889
240-165804-3	042822NOW2A	Total Recoverable	Water	6020B	524889
240-165804-4	042822NOW4A	Total Recoverable	Water	6020B	524889
240-165804-5	042822NOW10	Total Recoverable	Water	6020B	524889
240-165804-6	042822NOW12	Total Recoverable	Water	6020B	524889
240-165804-7	042822NOW13	Total Recoverable	Water	6020B	524889
240-165804-8	042822FBFieldBlank	Total Recoverable	Water	6020B	524889
240-165804-9	042822FDDuplicate	Total Recoverable	Water	6020B	524889
MB 240-524889/1-A	Method Blank	Total Recoverable	Water	6020B	524889
LCS 240-524889/3-A	Lab Control Sample	Total Recoverable	Water	6020B	524889
240-165804-1 MS	042822NOW7A	Total Recoverable	Water	6020B	524889
240-165804-1 MSD	042822NOW7A	Total Recoverable	Water	6020B	524889

General Chemistry

Analysis Batch: 397671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-165804-2	042822NOW8	Total/NA	Water	SM 2540C	
240-165804-3	042822NOW2A	Total/NA	Water	SM 2540C	
240-165804-4	042822NOW4A	Total/NA	Water	SM 2540C	
240-165804-5	042822NOW10	Total/NA	Water	SM 2540C	
MB 180-397671/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-397671/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-137464-C-11 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 397672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-165804-1	042822NOW7A	Total/NA	Water	SM 2540C	
240-165804-6	042822NOW12	Total/NA	Water	SM 2540C	
240-165804-7	042822NOW13	Total/NA	Water	SM 2540C	
240-165804-8	042822FBFieldBlank	Total/NA	Water	SM 2540C	
240-165804-9	042822FDDuplicate	Total/NA	Water	SM 2540C	
MB 180-397672/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-397672/1	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 397672 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-165804-1 DU	042822NOW7A	Total/NA	Water	SM 2540C	

Analysis Batch: 526998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-165804-1	042822NOW7A	Total/NA	Water	9056A	
240-165804-2	042822NOW8	Total/NA	Water	9056A	
240-165804-2	042822NOW8	Total/NA	Water	9056A	
240-165804-3	042822NOW2A	Total/NA	Water	9056A	
240-165804-4	042822NOW4A	Total/NA	Water	9056A	
240-165804-5	042822NOW10	Total/NA	Water	9056A	
240-165804-6	042822NOW12	Total/NA	Water	9056A	
240-165804-7	042822NOW13	Total/NA	Water	9056A	
240-165804-8	042822FBFieldBlank	Total/NA	Water	9056A	
240-165804-9	042822FDDuplicate	Total/NA	Water	9056A	
MB 240-526998/3	Method Blank	Total/NA	Water	9056A	
LCS 240-526998/4	Lab Control Sample	Total/NA	Water	9056A	
240-165804-1 MS	042822NOW7A	Total/NA	Water	9056A	
240-165804-1 MSD	042822NOW7A	Total/NA	Water	9056A	

Rad

Prep Batch: 563661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-165804-1	042822NOW7A	Total/NA	Water	PrecSep-21	
240-165804-2	042822NOW8	Total/NA	Water	PrecSep-21	
240-165804-3	042822NOW2A	Total/NA	Water	PrecSep-21	
240-165804-4	042822NOW4A	Total/NA	Water	PrecSep-21	
240-165804-5	042822NOW10	Total/NA	Water	PrecSep-21	
240-165804-6	042822NOW12	Total/NA	Water	PrecSep-21	
240-165804-7	042822NOW13	Total/NA	Water	PrecSep-21	
240-165804-8	042822FBFieldBlank	Total/NA	Water	PrecSep-21	
240-165804-9	042822FDDuplicate	Total/NA	Water	PrecSep-21	
MB 160-563661/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-563661/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-165804-1 MS	042822NOW7A	Total/NA	Water	PrecSep-21	
240-165804-1 MSD	042822NOW7A	Total/NA	Water	PrecSep-21	

Prep Batch: 563668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-165804-1	042822NOW7A	Total/NA	Water	PrecSep_0	
240-165804-2	042822NOW8	Total/NA	Water	PrecSep_0	
240-165804-3	042822NOW2A	Total/NA	Water	PrecSep_0	
240-165804-4	042822NOW4A	Total/NA	Water	PrecSep_0	
240-165804-5	042822NOW10	Total/NA	Water	PrecSep_0	
240-165804-6	042822NOW12	Total/NA	Water	PrecSep_0	
240-165804-7	042822NOW13	Total/NA	Water	PrecSep_0	
240-165804-8	042822FBFieldBlank	Total/NA	Water	PrecSep_0	
240-165804-9	042822FDDuplicate	Total/NA	Water	PrecSep_0	
MB 160-563668/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-563668/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-165804-1 MS	042822NOW7A	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 563668 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-165804-1 MSD	042822NOW7A	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Client Sample ID: 042822NOW7A
Date Collected: 04/28/22 09:50
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6010D		1	525125	05/04/22 14:52	RKT	TAL CAN
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6020B		1	525227	05/04/22 11:45	DSH	TAL CAN
Total/NA	Prep	7470A			524890	05/03/22 12:00	SHB	TAL CAN
Total/NA	Analysis	7470A		1	525141	05/04/22 18:18	AJC	TAL CAN
Total/NA	Analysis	9056A		1	526998	05/19/22 01:05	JMB	TAL CAN
Total/NA	Analysis	SM 2540C		1	397672	05/04/22 16:03	JCR	TAL PIT
Total/NA	Prep	PrecSep-21			563661	05/04/22 09:57	MS	TAL SL
Total/NA	Analysis	9315		1	568089	06/02/22 08:21	FLC	TAL SL
Total/NA	Prep	PrecSep_0			563668	05/04/22 10:30	MS	TAL SL
Total/NA	Analysis	9320		1	567930	06/01/22 11:56	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	568282	06/03/22 12:50	SCB	TAL SL

Client Sample ID: 042822NOW8
Date Collected: 04/28/22 10:05
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6010D		1	525125	05/04/22 15:22	RKT	TAL CAN
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6020B		1	525227	05/04/22 12:01	DSH	TAL CAN
Total/NA	Prep	7470A			524890	05/03/22 12:00	SHB	TAL CAN
Total/NA	Analysis	7470A		1	525141	05/04/22 18:24	AJC	TAL CAN
Total/NA	Analysis	9056A		1	526998	05/19/22 02:10	JMB	TAL CAN
Total/NA	Analysis	9056A		10	526998	05/19/22 02:32	JMB	TAL CAN
Total/NA	Analysis	SM 2540C		1	397671	05/04/22 15:58	JCR	TAL PIT
Total/NA	Prep	PrecSep-21			563661	05/04/22 09:57	MS	TAL SL
Total/NA	Analysis	9315		1	568089	06/02/22 08:22	FLC	TAL SL
Total/NA	Prep	PrecSep_0			563668	05/04/22 10:30	MS	TAL SL
Total/NA	Analysis	9320		1	567929	06/01/22 11:57	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	568282	06/03/22 12:50	SCB	TAL SL

Client Sample ID: 042822NOW2A
Date Collected: 04/28/22 12:35
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6010D		1	525125	05/04/22 15:27	RKT	TAL CAN
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6020B		1	525227	05/04/22 12:09	DSH	TAL CAN

Lab Chronicle

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Client Sample ID: 042822NOW2A
Date Collected: 04/28/22 12:35
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			524890	05/03/22 12:00	SHB	TAL CAN
Total/NA	Analysis	7470A		1	525141	05/04/22 18:26	AJC	TAL CAN
Total/NA	Analysis	9056A		1	526998	05/19/22 02:54	JMB	TAL CAN
Total/NA	Analysis	SM 2540C		1	397671	05/04/22 15:58	JCR	TAL PIT
Total/NA	Prep	PrecSep-21			563661	05/04/22 09:57	MS	TAL SL
Total/NA	Analysis	9315		1	568089	06/02/22 13:34	FLC	TAL SL
Total/NA	Prep	PrecSep_0			563668	05/04/22 10:30	MS	TAL SL
Total/NA	Analysis	9320		1	567929	06/01/22 11:57	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	568282	06/03/22 12:50	SCB	TAL SL

Client Sample ID: 042822NOW4A
Date Collected: 04/28/22 13:50
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6010D		1	525125	05/04/22 15:31	RKT	TAL CAN
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6020B		1	525227	05/04/22 12:11	DSH	TAL CAN
Total/NA	Prep	7470A			524890	05/03/22 12:00	SHB	TAL CAN
Total/NA	Analysis	7470A		1	525141	05/04/22 18:28	AJC	TAL CAN
Total/NA	Analysis	9056A		1	526998	05/19/22 03:16	JMB	TAL CAN
Total/NA	Analysis	SM 2540C		1	397671	05/04/22 15:58	JCR	TAL PIT
Total/NA	Prep	PrecSep-21			563661	05/04/22 09:57	MS	TAL SL
Total/NA	Analysis	9315		1	568089	06/02/22 13:34	FLC	TAL SL
Total/NA	Prep	PrecSep_0			563668	05/04/22 10:30	MS	TAL SL
Total/NA	Analysis	9320		1	567929	06/01/22 12:00	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	568282	06/03/22 12:50	SCB	TAL SL

Client Sample ID: 042822NOW10
Date Collected: 04/28/22 10:50
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6010D		1	525125	05/04/22 15:36	RKT	TAL CAN
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6020B		1	525227	05/04/22 12:14	DSH	TAL CAN
Total/NA	Prep	7470A			524890	05/03/22 12:00	SHB	TAL CAN
Total/NA	Analysis	7470A		1	525141	05/04/22 18:30	AJC	TAL CAN
Total/NA	Analysis	9056A		1	526998	05/19/22 03:38	JMB	TAL CAN
Total/NA	Analysis	SM 2540C		1	397671	05/04/22 15:58	JCR	TAL PIT
Total/NA	Prep	PrecSep-21			563661	05/04/22 09:57	MS	TAL SL
Total/NA	Analysis	9315		1	568089	06/02/22 13:34	FLC	TAL SL

Lab Chronicle

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Client Sample ID: 042822NOW10
Date Collected: 04/28/22 10:50
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			563668	05/04/22 10:30	MS	TAL SL
Total/NA	Analysis	9320		1	567929	06/01/22 12:02	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	568282	06/03/22 12:50	SCB	TAL SL

Client Sample ID: 042822NOW12
Date Collected: 04/28/22 15:15
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6010D		1	525125	05/04/22 15:40	RKT	TAL CAN
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6020B		1	525227	05/04/22 12:16	DSH	TAL CAN
Total/NA	Prep	7470A			524890	05/03/22 12:00	SHB	TAL CAN
Total/NA	Analysis	7470A		1	525141	05/04/22 18:32	AJC	TAL CAN
Total/NA	Analysis	9056A		1	526998	05/19/22 04:43	JMB	TAL CAN
Total/NA	Analysis	SM 2540C		1	397672	05/04/22 16:03	JCR	TAL PIT
Total/NA	Prep	PrecSep-21			563661	05/04/22 09:57	MS	TAL SL
Total/NA	Analysis	9315		1	568089	06/02/22 15:18	FLC	TAL SL
Total/NA	Prep	PrecSep_0			563668	05/04/22 10:30	MS	TAL SL
Total/NA	Analysis	9320		1	567929	06/01/22 12:02	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	568282	06/03/22 12:50	SCB	TAL SL

Client Sample ID: 042822NOW13
Date Collected: 04/28/22 12:15
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6010D		1	525125	05/04/22 15:45	RKT	TAL CAN
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6020B		1	525227	05/04/22 12:19	DSH	TAL CAN
Total/NA	Prep	7470A			524890	05/03/22 12:00	SHB	TAL CAN
Total/NA	Analysis	7470A		1	525141	05/04/22 18:34	AJC	TAL CAN
Total/NA	Analysis	9056A		1	526998	05/19/22 05:04	JMB	TAL CAN
Total/NA	Analysis	SM 2540C		1	397672	05/04/22 16:03	JCR	TAL PIT
Total/NA	Prep	PrecSep-21			563661	05/04/22 09:57	MS	TAL SL
Total/NA	Analysis	9315		1	568089	06/02/22 15:19	FLC	TAL SL
Total/NA	Prep	PrecSep_0			563668	05/04/22 10:30	MS	TAL SL
Total/NA	Analysis	9320		1	567929	06/01/22 12:02	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	568282	06/03/22 12:50	SCB	TAL SL

Lab Chronicle

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Client Sample ID: 042822FBFieldBlank
Date Collected: 04/28/22 12:25
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6010D		1	525125	05/04/22 15:58	RKT	TAL CAN
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6020B		1	525227	05/04/22 12:21	DSH	TAL CAN
Total/NA	Prep	7470A			524890	05/03/22 12:00	SHB	TAL CAN
Total/NA	Analysis	7470A		1	525141	05/04/22 18:41	AJC	TAL CAN
Total/NA	Analysis	9056A		1	526998	05/19/22 05:26	JMB	TAL CAN
Total/NA	Analysis	SM 2540C		1	397672	05/04/22 16:03	JCR	TAL PIT
Total/NA	Prep	PrecSep-21			563661	05/04/22 09:57	MS	TAL SL
Total/NA	Analysis	9315		1	568089	06/02/22 15:19	FLC	TAL SL
Total/NA	Prep	PrecSep_0			563668	05/04/22 10:30	MS	TAL SL
Total/NA	Analysis	9320		1	567929	06/01/22 12:02	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	568282	06/03/22 12:50	SCB	TAL SL

Client Sample ID: 042822FDDuplicate
Date Collected: 04/28/22 11:00
Date Received: 04/30/22 09:30

Lab Sample ID: 240-165804-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6010D		1	525125	05/04/22 16:02	RKT	TAL CAN
Total Recoverable	Prep	3005A			524889	05/03/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6020B		1	525227	05/04/22 12:24	DSH	TAL CAN
Total/NA	Prep	7470A			524890	05/03/22 12:00	SHB	TAL CAN
Total/NA	Analysis	7470A		1	525141	05/04/22 18:43	AJC	TAL CAN
Total/NA	Analysis	9056A		1	526998	05/19/22 05:48	JMB	TAL CAN
Total/NA	Analysis	SM 2540C		1	397672	05/04/22 16:03	JCR	TAL PIT
Total/NA	Prep	PrecSep-21			563661	05/04/22 09:57	MS	TAL SL
Total/NA	Analysis	9315		1	568089	06/02/22 17:14	FLC	TAL SL
Total/NA	Prep	PrecSep_0			563668	05/04/22 10:30	MS	TAL SL
Total/NA	Analysis	9320		1	567929	06/01/22 12:02	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228 Pos		1	568282	06/03/22 12:50	SCB	TAL SL

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396
TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058
TAL SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Dominion Energy Services, Inc.
Project/Site: MSPS - LVWSP CCR

Job ID: 240-165804-1
SDG: Group D

Laboratory: Eurofins Canton

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

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	210	12-31-22

Laboratory: Eurofins Pittsburgh

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

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	142	05-19-22

Laboratory: Eurofins St. Louis

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	381	10-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Ra226_Ra228 Pos		Water	Radium 226 and 228

0.1/0.1 4.1/4.1 0.1/0.(0.9/0.9

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

COCID: MSPS-ISA2022-LVWS8-D-3-1

Virginia Beach #202

5676-2141-2746
5676-2141-2768

Eurofins | Environment Testing America

Client Information	Sampler: M. Knez / C. Mcgee	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s): 5676-2141-2768	COC No: 240-94183-34712.1
Client Contact: ~~Rachel Powell~~ MK Crystal Shadle	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: WV	Page: Page 1 of 2
Company: Golder Associates Inc.	PWSID:			Job #:
Address: 2108 W Laburnum Ave, Suite 200	Due Date Requested:			
City: Richmond	TAT Requested (days): STANDARD TAT			
State, Zip: VA, 23227	Compliance Project: Δ Yes Δ No			
Phone: 267-978-5151	PO #: 50153540			
Email: ~~rachel_powell@golder.com~~ MK crystal.shadle.com	WO #: 2013993622			
Project Name: Mount Storm Power Station	Project #: 24021758			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

All samples received on ice

Special Instructions/Note:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228	2540C_Calcd - TDS	6010C, 6020A, 7470A	9056A_28D - Cl, F, SO4	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
~~04 22NOW-7A~~ MK 042822NOW7A	04/28/2022	0950	G	Water		X	X	X	X	X	5	042822MSMatrixSpike/042822MSDMatrixSpikeDup taken on OW-7A
~~04 22NOW-8~~ MK 042822NOW8	4/28/2022	1005	G	Water			X	X	X	X	5	
~~04 22NOW-2A~~ MK 042822NOW2A	4/28/2022	1235	G	Water			X	X	X	X	5	
~~04 22NOW-4A~~ MK 042822NOW4A	4/28/2022	1350	G	Water			X	X	X	X	5	
~~04 22NOW-10~~ MK 042822NOW10	4/28/2022	1050	G	Water			X	X	X	X	5	
~~04 22NOW-12~~ MK 042822NOW12	4/28/2022	1515	G	Water			X	X	X	X	5	
~~04 22NOW-13~~ MK 042822NOW13	4/28/2022	1215	G	Water			X	X	X	X	5	
04 28 22FBField Blank	4/28/2022	1225	G	Water			X	X	X	X	5	
04 28 22FDDuplicate	4/28/2022	1100	G	Water			X	X	X	X	5	
04 28 22MSMatrixSpike	4/28/2022	0950	G	Water			X	X	X	X	5	
04 28 22MSDMatrixSpikeDup	4/28/2022	0950	G	Water			X	X	X	X	5	

240-165804 Chain of Custody

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

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

Deliverable Requested: I, II, III, IV, Other (specify) Level IV Data Package

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
M. Knez	4/29/2022 @ 1600	Golder	Mandy Black	4-30-22 9:30	OEPC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Page 44 of 53

6/3/2022

Virginia Beach #202

Eurofins TestAmerica Canton Sample Receipt Form/Narrative Login # : 165804
Canton Facility

Client Cadder Associates Site Name _____ Cooler unpacked by: Mandy Black

Cooler Received on 4-30-22 Opened on 4-2-22

FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☒ See Multiple Cooler Form
   IR GUN# IR-13 (CF **0.0** °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #IR-15 (CF **-0.7**°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity_____	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	Yes	No
11. Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC157842**
14. Were VOAs on the COC?	Yes	No
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes	No
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099

Login # : _______________

Eurofins - Canton Sample Receipt Multiple Cooler Form				
Cooler Description (Circle)	**IR Gun # (Circle)**	**Observed Temp °C**	**Corrected Temp °C**	**Coolant (Circle)**
TA (circled) Client Box Other	IR-13 (circled) IR-15	0.1	0.1	Wet Ice (circled) Blue Ice Dry Ice Water None
TA (circled) Client Box Other	IR-13 (circled) IR-15	4.1	4.1	Wet Ice (circled) Blue Ice Dry Ice Water None
TA (circled) Client Box Other	IR-13 (circled) IR-15	0.1	0.1	Wet Ice (circled) Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
				☐ See Temperature Excursion Form

WI-NC-099 Cooler Receipt Form Page 2 – Multiple Coolers

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
042822NOW7A	240-165804-G-1	Plastic 500ml - with Nitric Acid	<2			
042822NOW7A	240-165804-H-1	Plastic 500ml - with Nitric Acid	<2			
042822NOW7A	240-165804-I-1	Plastic 500ml - with Nitric Acid	<2			
042822NOW7A	240-165804-J-1	Plastic 1 liter - Nitric Acid	<2			
042822NOW7A	240-165804-K-1	Plastic 1 liter - Nitric Acid	<2			
042822NOW7A	240-165804-L-1	Plastic 1 liter - Nitric Acid	<2			
042822NOW7A	240-165804-M-1	Plastic 1 liter - Nitric Acid	<2			
042822NOW7A	240-165804-N-1	Plastic 1 liter - Nitric Acid	<2			
042822NOW7A	240-165804-O-1	Plastic 1 liter - Nitric Acid	<2			
042822NOW8	240-165804-C-2	Plastic 500ml - with Nitric Acid	<2			
042822NOW8	240-165804-D-2	Plastic 1 liter - Nitric Acid	<2			
042822NOW8	240-165804-E-2	Plastic 1 liter - Nitric Acid	<2			
042822NOW2A	240-165804-C-3	Plastic 500ml - with Nitric Acid	<2			
042822NOW2A	240-165804-D-3	Plastic 1 liter - Nitric Acid	<2			
042822NOW2A	240-165804-E-3	Plastic 1 liter - Nitric Acid	<2			
042822NOW4A	240-165804-C-4	Plastic 500ml - with Nitric Acid	<2			
042822NOW4A	240-165804-D-4	Plastic 1 liter - Nitric Acid	<2			
042822NOW4A	240-165804-E-4	Plastic 1 liter - Nitric Acid	<2			
042822NOW10	240-165804-C-5	Plastic 500ml - with Nitric Acid	<2			
042822NOW10	240-165804-D-5	Plastic 1 liter - Nitric Acid	<2			
042822NOW10	240-165804-E-5	Plastic 1 liter - Nitric Acid	<2			
042822NOW12	240-165804-C-6	Plastic 500ml - with Nitric Acid	<2			
042822NOW12	240-165804-D-6	Plastic 1 liter - Nitric Acid	<2			
042822NOW12	240-165804-E-6	Plastic 1 liter - Nitric Acid	<2			
042822NOW13	240-165804-C-7	Plastic 500ml - with Nitric Acid	<2			
042822NOW13	240-165804-D-7	Plastic 1 liter - Nitric Acid	<2			
042822NOW13	240-165804-E-7	Plastic 1 liter - Nitric Acid	<2			
042822FBFIELDBLANK	240-165804-C-8	Plastic 500ml - with Nitric Acid	<2			
042822FBFIELDBLANK	240-165804-D-8	Plastic 1 liter - Nitric Acid	<2			
042822FBFIELDBLANK	240-165804-E-8	Plastic 1 liter - Nitric Acid	<2			
042822FDDUPLICATE	240-165804-C-9	Plastic 500ml - with Nitric Acid	<2			
042822FDDUPLICATE	240-165804-D-9	Plastic 1 liter - Nitric Acid	<2			
042822FDDUPLICATE	240-165804-E-9	Plastic 1 liter - Nitric Acid	<2			

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-151439.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: West Virginia	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - West Virginia DEP; State Program - West Virgini ...		Job #: 240-165804-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/15/2022			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Mount Storm Power Station	Project #: 24021758			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Standard Target List	9320_Ra228/PrecSep_0 Standard Target List	Ra226_228GFPC_P/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
042822NOW7A (240-165804-1)	4/28/22	09:50 Eastern		Water			X	X	X	5	
042822NOW7A (240-165804-1MS)	4/28/22	09:50 Eastern	MS	Water			X	X	X	1	
042822NOW8 (240-165804-2)	4/28/22	10:05 Eastern		Water			X	X	X	2	
042822NOW2A (240-165804-3)	4/28/22	12:35 Eastern		Water			X	X	X	2	
042822NOW4A (240-165804-4)	4/28/22	13:50 Eastern		Water			X	X	X	2	
042822NOW10 (240-165804-5)	4/28/22	10:50 Eastern		Water			X	X	X	2	
042822NOW12 (240-165804-6)	4/28/22	15:15 Eastern		Water			X	X	X	2	
042822NOW13 (240-165804-7)	4/28/22	12:15 Eastern		Water			X	X	X	2	
042822FBFIELDBLANK (240-165804-8)	4/28/22	12:25 Eastern		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Brandon	5-2-22 1400	TAS	FED EX		
2	FED EX			Sierra Worthington	MAY 03 2022 0920	ETAS
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-151439.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: West Virginia	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - West Virginia DEP; State Program - West Virgini ...		Job #: 240-165804-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/15/2022			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Mount Storm Power Station	Project #: 24021758			
Site:	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Standard Target List	9320_Ra228/PrecSep_0 Standard Target List	Ra226_228GFPC_P/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
042822FDDUPLICATE (240-165804-9)	4/28/22	11:00 Eastern		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	5-2-22 1400	[illegible]	FED EX		
2	FED EX			Sierra Worthington	MAY 03 2022 0920	ETASR
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Eurofins | Environment Testing America

240-165804 Chain of Custody

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	0.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofins.	2
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): State - West Virginia DEP; State Program - West Virgini ...	Job #: 240-165804-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 5/15/2022		
City: Pittsburgh	TAT Requested (days):		
State, Zip: PA, 15238			
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:		
Email:	WO #:		
Project Name: Mount Storm Power Station	Project #: 24021758		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd/ TDS	Total Number of containers	Special Instructions/Note:
		Preservation Code:							
042822NOW7A (240-165804-1)	4/28/22	09:50 Eastern		Water			X	3	
042822NOW7A (240-165804-1MS)	4/28/22	09:50 Eastern	MS	Water			X	1	
042822NOW7A (240-165804-1MSD)	4/28/22	09:50 Eastern	MSD	Water			X	1	
042822NOW8 (240-165804-2)	4/28/22	10:05 Eastern		Water			X	1	
042822NOW2A (240-165804-3)	4/28/22	12:35 Eastern		Water			X	1	
042822NOW4A (240-165804-4)	4/28/22	13:50 Eastern		Water			X	1	
042822NOW10 (240-165804-5)	4/28/22	10:50 Eastern		Water			X	1	
042822NOW12 (240-165804-6)	4/28/22	15:15 Eastern		Water			X	1	
042822NOW13 (240-165804-7)	4/28/22	12:15 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 5-2-22 1420	Company	Received by: DW Date/Time: 5-3-22 900 Company FEDEX
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-151440.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: West Virginia	Page: Page 2 of 2
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): State - West Virginia DEP; State Program - West Virgini ...		Job #: 240-165804-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 5/15/2022			
City: Pittsburgh	TAT Requested (days):			
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email:	WO #:			
Project Name: Mount Storm Power Station	Project #: 24021758			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Sample (Yes or No)	Field Filtered Sample (Yes or No)	2540C_Calcd TDS	Total Number of Containers	Special Instructions/Note:
			Preservation Code:						
042822FBFIELDBLANK (240-165804-8)	4/28/22	12:25 Eastern		Water			X	1	
042822FDDUPLICATE (240-165804-9)	4/28/22	11:00 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Brandon	5-2-22 1420	TA	DW	5-3-22 900	EET APHL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Dominion Energy Services, Inc.

Job Number: 240-165804-1
SDG Number: Group D

Login Number: 165804
List Number: 3
Creator: Watson, Debbie

List Source: Eurofins Pittsburgh
List Creation: 05/03/22 06:36 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Dominion Energy Services, Inc.

Job Number: 240-165804-1
SDG Number: Group D

Login Number: 165804
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 05/03/22 01:55 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the samples collected as part of:

Mt. Storm Power Station Groundwater Sampling
Samples Collected between: 4/26/2022 and 4/29/2022

This review was performed with guidance from the associated US EPA data validation guidelines and in accordance with the Quality Assurance Program Plan. These validation guidance documents specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the US EPA, SW-846, and Standard Methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the US EPA, SW-846, and Standard Methods utilized by the laboratory. This QA review was performed on the data associated with Job Number:

2401658041

The findings offered in this report are based on a review of holding times and preservation, method blank results, field blank results, filter blank results, equipment blank results, tubing blank results, matrix spike/matrix spike duplicate recoveries and precision, laboratory control sample/laboratory control sample duplicate recoveries and precision, laboratory and field duplicate precision, total and dissolved results comparisons, and/or positive results between the method detection limit and quantitation limit.

The following results were qualified based on the data verification effort:

Sample	Location	Sample Type	Method	Anayte	T/D	Result	Qual	Reason Code(s)	MDL	QL	Uncertainty	Unit
042822NOW7A	OW-7A	N	SW-846 6020B	Calcium	T	40000	J+	M	580	1000		ug/L
042822NOW7A	OW-7A	N	SW-846 6020B	Thallium	T	0.37	J	RL	0.20	1.0		ug/L
042822NOW8	OW-8	N	SW-846 6020B	Arsenic	T	0.99	J	RL	0.75	5.0		ug/L
042822NOW8	OW-8	N	SW-846 6020B	Calcium	T	400000	J+	M	580	1000		ug/L
042822NOW8	OW-8	N	SW-846 6020B	Thallium	T	0.52	J	RL	0.20	1.0		ug/L
042822NOW2A	OW-2A	N	SW-846 6010D	Boron	T	76	J	RL	57	100		ug/L
042822NOW2A	OW-2A	N	SW-846 6020B	Arsenic	T	0.90	J	RL	0.75	5.0		ug/L
042822NOW2A	OW-2A	N	SW-846 6020B	Cadmium	T	0.90	J	RL	0.20	1.0		ug/L
042822NOW2A	OW-2A	N	SW-846 6020B	Calcium	T	120000	J+	M	580	1000		ug/L
042822NOW2A	OW-2A	N	SW-846 6020B	Molybdenum	T	3.0	J	RL	1.1	5.0		ug/L
042822NOW2A	OW-2A	N	SW-846 7470A	Mercury	T	0.14	J	M,RL	0.13	0.20		ug/L
042822NOW4A	OW-4A	N	SW-846 6020B	Arsenic	T	0.94	J	RL	0.75	5.0		ug/L
042822NOW4A	OW-4A	N	SW-846 6020B	Calcium	T	23000	J+	M	580	1000		ug/L
042822NOW4A	OW-4A	N	SW-846 6020B	Cobalt	T	0.35	J	RL	0.19	1.0		ug/L
042822NOW4A	OW-4A	N	SW-846 6020B	Lithium	T	1.9	J	RL	1.7	8.0		ug/L
042822NOW10	OW-10	N	CALC	Radium-226/228	N	1.61	J	FD			0.558	pCi/L
042822NOW10	OW-10	N	SW-846 6020B	Calcium	T	32000	J+	M	580	1000		ug/L
042822NOW10	OW-10	N	SW-846 6020B	Lithium	T	4.8	J	RL	1.7	8.0		ug/L
042822NOW10	OW-10	N	SW-846 9056A	Sulfate	N	0.43	J	RL	0.35	1.0		mg/L
042822NOW10	OW-10	N	SW-846 9315	Radium-226	N	0.763	J	FD	0.339	1.00	0.312	pCi/L
042822NOW12	OW-12	N	CALC	Radium-226/228	N	1.13	J	S			0.437	pCi/L
042822NOW12	OW-12	N	SW-846 6020B	Arsenic	T	1.4	J	RL	0.75	5.0		ug/L
042822NOW12	OW-12	N	SW-846 6020B	Calcium	T	71000	J+	M	580	1000		ug/L
042822NOW12	OW-12	N	SW-846 6020B	Molybdenum	T	3.2	J	RL	1.1	5.0		ug/L
042822NOW13	OW-13	N	SW-846 6020B	Arsenic	T	4.2	J	RL	0.75	5.0		ug/L
042822NOW13	OW-13	N	SW-846 6020B	Calcium	T	23000	J+	M	580	1000		ug/L
042822NOW13	OW-13	N	SW-846 6020B	Chromium	T	4.2	J	RL	2.5	5.0		ug/L
042822NOW13	OW-13	N	SW-846 6020B	Lithium	T	2.2	J	RL	1.7	8.0		ug/L
042822FDDUPLICATE	OW-10	FD	CALC	Radium-226/228	N	0.898	UJ	FD			0.505	pCi/L
042822FDDUPLICATE	OW-10	FD	SW-846 6020B	Calcium	T	38000	J+	M	580	1000		ug/L

Sample	Location	Sample Type	Method	Anayte	T/D	Result	Qual	Reason Code(s)	MDL	QL	Uncertainty	Unit
042822FDDUPLICATE	OW-10	FD	SW-846 6020B	Lithium	T	7.5	J	RL	1.7	8.0		ug/L
042822FDDUPLICATE	OW-10	FD	SW-846 9056A	Sulfate	N	0.57	J	RL	0.35	1.0		mg/L
042822FDDUPLICATE	OW-10	FD	SW-846 9315	Radium-226	N	0.256	UJ	FD	0.371	1.00	0.239	pCi/L

Data Qualifiers	
U	The analyte was not detected above the level of the sample reporting limit.
J	Quantitation is approximate due to limitations identified during data validation.
J+	The result is an estimated quantity; the result may be biased high.
J-	The result is an estimated quantity; the result may be biased low.
UJ	The analyte was not detected; the reporting limit is approximate and may be inaccurate or imprecise.
R	Unreliable positive result; analyte may or may not be present in sample.
Reason Codes and Explanations	
BE	Equipment blank contamination.
BF	Field blank contamination.
BL	Laboratory blank contamination.
FD	Field duplicate imprecision.
FG	Total versus Dissolved Imprecision.
H	Holding time exceeded.
L	LCS and LCSD recoveries outside of acceptance limits
LD	Laboratory duplicate imprecision.
LP	LCS/LCSD imprecision.
M	MS and MSD recoveries outside of acceptance limits
MP	MS/MSD imprecision.
Q	Chemical Preservation issue.
RL	Reported Results between the MDL and QL.
S	Radium-226+228 flagged due to reporting protocol for combined results
T	Temperature preservation issue.
X	Percent solids < 50%.
Y	Chemical yield outside of acceptance limits
ZZ	Other

Facility: Mt. Storm Power Station
SDG: 2401658041

Lab Sample ID	240-165804-1
Sys Sample Code	042822NOW7A
Sample Name	042822NOW7A
Sample Date	4/28/2022 9:50:00 AM
Location	MSPS-LVWSP-OW-07A / OW-7A
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	0.469	U		0.320				N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	250				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L		U			57	57	100	N	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			0.75	0.75	5.0	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L	270				2.2	2.2	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	40000	J+	M		580	580	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			2.5	2.5	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	3.2				0.19	0.19	1.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	14				1.7	1.7	8.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L	0.37	J	RL		0.20	0.20	1.0	Y	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	100				0.28	0.28	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.15				0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	11				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.215	U		0.159	0.219	0.219	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.254	U		0.278	0.451	0.451	1.00	N	Yes	1	NA

Facility: Mt. Storm Power Station
SDG: 2401658041

Lab Sample ID	240-165804-2
Sys Sample Code	042822NOW8
Sample Name	042822NOW8
Sample Date	4/28/2022 10:05:00 AM
Location	MSPS-LVWSP-OW-08 / OW-8
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	0.410	U		0.385				N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	1800				20	20	20	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L		U			57	57	100	N	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	0.99	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	11				2.2	2.2	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	400000	J+	M		580	580	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			2.5	2.5	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	30				0.19	0.19	1.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	10				1.7	1.7	8.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L	0.52	J	RL		0.20	0.20	1.0	Y	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	230				2.8	2.8	10	Y	Yes	10	NA
	Fluoride	16984-48-8	N	mg/L	0.089				0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	920				3.5	3.5	10	Y	Yes	10	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.00217	U		0.129	0.275	0.275	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.407	U		0.363	0.564	0.564	1.00	N	Yes	1	NA

Facility: Mt. Storm Power Station
SDG: 2401658041

Lab Sample ID	240-165804-3
Sys Sample Code	042822NOW2A
Sample Name	042822NOW2A
Sample Date	4/28/2022 12:35:00 PM
Location	MSPS-LVWSP-OW-02A / OW-2A
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	1.29			0.441				Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	470				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L	76	J	RL		57	57	100	Y	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	0.90	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	260				2.2	2.2	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L	0.90	J	RL		0.20	0.20	1.0	Y	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	120000	J+	M		580	580	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			2.5	2.5	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	36				0.19	0.19	1.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	8.2				1.7	1.7	8.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	3.0	J	RL		1.1	1.1	5.0	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L	0.14	J	M,RL		0.13	0.13	0.20	Y	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	26				0.28	0.28	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.22				0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	130				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.305			0.199	0.276	0.276	1.00	Y	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.988			0.393	0.476	0.476	1.00	Y	Yes	1	NA

Facility: Mt. Storm Power Station
SDG: 2401658041

Lab Sample ID	240-165804-4
Sys Sample Code	042822NOW4A
Sample Name	042822NOW4A
Sample Date	4/28/2022 1:50:00 PM
Location	MSPS-LVWSP-OW-04A / OW-4A
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	0.593	U		0.374				N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	120				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L		U			57	57	100	N	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	0.94	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	75				2.2	2.2	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	23000	J+	M		580	580	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			2.5	2.5	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	0.35	J	RL		0.19	0.19	1.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	1.9	J	RL		1.7	1.7	8.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	6.5				0.28	0.28	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.10				0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	39				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.112	U		0.133	0.216	0.216	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.482	U		0.350	0.528	0.528	1.00	N	Yes	1	NA

Lab Sample ID	240-165804-5
Sys Sample Code	042822NOW10
Sample Name	042822NOW10
Sample Date	4/28/2022 10:50:00 AM
Location	MSPS-LVWSP-OW-10 / OW-10
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	1.61	J	FD	0.558				Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	140				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L		U			57	57	100	N	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			0.75	0.75	5.0	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L	200				2.2	2.2	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	32000	J+	M		580	580	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			2.5	2.5	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L		U			0.19	0.19	1.0	N	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	4.8	J	RL		1.7	1.7	8.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	6.7				0.28	0.28	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.18				0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	0.43	J	RL		0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.763	J	FD	0.312	0.339	0.339	1.00	Y	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.852			0.463	0.642	0.642	1.00	Y	Yes	1	NA

Facility: Mt. Storm Power Station
SDG: 2401658041

Lab Sample ID	240-165804-6
Sys Sample Code	042822NOW12
Sample Name	042822NOW12
Sample Date	4/28/2022 3:15:00 PM
Location	MSPS-LVWSP-OW-12 / OW-12
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	1.13	J	S	0.437				Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	510				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L	170				57	57	100	Y	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	1.4	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	45				2.2	2.2	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	71000	J+	M		580	580	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			2.5	2.5	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	32				0.19	0.19	1.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			1.7	1.7	8.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	3.2	J	RL		1.1	1.1	5.0	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	100				0.28	0.28	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.063				0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	190				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.182	U		0.183	0.288	0.288	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.951			0.397	0.488	0.488	1.00	Y	Yes	1	NA

Lab Sample ID	240-165804-7
Sys Sample Code	042822NOW13
Sample Name	042822NOW13
Sample Date	4/28/2022 12:15:00 PM
Location	MSPS-LVWSP-OW-13 / OW-13
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	1.70			0.549				Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	440				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L		U			57	57	100	N	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	4.2	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	120				2.2	2.2	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	23000	J+	M		580	580	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L	4.2	J	RL		2.5	2.5	5.0	Y	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	1.6				0.19	0.19	1.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	2.2	J	RL		1.7	1.7	8.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	23				0.28	0.28	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.056				0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	1.1				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.389			0.222	0.269	0.269	1.00	Y	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	1.31			0.502	0.603	0.603	1.00	Y	Yes	1	NA

Lab Sample ID	240-165804-8
Sys Sample Code	042822FBFIELDBLANK
Sample Name	042822FBFieldBlank
Sample Date	4/28/2022 12:25:00 PM
Location	MSPS-FB / Field Blank
Sample Type	FB
Matrix	AQ
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	0.403	U		0.355				N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L		U			10	10	10	N	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L		U			57	57	100	N	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			0.75	0.75	5.0	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L		U			2.2	2.2	5.0	N	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L		U			580	580	1000	N	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			2.5	2.5	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L		U			0.19	0.19	1.0	N	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			1.7	1.7	8.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L		U			0.28	0.28	1.0	N	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L		U			0.024	0.024	0.050	N	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L		U			0.35	0.35	1.0	N	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.0634	U		0.143	0.259	0.259	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.340	U		0.325	0.517	0.517	1.00	N	Yes	1	NA

Lab Sample ID	240-165804-9
Sys Sample Code	042822FDDUPLICATE
Sample Name	042822FDDuplicate
Sample Date	4/28/2022 11:00:00 AM
Location	MSPS-LVWSP-OW-10 / OW-10
Sample Type	FD
Matrix	GW
Parent Sample	042822NOW10

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	0.898	UJ	FD	0.505				N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	140				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L		U			57	57	100	N	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			0.75	0.75	5.0	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L	240				2.2	2.2	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	38000	J+	M		580	580	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			2.5	2.5	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L		U			0.19	0.19	1.0	N	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	7.5	J	RL		1.7	1.7	8.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	6.7				0.28	0.28	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.18				0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	0.57	J	RL		0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.256	UJ	FD	0.239	0.371	0.371	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.642	U		0.445	0.660	0.660	1.00	N	Yes	1	NA

APPENDIX B

SECOND SEMI-ANNUAL 2022 ASSESSMENT MONITORING PROGRAM EVENT FIELD DATA SHEETS, LABORATORY CERTIFICATES OF ANALYSIS, CHAIN-OF-CUSTODY FORMS, AND DATA VALIDATION FORMS

GOLDER
MEMBER OF WSP

Date: 11/14/22

WELL GAUGING LOG

Project Name: MSPS LVWSP

Project No./Task No.: GL2013993622

Sampler(s): M. Knez, V. Sturm

Equipment: Water Level Indicator

Well ID	Personnel (initials)	Time	DTW (feet)	DTB (feet)	Well Condition Summary				
					Protective Casing	Well Casing	Label	Lock	Pad Condition
OW-7A	MK	1635	37.68	—	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
OW-8	MK	1646	48.04	—	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
OW-2A	MK	1719	14.39	—	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
OW-4A	MK	1711	14.41	—	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
OW-10	MK	1716	13.90	—	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
OW-12	MK	1649	27.03	—	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
OW-13	MK	1700	17.06	—	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
OW-2	MK	1721	13.69	—	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
OW-4	MK	1713	16.66	—	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
OW-6A	MK	1726	7.94	—	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
OW-6B	MK	1724	9.31	—	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
OW-7B	MK	1640	36.61	—	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
OW-8A	MK	1644	39.46	—	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
OW-9A	MK	1658	BTOP @ 13.33	—	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
OW-9B	MK	1656	14.01	—	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
OW-11	MK	1704	16.61	—	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged

Observations/Notes: ALL WLS TAKEN ON 11/9/22

Signature: [signature]

Date: 11/14/22

QA/QC Signature: [signature]

Date: 11/16/22

GOLDER
MEMBER OF WSP

Date: 11/14/22

WELL GAUGING LOG

Project Name: MSPS LVWSP
Project No./Task No.: GL2013993622
Sampler(s): M. Knez, V. Strm
Equipment: Water Level Indicator

Well ID	Personnel (initials)	Time	DTW (feet)	DTB (feet)	Well Condition Summary				
					Protective Casing	Well Casing	Label	Lock	Pad Condition
OW-14	MK	1653	17.21	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-15	MK	1702	11.15	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-16	MK	1741	23.63	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-17	MK	1709	22.76	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-18	MK	1738	22.20	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
OW-19	MK	1729	19.96	—	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	☒ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged

Observations/Notes: All WLs TAKEN ON 11/9/22

Signature:
Date: 11/14/22

QA/QC Signature:
Date: 11/18/22

Page 2 of 2

MICROPURGE SAMPLING LOG

GOLDER

Date: 11/10/22
Weather: Sunny, 50's

Project Name: Mount Storm Power Station
Project No./Task No.: 203993622
Event: 2SA22 LVWSP
Sampler(s): M. Knez
Well ID: OW-7A
Field Calibration Completed: 11/10/22 @ 0830
Well Diameter: 2.0 inches
Initial Depth to Water: 37.59 feet
Depth to Bottom: — feet
Water Column Thickness: — feet

Equipment Used:
- [x] WL Indicator
- [x] YSI ProDSS18K100510
- [ ] In-Situ —
- [ ] Turbidity Meter
- [ ] Peristaltic Pump
- [ ] MP-10 Controller Box
- [ ] Air Tank
- [ ] Compressor
- [x] MP-15 Controller Box
- [x] Dedicated Bladder Pump
- [ ] Non-dedicated BP
- [ ] —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
~~1035~~ 1036	5.91	551	41.57	1.01	10.8	-21.8	40.78	300
1039	5.90	546	29.22	0.94	10.8	-21.2	40.96	~300
1042	5.92	524	18.18	1.01	10.8	-18.3	41.23	~300
1045	5.94	496.0	9.76	1.03	10.7	-15.7	41.39	~300
1048	5.98	484.6	6.84	1.00	10.7	-16.6	41.19	~300
1051	5.98	486.9	27.51	1.28	10.7	-12.1	41.31	~300
1054	5.95	495.5	31.55	1.47	10.7	-9.7	41.36	~300
* 1100 ~~1057~~	5.93	507	45.65	0.96	10.8	-10.9	41.21	~300
1105	5.93	515	44.74	0.90	10.8	-10.7	41.20	~300
1110	5.95	510	42.03	0.94	11.1	-11.6	41.18	~170
1115	5.95	508	38.29	0.92	11.1	-11.4	40.92	~170
1120	5.97	509	30.22	0.95	11.1	-11.3	40.91	~170
1125	5.98	506	20.95	0.84	11.1	-12.0	40.95	~170
1130	6.05	490.0	11.96	0.68	10.8	-17.4	40.98	~300
1133 ~~1135~~	6.10	481.6	7.56	0.58	10.8	-21.7	41.07	~300
1136 ~~1140~~ (1140 Sample)	6.12	477.0	6.29	0.51	10.8	-24.9	41.09	~300
	6.16	489.2	127.4	0.76	11.3	-9.9	41.08	~150

Purge Cycle (End): 55/5 seconds @ 35 psi Flow Rate (ml/min End): ~150

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): —

Total Purge Volume (Gallons): ~7.25 Purge Water Management: on site disposal

Purge Observations (color, odor, turbidity, sheen): clear to light brown grab sample

Purge time: 1027 -should have stayed at 150 mL/min

Sample Time: 1140 Field Filtered (0.45um): [ ] Yes [x] No

Sample Parameters/Analyte(s):
- [ ] Petro (DRO)
- [x] CCR Appendix III
- [x] CCR Appendix IV
- [ ] Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- [ ] Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- [ ] Variance (Diss [Be, Cd, Cr, Pb, Ni])
- [x] LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- [ ] Phase A IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems: * - switch to 5317 sec. cycle

Sample ID: 111022NOW7A ; 111022MSMatrixSpike ; 111022MSDMatrixSpikeDup

Sampler Signature: M. Knez Date: 11/10/22

QA/QC Signature: [illegible] Date: 11/14/22

MICROPURGE SAMPLING LOG

GOLDER

Date: 11/10/22

Weather: Sunny 50s

Project Name: Mount Storm Power Station

Project No./Task No.: GL 2013993622

Event: 2SA22 GW CRWSP

Sampler(s): V. Shinn

Well ID: OW-8

Field Calibration Completed: 11/10/22 @ 0830

Well Diameter: 2.0 inches

Initial Depth to Water: 48.35 feet

Depth to Bottom: ~ feet

Water Column Thickness: ~ feet

Equipment Used:
- [x] WL Indicator
- [x] YSI ProDSS 18L101931
- [ ] In-Situ ~
- [ ] Turbidity Meter
- [ ] Peristaltic Pump
- [ ] MP-10 Controller Box
- [ ] Air Tank
- [ ] Compressor
- [x] MP-15 Controller Box
- [x] Dedicated Bladder Pump
- [ ] Non-dedicated BP
- [ ] ~

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)°C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1038	6.40	1363	24.12	2.18	12.3	-45.1	48.68	~200
1043	6.42	1342	19.48	2.20	12.9	-45.0	48.70	~200
1048	6.43	1319	18.67	2.07	13.0	-44.4	48.71	~200
1053	6.44	1286	30.01	1.72	13.1	-44.5	48.72	~200
1058	6.45	1279	36.43	1.78	13.2	-43.2	48.71	~200
1103	6.48	1276	40.98	2.55	13.6	-37.8	48.72	~200
1108	6.49	1259	56.05	2.97	13.3	-38.6	48.69	~200
1113	6.46	1236	42.73	1.87	13.0	-39.0	48.80	~200
1118	6.45	1226	34.29	1.75	12.8	-38.8	48.76	~200
1123	6.45	1190	23.59	1.62	12.8	-39.2	48.91	~200
1128	6.45	1165	16.56	1.60	12.8	-39.3	48.96	~200
1133	6.45	1183	9.64	1.59	12.8	-39.3	49.01	~200
1136			SAMPLED					
1158	6.48	1051	12.09	1.41	12.8	-44.9	49.21	~200

Purge Cycle (End): 26/4 seconds @ 30 psi Flow Rate (ml/min End): ~200

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): ~

Total Purge Volume (Gallons): ~5.0 Purge Water Management: On Site Containment

Purge Observations (color, odor, turbidity, sheen): Clear Grab Sample

Purge time: 1030

Sample Time: 1136 Field Filtered (0.45um): [ ] Yes [x] No

Sample Parameters/Analyte(s):
- [ ] Petro (DRO)
- [ ] CCR Appendix III
- [ ] CCR Appendix IV
- [ ] Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- [ ] Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- [ ] Variance (Diss [Be, Cd, Cr, Pb, Ni])
- [x] LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- [ ] Phase A IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- [ ] Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems: DTP = 53.85

Sample ID: 111022NOW8

Sampler Signature: Date: 11/10/22

QA/QC Signature: Date: 11/18/22

GOLDER

MICROPURGE SAMPLING LOG

Date: 11/10/22
Weather: Sunny, 60s

Project Name: Mount Storm Power Station
Project No./Task No.: 201393622
Event: 23A22LVWSP
Sampler(s): M. Knez
Well ID: OW-2A
Field Calibration Completed: 11/10/22 @ 0830
Well Diameter: 2.0 inches
Initial Depth to Water: 14.41 feet
Depth to Bottom: — feet
Water Column Thickness: — feet

Equipment Used:
- [x] WL Indicator
- [x] YSI ProDSS 18K100570
- [ ] In-Situ —
- [ ] Turbidity Meter
- [ ] Peristaltic Pump
- [ ] MP-10 Controller Box
- [ ] Air Tank
- [ ] Compressor
- [x] MP-15 Controller Box
- [x] Dedicated Bladder Pump
- [ ] Non-dedicated BP
- [ ] —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1256	5.08	617	18.26	1.17	13.4	152.5	14.50	~180
1300	4.75	593	24.46	0.54	13.7	202.7	14.49	~180
1305	4.71	593	14.91	0.42	13.9	213.3	14.51	~180
1310	4.70	595	14.24	0.41	14.3	215.7	14.49	~180
1315	4.70	594	14.42	0.38	14.6	218.3	14.43	~180
1320	4.70	594	13.71	0.39	14.9	219.2	14.48	~210
1325	4.70	594	13.28	0.39	15.3	223.2	14.51	~210
1330	4.64	594	14.25	0.56	14.4	230.9	14.49	~210
1335	4.63	586	9.79	0.14	~~14.6~~ 14.6	228.4	14.51	~210
1340	—	—	—	SAMPLE	—	—	—	—
1418	5.23	586	~~8.88~~	0.79	13.8	120.4	14.45	~210

Purge Cycle (End): 5916 seconds @ 25 psi
Flow Rate (ml/min End): ~210
Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): —
Total Purge Volume (Gallons): ~2.5
Purge Water Management: on site disposal
Purge Observations (color, odor, turbidity, sheen): clear grab sample
Purge time: 1241

Sample Time: 1340
Field Filtered (0.45um): [ ] Yes [x] No

Sample Parameters/Analyte(s):
- [ ] Petro (DRO)
- [ ] CCR Appendix III
- [ ] CCR Appendix IV
- [ ] Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- [ ] Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- [ ] Variance (Diss [Be, Cd, Cr, Pb, Ni])
- [x] LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- [ ] Phase A IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- [ ] Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems:
Sample ID: 111022NOW2A

Sampler Signature: M. Knez Date: 11/10/22
QA/QC Signature: [signature] Date: 11/14/22

MICROPURGE SAMPLING LOG

GOLDER

Date: 11/10/22

Weather: Sunny 50s

Project Name: Mount Storm Power Station

Project No./Task No.: GL2013-9622

Event: 25422 GW LVWSP

Sampler(s): V. Storm

Well ID: OW-4A

Field Calibration Completed: 11/10/22 @ 0830

Well Diameter: 2.0 inches

Initial Depth to Water: 14.40 feet

Depth to Bottom: ~ feet

Water Column Thickness: ~ feet

Equipment Used:
- [x] WL Indicator
- [x] YSI ProDSS 18C101831
- [ ] In-Situ ~
- [ ] Turbidity Meter
- [ ] Peristaltic Pump
- [ ] MP-10 Controller Box
- [ ] Air Tank
- [ ] Compressor
- [x] MP-15 Controller Box
- [x] Dedicated Bladder Pump
- [x] ~~Non-dedicated BP~~ vs
- [ ] ~

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)°C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1515	6.83	247.7	8.87	0.79	17.0	-80.3	14.40	~260
1520	6.84	246.0	9.82	0.76	17.0	-85.3	14.40	~260
1525	6.84	243.0	7.55	0.70	17.0	-91.0	14.40	~260
1530	6.84	241.0	7.68	0.66	17.0	-93.7	14.40	~260
1532	—	—	SAMPLED	—	—	—	—	—
1549	6.81	234.5	6.47	0.68	17.0	-94.1	14.40	~260

Purge Cycle (End): 27/3 seconds @ 20 psi Flow Rate (ml/min End): ~260

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): —

Total Purge Volume (Gallons): ~2.5 Purge Water Management: On Site Containment

Purge Observations (color, odor, turbidity, sheen): Clear Grab Sample

Purge time: 1505

Sample Time: 1532 Field Filtered (0.45um): [ ] Yes [x] No

Sample Parameters/Analyte(s):
- [ ] Petro (DRO)
- [ ] CCR Appendix III
- [ ] CCR Appendix IV
- [ ] Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- [ ] Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- [ ] Variance (Diss [Be, Cd, Cr, Pb, Ni])
- [x] LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- [ ] Phase A IV Detects (As, Ba, B Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems: DTP = 28.15

Sample ID: 111022NOW4A

Sampler Signature: V Storm Date: 11/10/22

QA/QC Signature: [signature] Date: 11/18/22

MICROPURGE SAMPLING LOG

GOLDER

Date: 11/10/22
Weather: Sunny, 50's

Project Name: Mount Storm Power Station
Project No./Task No.: 20139936.22
Event: 2SA22 LVWSP
Sampler(s): M. Knez
Well ID: OW-10
Field Calibration Completed: 11/10/22 @ 0830
Well Diameter: 2.0 inches
Initial Depth to Water: 13.88 feet
Depth to Bottom: — feet
Water Column Thickness: — feet

Equipment Used:
- [x] WL Indicator
- [x] YSI ProDSS 19K100510
- [ ] In-Situ —
- [ ] Turbidity Meter
- [ ] Peristaltic Pump
- [ ] MP-10 Controller Box
- [ ] Air Tank
- [ ] Compressor
- [x] MP-15 Controller Box
- [x] Dedicated Bladder Pump
- [ ] Non-dedicated BP
- [ ] —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1430	6.15	794	22.67	0.74	14.3	-53.2	13.98	~300
1433	6.17	813	18.81	0.68	14.4	-60.7	13.93	~300
1436	6.19	816	18.41	0.68	14.5	-65.9	13.91	~250
1439	~~1439~~ 6.20	817	12.41	0.86	14.6	-69.3	13.93	~300
1442	6.20	817	12.98	0.81	14.5	-70.3	13.95	~300
1445	6.20	816	12.36	0.81	14.6	-70.9	13.95	~300
1448	6.21	813	13.97	0.83	14.6	-71.2	13.96	~300
1451	6.21	812	16.56	0.87	14.6	-70.4	13.98	~300
1454 switched to 20 gal/min MK	6.21	809	27.80	0.70	14.7	-69.9	13.95	~~~200~~ ~350
1501	6.21	807	33.55	0.78	14.6	-69.0	14.00	~340
1504	6.21	806	22.40	0.69	14.5	-69.6	14.01	~450
1507	6.21	805	17.17	0.67	14.5	-70.5	14.08	~450
1510	6.22	804	13.65	0.68	14.5	-71.0	14.10	~450
1513	6.22	803	12.58	0.63	14.5	-70.8	14.11	~450
1516	6.22	801	9.76	0.62	14.5	-71.2	14.10	~450
1520				SAMPLE				
1532	6.24	797	9.95	0.88	15.0	-66.7		~450

Purge Cycle (End): 13/7 seconds @ 20 psi
Flow Rate (ml/min End): ~450
Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): —
Total Purge Volume (Gallons): ~6.0
Purge Water Management: on site disposal
Purge Observations (color, odor, turbidity, sheen): clear grab sample
Purge time: 1426

Sample Time: 1520
Field Filtered (0.45um): [ ] Yes [x] No

Sample Parameters/Analyte(s):
- [ ] Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- [ ] Petro (DRO)
- [ ] CCR Appendix III
- [ ] CCR Appendix IV
- [ ] Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- [ ] Variance (Diss [Be, Cd, Cr, Pb, Ni])
- [x] LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- [ ] Phase A IV Detects (As, Ba, B, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- [ ] Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems:
SAmple ID: 111022NOW10

Sampler Signature: M. Knez Date: 11/10/22
QA/QC Signature: [illegible] Date: 11/14/22

GOLDER

MICROPURGE SAMPLING LOG

Date: 11/10/22

Weather: Sunny 30s

Project Name: Mount Storm Power Station

Project No./Task No.: GL 2013993622

Event: 2SA22 GW LVWSP

Sampler(s): V. Storm

Well ID: MW-12

Field Calibration Completed: 11/10/22 @ 0830

Well Diameter: 2.0 inches

Initial Depth to Water: BTOP feet

Depth to Bottom: — feet

Water Column Thickness: — feet

Equipment Used:
- ☒ WL Indicator
- ☒ YSI ProDSS 18L10931
- ☐ In-Situ —
- ☐ Turbidity Meter
- ☐ Peristaltic Pump
- ☐ MP-10 Controller Box
- ☐ Air Tank
- ☐ Compressor
- ☒ MP-15 Controller Box
- ☐ Dedicated Bladder Pump
- ☒ Non-dedicated BP
- ☐ —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)°C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1615	5.20	679	9.72	0.43	15.7	90.2	BTOP	~160
1620	5.16	679	8.46	0.33	15.6	93.8	BTOP	~160
1625	5.15	679	6.60	0.29	15.6	99.5	BTOP	~160
1630	5.12	679	6.56	0.26	15.5	102.8	BTOP	~160
1635	—	—	SAMPLED	—	—	—	—	—
1715	5.03	661	6.09	0.46	14.5	117.8	BTOP	~160

Purge Cycle (End): 26/4 seconds @ 30 psi Flow Rate (ml/min End): ~160

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): —

Total Purge Volume (Gallons): ~2 Purge Water Management: On site Containment

Purge Observations (color, odor, turbidity, sheen): Clear Grab Sample

Purge time: 1604

Sample Time: 1635 Field Filtered (0.45um): ☐ Yes ☒ No

Sample Parameters/Analyte(s): ☐ Petro (DRO) ☐ CCR Appendix III ☐ CCR Appendix IV

☐ Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS) ☐ Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)

☐ Variance (Diss [Be, Cd, Cr, Pb, Ni]) ☒ LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228) ☐ Phase A IV Detects (As, Ba, B ☐ Cd, Cr, Co, Pb, Li, Se, Rad 226-228) Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems: DTP = 26.20

Sample ID: 111022NOW12

Sampler Signature: [signature] Date: 11/10/22 Page 1 of 1

QA/QC Signature: [signature] Date: 11/18/22

GOLDER

MICROPURGE SAMPLING LOG

Date: 11/10/22

Weather: Sunny 50s

Project Name: Mount Storm Power Station

Project No./Task No.: GL2013993622

Event: 2SA22 GW ~~EVAP~~ VS LVWSP

Sampler(s): V. Strum

Well ID: OW-13

Field Calibration Completed: 11/10/22 @ 0830

Well Diameter: 2.0 inches

Initial Depth to Water: 17.21 feet

Depth to Bottom: — feet

Water Column Thickness: — feet

Equipment Used:
- [x] WL Indicator
- [x] YSI ProDSS 18L101931
- [ ] In-Situ —
- [ ] Turbidity Meter
- [ ] Peristaltic Pump
- [ ] MP-10 Controller Box
- [ ] Air Tank
- [ ] Compressor
- [x] MP-15 Controller Box
- [x] Dedicated Bladder Pump VS
- [x] Non-dedicated BP
- [ ] —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)°C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1225	6.26	812	45.98	1.50	14.9	-87.5	18.82	~200
1230	6.22	800	30.16	1.01	14.9	-85.8	18.81	~200
1235	6.20	780	33.49	1.01	14.7	-85.2	18.82	~200
1240	6.18	759	19.81	0.84	14.7	-82.4	18.86	~200
1245	6.18	727	19.45	0.88	14.8	-80.7	18.84	~200
1250	6.18	692	17.95	0.94	14.8	-79.0	18.85	~200
1255	6.19	680	21.62	1.01	14.7	-78.1	18.89	~200
1300	6.18	647	17.52	1.08	14.8	-76.2	18.87	~200
1305	6.19	628	21.30	1.15	14.7	-75.0	18.92	~200
1310	6.19	606	19.94	0.89	14.8	-75.2	18.89	~200
1315	6.18	601	15.54	1.03	14.8	-74.0	18.91	~200
1320	6.18	592	13.88	0.86	14.8	-73.3	18.92	~200
1325	6.18	583	22.25	0.91	14.8	-73.2	18.93	~200
1330	6.18	577	14.85	0.76	14.7	-73.0	18.90	~200
1335	6.18	565	16.14	0.75	14.8	-73.5	18.96	~200
1340	6.18	559	16.16	0.64	14.7	-74.4	18.99	~200
1345	6.18	554	18.50	0.68	14.7	-74.6	18.96	~200

Purge Cycle (End): 25/5 seconds @ 25 psi

Flow Rate (ml/min End): ~200

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): —

Total Purge Volume (Gallons): ~7.5

Purge Water Management: On Site Containment

Purge Observations (color, odor, turbidity, sheen): Yellowish Clear Grab Sample

Purge time: 1215

Sample Time: 1402

Field Filtered (0.45um): [ ] Yes [x] No

Sample Parameters/Analyte(s):
- [ ] Petro (DRO)
- [ ] CCR Appendix III
- [ ] CCR Appendix IV
- [ ] Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- [ ] Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- [ ] Variance (Diss [Be, Cd, Cr, Pb, Ni])
- [x] LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- [ ] Phase A IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems:

Sample ID: 111022NOW13

Sampler Signature: [signature] Date: 11/10/22

QA/QC Signature: [signature] Date: 11/18/22

GOLDER

MICROPURGE SAMPLING LOG

Date: 11/10/22

Weather: Sunny 30s

Project Name: Mount Storm Power Station

Project No./Task No.: GL2013993622

Event: 2SA22 GW ~~LVW38~~ VS LVW57

Sampler(s): V. Strum

Well ID: OW-13

Field Calibration Completed: 11/10/22 @ 0830

Well Diameter: 2.0 inches

Initial Depth to Water: 17.21 feet

Depth to Bottom: — feet

Water Column Thickness: — feet

Equipment Used:
- [x] WL Indicator
- [ ] Turbidity Meter
- [ ] Air Tank
- [ ] Dedicated Bladder Pump
- [x] YSI ProDSS 18L104931
- [ ] Peristaltic Pump
- [ ] Compressor
- [x] Non-dedicated BP
- [ ] In-Situ —
- [ ] MP-10 Controller Box
- [x] MP-15 Controller Box
- [ ] —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1350	6.18	542	10.96	0.69	14.7	-74.6	18.98	~200
1355	6.18	538	9.37	0.66	14.7	-72.4	18.98	~200
1400	6.17	536	9.85	0.65	14.7	-73.6	19.01	~200
1402	—	—	—	SAMPLED	—	—	—	—
1422	6.18	522	16.52	0.29	14.7	-72.8	18.98	~200

Purge Cycle (End): 25/5 seconds @ 25 psi Flow Rate (ml/min End): ~200

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): —

Total Purge Volume (Gallons): ~7.5 Purge Water Management: On Site Containment

Purge Observations (color, odor, turbidity, sheen): Yellowish Clear Grab Sample

Purge time: 1215

Sample Time: 1402 Field Filtered (0.45um): [ ] Yes [x] No

Sample Parameters/Analyte(s):
- [ ] Petro (DRO)
- [ ] CCR Appendix III
- [ ] CCR Appendix IV
- [ ] Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- [ ] Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- [ ] Variance (Diss [Be, Cd, Cr, Pb, Ni])
- [x] LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- [ ] Phase A IV Detects (As, Ba, B[illegible] Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems: DTP = 22.15

Sample ID: 111022NOW13

Sampler Signature: [signature] Date: 11/10/22

QA/QC Signature: [signature] Date: 11/18/22

GOLDER

MICROPURGE SAMPLING LOG

Date: 11/10/22

Weather: Sunny, 60's

Project Name: Mount Storm Power Station

Project No./Task No.: 20139362 2

Event: 2SAZZ LVWSP

Sampler(s): M. Knez

Well ID: Field Duplicate

Field Calibration Completed: —

Well Diameter: — inches

Initial Depth to Water: — feet

Depth to Bottom: — feet

Water Column Thickness: — feet

Equipment Used:
- ☐ WL Indicator
- ☐ YSI —
- ☐ In-Situ —
- ☐ Turbidity Meter
- ☐ Peristaltic Pump
- ☐ MP-10 Controller Box
- ☐ Air Tank
- ☐ Compressor
- ☑ MP-15 Controller Box
- ☑ Dedicated Bladder Pump
- ☐ Non-dedicated BP
- ☐ —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1355	—	—	—	SAMPLE	—	—	—	—

Purge Cycle (End): — seconds @ — psi Flow Rate (ml/min End): —

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): —

Total Purge Volume (Gallons): — Purge Water Management: —

Purge Observations (color, odor, turbidity, sheen): clear grab sample taken from OW-2A

Purge time:

Sample Time: 1355 Field Filtered (0.45um): ☐ Yes ☑ No

Sample Parameters/Analyte(s):
- ☐ Petro (DRO)
- ☐ CCR Appendix III
- ☐ CCR Appendix IV
- ☐ Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- ☐ Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- ☐ Variance (Diss [Be, Cd, Cr, Pb, Ni])
- ☑ LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- ☐ Phase A IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems:

Sample ID: 111022FD Field Duplicate

Sampler Signature: M. Knez Date: 11/10/22

QA/QC Signature: — Date: 11/14/22

GOLDER

MICROPURGE SAMPLING LOG

Date: 11/11/22

Weather: Rainy 50s

Project Name: Mount Storm Power Station

Project No./Task No.: GL2013993622

Event: 2522 GW LVWSP

Sampler(s): V. Storm

Well ID: Field Blank

Field Calibration Completed: —

Well Diameter: — inches

Initial Depth to Water: — feet

Depth to Bottom: — feet

Water Column Thickness: — feet

Equipment Used:
- ☐ WL Indicator
- ☐ YSI —
- ☐ In-Situ —
- ☐ Turbidity Meter
- ☐ Peristaltic Pump
- ☐ MP-10 Controller Box
- ☐ Air Tank
- ☐ Compressor
- ☐ MP-15 Controller Box
- ☐ Dedicated Bladder Pump
- ☐ Non-dedicated BP
- ☐ —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1150	—	—	—	SAMPLED	—	—	—	—

Purge Cycle (End): — seconds @ — psi Flow Rate (ml/min End): —

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): —

Total Purge Volume (Gallons): — Purge Water Management: —

Purge Observations (color, odor, turbidity, sheen): Clear Grab Sample @ DW-12 w/ Lab provided DI water

Purge time: —

Sample Time: 1150 Field Filtered (0.45um): ☐ Yes ☒ No

Sample Parameters/Analyte(s):
- ☐ Petro (DRO)
- ☐ CCR Appendix III
- ☐ CCR Appendix IV
- ☐ Closed 5-year NPDES (Diss [Ba, Bo, Fe, Mn], SO4, TDS, TSS)
- ☐ Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl],Cl, Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS)
- ☐ Variance (Diss [Be, Cd, Cr, Pb, Ni])
- ☒ LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Mo, Tl, Rad 226-228)
- ☐ Phase A IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)
- ☐ Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Rad 226-228)

Other Observations / Equipment Operation Problems:

Sample ID: 111122FBField Blank

Sampler Signature: [signature] Date: 11/11/22 Page 1 of 1

QA/QC Signature: [signature] Date: 11/18/22

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kelly Hicks
Dominion Energy Services, Inc.
5000 Dominion Blvd
Glen Allen, Virginia 23060

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JOB DESCRIPTION

2SA22-MSPS-LVWSP-Group D-1-1

JOB NUMBER

240-176379-1

Eurofins Canton
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

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Authorization

Roxanne Cisneros

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Authorized for release by
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Table of Contents

Definitions/Glossary

Client: Dominion Energy Services, Inc. Job ID: 240-176379-1
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

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

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

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

Job ID: 240-176379-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-176379-1

Comments
The Total Dissolved Solids by SM 2540C analysis was performed at the Eurofins Pittsburgh laboratory.
The SW846 Method 9315 Radium-226, SW846 Method 9320 Radium-228 (GFPC), and Ra226_Ra228 Combined Radium 226 and Radium 228 analyses were performed at the Eurofins St. Louis laboratory.

Receipt
The samples were received on 11/12/2022 9:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 2.0°C, 2.9°C, 3.5°C, 3.9°C and 4.2°C

Metals
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.

Gas Flow Proportional Counter
Method 9315_Ra226: Radium-226 batch 590323. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the sample collection date/time applied as the Activity Reference Date111022NOW7A (240-176379-1), 111022NOW7A (240-176379-1[MS]), 111022NOW7A (240-176379-1[MSD]), 111022NOW8 (240-176379-2), 111022NOW2A (240-176379-3), 111022NOW4A (240-176379-4), 111022NOW10 (240-176379-5), 111022NOW12 (240-176379-6), 111022NOW13 (240-176379-7), 111122FBFieldBlank (240-176379-8), 111022FDDuplicate (240-176379-9), (LCS 160-590323/2-A) and (MB 160-590323/1-A)

Method 9320_Ra228: Radium-228 batch 590327. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.111022NOW7A (240-176379-1), 111022NOW7A (240-176379-1[MS]), 111022NOW7A (240-176379-1[MSD]), 111022NOW8 (240-176379-2), 111022NOW2A (240-176379-3), 111022NOW4A (240-176379-4), 111022NOW10 (240-176379-5), 111022NOW12 (240-176379-6), 111022NOW13 (240-176379-7), 111122FBFieldBlank (240-176379-8), 111022FDDuplicate (240-176379-9), (LCS 160-590327/2-A) and (MB 160-590327/1-A)

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

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

Method Summary

Client: Dominion Energy Services, Inc. Job ID: 240-176379-1
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CAN
6020B	Metals (ICP/MS)	SW846	EET CAN
7470A	Mercury (CVAA)	SW846	EET CAN
9056A	Anions, Ion Chromatography	SW846	EET CAN
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET PIT
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
Pos			
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CAN
7470A	Preparation, Mercury	SW846	EET CAN
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396
EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Dominion Energy Services, Inc.
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Job ID: 240-176379-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-176379-1	111022NOW7A	Water	11/10/22 11:40	11/12/22 09:10
240-176379-2	111022NOW8	Water	11/10/22 11:36	11/12/22 09:10
240-176379-3	111022NOW2A	Water	11/10/22 13:40	11/12/22 09:10
240-176379-4	111022NOW4A	Water	11/10/22 15:32	11/12/22 09:10
240-176379-5	111022NOW10	Water	11/10/22 15:20	11/12/22 09:10
240-176379-6	111022NOW12	Water	11/10/22 16:35	11/12/22 09:10
240-176379-7	111022NOW13	Water	11/10/22 14:02	11/12/22 09:10
240-176379-8	111122FBFieldBlank	Water	11/11/22 11:50	11/12/22 09:10
240-176379-9	111022FDDuplicate	Water	11/10/22 13:55	11/12/22 09:10

Detection Summary

Client: Dominion Energy Services, Inc.
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Job ID: 240-176379-1

Client Sample ID: 111022NOW7A — Lab Sample ID: 240-176379-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	300		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cadmium	0.21	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	45000		1000	580	ug/L	1		6020B	Total Recoverable
Cobalt	4.8		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.84	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	14		8.0	1.7	ug/L	1		6020B	Total Recoverable
Thallium	0.31	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Chloride	100		1.0	0.28	mg/L	1		9056A	Total/NA
Fluoride	0.14		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	11		1.0	0.35	mg/L	1		9056A	Total/NA
Total Dissolved Solids	230		10	10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 111022NOW8 — Lab Sample ID: 240-176379-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.61	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	0.82	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	13		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	160000		1000	580	ug/L	1		6020B	Total Recoverable
Cobalt	11		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	5.7	J	8.0	1.7	ug/L	1		6020B	Total Recoverable
Thallium	0.60	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Chloride	110		1.0	0.28	mg/L	1		9056A	Total/NA
Fluoride	0.095		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	310		5.0	1.7	mg/L	5		9056A	Total/NA
Total Dissolved Solids	710		10	10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 111022NOW2A — Lab Sample ID: 240-176379-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.81	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	180		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cadmium	4.4		1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	28000		1000	580	ug/L	1		6020B	Total Recoverable
Cobalt	440		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.88	J	1.0	0.45	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: 111022NOW2A (Continued) — Lab Sample ID: 240-176379-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Thallium	0.45	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Chloride	92		1.0	0.28	mg/L	1		9056A	Total/NA
Fluoride	0.13		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	130		1.0	0.35	mg/L	1		9056A	Total/NA
Total Dissolved Solids	370		10	10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 111022NOW4A — Lab Sample ID: 240-176379-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	68	J	100	57	ug/L	1		6010D	Total Recoverable
Arsenic	0.99	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	85		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	28000		1000	580	ug/L	1		6020B	Total Recoverable
Cobalt	0.55	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Molybdenum	1.9	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Chloride	7.6		1.0	0.28	mg/L	1		9056A	Total/NA
Fluoride	0.087		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	25		1.0	0.35	mg/L	1		9056A	Total/NA
Total Dissolved Solids	130		10	10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 111022NOW10 — Lab Sample ID: 240-176379-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	69	J	100	57	ug/L	1		6010D	Total Recoverable
Barium	450		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cadmium	0.26	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	75000		1000	580	ug/L	1		6020B	Total Recoverable
Cobalt	0.66	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	4.5	J	8.0	1.7	ug/L	1		6020B	Total Recoverable
Thallium	0.55	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Chloride	57		1.0	0.28	mg/L	1		9056A	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	34		1.0	0.35	mg/L	1		9056A	Total/NA
Total Dissolved Solids	400		10	10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 111022NOW12 — Lab Sample ID: 240-176379-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	140		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: 111022NOW12 (Continued) — Lab Sample ID: 240-176379-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	63		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	99000		1000	580	ug/L	1		6020B	Total Recoverable
Cobalt	69		1.0	0.19	ug/L	1		6020B	Total Recoverable
Chloride	130		1.0	0.28	mg/L	1		9056A	Total/NA
Fluoride	0.027	J	0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	240		5.0	1.7	mg/L	5		9056A	Total/NA
Total Dissolved Solids	580		10	10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 111022NOW13 — Lab Sample ID: 240-176379-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.2	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	120		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	25000		1000	580	ug/L	1		6020B	Total Recoverable
Chromium	3.7	J	5.0	2.5	ug/L	1		6020B	Total Recoverable
Cobalt	1.3		1.0	0.19	ug/L	1		6020B	Total Recoverable
Chloride	21		1.0	0.28	mg/L	1		9056A	Total/NA
Fluoride	0.049	J	0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	1.1		1.0	0.35	mg/L	1		9056A	Total/NA
Total Dissolved Solids	480		10	10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 111122FBFieldBlank — Lab Sample ID: 240-176379-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	26		1.0	0.28	mg/L	1		9056A	Total/NA
Total Dissolved Solids	120		10	10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 111022FDDuplicate — Lab Sample ID: 240-176379-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	190		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cadmium	3.2		1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	33000		1000	580	ug/L	1		6020B	Total Recoverable
Cobalt	420		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.55	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Chloride	81		1.0	0.28	mg/L	1		9056A	Total/NA
Fluoride	0.12		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	120		1.0	0.35	mg/L	1		9056A	Total/NA
Total Dissolved Solids	360		10	10	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 111022NOW7A
Date Collected: 11/10/22 11:40
Date Received: 11/12/22 09:10

Lab Sample ID: 240-176379-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		11/15/22 12:00	11/16/22 18:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57		2.0	0.57	ug/L		11/15/22 12:00	11/16/22 20:11	1
Arsenic	<0.75		5.0	0.75	ug/L		11/15/22 12:00	11/16/22 20:11	1
Barium	**300**		5.0	2.2	ug/L		11/15/22 12:00	11/16/22 20:11	1
Beryllium	<0.62		1.0	0.62	ug/L		11/15/22 12:00	11/16/22 20:11	1
Cadmium	**0.21**	**J**	1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:11	1
Calcium	**45000**		1000	580	ug/L		11/15/22 12:00	11/16/22 20:11	1
Chromium	<2.5		5.0	2.5	ug/L		11/15/22 12:00	11/16/22 20:11	1
Cobalt	**4.8**		1.0	0.19	ug/L		11/15/22 12:00	11/16/22 20:11	1
Lead	**0.84**	**J**	1.0	0.45	ug/L		11/15/22 12:00	11/16/22 20:11	1
Lithium	**14**		8.0	1.7	ug/L		11/15/22 12:00	11/16/22 20:11	1
Molybdenum	<1.1		5.0	1.1	ug/L		11/15/22 12:00	11/16/22 20:11	1
Selenium	<0.89		5.0	0.89	ug/L		11/15/22 12:00	11/16/22 20:11	1
Thallium	**0.31**	**J**	1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:11	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13	F1	0.20	0.13	ug/L		11/15/22 12:00	11/16/22 13:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	**100**		1.0	0.28	mg/L			12/08/22 02:25	1
Fluoride (SW846 9056A)	**0.14**		0.050	0.024	mg/L			12/08/22 02:25	1
Sulfate (SW846 9056A)	**11**		1.0	0.35	mg/L			12/08/22 02:25	1
Total Dissolved Solids (SM 2540C)	**230**		10	10	mg/L			11/16/22 16:25	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.301	U	0.260	0.261	1.00	0.390	pCi/L	11/16/22 11:38	12/08/22 09:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.0*		*40 - 110*	*11/16/22 11:38*	*12/08/22 09:00*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.41**		0.698	0.710	1.00	0.947	pCi/L	11/16/22 12:07	12/06/22 12:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.0*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:01*	*1*
Y Carrier	*83.0*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:01*	*1*

Client Sample Results

Client: Dominion Energy Services, Inc.
Job ID: 240-176379-1
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Client Sample ID: 111022NOW7A
Lab Sample ID: 240-176379-1
Date Collected: 11/10/22 11:40
Matrix: Water
Date Received: 11/12/22 09:10

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.71		0.745	0.756	5.00	0.947	pCi/L		12/13/22 10:26	1

Client Sample ID: 111022NOW8
Lab Sample ID: 240-176379-2

Date Collected: 11/10/22 11:36
Matrix: Water
Date Received: 11/12/22 09:10

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		11/15/22 12:00	11/16/22 18:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.61**	**J**	2.0	0.57	ug/L		11/15/22 12:00	11/16/22 20:22	1
Arsenic	**0.82**	**J**	5.0	0.75	ug/L		11/15/22 12:00	11/16/22 20:22	1
Barium	**13**		5.0	2.2	ug/L		11/15/22 12:00	11/16/22 20:22	1
Beryllium	<0.62		1.0	0.62	ug/L		11/15/22 12:00	11/16/22 20:22	1
Cadmium	<0.20		1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:22	1
Calcium	**160000**		1000	580	ug/L		11/15/22 12:00	11/16/22 20:22	1
Chromium	<2.5		5.0	2.5	ug/L		11/15/22 12:00	11/16/22 20:22	1
Cobalt	**11**		1.0	0.19	ug/L		11/15/22 12:00	11/16/22 20:22	1
Lead	<0.45		1.0	0.45	ug/L		11/15/22 12:00	11/16/22 20:22	1
Lithium	**5.7**	**J**	8.0	1.7	ug/L		11/15/22 12:00	11/16/22 20:22	1
Molybdenum	<1.1		5.0	1.1	ug/L		11/15/22 12:00	11/16/22 20:22	1
Selenium	<0.89		5.0	0.89	ug/L		11/15/22 12:00	11/16/22 20:22	1
Thallium	**0.60**	**J**	1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:22	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		11/15/22 12:00	11/16/22 13:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	**110**		1.0	0.28	mg/L			12/08/22 03:30	1
Fluoride (SW846 9056A)	**0.095**		0.050	0.024	mg/L			12/08/22 03:30	1
Sulfate (SW846 9056A)	**310**		5.0	1.7	mg/L			12/08/22 03:52	5
Total Dissolved Solids (SM 2540C)	**710**		10	10	mg/L			11/16/22 16:25	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.141	U	0.139	0.139	1.00	0.217	pCi/L	11/16/22 11:38	12/08/22 09:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.1*		*40 - 110*	*11/16/22 11:38*	*12/08/22 09:01*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.270	U	0.372	0.373	1.00	0.623	pCi/L	11/16/22 12:07	12/06/22 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.1*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:02*	*1*
Y Carrier	*84.1*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:02*	*1*

Client: Dominion Energy Services, Inc.
Job ID: 240-176379-1
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Client Sample ID: 111022NOW8
Lab Sample ID: 240-176379-2
Date Collected: 11/10/22 11:36
Matrix: Water
Date Received: 11/12/22 09:10

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.411	U	0.397	0.398	5.00	0.623	pCi/L		12/13/22 10:26	1

Client Sample ID: 111022NOW2A
Lab Sample ID: 240-176379-3

Date Collected: 11/10/22 13:40
Matrix: Water
Date Received: 11/12/22 09:10

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		11/15/22 12:00	11/16/22 18:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57		2.0	0.57	ug/L		11/15/22 12:00	11/16/22 20:25	1
Arsenic	**0.81**	**J**	5.0	0.75	ug/L		11/15/22 12:00	11/16/22 20:25	1
Barium	**180**		5.0	2.2	ug/L		11/15/22 12:00	11/16/22 20:25	1
Beryllium	<0.62		1.0	0.62	ug/L		11/15/22 12:00	11/16/22 20:25	1
Cadmium	**4.4**		1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:25	1
Calcium	**28000**		1000	580	ug/L		11/15/22 12:00	11/16/22 20:25	1
Chromium	<2.5		5.0	2.5	ug/L		11/15/22 12:00	11/16/22 20:25	1
Cobalt	**440**		1.0	0.19	ug/L		11/15/22 12:00	11/16/22 20:25	1
Lead	**0.88**	**J**	1.0	0.45	ug/L		11/15/22 12:00	11/16/22 20:25	1
Lithium	<1.7		8.0	1.7	ug/L		11/15/22 12:00	11/16/22 20:25	1
Molybdenum	<1.1		5.0	1.1	ug/L		11/15/22 12:00	11/16/22 20:25	1
Selenium	<0.89		5.0	0.89	ug/L		11/15/22 12:00	11/16/22 20:25	1
Thallium	**0.45**	**J**	1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:25	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		11/15/22 12:00	11/16/22 13:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	**92**		1.0	0.28	mg/L			12/08/22 04:14	1
Fluoride (SW846 9056A)	**0.13**		0.050	0.024	mg/L			12/08/22 04:14	1
Sulfate (SW846 9056A)	**130**		1.0	0.35	mg/L			12/08/22 04:14	1
Total Dissolved Solids (SM 2540C)	**370**		10	10	mg/L			11/16/22 16:25	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.20**		0.303	0.322	1.00	0.269	pCi/L	11/16/22 11:38	12/08/22 09:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.0*		*40 - 110*	*11/16/22 11:38*	*12/08/22 09:01*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**2.08**		0.538	0.571	1.00	0.549	pCi/L	11/16/22 12:07	12/06/22 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.0*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:02*	*1*
Y Carrier	*84.1*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:02*	*1*

Client Sample Results

Client: Dominion Energy Services, Inc.
Job ID: 240-176379-1
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Client Sample ID: 111022NOW2A
Lab Sample ID: 240-176379-3
Date Collected: 11/10/22 13:40
Matrix: Water
Date Received: 11/12/22 09:10

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	3.28		0.617	0.656	5.00	0.549	pCi/L		12/13/22 10:26	1

Client Sample ID: 111022NOW4A
Date Collected: 11/10/22 15:32
Date Received: 11/12/22 09:10

Lab Sample ID: 240-176379-4
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**68**	**J**	100	57	ug/L		11/15/22 12:00	11/16/22 18:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57		2.0	0.57	ug/L		11/15/22 12:00	11/16/22 20:32	1
Arsenic	**0.99**	**J**	5.0	0.75	ug/L		11/15/22 12:00	11/16/22 20:32	1
Barium	**85**		5.0	2.2	ug/L		11/15/22 12:00	11/16/22 20:32	1
Beryllium	<0.62		1.0	0.62	ug/L		11/15/22 12:00	11/16/22 20:32	1
Cadmium	<0.20		1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:32	1
Calcium	**28000**		1000	580	ug/L		11/15/22 12:00	11/16/22 20:32	1
Chromium	<2.5		5.0	2.5	ug/L		11/15/22 12:00	11/16/22 20:32	1
Cobalt	**0.55**	**J**	1.0	0.19	ug/L		11/15/22 12:00	11/16/22 20:32	1
Lead	<0.45		1.0	0.45	ug/L		11/15/22 12:00	11/16/22 20:32	1
Lithium	<1.7		8.0	1.7	ug/L		11/15/22 12:00	11/16/22 20:32	1
Molybdenum	**1.9**	**J**	5.0	1.1	ug/L		11/15/22 12:00	11/16/22 20:32	1
Selenium	<0.89		5.0	0.89	ug/L		11/15/22 12:00	11/16/22 20:32	1
Thallium	<0.20		1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:32	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		11/15/22 12:00	11/16/22 13:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	**7.6**		1.0	0.28	mg/L			12/08/22 04:35	1
Fluoride (SW846 9056A)	**0.087**		0.050	0.024	mg/L			12/08/22 04:35	1
Sulfate (SW846 9056A)	**25**		1.0	0.35	mg/L			12/08/22 04:35	1
Total Dissolved Solids (SM 2540C)	**130**		10	10	mg/L			11/16/22 16:25	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.118	U	0.136	0.137	1.00	0.222	pCi/L	11/16/22 11:38	12/08/22 09:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*11/16/22 11:38*	*12/08/22 09:01*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.306	U	0.340	0.342	1.00	0.557	pCi/L	11/16/22 12:07	12/06/22 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:02*	*1*
Y Carrier	*84.1*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:02*	*1*

Client: Dominion Energy Services, Inc.
Job ID: 240-176379-1
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Client Sample ID: 111022NOW4A
Lab Sample ID: 240-176379-4
Date Collected: 11/10/22 15:32
Matrix: Water
Date Received: 11/12/22 09:10

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.424	U	0.366	0.368	5.00	0.557	pCi/L		12/13/22 10:26	1

Client Sample ID: 111022NOW10
Date Collected: 11/10/22 15:20
Date Received: 11/12/22 09:10

Lab Sample ID: 240-176379-5
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**69**	**J**	100	57	ug/L		11/15/22 12:00	11/16/22 19:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57		2.0	0.57	ug/L		11/15/22 12:00	11/16/22 20:35	1
Arsenic	<0.75		5.0	0.75	ug/L		11/15/22 12:00	11/16/22 20:35	1
Barium	**450**		5.0	2.2	ug/L		11/15/22 12:00	11/16/22 20:35	1
Beryllium	<0.62		1.0	0.62	ug/L		11/15/22 12:00	11/16/22 20:35	1
Cadmium	**0.26**	**J**	1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:35	1
Calcium	**75000**		1000	580	ug/L		11/15/22 12:00	11/16/22 20:35	1
Chromium	<2.5		5.0	2.5	ug/L		11/15/22 12:00	11/16/22 20:35	1
Cobalt	**0.66**	**J**	1.0	0.19	ug/L		11/15/22 12:00	11/16/22 20:35	1
Lead	<0.45		1.0	0.45	ug/L		11/15/22 12:00	11/16/22 20:35	1
Lithium	**4.5**	**J**	8.0	1.7	ug/L		11/15/22 12:00	11/16/22 20:35	1
Molybdenum	<1.1		5.0	1.1	ug/L		11/15/22 12:00	11/16/22 20:35	1
Selenium	<0.89		5.0	0.89	ug/L		11/15/22 12:00	11/16/22 20:35	1
Thallium	**0.55**	**J**	1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:35	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		11/15/22 12:00	11/16/22 13:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	**57**		1.0	0.28	mg/L			12/08/22 04:57	1
Fluoride (SW846 9056A)	**0.11**		0.050	0.024	mg/L			12/08/22 04:57	1
Sulfate (SW846 9056A)	**34**		1.0	0.35	mg/L			12/08/22 04:57	1
Total Dissolved Solids (SM 2540C)	**400**		10	10	mg/L			11/16/22 16:25	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.763**		0.266	0.275	1.00	0.268	pCi/L	11/16/22 11:38	12/08/22 09:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.4*		*40 - 110*	*11/16/22 11:38*	*12/08/22 09:01*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.774**		0.452	0.458	1.00	0.654	pCi/L	11/16/22 12:07	12/06/22 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.4*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:02*	*1*
Y Carrier	*85.6*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:02*	*1*

Client Sample ID: 111022NOW10 **Lab Sample ID: 240-176379-5**
Date Collected: 11/10/22 15:20 **Matrix: Water**
Date Received: 11/12/22 09:10

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.54		0.524	0.534	5.00	0.654	pCi/L		12/13/22 10:26	1

Client: Dominion Energy Services, Inc.
Job ID: 240-176379-1
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Client Sample ID: 111022NOW12
Lab Sample ID: 240-176379-6
Date Collected: 11/10/22 16:35
Matrix: Water
Date Received: 11/12/22 09:10

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**140**		100	57	ug/L		11/15/22 12:00	11/16/22 19:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57		2.0	0.57	ug/L		11/15/22 12:00	11/16/22 20:37	1
Arsenic	**1.3**	**J**	5.0	0.75	ug/L		11/15/22 12:00	11/16/22 20:37	1
Barium	**63**		5.0	2.2	ug/L		11/15/22 12:00	11/16/22 20:37	1
Beryllium	<0.62		1.0	0.62	ug/L		11/15/22 12:00	11/16/22 20:37	1
Cadmium	<0.20		1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:37	1
Calcium	**99000**		1000	580	ug/L		11/15/22 12:00	11/16/22 20:37	1
Chromium	<2.5		5.0	2.5	ug/L		11/15/22 12:00	11/16/22 20:37	1
Cobalt	**69**		1.0	0.19	ug/L		11/15/22 12:00	11/16/22 20:37	1
Lead	<0.45		1.0	0.45	ug/L		11/15/22 12:00	11/16/22 20:37	1
Lithium	<1.7		8.0	1.7	ug/L		11/15/22 12:00	11/16/22 20:37	1
Molybdenum	<1.1		5.0	1.1	ug/L		11/15/22 12:00	11/16/22 20:37	1
Selenium	<0.89		5.0	0.89	ug/L		11/15/22 12:00	11/16/22 20:37	1
Thallium	<0.20		1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:37	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		11/15/22 12:00	11/16/22 13:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	**130**		1.0	0.28	mg/L			12/08/22 06:02	1
Fluoride (SW846 9056A)	**0.027**	**J**	0.050	0.024	mg/L			12/08/22 06:02	1
Sulfate (SW846 9056A)	**240**		5.0	1.7	mg/L			12/08/22 06:24	5
Total Dissolved Solids (SM 2540C)	**580**		10	10	mg/L			11/16/22 16:25	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.324**		0.151	0.154	1.00	0.168	pCi/L	11/16/22 11:38	12/08/22 14:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*11/16/22 11:38*	*12/08/22 14:33*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.836**		0.372	0.379	1.00	0.495	pCi/L	11/16/22 12:07	12/06/22 12:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:03*	*1*
Y Carrier	*86.0*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:03*	*1*

Client Sample Results

Client: Dominion Energy Services, Inc.
Job ID: 240-176379-1
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Client Sample ID: 111022NOW12
Lab Sample ID: 240-176379-6
Date Collected: 11/10/22 16:35
Matrix: Water
Date Received: 11/12/22 09:10

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.16		0.401	0.409	5.00	0.495	pCi/L		12/13/22 10:26	1

Client Sample ID: 111022NOW13

Date Collected: 11/10/22 14:02
Date Received: 11/12/22 09:10

Lab Sample ID: 240-176379-7

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		11/15/22 12:00	11/16/22 19:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57		2.0	0.57	ug/L		11/15/22 12:00	11/16/22 20:40	1
Arsenic	**4.2**	**J**	5.0	0.75	ug/L		11/15/22 12:00	11/16/22 20:40	1
Barium	**120**		5.0	2.2	ug/L		11/15/22 12:00	11/16/22 20:40	1
Beryllium	<0.62		1.0	0.62	ug/L		11/15/22 12:00	11/16/22 20:40	1
Cadmium	<0.20		1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:40	1
Calcium	**25000**		1000	580	ug/L		11/15/22 12:00	11/16/22 20:40	1
Chromium	**3.7**	**J**	5.0	2.5	ug/L		11/15/22 12:00	11/16/22 20:40	1
Cobalt	**1.3**		1.0	0.19	ug/L		11/15/22 12:00	11/16/22 20:40	1
Lead	<0.45		1.0	0.45	ug/L		11/15/22 12:00	11/16/22 20:40	1
Lithium	<1.7		8.0	1.7	ug/L		11/15/22 12:00	11/16/22 20:40	1
Molybdenum	<1.1		5.0	1.1	ug/L		11/15/22 12:00	11/16/22 20:40	1
Selenium	<0.89		5.0	0.89	ug/L		11/15/22 12:00	11/16/22 20:40	1
Thallium	<0.20		1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:40	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		11/15/22 12:00	11/16/22 14:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	**21**		1.0	0.28	mg/L			12/08/22 06:46	1
Fluoride (SW846 9056A)	**0.049**	**J**	0.050	0.024	mg/L			12/08/22 06:46	1
Sulfate (SW846 9056A)	**1.1**		1.0	0.35	mg/L			12/08/22 06:46	1
Total Dissolved Solids (SM 2540C)	**480**		10	10	mg/L			11/16/22 16:25	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.386**		0.195	0.198	1.00	0.224	pCi/L	11/16/22 11:38	12/08/22 14:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.4*		*40 - 110*	*11/16/22 11:38*	*12/08/22 14:33*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.15**		0.485	0.496	1.00	0.618	pCi/L	11/16/22 12:07	12/06/22 12:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.4*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:03*	*1*
Y Carrier	*86.4*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:03*	*1*

Client Sample Results

Client: Dominion Energy Services, Inc.
Job ID: 240-176379-1
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Client Sample ID: 111022NOW13
Lab Sample ID: 240-176379-7
Date Collected: 11/10/22 14:02
Matrix: Water
Date Received: 11/12/22 09:10

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.54		0.523	0.534	5.00	0.618	pCi/L		12/13/22 10:26	1

Client Sample ID: 111122FBFieldBlank
Lab Sample ID: 240-176379-8
Date Collected: 11/11/22 11:50
Matrix: Water
Date Received: 11/12/22 09:10

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		11/15/22 12:00	11/16/22 19:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57		2.0	0.57	ug/L		11/15/22 12:00	11/16/22 20:45	1
Arsenic	<0.75		5.0	0.75	ug/L		11/15/22 12:00	11/16/22 20:45	1
Barium	<2.2		5.0	2.2	ug/L		11/15/22 12:00	11/16/22 20:45	1
Beryllium	<0.62		1.0	0.62	ug/L		11/15/22 12:00	11/16/22 20:45	1
Cadmium	<0.20		1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:45	1
Calcium	<580		1000	580	ug/L		11/15/22 12:00	11/16/22 20:45	1
Chromium	<2.5		5.0	2.5	ug/L		11/15/22 12:00	11/16/22 20:45	1
Cobalt	<0.19		1.0	0.19	ug/L		11/15/22 12:00	11/16/22 20:45	1
Lead	<0.45		1.0	0.45	ug/L		11/15/22 12:00	11/16/22 20:45	1
Lithium	<1.7		8.0	1.7	ug/L		11/15/22 12:00	11/16/22 20:45	1
Molybdenum	<1.1		5.0	1.1	ug/L		11/15/22 12:00	11/16/22 20:45	1
Selenium	<0.89		5.0	0.89	ug/L		11/15/22 12:00	11/16/22 20:45	1
Thallium	<0.20		1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:45	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		11/15/22 12:00	11/16/22 14:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	**26**		1.0	0.28	mg/L			12/08/22 07:07	1
Fluoride (SW846 9056A)	<0.024		0.050	0.024	mg/L			12/08/22 07:07	1
Sulfate (SW846 9056A)	<0.35		1.0	0.35	mg/L			12/08/22 07:07	1
Total Dissolved Solids (SM 2540C)	**120**		10	10	mg/L			11/16/22 16:25	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.152	U	0.148	0.148	1.00	0.233	pCi/L	11/16/22 11:38	12/08/22 14:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*11/16/22 11:38*	*12/08/22 14:33*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.423	U	0.302	0.304	1.00	0.451	pCi/L	11/16/22 12:07	12/06/22 12:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:03*	*1*
Y Carrier	*84.9*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:03*	*1*

Client: Dominion Energy Services, Inc.
Job ID: 240-176379-1
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Client Sample ID: 111122FBFieldBlank
Lab Sample ID: 240-176379-8
Date Collected: 11/11/22 11:50
Matrix: Water
Date Received: 11/12/22 09:10

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.575		0.336	0.338	5.00	0.451	pCi/L		12/13/22 10:26	1

Client Sample ID: 111022FDDuplicate

Date Collected: 11/10/22 13:55
Date Received: 11/12/22 09:10

Lab Sample ID: 240-176379-9

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		11/15/22 12:00	11/16/22 19:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57		2.0	0.57	ug/L		11/15/22 12:00	11/16/22 20:47	1
Arsenic	<0.75		5.0	0.75	ug/L		11/15/22 12:00	11/16/22 20:47	1
Barium	**190**		5.0	2.2	ug/L		11/15/22 12:00	11/16/22 20:47	1
Beryllium	<0.62		1.0	0.62	ug/L		11/15/22 12:00	11/16/22 20:47	1
Cadmium	**3.2**		1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:47	1
Calcium	**33000**		1000	580	ug/L		11/15/22 12:00	11/16/22 20:47	1
Chromium	<2.5		5.0	2.5	ug/L		11/15/22 12:00	11/16/22 20:47	1
Cobalt	**420**		1.0	0.19	ug/L		11/15/22 12:00	11/16/22 20:47	1
Lead	**0.55**	**J**	1.0	0.45	ug/L		11/15/22 12:00	11/16/22 20:47	1
Lithium	<1.7		8.0	1.7	ug/L		11/15/22 12:00	11/16/22 20:47	1
Molybdenum	<1.1		5.0	1.1	ug/L		11/15/22 12:00	11/16/22 20:47	1
Selenium	<0.89		5.0	0.89	ug/L		11/15/22 12:00	11/16/22 20:47	1
Thallium	<0.20		1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:47	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		11/15/22 12:00	11/16/22 14:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	**81**		1.0	0.28	mg/L			12/08/22 07:29	1
Fluoride (SW846 9056A)	**0.12**		0.050	0.024	mg/L			12/08/22 07:29	1
Sulfate (SW846 9056A)	**120**		1.0	0.35	mg/L			12/08/22 07:29	1
Total Dissolved Solids (SM 2540C)	**360**		10	10	mg/L			11/16/22 16:25	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.830**		0.233	0.244	1.00	0.214	pCi/L	11/16/22 11:38	12/08/22 14:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*11/16/22 11:38*	*12/08/22 14:33*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.42**		0.447	0.466	1.00	0.523	pCi/L	11/16/22 12:07	12/06/22 12:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:03*	*1*
Y Carrier	*81.9*		*40 - 110*	*11/16/22 12:07*	*12/06/22 12:03*	*1*

Client: Dominion Energy Services, Inc.
Job ID: 240-176379-1
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Client Sample ID: 111022FDDuplicate
Lab Sample ID: 240-176379-9
Date Collected: 11/10/22 13:55
Matrix: Water
Date Received: 11/12/22 09:10

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	2.25		0.504	0.526	5.00	0.523	pCi/L		12/13/22 10:26	1

Tracer/Carrier Summary

Client: Dominion Energy Services, Inc.
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Job ID: 240-176379-1

Method: 9315 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(40-110)
240-176379-1 MS	111022NOW7A	93.0
240-176379-1 MSD	111022NOW7A	78.0
LCS 160-590323/2-A	Lab Control Sample	95.4
MB 160-590323/1-A	Method Blank	99.8

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(40-110)	(40-110)
240-176379-1 MS	111022NOW7A	93.0	81.9
240-176379-1 MSD	111022NOW7A	78.0	84.5
LCS 160-590327/2-A	Lab Control Sample	95.4	85.2
MB 160-590327/1-A	Method Blank	99.8	84.9

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-552040/1-A
Matrix: Water
Analysis Batch: 552252

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 552040

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		11/15/22 12:00	11/16/22 18:11	1

Lab Sample ID: LCS 240-552040/2-A
Matrix: Water
Analysis Batch: 552252

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 552040

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1040		ug/L		104	80 - 120

Lab Sample ID: 240-176379-1 MS
Matrix: Water
Analysis Batch: 552252

Client Sample ID: 111022NOW7A
Prep Type: Total Recoverable
Prep Batch: 552040

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	<57		1000	1060		ug/L		106	75 - 125

Lab Sample ID: 240-176379-1 MSD
Matrix: Water
Analysis Batch: 552252

Client Sample ID: 111022NOW7A
Prep Type: Total Recoverable
Prep Batch: 552040

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	<57		1000	1030		ug/L		103	75 - 125	3	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-552040/1-A
Matrix: Water
Analysis Batch: 552404

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 552040

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57		2.0	0.57	ug/L		11/15/22 12:00	11/16/22 20:06	1
Arsenic	<0.75		5.0	0.75	ug/L		11/15/22 12:00	11/16/22 20:06	1
Barium	<2.2		5.0	2.2	ug/L		11/15/22 12:00	11/16/22 20:06	1
Beryllium	<0.62		1.0	0.62	ug/L		11/15/22 12:00	11/16/22 20:06	1
Cadmium	<0.20		1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:06	1
Calcium	<580		1000	580	ug/L		11/15/22 12:00	11/16/22 20:06	1
Chromium	<2.5		5.0	2.5	ug/L		11/15/22 12:00	11/16/22 20:06	1
Cobalt	<0.19		1.0	0.19	ug/L		11/15/22 12:00	11/16/22 20:06	1
Lead	<0.45		1.0	0.45	ug/L		11/15/22 12:00	11/16/22 20:06	1
Lithium	<1.7		8.0	1.7	ug/L		11/15/22 12:00	11/16/22 20:06	1
Molybdenum	<1.1		5.0	1.1	ug/L		11/15/22 12:00	11/16/22 20:06	1
Selenium	<0.89		5.0	0.89	ug/L		11/15/22 12:00	11/16/22 20:06	1
Thallium	<0.20		1.0	0.20	ug/L		11/15/22 12:00	11/16/22 20:06	1

Lab Sample ID: LCS 240-552040/3-A
Matrix: Water
Analysis Batch: 552404

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 552040

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	100		ug/L		100	80 - 120

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

Lab Sample ID: LCS 240-552040/3-A
Matrix: Water
Analysis Batch: 552404

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 552040

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1000	909		ug/L		91	80 - 120
Barium	1000	1010		ug/L		101	80 - 120
Beryllium	500	458		ug/L		92	80 - 120
Cadmium	500	480		ug/L		96	80 - 120
Calcium	25000	24200		ug/L		97	80 - 120
Chromium	500	476		ug/L		95	80 - 120
Cobalt	500	465		ug/L		93	80 - 120
Lead	500	494		ug/L		99	80 - 120
Lithium	500	449		ug/L		90	80 - 120
Molybdenum	500	464		ug/L		93	80 - 120
Selenium	1000	898		ug/L		90	80 - 120
Thallium	1000	946		ug/L		95	80 - 120

Lab Sample ID: 240-176379-1 MS
Matrix: Water
Analysis Batch: 552404

Client Sample ID: 111022NOW7A
Prep Type: Total Recoverable
Prep Batch: 552040

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.57		100	103		ug/L		103	80 - 120
Arsenic	<0.75		1000	903		ug/L		90	80 - 120
Barium	300		1000	1270		ug/L		97	80 - 120
Beryllium	<0.62		500	464		ug/L		93	80 - 120
Cadmium	0.21	J	500	485		ug/L		97	80 - 120
Calcium	45000		25000	67700		ug/L		92	80 - 120
Chromium	<2.5		500	477		ug/L		95	80 - 120
Cobalt	4.8		500	465		ug/L		92	80 - 120
Lead	0.84	J	500	484		ug/L		97	80 - 120
Lithium	14		500	479		ug/L		93	80 - 120
Molybdenum	<1.1		500	466		ug/L		93	80 - 120
Selenium	<0.89		1000	888		ug/L		89	80 - 120
Thallium	0.31	J	1000	933		ug/L		93	80 - 120

Lab Sample ID: 240-176379-1 MSD
Matrix: Water
Analysis Batch: 552404

Client Sample ID: 111022NOW7A
Prep Type: Total Recoverable
Prep Batch: 552040

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.57		100	98.8		ug/L		99	80 - 120	4	20
Arsenic	<0.75		1000	894		ug/L		89	80 - 120	1	20
Barium	300		1000	1310		ug/L		101	80 - 120	3	20
Beryllium	<0.62		500	454		ug/L		91	80 - 120	2	20
Cadmium	0.21	J	500	471		ug/L		94	80 - 120	3	20
Calcium	45000		25000	67700		ug/L		92	80 - 120	0	20
Chromium	<2.5		500	470		ug/L		94	80 - 120	1	20
Cobalt	4.8		500	452		ug/L		90	80 - 120	3	20
Lead	0.84	J	500	485		ug/L		97	80 - 120	0	20
Lithium	14		500	461		ug/L		90	80 - 120	4	20
Molybdenum	<1.1		500	455		ug/L		91	80 - 120	2	20
Selenium	<0.89		1000	878		ug/L		88	80 - 120	1	20

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

Lab Sample ID: 240-176379-1 MSD
Matrix: Water
Analysis Batch: 552404

Client Sample ID: 111022NOW7A
Prep Type: Total Recoverable
Prep Batch: 552040

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Thallium	0.31	J	1000	932		ug/L		93	80 - 120	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-552044/1-A
Matrix: Water
Analysis Batch: 552327

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 552044

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		11/15/22 12:00	11/16/22 13:35	1

Lab Sample ID: LCS 240-552044/2-A
Matrix: Water
Analysis Batch: 552327

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 552044

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.65		ug/L		113	80 - 120

Lab Sample ID: 240-176379-1 MS
Matrix: Water
Analysis Batch: 552327

Client Sample ID: 111022NOW7A
Prep Type: Total/NA
Prep Batch: 552044

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.13	F1	1.00	1.25	F1	ug/L		125	80 - 120

Lab Sample ID: 240-176379-1 MSD
Matrix: Water
Analysis Batch: 552327

Client Sample ID: 111022NOW7A
Prep Type: Total/NA
Prep Batch: 552044

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.13	F1	1.00	1.10		ug/L		110	80 - 120	13	20

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-554976/3
Matrix: Water
Analysis Batch: 554976

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.28		1.0	0.28	mg/L			12/07/22 17:00	1
Fluoride	<0.024		0.050	0.024	mg/L			12/07/22 17:00	1
Sulfate	<0.35		1.0	0.35	mg/L			12/07/22 17:00	1

Lab Sample ID: LCS 240-554976/4
Matrix: Water
Analysis Batch: 554976

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.0		mg/L		102	90 - 110
Fluoride	2.50	2.62		mg/L		105	90 - 110
Sulfate	50.0	52.9		mg/L		106	90 - 110

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: 240-176379-1 MS
Matrix: Water
Analysis Batch: 554976

Client Sample ID: 111022NOW7A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	100		50.0	149		mg/L		95	80 - 120
Fluoride	0.14		2.50	2.79		mg/L		106	80 - 120
Sulfate	11		50.0	64.4		mg/L		108	80 - 120

Lab Sample ID: 240-176379-1 MSD
Matrix: Water
Analysis Batch: 554976

Client Sample ID: 111022NOW7A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	100		50.0	149		mg/L		95	80 - 120	0	15
Fluoride	0.14		2.50	2.78		mg/L		105	80 - 120	0	15
Sulfate	11		50.0	64.6		mg/L		108	80 - 120	0	15

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

Lab Sample ID: MB 180-418415/1
Matrix: Water
Analysis Batch: 418415

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			11/16/22 16:25	1

Lab Sample ID: LCS 180-418415/2
Matrix: Water
Analysis Batch: 418415

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	388	380		mg/L		98	85 - 115

Lab Sample ID: 240-176379-3 DU
Matrix: Water
Analysis Batch: 418415

Client Sample ID: 111022NOW2A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	370		363		mg/L		0.8	10

Lab Sample ID: 240-176379-5 DU
Matrix: Water
Analysis Batch: 418415

Client Sample ID: 111022NOW10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	400		405		mg/L		1	10

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-590323/1-A
Matrix: Water
Analysis Batch: 592803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 590323

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02493	U	0.107	0.107	1.00	0.204	pCi/L	11/16/22 11:38	12/08/22 08:59	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.8*		*40 - 110*	*11/16/22 11:38*	*12/08/22 08:59*	*1*

Lab Sample ID: LCS 160-590323/2-A
Matrix: Water
Analysis Batch: 592803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 590323

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	10.89		1.24	1.00	0.179	pCi/L	96	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.4*		*40 - 110*

Lab Sample ID: 240-176379-1 MS
Matrix: Water
Analysis Batch: 592803

Client Sample ID: 111022NOW7A
Prep Type: Total/NA
Prep Batch: 590323

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226	0.301	U	22.5	21.52		2.46	1.00	0.451	pCi/L	94	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*93.0*		*40 - 110*

Lab Sample ID: 240-176379-1 MSD
Matrix: Water
Analysis Batch: 592803

Client Sample ID: 111022NOW7A
Prep Type: Total/NA
Prep Batch: 590323

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	0.301	U	22.5	23.24		2.65	1.00	0.494	pCi/L	102	60 - 140	0.33	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*78.0*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-590327/1-A
Matrix: Water
Analysis Batch: 592516

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 590327

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.6092		0.294	0.299	1.00	0.382	pCi/L	11/16/22 12:07	12/06/22 12:00	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	99.8		40 - 110	11/16/22 12:07	12/06/22 12:00	1
Y Carrier	84.9		40 - 110	11/16/22 12:07	12/06/22 12:00	1

Lab Sample ID: LCS 160-590327/2-A **Client Sample ID: Lab Control Sample**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 592516 **Prep Batch: 590327**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.38	7.490		1.06	1.00	0.456	pCi/L	89	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	95.4		40 - 110
Y Carrier	85.2		40 - 110

Lab Sample ID: 240-176379-1 MS **Client Sample ID: 111022NOW7A**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 592516 **Prep Batch: 590327**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228	1.41		16.7	19.73		2.64	1.00	1.03	pCi/L	110	60 - 140		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	93.0		40 - 110
Y Carrier	81.9		40 - 110

Lab Sample ID: 240-176379-1 MSD **Client Sample ID: 111022NOW7A**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 592516 **Prep Batch: 590327**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	1.41		16.7	21.97		3.00	1.00	1.39	pCi/L	123	60 - 140	0.40	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	78.0		40 - 110
Y Carrier	84.5		40 - 110

Metals

Prep Batch: 552040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176379-1	111022NOW7A	Total Recoverable	Water	3005A	
240-176379-2	111022NOW8	Total Recoverable	Water	3005A	
240-176379-3	111022NOW2A	Total Recoverable	Water	3005A	
240-176379-4	111022NOW4A	Total Recoverable	Water	3005A	
240-176379-5	111022NOW10	Total Recoverable	Water	3005A	
240-176379-6	111022NOW12	Total Recoverable	Water	3005A	
240-176379-7	111022NOW13	Total Recoverable	Water	3005A	
240-176379-8	111122FBFieldBlank	Total Recoverable	Water	3005A	
240-176379-9	111022FDDuplicate	Total Recoverable	Water	3005A	
MB 240-552040/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-552040/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-552040/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-176379-1 MS	111022NOW7A	Total Recoverable	Water	3005A	
240-176379-1 MS	111022NOW7A	Total Recoverable	Water	3005A	
240-176379-1 MSD	111022NOW7A	Total Recoverable	Water	3005A	
240-176379-1 MSD	111022NOW7A	Total Recoverable	Water	3005A	

Prep Batch: 552044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176379-1	111022NOW7A	Total/NA	Water	7470A	
240-176379-2	111022NOW8	Total/NA	Water	7470A	
240-176379-3	111022NOW2A	Total/NA	Water	7470A	
240-176379-4	111022NOW4A	Total/NA	Water	7470A	
240-176379-5	111022NOW10	Total/NA	Water	7470A	
240-176379-6	111022NOW12	Total/NA	Water	7470A	
240-176379-7	111022NOW13	Total/NA	Water	7470A	
240-176379-8	111122FBFieldBlank	Total/NA	Water	7470A	
240-176379-9	111022FDDuplicate	Total/NA	Water	7470A	
MB 240-552044/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-552044/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-176379-1 MS	111022NOW7A	Total/NA	Water	7470A	
240-176379-1 MSD	111022NOW7A	Total/NA	Water	7470A	

Analysis Batch: 552252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176379-1	111022NOW7A	Total Recoverable	Water	6010D	552040
240-176379-2	111022NOW8	Total Recoverable	Water	6010D	552040
240-176379-3	111022NOW2A	Total Recoverable	Water	6010D	552040
240-176379-4	111022NOW4A	Total Recoverable	Water	6010D	552040
240-176379-5	111022NOW10	Total Recoverable	Water	6010D	552040
240-176379-6	111022NOW12	Total Recoverable	Water	6010D	552040
240-176379-7	111022NOW13	Total Recoverable	Water	6010D	552040
240-176379-8	111122FBFieldBlank	Total Recoverable	Water	6010D	552040
240-176379-9	111022FDDuplicate	Total Recoverable	Water	6010D	552040
MB 240-552040/1-A	Method Blank	Total Recoverable	Water	6010D	552040
LCS 240-552040/2-A	Lab Control Sample	Total Recoverable	Water	6010D	552040
240-176379-1 MS	111022NOW7A	Total Recoverable	Water	6010D	552040
240-176379-1 MSD	111022NOW7A	Total Recoverable	Water	6010D	552040

Metals

Analysis Batch: 552327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176379-1	111022NOW7A	Total/NA	Water	7470A	552044
240-176379-2	111022NOW8	Total/NA	Water	7470A	552044
240-176379-3	111022NOW2A	Total/NA	Water	7470A	552044
240-176379-4	111022NOW4A	Total/NA	Water	7470A	552044
240-176379-5	111022NOW10	Total/NA	Water	7470A	552044
240-176379-6	111022NOW12	Total/NA	Water	7470A	552044
240-176379-7	111022NOW13	Total/NA	Water	7470A	552044
240-176379-8	111122FBFieldBlank	Total/NA	Water	7470A	552044
240-176379-9	111022FDDuplicate	Total/NA	Water	7470A	552044
MB 240-552044/1-A	Method Blank	Total/NA	Water	7470A	552044
LCS 240-552044/2-A	Lab Control Sample	Total/NA	Water	7470A	552044
240-176379-1 MS	111022NOW7A	Total/NA	Water	7470A	552044
240-176379-1 MSD	111022NOW7A	Total/NA	Water	7470A	552044

Analysis Batch: 552404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176379-1	111022NOW7A	Total Recoverable	Water	6020B	552040
240-176379-2	111022NOW8	Total Recoverable	Water	6020B	552040
240-176379-3	111022NOW2A	Total Recoverable	Water	6020B	552040
240-176379-4	111022NOW4A	Total Recoverable	Water	6020B	552040
240-176379-5	111022NOW10	Total Recoverable	Water	6020B	552040
240-176379-6	111022NOW12	Total Recoverable	Water	6020B	552040
240-176379-7	111022NOW13	Total Recoverable	Water	6020B	552040
240-176379-8	111122FBFieldBlank	Total Recoverable	Water	6020B	552040
240-176379-9	111022FDDuplicate	Total Recoverable	Water	6020B	552040
MB 240-552040/1-A	Method Blank	Total Recoverable	Water	6020B	552040
LCS 240-552040/3-A	Lab Control Sample	Total Recoverable	Water	6020B	552040
240-176379-1 MS	111022NOW7A	Total Recoverable	Water	6020B	552040
240-176379-1 MSD	111022NOW7A	Total Recoverable	Water	6020B	552040

General Chemistry

Analysis Batch: 418415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176379-1	111022NOW7A	Total/NA	Water	SM 2540C	
240-176379-2	111022NOW8	Total/NA	Water	SM 2540C	
240-176379-3	111022NOW2A	Total/NA	Water	SM 2540C	
240-176379-4	111022NOW4A	Total/NA	Water	SM 2540C	
240-176379-5	111022NOW10	Total/NA	Water	SM 2540C	
240-176379-6	111022NOW12	Total/NA	Water	SM 2540C	
240-176379-7	111022NOW13	Total/NA	Water	SM 2540C	
240-176379-8	111122FBFieldBlank	Total/NA	Water	SM 2540C	
240-176379-9	111022FDDuplicate	Total/NA	Water	SM 2540C	
MB 180-418415/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-418415/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-176379-3 DU	111022NOW2A	Total/NA	Water	SM 2540C	
240-176379-5 DU	111022NOW10	Total/NA	Water	SM 2540C	

Analysis Batch: 554976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176379-1	111022NOW7A	Total/NA	Water	9056A	

General Chemistry (Continued)

Analysis Batch: 554976 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176379-2	111022NOW8	Total/NA	Water	9056A	
240-176379-2	111022NOW8	Total/NA	Water	9056A	
240-176379-3	111022NOW2A	Total/NA	Water	9056A	
240-176379-4	111022NOW4A	Total/NA	Water	9056A	
240-176379-5	111022NOW10	Total/NA	Water	9056A	
240-176379-6	111022NOW12	Total/NA	Water	9056A	
240-176379-6	111022NOW12	Total/NA	Water	9056A	
240-176379-7	111022NOW13	Total/NA	Water	9056A	
240-176379-8	111122FBFieldBlank	Total/NA	Water	9056A	
240-176379-9	111022FDDuplicate	Total/NA	Water	9056A	
MB 240-554976/3	Method Blank	Total/NA	Water	9056A	
LCS 240-554976/4	Lab Control Sample	Total/NA	Water	9056A	
240-176379-1 MS	111022NOW7A	Total/NA	Water	9056A	
240-176379-1 MSD	111022NOW7A	Total/NA	Water	9056A	

Rad

Prep Batch: 590323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176379-1	111022NOW7A	Total/NA	Water	PrecSep-21	
240-176379-2	111022NOW8	Total/NA	Water	PrecSep-21	
240-176379-3	111022NOW2A	Total/NA	Water	PrecSep-21	
240-176379-4	111022NOW4A	Total/NA	Water	PrecSep-21	
240-176379-5	111022NOW10	Total/NA	Water	PrecSep-21	
240-176379-6	111022NOW12	Total/NA	Water	PrecSep-21	
240-176379-7	111022NOW13	Total/NA	Water	PrecSep-21	
240-176379-8	111122FBFieldBlank	Total/NA	Water	PrecSep-21	
240-176379-9	111022FDDuplicate	Total/NA	Water	PrecSep-21	
MB 160-590323/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-590323/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-176379-1 MS	111022NOW7A	Total/NA	Water	PrecSep-21	
240-176379-1 MSD	111022NOW7A	Total/NA	Water	PrecSep-21	

Prep Batch: 590327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-176379-1	111022NOW7A	Total/NA	Water	PrecSep_0	
240-176379-2	111022NOW8	Total/NA	Water	PrecSep_0	
240-176379-3	111022NOW2A	Total/NA	Water	PrecSep_0	
240-176379-4	111022NOW4A	Total/NA	Water	PrecSep_0	
240-176379-5	111022NOW10	Total/NA	Water	PrecSep_0	
240-176379-6	111022NOW12	Total/NA	Water	PrecSep_0	
240-176379-7	111022NOW13	Total/NA	Water	PrecSep_0	
240-176379-8	111122FBFieldBlank	Total/NA	Water	PrecSep_0	
240-176379-9	111022FDDuplicate	Total/NA	Water	PrecSep_0	
MB 160-590327/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-590327/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-176379-1 MS	111022NOW7A	Total/NA	Water	PrecSep_0	
240-176379-1 MSD	111022NOW7A	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Dominion Energy Services, Inc.
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Job ID: 240-176379-1

Client Sample ID: 111022NOW7A
Date Collected: 11/10/22 11:40
Date Received: 11/12/22 09:10

Lab Sample ID: 240-176379-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6010D		1	552252	RKT	EET CAN	11/16/22 18:19
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6020B		1	552404	AJC	EET CAN	11/16/22 20:11
Total/NA	Prep	7470A			552044	SHB	EET CAN	11/15/22 12:00
Total/NA	Analysis	7470A		1	552327	DSH	EET CAN	11/16/22 13:39
Total/NA	Analysis	9056A		1	554976	JMB	EET CAN	12/08/22 02:25
Total/NA	Analysis	SM 2540C		1	418415	LWM	EET PIT	11/16/22 16:25
Total/NA	Prep	PrecSep-21			590323	DJP	EET SL	11/16/22 11:38
Total/NA	Analysis	9315		1	592803	FLC	EET SL	12/08/22 09:00
Total/NA	Prep	PrecSep_0			590327	DJP	EET SL	11/16/22 12:07
Total/NA	Analysis	9320		1	592516	FLC	EET SL	12/06/22 12:01
Total/NA	Analysis	Ra226_Ra228 Pos		1	593443	SCB	EET SL	12/13/22 10:26

Client Sample ID: 111022NOW8
Date Collected: 11/10/22 11:36
Date Received: 11/12/22 09:10

Lab Sample ID: 240-176379-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6010D		1	552252	RKT	EET CAN	11/16/22 18:40
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6020B		1	552404	AJC	EET CAN	11/16/22 20:22
Total/NA	Prep	7470A			552044	SHB	EET CAN	11/15/22 12:00
Total/NA	Analysis	7470A		1	552327	DSH	EET CAN	11/16/22 13:46
Total/NA	Analysis	9056A		1	554976	JMB	EET CAN	12/08/22 03:30
Total/NA	Analysis	9056A		5	554976	JMB	EET CAN	12/08/22 03:52
Total/NA	Analysis	SM 2540C		1	418415	LWM	EET PIT	11/16/22 16:25
Total/NA	Prep	PrecSep-21			590323	DJP	EET SL	11/16/22 11:38
Total/NA	Analysis	9315		1	592803	FLC	EET SL	12/08/22 09:01
Total/NA	Prep	PrecSep_0			590327	DJP	EET SL	11/16/22 12:07
Total/NA	Analysis	9320		1	592516	FLC	EET SL	12/06/22 12:02
Total/NA	Analysis	Ra226_Ra228 Pos		1	593443	SCB	EET SL	12/13/22 10:26

Client Sample ID: 111022NOW2A
Date Collected: 11/10/22 13:40
Date Received: 11/12/22 09:10

Lab Sample ID: 240-176379-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6010D		1	552252	RKT	EET CAN	11/16/22 18:53
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6020B		1	552404	AJC	EET CAN	11/16/22 20:25

Client Sample ID: 111022NOW2A

Lab Sample ID: 240-176379-3

Date Collected: 11/10/22 13:40

Matrix: Water

Date Received: 11/12/22 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			552044	SHB	EET CAN	11/15/22 12:00
Total/NA	Analysis	7470A		1	552327	DSH	EET CAN	11/16/22 13:48
Total/NA	Analysis	9056A		1	554976	JMB	EET CAN	12/08/22 04:14
Total/NA	Analysis	SM 2540C		1	418415	LWM	EET PIT	11/16/22 16:25
Total/NA	Prep	PrecSep-21			590323	DJP	EET SL	11/16/22 11:38
Total/NA	Analysis	9315		1	592803	FLC	EET SL	12/08/22 09:01
Total/NA	Prep	PrecSep_0			590327	DJP	EET SL	11/16/22 12:07
Total/NA	Analysis	9320		1	592516	FLC	EET SL	12/06/22 12:02
Total/NA	Analysis	Ra226_Ra228 Pos		1	593443	SCB	EET SL	12/13/22 10:26

Client Sample ID: 111022NOW4A

Lab Sample ID: 240-176379-4

Date Collected: 11/10/22 15:32

Matrix: Water

Date Received: 11/12/22 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6010D		1	552252	RKT	EET CAN	11/16/22 18:57
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6020B		1	552404	AJC	EET CAN	11/16/22 20:32
Total/NA	Prep	7470A			552044	SHB	EET CAN	11/15/22 12:00
Total/NA	Analysis	7470A		1	552327	DSH	EET CAN	11/16/22 13:50
Total/NA	Analysis	9056A		1	554976	JMB	EET CAN	12/08/22 04:35
Total/NA	Analysis	SM 2540C		1	418415	LWM	EET PIT	11/16/22 16:25
Total/NA	Prep	PrecSep-21			590323	DJP	EET SL	11/16/22 11:38
Total/NA	Analysis	9315		1	592803	FLC	EET SL	12/08/22 09:01
Total/NA	Prep	PrecSep_0			590327	DJP	EET SL	11/16/22 12:07
Total/NA	Analysis	9320		1	592516	FLC	EET SL	12/06/22 12:02
Total/NA	Analysis	Ra226_Ra228 Pos		1	593443	SCB	EET SL	12/13/22 10:26

Client Sample ID: 111022NOW10

Lab Sample ID: 240-176379-5

Date Collected: 11/10/22 15:20

Matrix: Water

Date Received: 11/12/22 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6010D		1	552252	RKT	EET CAN	11/16/22 19:01
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6020B		1	552404	AJC	EET CAN	11/16/22 20:35
Total/NA	Prep	7470A			552044	SHB	EET CAN	11/15/22 12:00
Total/NA	Analysis	7470A		1	552327	DSH	EET CAN	11/16/22 13:52
Total/NA	Analysis	9056A		1	554976	JMB	EET CAN	12/08/22 04:57
Total/NA	Analysis	SM 2540C		1	418415	LWM	EET PIT	11/16/22 16:25
Total/NA	Prep	PrecSep-21			590323	DJP	EET SL	11/16/22 11:38
Total/NA	Analysis	9315		1	592803	FLC	EET SL	12/08/22 09:01

Lab Chronicle

Client: Dominion Energy Services, Inc.
Job ID: 240-176379-1
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Client Sample ID: 111022NOW10
Lab Sample ID: 240-176379-5
Date Collected: 11/10/22 15:20
Matrix: Water
Date Received: 11/12/22 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep_0			590327	DJP	EET SL	11/16/22 12:07
Total/NA	Analysis	9320		1	592516	FLC	EET SL	12/06/22 12:02
Total/NA	Analysis	Ra226_Ra228 Pos		1	593443	SCB	EET SL	12/13/22 10:26

Client Sample ID: 111022NOW12
Lab Sample ID: 240-176379-6
Date Collected: 11/10/22 16:35
Matrix: Water
Date Received: 11/12/22 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6010D		1	552252	RKT	EET CAN	11/16/22 19:05
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6020B		1	552404	AJC	EET CAN	11/16/22 20:37
Total/NA	Prep	7470A			552044	SHB	EET CAN	11/15/22 12:00
Total/NA	Analysis	7470A		1	552327	DSH	EET CAN	11/16/22 13:54
Total/NA	Analysis	9056A		1	554976	JMB	EET CAN	12/08/22 06:02
Total/NA	Analysis	9056A		5	554976	JMB	EET CAN	12/08/22 06:24
Total/NA	Analysis	SM 2540C		1	418415	LWM	EET PIT	11/16/22 16:25
Total/NA	Prep	PrecSep-21			590323	DJP	EET SL	11/16/22 11:38
Total/NA	Analysis	9315		1	592785	CLP	EET SL	12/08/22 14:33
Total/NA	Prep	PrecSep_0			590327	DJP	EET SL	11/16/22 12:07
Total/NA	Analysis	9320		1	592516	FLC	EET SL	12/06/22 12:03
Total/NA	Analysis	Ra226_Ra228 Pos		1	593443	SCB	EET SL	12/13/22 10:26

Client Sample ID: 111022NOW13
Lab Sample ID: 240-176379-7
Date Collected: 11/10/22 14:02
Matrix: Water
Date Received: 11/12/22 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6010D		1	552252	RKT	EET CAN	11/16/22 19:10
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6020B		1	552404	AJC	EET CAN	11/16/22 20:40
Total/NA	Prep	7470A			552044	SHB	EET CAN	11/15/22 12:00
Total/NA	Analysis	7470A		1	552327	DSH	EET CAN	11/16/22 14:01
Total/NA	Analysis	9056A		1	554976	JMB	EET CAN	12/08/22 06:46
Total/NA	Analysis	SM 2540C		1	418415	LWM	EET PIT	11/16/22 16:25
Total/NA	Prep	PrecSep-21			590323	DJP	EET SL	11/16/22 11:38
Total/NA	Analysis	9315		1	592785	CLP	EET SL	12/08/22 14:33
Total/NA	Prep	PrecSep_0			590327	DJP	EET SL	11/16/22 12:07
Total/NA	Analysis	9320		1	592516	FLC	EET SL	12/06/22 12:03
Total/NA	Analysis	Ra226_Ra228 Pos		1	593443	SCB	EET SL	12/13/22 10:26

Lab Chronicle

Client: Dominion Energy Services, Inc.
Job ID: 240-176379-1
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Client Sample ID: 111122FBFieldBlank
Lab Sample ID: 240-176379-8
Date Collected: 11/11/22 11:50
Matrix: Water
Date Received: 11/12/22 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6010D		1	552252	RKT	EET CAN	11/16/22 19:14
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6020B		1	552404	AJC	EET CAN	11/16/22 20:45
Total/NA	Prep	7470A			552044	SHB	EET CAN	11/15/22 12:00
Total/NA	Analysis	7470A		1	552327	DSH	EET CAN	11/16/22 14:03
Total/NA	Analysis	9056A		1	554976	JMB	EET CAN	12/08/22 07:07
Total/NA	Analysis	SM 2540C		1	418415	LWM	EET PIT	11/16/22 16:25
Total/NA	Prep	PrecSep-21			590323	DJP	EET SL	11/16/22 11:38
Total/NA	Analysis	9315		1	592785	CLP	EET SL	12/08/22 14:33
Total/NA	Prep	PrecSep_0			590327	DJP	EET SL	11/16/22 12:07
Total/NA	Analysis	9320		1	592516	FLC	EET SL	12/06/22 12:03
Total/NA	Analysis	Ra226_Ra228 Pos		1	593443	SCB	EET SL	12/13/22 10:26

Client Sample ID: 111022FDDuplicate
Lab Sample ID: 240-176379-9
Date Collected: 11/10/22 13:55
Matrix: Water
Date Received: 11/12/22 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6010D		1	552252	RKT	EET CAN	11/16/22 19:18
Total Recoverable	Prep	3005A			552040	SHB	EET CAN	11/15/22 12:00
Total Recoverable	Analysis	6020B		1	552404	AJC	EET CAN	11/16/22 20:47
Total/NA	Prep	7470A			552044	SHB	EET CAN	11/15/22 12:00
Total/NA	Analysis	7470A		1	552327	DSH	EET CAN	11/16/22 14:05
Total/NA	Analysis	9056A		1	554976	JMB	EET CAN	12/08/22 07:29
Total/NA	Analysis	SM 2540C		1	418415	LWM	EET PIT	11/16/22 16:25
Total/NA	Prep	PrecSep-21			590323	DJP	EET SL	11/16/22 11:38
Total/NA	Analysis	9315		1	592785	CLP	EET SL	12/08/22 14:33
Total/NA	Prep	PrecSep_0			590327	DJP	EET SL	11/16/22 12:07
Total/NA	Analysis	9320		1	592516	FLC	EET SL	12/06/22 12:03
Total/NA	Analysis	Ra226_Ra228 Pos		1	593443	SCB	EET SL	12/13/22 10:26

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Dominion Energy Services, Inc. Job ID: 240-176379-1
Project/Site: 2SA22-MSPS-LVWSP-Group D-1-1

Laboratory: Eurofins Canton

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

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	210	12-31-22

Laboratory: Eurofins Pittsburgh

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

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	142	11-30-22

Laboratory: Eurofins St. Louis

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	381	12-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Ra226_Ra228 Pos		Water	Radium 226 and 228

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

2.8/3.5 3.5/4.2 COC ID: 252422-MSPS-LVWSP-GroupD-1-1

Chain of Custody Record

tracking ID's: 816698104564; 816698104553; 816698104509

eurofins | Environment Testing America

Client Information	Sampler: U. Strum Utt, M. Kunz/mk	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-100518-34712.1
Client Contact: ~~Rachel Powell~~ vs Crystal Shadle	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: WV	Page: Page 1 of 2
Company: Golder Associates Inc.	PWSID:			Job #:
Address: 2108 W Laburnum Ave, Suite 200	Due Date Requested:			
City: Richmond	TAT Requested (days): Standard TAT			
State, Zip: VA, 23227	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 50168481			
Email: ~~rachel_powell@golder.com~~ vs Crystal.Shadle@wsp.com	WO #: 2013993622			
Project Name: Mount Storm Power Station	Project #: 24021758			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

240-176379 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228	2540C_Calcd - TDS	6010C, 6020A, 7470A	9056A_28D - Cl, F, SO4	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
~~10~~ ~~22NOW7A~~ mk 111022NOW7A	11/10/22	1140	G	Water			2	1	1	1	5	-All samples
~~10~~ ~~22NOW8~~ mk 111022NOW8	11/10/22	1136	G	Water			2	1	1	1	5	preserved on ice
~~10~~ ~~22NOW2A~~ mk 111022NOW2A	11/10/22	1340	G	Water			2	1	1	1	5	
~~10~~ ~~22NOW4A~~ mk 111022NOW4A	11/10/22	1532	G	Water			2	1	1	1	5	
~~10~~ ~~22NOW10~~ mk 111022NOW10	11/10/22	1520	G	Water			2	1	1	1	5	
~~10~~ ~~22NOW12~~ mk 111022NOW12	11/10/22	1635	G	Water			2	1	1	1	5	
~~10~~ ~~22NOW13~~ mk 111022NOW13	11/10/22	1402	G	Water			2	1	1	1	5	
~~10~~ mk 1111 22FBField Blank	11/11/22	1150	G	Water			2	1	1	1	5	
~~10~~ mk 1110 22FDDuplicate	11/10/22	1355	G	Water			2	1	1	1	5	
~~10~~ mk 1110 22MSMatrixSpike	11/10/22	1140	G	Water			2	1	1	1	5	
~~10~~ mk 1110 22MSDMatrixSpikeDup	11/10/22	1140	G	Water			2	1	1	1	5	

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

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
M. Kunz	11/11/22 @	Golder	Adam Gonser	11-12-22 910	EEN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Virginia Beach #202

Eurofins - Canton Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Gelder Dominion Site Name _____ Cooler unpacked by: Adam Jenney

Cooler Received on 11-12-22 Opened on 11-14-22

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # 1 Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☒ See Multiple Cooler Form
   IR GUN# IR-13 (CF +0.7 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #IR-15 (CF 0.0°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 ea	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? KM 11-14-22	~~Yes~~	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	Yes	No
11. Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC286797
14. Were VOAs on the COC?	Yes	No
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes	No
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

Did not receive MS/MSD volume for
11022 NOW + sampled on 11/10/22 @ 1140 and
11022 FD Duplicate sampled on 11/10/22 @ 1355

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Eurofins - Canton Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Golder Dominion Site Name _____ Cooler unpacked by: Adam Gohrung

Cooler Received on 11-14-22 Opened on 11-14-22

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-13 (CF +0.7 °C) Observed Cooler Temp. 10.8 °C Corrected Cooler Temp. 11.5 °C
   IR GUN #IR-15 (CF 0.0°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity_____	Yes	No		
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No	NA	
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No		
-Were tamper/custody seals intact and uncompromised?	Yes	No	NA	
3. Shippers' packing slip attached to the cooler(s)?	Yes	No		
4. Did custody papers accompany the sample(s)?	Yes	No		
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No		
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No		
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No		
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No		
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?				
10. Were correct bottle(s) used for the test(s) indicated?	Yes	No		
11. Sufficient quantity received to perform indicated analyses?	Yes	No		
12. Are these work share samples and all listed on the COC?	Yes	No		
If yes, Questions 13-17 have been checked at the originating laboratory.				
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No	NA	pH Strip Lot# **HC286797**
14. Were VOAs on the COC?	Yes	No		
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No	NA	
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes	No		
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	No		

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

Received MS/MSD volume for 111022 NOW74 and 1110 FD Duplicate volume Monday 11-4-22 out of temp. Out of temp bottles marked with a blue line on the lid.

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login # : ______________

Eurofins - Canton Sample Receipt Multiple Cooler Form				
Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
TA Client Box Other	IR-13 IR-15	2.8	3.5	Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15	3.5	4.2	Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15	3.2	3.9	Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15	1.3	2.0	Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15	2.2	2.9	Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-13 IR-15			Wet Ice Blue Ice Dry Ice Water None
				☐ See Temperature Excursion Form

WI-NC-099 Cooler Receipt Form Page 2 – Multiple Coolers

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
111022NOW7A	240-176379-G-1	Plastic 500ml - with Nitric Acid	<2			
111022NOW7A	240-176379-H-1	Plastic 500ml - with Nitric Acid	<2			
111022NOW7A	240-176379-I-1	Plastic 500ml - with Nitric Acid	<2			
111022NOW7A	240-176379-J-1	Plastic 1 liter - Nitric Acid	<2			
111022NOW7A	240-176379-K-1	Plastic 1 liter - Nitric Acid	<2			
111022NOW7A	240-176379-L-1	Plastic 1 liter - Nitric Acid	<2			
111022NOW7A	240-176379-M-1	Plastic 1 liter - Nitric Acid	<2			
111022NOW7A	240-176379-N-1	Plastic 1 liter - Nitric Acid	<2			
111022NOW7A	240-176379-O-1	Plastic 1 liter - Nitric Acid	<2			
111022NOW8	240-176379-C-2	Plastic 500ml - with Nitric Acid	<2			
111022NOW8	240-176379-D-2	Plastic 1 liter - Nitric Acid	<2			
111022NOW8	240-176379-E-2	Plastic 1 liter - Nitric Acid	<2			
111022NOW2A	240-176379-C-3	Plastic 500ml - with Nitric Acid	<2			
111022NOW2A	240-176379-D-3	Plastic 1 liter - Nitric Acid	<2			
111022NOW2A	240-176379-E-3	Plastic 1 liter - Nitric Acid	<2			
111022NOW4A	240-176379-C-4	Plastic 500ml - with Nitric Acid	<2			
111022NOW4A	240-176379-D-4	Plastic 1 liter - Nitric Acid	<2			
111022NOW4A	240-176379-E-4	Plastic 1 liter - Nitric Acid	<2			
111022NOW10	240-176379-C-5	Plastic 500ml - with Nitric Acid	<2			
111022NOW10	240-176379-D-5	Plastic 1 liter - Nitric Acid	<2			
111022NOW10	240-176379-E-5	Plastic 1 liter - Nitric Acid	<2			
111022NOW12	240-176379-C-6	Plastic 500ml - with Nitric Acid	<2			
111022NOW12	240-176379-D-6	Plastic 1 liter - Nitric Acid	<2			
111022NOW12	240-176379-E-6	Plastic 1 liter - Nitric Acid	<2			
111022NOW13	240-176379-C-7	Plastic 500ml - with Nitric Acid	<2			
111022NOW13	240-176379-D-7	Plastic 1 liter - Nitric Acid	<2			
111022NOW13	240-176379-E-7	Plastic 1 liter - Nitric Acid	<2			
111122FB FIELD BLANK	240-176379-C-8	Plastic 500ml - with Nitric Acid	<2			
111122FB FIELD BLANK	240-176379-D-8	Plastic 1 liter - Nitric Acid	<2			
111122FB FIELD BLANK	240-176379-E-8	Plastic 1 liter - Nitric Acid	<2			
111122FD FIELD DUPLICATE	240-176379-C-9	Plastic 500ml - with Nitric Acid	<2			
111122FD FIELD DUPLICATE	240-176379-D-9	Plastic 1 liter - Nitric Acid	<2			
111122FD FIELD DUPLICATE	240-176379-E-9	Plastic 1 liter - Nitric Acid	<2			

Do not lift using this tag.

240-176379 Waybill

ORIGIN ID:CAKA (330) 312-0176
EUROFINS TESTAMERICA SHIPPING
100 S VAN BUREN
BARBERTON, OH 44203
UNITED STATES US

SHIP DATE: 14NOV22
ACTWGT: 36.96 LB MAN
CAD: 0562071/CAFE3616
BILL THIRD PARTY

TO DAVID ROMAN
TESTAMERICA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058 REF: 8240-101663
DEPT: AL HAIDET

Uncorrected temp 1.7 °C
Thermometer ID 20
CF 0 Initials MD
PT-WI-SR-001 effective 11/8/18

FedEx Express

1 of 3
TRK# 0201 6049 7599 2630
##MASTER##

TUE - 15 NOV 10:30A
PRIORITY OVERNIGHT

65 AGCA

15238
PA-US PIT

EXP 05/23 ••

577C5/E388/4328

ORIGIN ID:CAKA (330) 312-0176
EUROFINS TESTAMERICA SHIPPING
100 S VAN BUREN
BARBERTON, OH 44203
UNITED STATES US

SHIP DATE: 14NOV22
ACTWGT: 36.96 LB MAN
CAD: 0562071/CAFE3616
BILL THIRD PARTY

TO DAVID ROMAN
TESTAMERICA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058 REF: 8240-101663
DEPT: AL HAIDET

Uncorrected temp
Thermometer ID 20
CF 0 Initials MD
PT-WI-SR-001 effective 11/8/18

FedEx Express

2 of 3
MPS# 0263 6049 7599 2640
Mstr# 6049 7599 2630
0201

TUE - 15 NOV 10:30A
PRIORITY OVERNIGHT

65 AGCA

15238
PA-US PIT

#159470-434 MTW EXP 05/23 ••

577C5/E388/4328

Page 49 of 56

12/13/2022

Do not lift using this tag.

Part # 159470-434 MTW EXP 05/23

ORIGIN ID:CAKA (330) 312-0176
EUROFINS TESTAMERICA SHIPPING
100 S VAN BUREN
BARBERTON, OH 44203
UNITED STATES US

SHIP DATE: 14NOV22
ACTWGT: 36.86 LB MAN
CAD: 0562071/CAFE3616

BILL THIRD PARTY

TO DAVID ROMAN
TESTAMERICA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058 REF: 8240-101663
DEPT: AL HAIDET

Uncorrected temp 15.0
Thermometer ID 22
Initials MH
CF 0
PT-WI-SR-001 effective 11/8/18

FedEx Express

TUE - 15 NOV 10:30A
PRIORITY OVERNIGHT

3 of 3
MPS# 0283 6049 7599 2651
Mstr# 6049 7599 2630
0201

65 AGCA

15238
PA-US PIT

Part # 159470-434 MTW EXP 05/23

ORIGIN ID:CAKA (330) 312-0176
EUROFINS TESTAMERICA SHIPPING
100 S VAN BUREN
BARBERTON, OH 44203
UNITED STATES US

SHIP DATE: 14NOV22
ACTWGT: 43.80 LB
CAD: 0562071/CAFE3616

BILL THIRD PARTY

TO DAVID ROMAN
TESTAMERICA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058 REF: 8240-95004
DEPT: AL HAIDET

Uncorrected temp 15.0
Thermometer ID 22
Initials MH
CF 0
PT-WI-SR-001 effective 11/8/18

FedEx Express

TUE - 15 NOV 10:30A
PRIORITY OVERNIGHT

TRK# 0201 6049 7599 3007

65 AGCA

15238
PA-US PIT

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-160677.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: West Virginia	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - West Virginia DEP		Job #: 240-176379-1
Address: 13715 Rider Trail North,	Due Date Requested: 11/29/2022			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: 2SA22-MSPS-LVWSP-Group D-1-1	Project #: 24021758			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium 226	9320_Ra228/PrecSep_0 Radium 228	Ra226_228GFPC_P/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
111022NOW7A (240-176379-1)	11/10/22	11:40 Eastern		Water			X	X	X	6	
111022NOW7A (240-176379-1MS)	11/10/22	11:40 Eastern	MS	Water			X	X	X	1	
111022NOW7A (240-176379-1MSD)	11/10/22	11:40 Eastern	MSD	Water			X	X	X	1	
111022NOW8 (240-176379-2)	11/10/22	11:36 Eastern		Water			X	X	X	2	
111022NOW2A (240-176379-3)	11/10/22	13:40 Eastern		Water			X	X	X	2	
111022NOW4A (240-176379-4)	11/10/22	15:32 Eastern		Water			X	X	X	2	
111022NOW10 (240-176379-5)	11/10/22	15:20 Eastern		Water			X	X	X	2	
111022NOW12 (240-176379-6)	11/10/22	16:35 Eastern		Water			X	X	X	2	
111022NOW13 (240-176379-7)	11/10/22	14:02 Eastern		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 11-14-22 1630	Company ET/NC	Received by: FED EX	Date/Time:	Company
Relinquished by: FED EX	Date/Time:	Company	Received by:	Date/Time: NOV 15 2022 0920	Company EPASC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-160677.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: West Virginia	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - West Virginia DEP		Job #: 240-176379-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/29/2022			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: 2SA22-MSPS-LVWSP-Group D-1-1	Project #: 24021758			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitnc Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium 226	9320_Ra228/PrecSep_0 Radium 228	Ra226_228GFPC_P/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
Preservation Code:											
111122FBFieldBlank (240-176379-8)	11/11/22	11:50 Eastern		Water			X	X	X	2	
111022FDDuplicate (240-176379-9)	11/10/22	13:55 Eastern		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11-422 1630	ETNC	FED EX		
Relinquished by: FED EX	Date/Time:	Company	Received by:	Date/Time: NOV 15 2022 0920	Company ETAT-L
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

12/13/2022

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-160631.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: West Virginia	Page: Page 1 of 2
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): State Program - West Virginia DEP		Job #: 240-176379-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 11/29/2022			Preservation Codes:
City: Pittsburgh	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			Other:
Email:	WO #:			
Project Name: 2SA22-MSPS-LVWSP-Group D-1-1	Project #: 24021758			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code:	2540C_Calcd_TDS	Total Number of containers	Special Instructions/Note:
111022NOW7A (240-176379-1)	11/10/22	11:40 Eastern		Water		X	1	
111022NOW7A (240-176379-1MS)	11/10/22	11:40 Eastern	MS	Water		X	1	
111022NOW7A (240-176379-1MSD)	11/10/22	11:40 Eastern	MSD	Water		X	1	
111022NOW8 (240-176379-2)	11/10/22	11:36 Eastern		Water		X	1	
111022NOW2A (240-176379-3)	11/10/22	13:40 Eastern		Water		X	1	
111022NOW4A (240-176379-4)	11/10/22	15:32 Eastern		Water		X	1	
111022NOW10 (240-176379-5)	11/10/22	15:20 Eastern		Water		X	1	
111022NOW12 (240-176379-6)	11/10/22	16:35 Eastern		Water		X	1	
111022NOW13 (240-176379-7)	11/10/22	14:02 Eastern		Water		X	1	

240-176379 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time: 11-14-22 15:10	Company ETNC	Received by:	Date/Time: 11/11/22 9:20	Company
Relinquished by	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-160631.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: West Virginia	Page: Page 2 of 2
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): State Program - West Virginia DEP		Job #: 240-176379-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 11/29/2022			
City: Pittsburgh	TAT Requested (days):			
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email:	WO #:			
Project Name: 2SA22-MSPS-LVWSP-Group D-1-1	Project #: 24021758			
Site	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd/ TDS	Total Number of containers	Special Instructions/Note:
			Preservation Codes:						
111122FBFieldBlank (240-176379-8)	11/11/22	11:50 Eastern		Water			X	1	
111022FDFieldDuplicate (240-176379-9)	11/10/22	13:55 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	11-14-22 15:10	ETNC			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time.	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Dominion Energy Services, Inc.

Job Number: 240-176379-1

Login Number: 176379
List Number: 3
Creator: Lowe, Debbie

List Source: Eurofins Pittsburgh
List Creation: 11/15/22 05:35 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Dominion Energy Services, Inc.

Job Number: 240-176379-1

Login Number: 176379
List Number: 2
Creator: Bohlmann, Jessica M

List Source: Eurofins St. Louis
List Creation: 11/15/22 10:38 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the samples collected as part of:

Mt. Storm Power Station Groundwater Sampling
Samples Collected between: 11/8/2022 and 11/11/2022

This review was performed with guidance from the associated US EPA data validation guidelines and in accordance with the Quality Assurance Program Plan. These validation guidance documents specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the US EPA, SW-846, and Standard Methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the US EPA, SW-846, and Standard Methods utilized by the laboratory. This QA review was performed on the data associated with Job Number:

2401763791

The findings offered in this report are based on a review of holding times and preservation, method blank results, field blank results, filter blank results, equipment blank results, tubing blank results, matrix spike/matrix spike duplicate recoveries and precision, laboratory control sample/laboratory control sample duplicate recoveries and precision, laboratory and field duplicate precision, total and dissolved results comparisons, and/or positive results between the method detection limit and quantitation limit.

The following results were qualified based on the data verification effort:

Sample	Location	Sample Type	Method	Anayte	T/D	Result	Qual	Reason Code(s)	MDL	QL	Uncertainty	Unit
111022NOW7A	OW-7A	N	CALC	Radium-226/228	N	1.71	U	BL,S			0.756	pCi/L
111022NOW7A	OW-7A	N	SW-846 6020B	Cadmium	T	0.21	J	RL	0.20	1.0		ug/L
111022NOW7A	OW-7A	N	SW-846 6020B	Lead	T	0.84	J	RL	0.45	1.0		ug/L
111022NOW7A	OW-7A	N	SW-846 6020B	Thallium	T	0.31	J	RL	0.20	1.0		ug/L
111022NOW7A	OW-7A	N	SW-846 9320	Radium-228	N	1.41	U	BL	1.41	1.41	0.710	pCi/L
111022NOW8	OW-8	N	SW-846 6020B	Antimony	T	0.61	J	RL	0.57	2.0		ug/L
111022NOW8	OW-8	N	SW-846 6020B	Arsenic	T	0.82	J	RL	0.75	5.0		ug/L
111022NOW8	OW-8	N	SW-846 6020B	Lithium	T	5.7	J	RL	1.7	8.0		ug/L
111022NOW8	OW-8	N	SW-846 6020B	Thallium	T	0.60	J	RL	0.20	1.0		ug/L
111022NOW2A	OW-2A	N	SW-846 6020B	Arsenic	T	0.81	J	RL	0.75	5.0		ug/L
111022NOW2A	OW-2A	N	SW-846 6020B	Cadmium	T	4.4	J	FD	0.20	1.0		ug/L
111022NOW2A	OW-2A	N	SW-846 6020B	Lead	T	0.88	J	RL	0.45	1.0		ug/L
111022NOW2A	OW-2A	N	SW-846 6020B	Thallium	T	0.45	J	RL	0.20	1.0		ug/L
111022NOW4A	OW-4A	N	SW-846 6010D	Boron	T	68	J	RL	57	100		ug/L
111022NOW4A	OW-4A	N	SW-846 6020B	Arsenic	T	0.99	J	RL	0.75	5.0		ug/L
111022NOW4A	OW-4A	N	SW-846 6020B	Cobalt	T	0.55	J	RL	0.19	1.0		ug/L
111022NOW4A	OW-4A	N	SW-846 6020B	Molybdenum	T	1.9	J	RL	1.1	5.0		ug/L
111022NOW10	OW-10	N	CALC	Radium-226/228	N	1.54	J	BL			0.534	pCi/L
111022NOW10	OW-10	N	SW-846 6010D	Boron	T	69	J	RL	57	100		ug/L
111022NOW10	OW-10	N	SW-846 6020B	Cadmium	T	0.26	J	RL	0.20	1.0		ug/L
111022NOW10	OW-10	N	SW-846 6020B	Cobalt	T	0.66	J	RL	0.19	1.0		ug/L
111022NOW10	OW-10	N	SW-846 6020B	Lithium	T	4.5	J	RL	1.7	8.0		ug/L
111022NOW10	OW-10	N	SW-846 6020B	Thallium	T	0.55	J	RL	0.20	1.0		ug/L
111022NOW10	OW-10	N	SW-846 9320	Radium-228	N	0.774	U	BL	0.774	1.00	0.458	pCi/L
111022NOW12	OW-12	N	CALC	Radium-226/228	N	1.16	J	BL			0.409	pCi/L
111022NOW12	OW-12	N	SW-846 6020B	Arsenic	T	1.3	J	RL	0.75	5.0		ug/L
111022NOW12	OW-12	N	SW-846 9056A	Fluoride	N	0.027	J	RL	0.024	0.050		mg/L
111022NOW12	OW-12	N	SW-846 9320	Radium-228	N	0.836	U	BL	0.836	1.00	0.379	pCi/L
111022NOW13	OW-13	N	CALC	Radium-226/228	N	1.54	J	BL			0.534	pCi/L
111022NOW13	OW-13	N	SW-846 6020B	Arsenic	T	4.2	J	RL	0.75	5.0		ug/L

Sample	Location	Sample Type	Method	Anayte	T/D	Result	Qual	Reason Code(s)	MDL	QL	Uncertainty	Unit
111022NOW13	OW-13	N	SW-846 6020B	Chromium	T	3.7	J	RL	2.5	5.0		ug/L
111022NOW13	OW-13	N	SW-846 9056A	Fluoride	N	0.049	J	RL	0.024	0.050		mg/L
111022NOW13	OW-13	N	SW-846 9320	Radium-228	N	1.15	U	BL	1.15	1.15	0.496	pCi/L
111022FDDUPLICATE	OW-2A	FD	SW-846 6020B	Cadmium	T	3.2	J	FD	0.20	1.0		ug/L
111022FDDUPLICATE	OW-2A	FD	SW-846 6020B	Lead	T	0.55	J	RL	0.45	1.0		ug/L

Data Qualifiers	
U	The analyte was not detected above the level of the sample reporting limit.
J	Quantitation is approximate due to limitations identified during data validation.
J+	The result is an estimated quantity; the result may be biased high.
J-	The result is an estimated quantity; the result may be biased low.
UJ	The analyte was not detected; the reporting limit is approximate and may be inaccurate or imprecise.
R	Unreliable positive result; analyte may or may not be present in sample.
Reason Codes and Explanations	
BE	Equipment blank contamination.
BF	Field blank contamination.
BL	Laboratory blank contamination.
BN	Negative laboratory blank contamination.
FD	Field duplicate imprecision.
FG	Total versus Dissolved Imprecision.
H	Holding time exceeded.
L	LCS and LCSD recoveries outside of acceptance limits
LD	Laboratory duplicate imprecision.
LP	LCS/LCSD imprecision.
M	MS and MSD recoveries outside of acceptance limits
MP	MS/MSD imprecision.
Q	Chemical Preservation issue.
RL	Reported Results between the MDL and QL.
S	Radium-226+228 flagged due to reporting protocol for combined results
T	Temperature preservation issue.
X	Percent solids < 50%.
Y	Chemical yield outside of acceptance limits
ZZ	Other

Facility: Mt. Storm Power Station
SDG: 2401763791

Lab Sample ID	240-176379-1
Sys Sample Code	111022NOW7A
Sample Name	111022NOW7A
Sample Date	11/10/2022 11:50:00 AM
Location	MSPS-LVWSP-OW-07A / OW-7A
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	1.71	U	BL,S	0.756				N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	230				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L		U			57	57	100	N	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			0.75	0.75	5.0	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L	300				2.2	2.2	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L	0.21	J	RL		0.20	0.20	1.0	Y	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	45000				580	580	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			2.5	2.5	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	4.8				0.19	0.19	1.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L	0.84	J	RL		0.45	0.45	1.0	Y	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	14				1.7	1.7	8.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L	0.31	J	RL		0.20	0.20	1.0	Y	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	100				0.28	0.28	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.14				0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	11				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.301	U		0.261	0.390	0.390	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	1.41	U	BL	0.710	1.41	1.41	1.41	N	Yes	1	NA

Facility: Mt. Storm Power Station
SDG: 2401763791

Lab Sample ID	240-176379-2
Sys Sample Code	111022NOW8
Sample Name	111022NOW8
Sample Date	11/10/2022 11:36:00 AM
Location	MSPS-LVWSP-OW-08 / OW-8
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	0.411	U		0.398				N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	710				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L		U			57	57	100	N	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L	0.61	J	RL		0.57	0.57	2.0	Y	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	0.82	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	13				2.2	2.2	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	160000				580	580	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			2.5	2.5	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	11				0.19	0.19	1.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	5.7	J	RL		1.7	1.7	8.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L	0.60	J	RL		0.20	0.20	1.0	Y	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	110				0.28	0.28	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.095				0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	310				1.7	1.7	5.0	Y	Yes	5	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.141	U		0.139	0.217	0.217	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.270	U		0.373	0.623	0.623	1.00	N	Yes	1	NA

Lab Sample ID	240-176379-3
Sys Sample Code	111022NOW2A
Sample Name	111022NOW2A
Sample Date	11/10/2022 1:40:00 PM
Location	MSPS-LVWSP-OW-02A / OW-2A
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	3.28			0.656				Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	370				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L		U			57	57	100	N	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	0.81	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	180				2.2	2.2	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L	4.4	J	FD		0.20	0.20	1.0	Y	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	28000				580	580	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			2.5	2.5	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	440				0.19	0.19	1.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L	0.88	J	RL		0.45	0.45	1.0	Y	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			1.7	1.7	8.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L	0.45	J	RL		0.20	0.20	1.0	Y	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	92				0.28	0.28	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.13				0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	130				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	1.20			0.322	0.269	0.269	1.00	Y	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	2.08			0.571	0.549	0.549	1.00	Y	Yes	1	NA

Lab Sample ID	240-176379-4
Sys Sample Code	111022NOW4A
Sample Name	111022NOW4A
Sample Date	11/10/2022 3:32:00 PM
Location	MSPS-LVWSP-OW-04A / OW-4A
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	0.424	U		0.368				N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	130				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L	68	J	RL		57	57	100	Y	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	0.99	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	85				2.2	2.2	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	28000				580	580	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			2.5	2.5	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	0.55	J	RL		0.19	0.19	1.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			1.7	1.7	8.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	1.9	J	RL		1.1	1.1	5.0	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	7.6				0.28	0.28	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.087				0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	25				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.118	U		0.137	0.222	0.222	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.306	U		0.342	0.557	0.557	1.00	N	Yes	1	NA

Lab Sample ID	240-176379-5
Sys Sample Code	111022NOW10
Sample Name	111022NOW10
Sample Date	11/10/2022 3:20:00 PM
Location	MSPS-LVWSP-OW-10 / OW-10
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	1.54	J	BL	0.534				Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	400				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L	69	J	RL		57	57	100	Y	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			0.75	0.75	5.0	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L	450				2.2	2.2	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L	0.26	J	RL		0.20	0.20	1.0	Y	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	75000				580	580	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			2.5	2.5	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	0.66	J	RL		0.19	0.19	1.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	4.5	J	RL		1.7	1.7	8.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L	0.55	J	RL		0.20	0.20	1.0	Y	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	57				0.28	0.28	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.11				0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	34				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.763			0.275	0.267	0.268	1.00	Y	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.774	U	BL	0.458	0.774	0.774	1.00	N	Yes	1	NA

Facility: Mt. Storm Power Station
SDG: 2401763791

Lab Sample ID	240-176379-6
Sys Sample Code	111022NOW12
Sample Name	111022NOW12
Sample Date	11/10/2022 4:35:00 PM
Location	MSPS-LVWSP-OW-12 / OW-12
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	1.16	J	BL	0.409				Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	580				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L	140				57	57	100	Y	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	1.3	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	63				2.2	2.2	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	99000				580	580	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			2.5	2.5	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	69				0.19	0.19	1.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			1.7	1.7	8.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	130				0.28	0.28	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.027	J	RL		0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	240				1.7	1.7	5.0	Y	Yes	5	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.324			0.154	0.168	0.168	1.00	Y	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.836	U	BL	0.379	0.836	0.836	1.00	N	Yes	1	NA

Lab Sample ID	240-176379-7
Sys Sample Code	111022NOW13
Sample Name	111022NOW13
Sample Date	11/10/2022 2:02:00 PM
Location	MSPS-LVWSP-OW-13 / OW-13
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	1.54	J	BL	0.534				Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	480				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L		U			57	57	100	N	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	4.2	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	120				2.2	2.2	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	25000				580	580	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L	3.7	J	RL		2.5	2.5	5.0	Y	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	1.3				0.19	0.19	1.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			1.7	1.7	8.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	21				0.28	0.28	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.049	J	RL		0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	1.1				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.386			0.198	0.224	0.224	1.00	Y	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	1.15	U	BL	0.496	1.15	1.15	1.15	N	Yes	1	NA

Lab Sample ID	240-176379-8
Sys Sample Code	111122FBFIELDBLANK
Sample Name	111122FBFieldBlank
Sample Date	11/11/2022 11:20:00 AM
Location	MSPS-FB / Field Blank
Sample Type	FB
Matrix	AQ
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	0.575	U		0.338				N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	120				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L		U			57	57	100	N	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			0.75	0.75	5.0	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L		U			2.2	2.2	5.0	N	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L		U			580	580	1000	N	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			2.5	2.5	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L		U			0.19	0.19	1.0	N	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			1.7	1.7	8.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	26				0.28	0.28	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L		U			0.024	0.024	0.050	N	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L		U			0.35	0.35	1.0	N	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.152	U		0.148	0.233	0.233	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.423	U		0.304	0.451	0.451	1.00	N	Yes	1	NA

Lab Sample ID	240-176379-9
Sys Sample Code	111022FDDUPLICATE
Sample Name	111022FDDUPLICATE
Sample Date	11/10/2022 1:55:00 PM
Location	MSPS-LVWSP-OW-02A / OW-2A
Sample Type	FD
Matrix	GW
Parent Sample	111022NOW2A

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	2.25			0.526				Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	360				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L		U			57	57	100	N	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			0.75	0.75	5.0	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L	190				2.2	2.2	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.62	0.62	1.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L	3.2	J	FD		0.20	0.20	1.0	Y	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	33000				580	580	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			2.5	2.5	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	420				0.19	0.19	1.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L	0.55	J	RL		0.45	0.45	1.0	Y	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			1.7	1.7	8.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.20	0.20	1.0	N	Yes	1	NA
SW-846 7470A	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	81				0.28	0.28	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.12				0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	120				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.830			0.244	0.214	0.214	1.00	Y	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	1.42			0.466	0.523	0.523	1.00	Y	Yes	1	NA

APPENDIX B.1

SECOND SEMI-ANNUAL 2022 ASSESSMENT MONITORING PROGRAM VERIFICATION EVENT FIELD DATA SHEETS, LABORATORY CERTIFICATES OF ANALYSIS, CHAIN-OF-CUSTODY FORMS, AND DATA VALIDATION FORMS

GOLDER
MEMBER OF WSP

Date: 12/21/22

WELL GAUGING LOG

Project Name: Mt. Storm PS
Project No./Task No.: 2013993622
Sampler(s): M.Knez / V. Stirm
Equipment: Water Level Indicator

Well ID	Personnel (initials)	Time	DTW (feet)	DTB (feet)	Well Condition Summary				
					Protective Casing	Well Casing	Label	Lock	Pad Condition
MW-12R	VS	1453	>25.45	–	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
MW-14	VS	1323	28.30	–	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
OW-2A	MK	~~15~~ MK	13.19	–	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
OW-12	MK	1540	>26.27	–	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged
					☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged

Observations/Notes:

Signature: M.Knez
Date: 12/22/22

QA/QC Signature:
Date: 12/22/22

Page 1 of 1

GOLDER

MICROPURGE SAMPLING LOG

Date: 12/21/22
Weather: Clear, 30's

Project Name: MSP5
Project No./Task No.: 20139362.2
Event: 2SA22 Verification Sampling
Sampler(s): M. Knez
Well ID: OW-12
Field Calibration Completed: 12/21/22 @ 0825
Well Diameter: 2.0 inches
Initial Depth to Water: BTOP feet
Depth to Bottom: ——— feet
Water Column Thickness: ——— feet

Equipment Used:
- [x] WL Indicator
- [x] YSI ProDSS 16K102743
- [ ] In-Situ ———
- [ ] Turbidity Meter
- [ ] Peristaltic Pump
- [ ] MP-10 Controller Box
- [ ] Air Tank
- [ ] Compressor
- [x] MP-15 Controller Box
- [x] Dedicated Bladder Pump
- [x] Non-dedicated BP
- [ ] ———

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1555	5.94	1047	5.87	0.60	13.8	3.7	BTOP	~260
1600	5.93	1075	4.64	0.53	13.8	8.7	BTOP	~260
1605	5.93	1093	4.00	0.49	13.7	10.7	BTOP	~260
1610	5.93	1100	3.49	0.47	13.6	12.7	BTOP	~260
1615	———	———	———	SAMPLED	———	———	———	———
1620	5.95	1110	4.20	0.69	13.2	13.8	BTOP	~260

Purge Cycle (End): ~~28~~ MK 26/4 secs @ ~30 psi
Flow Rate (ml/min End): ~260
Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): ———
Total Purge Volume (Gallons): ~2.5
Purge Water Management: on site disposal
Purge Observations (color, odor, turbidity, sheen): clear grab sample
Purgetime: 1546

Sample Time: 1615
Field Filtered (0.45um): [x] ~~Yes~~ MK [x] No

Sample Parameters/Analyte(s):
[ ] Modified Assessment Landfill (Hex Cr, Cu, Ni, Ag, Sn, V, Zn, Cyanide, Sulfide, Table 3.1 Col A VOCs, 8011-DBCP,EDB, Sb, As, Ba, Be, B, Cd, Ca, Chloride, Cr, Co, Fluoride, Pb, Li, Hg, Mo, Se, Sulfate, Tl, TDS, Radium 226-228) [x] Co

Other Observations / Equipment Operation Problems: Sample ID: 12122NOW12

Sampler Signature: M. Knez Date: 12/21/22
QA/QC Signature: [signature] Date: 12/22/22

MICROPURGE SAMPLING LOG

Date: 12/21/22
Weather: clear, 30's

GOLDER

Project Name: MS PS
Project No./Task No.: 20139362 2
Event: Verification Sampling
Sampler(s): M. Knez
Well ID: ~~OW-2R~~ OW-2A
Field Calibration Completed: 12/21/22 @ 0825
Well Diameter: 2.0 inches
Initial Depth to Water: 13.19 feet
Depth to Bottom: ~~—~~ feet
Water Column Thickness: ~~—~~ feet

Equipment Used:
- [x] WL Indicator
- [x] YSI ProDSS16K102743
- [ ] In-Situ ~~—~~
- [ ] Turbidity Meter
- [ ] Peristaltic Pump
- [ ] MP-10 Controller Box
- [ ] Air Tank
- [ ] Compressor
- [x] MP-15 Controller Box
- [x] Dedicated Bladder Pump
- [ ] Non-dedicated BP
- [ ] ~~—~~

lowered pressure to ~18 and increased time discharge →

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1355	6.73	872	42.85	0.81	10.5	-74.0	13.25	~150
~~1400~~ 1400	6.77	875	68.16	0.68	10.6	-83.8	13.31	~200
1405	6.80	884	67.93	0.81	10.9	-94.9	13.25	~200
1410	6.83	887	56.55	0.59	10.6	-99.4	13.27	~200
1415	6.84	889	48.29	0.54	10.8	-99.9	13.25	~200
1420	6.85	892	41.44	0.49	10.8	-99.7	13.24	~200
1425	6.86	892	38.63	0.51	10.6	-99.6	13.21	~200
1430	6.86	894	33.02	0.52	10.5	-98.7	13.25	~200
1435	6.87	893	29.26	0.50	10.5	-97.9	13.30	~200
1440	6.88	893	26.47	0.50	10.6	-97.3	13.28	~200
1445	6.89	895	24.79	0.49	10.5	-97.0	13.25	~200
1450	6.91	893	23.12	0.49	10.6	-97.1	13.24	~200
1455	6.92	893	20.86	0.49	10.6	-97.6	13.25	~200
1500	6.93	895	19.08	0.47	10.6	-97.2	13.28	~200
1505	6.92	896	17.21	0.47	10.6	-95.3	13.29	~200
1510	6.91	894	15.21	0.46	10.6	-94.6	13.26	~200

Purge Cycle (End): 52/8 secs @ ~18 psi
Flow Rate (ml/min End): ~200
Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): ~~—~~
Total Purge Volume (Gallons): ~7.0
Purge Water Management: on site disposal
Purge Observations (color, odor, turbidity, sheen): clear grab sample
Purge time - 1345
Sample Time: 1520
Field Filtered (0.45um): [ ] Yes [x] No

Sample Parameters/Analyte(s):
- [ ] VSWMR Table 3.1 Column A VOCs
- [ ] VSWMR Table 3.1 Column A Metals
- [ ] VSWMR Table 3.1 Column B
- [ ] CAP (Total(As, Be, Co, Fe, Mn, Se, SO4, Sb), Dissolved (As, As III, As V, Be, Co, Fe, Se, SO4, Sb), beta-bHC
- [ ] Sb, As, Ba, Be,Cd,Cr,Co,Cu,Pb,Hg,Ni,Se,Ag,Tl,Sn,V,Zn,+Previous Detects (beta-BHC, carbon disulfide, Acenaphthene, anthracene, dibenzofuran, di-n-butyl phthalate, fluoranthene, fluorene, naphthalene, pyrene, cyanide, sulfide), Hexavalent Chromium
- [ ] CCR Appendix III
- [ ] CCR Appendix IV
- [x] Co,

Other Observations / Equipment Operation Problems:
Sample ID: 122122NOW2A

Sampler Signature: M. Knez Date: 12/21/22
QA/QC Signature: [signature] Date: 12/22/22

GOLDER

MICROPURGE SAMPLING LOG

Date: 12/21/22
Weather: clear, 30's

Project Name: MSPS
Project No./Task No.: 20139936 22
Event: Verification Sampling
Sampler(s): M. Knez
Well ID: DW-2A
Field Calibration Completed: 12-21-22 @ 0825
Well Diameter: 20 inches
Initial Depth to Water: 13.18 ~~mg~~ 19 feet
Depth to Bottom: — feet
Water Column Thickness: — feet

Equipment Used:
- [x] WL Indicator
- [x] YSI ProDSS 16K102743
- [ ] In-Situ —
- [ ] Turbidity Meter
- [ ] Peristaltic Pump
- [ ] MP-10 Controller Box
- [ ] Air Tank
- [ ] Compressor
- [x] MP-15 Controller Box
- [x] Dedicated Bladder Pump
- [ ] Non-dedicated BP
- [ ] —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)°C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1515	6.90	894	14.35	0.45	10.5	-93.1	13.25	~200
1520	—	—	—	SAMPLE	—	—	—	—
1530	6.89	893	11.96	0.53	10.7	-88.0	13.32	~200

Purge Cycle (End): 52 ~~48~~ secs @ ~18 psi
Flow Rate (ml/min End): ~200
Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): —
Total Purge Volume (Gallons): ~7.0
Purge Water Management: on site disposal
Purge Observations (color, odor, turbidity, sheen): See page 1

Sample Time: 1520
Field Filtered (0.45um): [x] ~~Yes~~ MK [x] No

Sample Parameters/Analyte(s):
[ ] Modified Assessment Landfill (Hex Cr, Cu, Ni, Ag, Sn, V, Zn, Cyanide, Sulfide, Table 3.1 Col A VOCs, 8011-DBCP, EDB, Sb, As, Ba, Be, B, Cd, Ca, Chloride, Cr, Co, Fluoride, Pb, Li, Hg, Mo, Se, Sulfate, Tl, TDS, Radium 226-228) [x] Co,

Other Observations / Equipment Operation Problems:

Sampler Signature: M. Knez Date: 12/21/22
QA/QC Signature: [signature] Date: 12/22/22

GOLDER

MICROPURGE SAMPLING LOG

Date: 12/21/22
Weather: clear, 30's

Project Name: MSPS
Project No./Task No.: 20139362Z
Event: Verification Sampling
Sampler(s): M. Knez
Well ID: Field Duplicate
Field Calibration Completed: —
Well Diameter: — inches
Initial Depth to Water: — feet
Depth to Bottom: — feet
Water Column Thickness: — feet

Equipment Used:
- ☐ WL Indicator
- ☐ YSI —
- ☐ In-Situ —
- ☐ Turbidity Meter
- ☐ Peristaltic Pump
- ☐ MP-10 Controller Box
- ☐ Air Tank
- ☐ Compressor
- ☒ MP-15 Controller Box
- ☒ Dedicated Bladder Pump
- ☐ Non-dedicated BP
- ☐ —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1525				SAMPLED				

Purge Cycle (End): — @ — psi
Flow Rate (ml/min End): —
Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): —
Total Purge Volume (Gallons): —
Purge Water Management: —
Purge Observations (color, odor, turbidity, sheen): clear grab sample taken from OW-2A

Sample Time: 1525
Field Filtered (0.45um): ☒ Yes MK ☐ No

Sample Parameters/Analyte(s):
☐ Modified Assessment Landfill (Hex Cr, Cu, Ni, Ag, Sn, V, Zn, Cyanide, Sulfide, Table 3.1 Col A VOCs, 8011-DBCP,EDB, Sb, As, Ba, Be, B, Cd, Ca, Chloride, Cr, Co, Fluoride, Pb, Li, Hg, Mo, Se, Sulfate, Tl, TDS, Radium 226-228) ☒ Co

Other Observations / Equipment Operation Problems: Sample ID: 122122FD Field Duplicate

Sampler Signature: M. Knez
Date: 12/21/22
Page 1 of 1

QA/QC Signature:
Date: 12/22/22

GOLDER

MICROPURGE SAMPLING LOG

Date: 12/21/22

Weather: Sunny 30s

Project Name: MSPS

Project No./Task No.: GL2013993622

Event: Verification

Sampler(s): V. Stirm

Well ID: Field Blank

Field Calibration Completed: —

Well Diameter: — inches

Initial Depth to Water: — feet

Depth to Bottom: — feet

Water Column Thickness: — feet

Equipment Used:
- ☐ WL Indicator
- ☐ Turbidity Meter
- ☐ Air Tank
- ☐ Dedicated Bladder Pump
- ☐ YSI —
- ☐ Peristaltic Pump
- ☐ Compressor
- ☐ Non-dedicated BP
- ☐ In-Situ —
- ☐ MP-10 Controller Box
- ☐ MP-15 Controller Box
- ☐ —

Time (5 minute int.)	pH (S.U.)	Sp. Cond. (uS/cm)°C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	DTW (feet)	Flow Rate (mL/min)
Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
1600	—	—	—	SAMPLED	—	—	—	—

Purge Cycle (End): — @ — psi

Flow Rate (ml/min End): —

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): —

Total Purge Volume (Gallons): —

Purge Water Management: —

Purge Observations (color, odor, turbidity, sheen): Clear Grab Sample using lab provided DI water TAKEN @ MW-12R

Sample Time: 1600

Field Filtered (0.45um): ☐ Yes ☒ No

Sample Parameters/Analyte(s):
- ☐ VSWMR Table 3.1 Column A VOCs
- ☐ VSWMR Table 3.1 Column A Metals
- ☐ VSWMR Table 3.1 Column B
- ☐ CAP (Total(As, Be, Co, Fe, Mn, Se, SO4, Sb), Dissolved (As, As III, As V, Be, Co, Fe, Se, SO4, Sb), beta-bHC
- ☐ Sb, As, Ba, Be,Cd,Cr,Co,Cu,Pb,Hg,Ni,Se,Ag,Tl,Sn,V,Zn,+Previous Detects (beta-BHC, carbon disulfide, Acenaphthene, anthracene, dibenzofuran, di-n-butyl phthalate, fluoranthene, fluorene, naphthalene, pyrene, cyanide, sulfide), Hexavalent Chromium
- ☐ CCR Appendix III
- ☐ CCR Appendix IV
- ☒ Cobalt, Lead

Other Observations / Equipment Operation Problems:

Sample ID: 122123 FB Field Blank

Sampler Signature: V. Stirm Date: 12/21/22 Page 1 of 1

QA/QC Signature: M. Kuf Date: 12/22/22

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kelly Hicks
Dominion Energy Services, Inc.
5000 Dominion Blvd
Glen Allen, Virginia 23060

Generated 1/4/2023 8:55:32 AM

JOB DESCRIPTION

MSPS-2SA2022-Verification-LVWSP-GroupB-1-1

JOB NUMBER

240-178496-1

Eurofins Canton
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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1/4/2023 8:55:32 AM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

Table of Contents

Definitions/Glossary

Client: Dominion Energy Services, Inc. Job ID: 240-178496-1
Project/Site: MSPS-2SA2022-Verification-LVWSP-GroupB-1-1

Qualifiers

Metals

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits

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

Case Narrative

Client: Dominion Energy Services, Inc. Job ID: 240-178496-1
Project/Site: MSPS-2SA2022-Verification-LVWSP-GroupB-1-1

Job ID: 240-178496-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-178496-1

Comments
No additional comments.

Receipt
The samples were received on 12/28/2022 10:50 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.5º C.

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

Method Summary

Client: Dominion Energy Services, Inc. Job ID: 240-178496-1
Project/Site: MSPS-2SA2022-Verification-LVWSP-GroupB-1-1

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	SW846	EET CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Dominion Energy Services, Inc.
Job ID: 240-178496-1
Project/Site: MSPS-2SA2022-Verification-LVWSP-GroupB-1-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-178496-1	122122NOW2A	Water	12/21/22 15:20	12/28/22 10:50
240-178496-2	122122NOW12	Water	12/21/22 16:15	12/28/22 10:50

Detection Summary

Client: Dominion Energy Services, Inc.
Job ID: 240-178496-1
Project/Site: MSPS-2SA2022-Verification-LVWSP-GroupB-1-1

Client Sample ID: 122122NOW2A
Lab Sample ID: 240-178496-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	15		1.0	0.19	ug/L	1		6020A	Total Recoverable

Client Sample ID: 122122NOW12
Lab Sample ID: 240-178496-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	66		1.0	0.19	ug/L	1		6020A	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Dominion Energy Services, Inc. Job ID: 240-178496-1
Project/Site: MSPS-2SA2022-Verification-LVWSP-GroupB-1-1

Client Sample ID: 122122NOW2A **Lab Sample ID: 240-178496-1**
Date Collected: 12/21/22 15:20 **Matrix: Water**
Date Received: 12/28/22 10:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	15		1.0	0.19	ug/L		12/29/22 12:00	12/30/22 14:23	1

Client: Dominion Energy Services, Inc.
Job ID: 240-178496-1
Project/Site: MSPS-2SA2022-Verification-LVWSP-GroupB-1-1

Client Sample ID: 122122NOW12
Lab Sample ID: 240-178496-2
Date Collected: 12/21/22 16:15
Matrix: Water
Date Received: 12/28/22 10:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	66		1.0	0.19	ug/L		12/29/22 12:00	12/30/22 14:27	1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 240-557477/1-A
Matrix: Water
Analysis Batch: 557644

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 557477

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.19		1.0	0.19	ug/L		12/29/22 12:00	12/30/22 13:24	1

Lab Sample ID: LCS 240-557477/2-A
Matrix: Water
Analysis Batch: 557644

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 557477

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt	500	468		ug/L		94	80 - 120

Lab Sample ID: 240-178526-A-2-B MS
Matrix: Water
Analysis Batch: 557644

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 557477

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt	0.77	J F2	500	373		ug/L		75	75 - 125

Lab Sample ID: 240-178526-A-2-C MSD
Matrix: Water
Analysis Batch: 557644

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 557477

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cobalt	0.77	J F2	500	487	F2	ug/L		97	75 - 125	26	20

QC Association Summary

Client: Dominion Energy Services, Inc. Job ID: 240-178496-1
Project/Site: MSPS-2SA2022-Verification-LVWSP-GroupB-1-1

Metals

Prep Batch: 557477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178496-1	122122NOW2A	Total Recoverable	Water	3005A	
240-178496-2	122122NOW12	Total Recoverable	Water	3005A	
MB 240-557477/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-557477/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-178526-A-2-B MS	Matrix Spike	Total Recoverable	Water	3005A	
240-178526-A-2-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 557644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178496-1	122122NOW2A	Total Recoverable	Water	6020A	557477
240-178496-2	122122NOW12	Total Recoverable	Water	6020A	557477
MB 240-557477/1-A	Method Blank	Total Recoverable	Water	6020A	557477
LCS 240-557477/2-A	Lab Control Sample	Total Recoverable	Water	6020A	557477
240-178526-A-2-B MS	Matrix Spike	Total Recoverable	Water	6020A	557477
240-178526-A-2-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020A	557477

Lab Chronicle

Client: Dominion Energy Services, Inc. Job ID: 240-178496-1
Project/Site: MSPS-2SA2022-Verification-LVWSP-GroupB-1-1

Client Sample ID: 122122NOW2A — Lab Sample ID: 240-178496-1

Date Collected: 12/21/22 15:20 — **Matrix: Water**
Date Received: 12/28/22 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			557477	SHB	EET CAN	12/29/22 12:00
Total Recoverable	Analysis	6020A		1	557644	DSH	EET CAN	12/30/22 14:23

Client Sample ID: 122122NOW12 — Lab Sample ID: 240-178496-2

Date Collected: 12/21/22 16:15 — **Matrix: Water**
Date Received: 12/28/22 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			557477	SHB	EET CAN	12/29/22 12:00
Total Recoverable	Analysis	6020A		1	557644	DSH	EET CAN	12/30/22 14:27

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Dominion Energy Services, Inc. Job ID: 240-178496-1
Project/Site: MSPS-2SA2022-Verification-LVWSP-GroupB-1-1

Laboratory: Eurofins Canton

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	210	12-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020A	3005A	Water	Cobalt

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

COC ID: MSPS-2SA2022-Verification-UWSP-Group B-1-1

Chain of Custody Record

26/25

eurofins Environment Testing

Client Information	Sampler: MKnez	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-102517-34711.1
Client Contact: ~~Rachel Powell~~ MK Crystal Shadle	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: WV	Page: Page 1 of 1
Company: Golder Associates Inc	PWSID:			Job #:
Address: 2108 W Laburnum Ave, Suite 200	Due Date Requested:			
City: Richmond	TAT Requested (days): STANDARD TAT			
State, Zip: VA, 23227	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 50168481			
Email: ~~rachel_powell@golder.com~~ MK crystal.shadle@wsp.com	WO #: 2013993622			
Project Name: Mount Storm Power Station	Project #: 24021758			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecanydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020A for Cobalt MK	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D		
~~12 22NMW-13~~ MK 122122NOW2A	12/21/22	1520	G	Water			1	1	-All samples
~~12 22NMW-14~~ MK 122122NOW12	12/21/22	1615	G	Water			1	1	preserved on ice
~~12 22NMW-15~~ MK				Water					
~~12 22NMW-16R~~ MK				Water					
~~12 22FBFieldBlank~~ MK				Water					
~~12 22FDDuplicate~~ MK				Water					
~~12 22MSMatrixSpike~~ MK				Water					
~~12 22MSDMatrixSpikeDup~~ MK				Water					

240-178496 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by: M. Knez	Date/Time: 12/22/22 @ 1145	Company: Golder	Received by: Rachelle Hamed	Date/Time: 12822 1050	Company: EETNC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Virginia Beach #202

Eurofins - Canton Sample Receipt Form/Narrative Login # : 178496
Barberton Facility

Client Golder Site Name _____ Cooler unpacked by: Rachelle Haidet

Cooler Received on 12-28-22 Opened on 12-28-22

FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag (None) Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # IR-13 (CF **-0.2** °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN # IR-16 (CF **-0.1**°C) Observed Cooler Temp. 2.6 °C Corrected Cooler Temp. 2.5 °C

IR GUN # IR-17 (CF **-0.3**°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11. Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# **HC291590**
14. Were VOAs on the COC?	Yes	(No)
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No (NA)
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	(No)
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
122122NOW2A	240-178496-A-1	Plastic 500ml - with Nitric Acid	<2			
122122NOW12	240-178496-A-2	Plastic 500ml - with Nitric Acid	<2			

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kelly Hicks
Dominion Energy Services, Inc.
5000 Dominion Blvd
Glen Allen, Virginia 23060

Generated 1/4/2023 8:57:37 AM

JOB DESCRIPTION

MSPS-2SA22-Verification-QC-GroupC-1-1

JOB NUMBER

240-178497-1

Eurofins Canton
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
1/4/2023 8:57:37 AM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

Table of Contents

Definitions/Glossary

Client: Dominion Energy Services, Inc. Job ID: 240-178497-1
Project/Site: MSPS-2SA22-Verification-QC-GroupC-1-1

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

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

Case Narrative

Client: Dominion Energy Services, Inc. Job ID: 240-178497-1
Project/Site: MSPS-2SA22-Verification-QC-GroupC-1-1

Job ID: 240-178497-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-178497-1

Comments
No additional comments.

Receipt
The samples were received on 12/28/2022 10:50 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.5º C.

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

Method Summary

Client: Dominion Energy Services, Inc. Job ID: 240-178497-1
Project/Site: MSPS-2SA22-Verification-QC-GroupC-1-1

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	SW846	EET CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Dominion Energy Services, Inc.
Job ID: 240-178497-1
Project/Site: MSPS-2SA22-Verification-QC-GroupC-1-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-178497-1	122122FBFIELDBLANK	Water	12/21/22 16:00	12/28/22 10:50
240-178497-2	122122FDDUPLICATE	Water	12/21/22 15:25	12/28/22 10:50

Detection Summary

Client: Dominion Energy Services, Inc.
Job ID: 240-178497-1
Project/Site: MSPS-2SA22-Verification-QC-GroupC-1-1

Client Sample ID: 122122FBFIELDBLANK
Lab Sample ID: 240-178497-1

No Detections.

Client Sample ID: 122122FDDUPLICATE
Lab Sample ID: 240-178497-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	15		1.0	0.19	ug/L	1		6020A	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Dominion Energy Services, Inc.
Job ID: 240-178497-1
Project/Site: MSPS-2SA22-Verification-QC-GroupC-1-1

Client Sample ID: 122122FBFIELDBLANK
Lab Sample ID: 240-178497-1
Date Collected: 12/21/22 16:00
Matrix: Water
Date Received: 12/28/22 10:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.19		1.0	0.19	ug/L		12/29/22 12:00	12/30/22 14:32	1
Lead	<0.45		1.0	0.45	ug/L		12/29/22 12:00	12/30/22 14:32	1

Client Sample Results

Client: Dominion Energy Services, Inc. Job ID: 240-178497-1
Project/Site: MSPS-2SA22-Verification-QC-GroupC-1-1

Client Sample ID: 122122FDDUPLICATE **Lab Sample ID: 240-178497-2**
Date Collected: 12/21/22 15:25 **Matrix: Water**
Date Received: 12/28/22 10:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	15		1.0	0.19	ug/L		12/29/22 12:00	12/30/22 14:36	1
Lead	<0.45		1.0	0.45	ug/L		12/29/22 12:00	12/30/22 14:36	1

QC Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: MSPS-2SA22-Verification-QC-GroupC-1-1

Job ID: 240-178497-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 240-557477/1-A
Matrix: Water
Analysis Batch: 557644

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 557477

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.19		1.0	0.19	ug/L		12/29/22 12:00	12/30/22 13:24	1
Lead	<0.45		1.0	0.45	ug/L		12/29/22 12:00	12/30/22 13:24	1

Lab Sample ID: LCS 240-557477/2-A
Matrix: Water
Analysis Batch: 557644

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 557477

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cobalt			500	468		ug/L		94	80 - 120		
Lead			500	458		ug/L		92	80 - 120		

Lab Sample ID: 240-178526-A-2-B MS
Matrix: Water
Analysis Batch: 557644

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 557477

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cobalt	0.77	J F2	500	373		ug/L		75	75 - 125		
Lead	<0.45	F1 F2	500	366	F1	ug/L		73	75 - 125		

Lab Sample ID: 240-178526-A-2-C MSD
Matrix: Water
Analysis Batch: 557644

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 557477

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cobalt	0.77	J F2	500	487	F2	ug/L		97	75 - 125	26	20
Lead	<0.45	F1 F2	500	475	F2	ug/L		95	75 - 125	26	20

QC Association Summary

Client: Dominion Energy Services, Inc.
Job ID: 240-178497-1
Project/Site: MSPS-2SA22-Verification-QC-GroupC-1-1

Metals

Prep Batch: 557477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178497-1	122122FBFIELDBLANK	Total Recoverable	Water	3005A	
240-178497-2	122122FDDUPLICATE	Total Recoverable	Water	3005A	
MB 240-557477/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-557477/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-178526-A-2-B MS	Matrix Spike	Total Recoverable	Water	3005A	
240-178526-A-2-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 557644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178497-1	122122FBFIELDBLANK	Total Recoverable	Water	6020A	557477
240-178497-2	122122FDDUPLICATE	Total Recoverable	Water	6020A	557477
MB 240-557477/1-A	Method Blank	Total Recoverable	Water	6020A	557477
LCS 240-557477/2-A	Lab Control Sample	Total Recoverable	Water	6020A	557477
240-178526-A-2-B MS	Matrix Spike	Total Recoverable	Water	6020A	557477
240-178526-A-2-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020A	557477

Lab Chronicle

Client: Dominion Energy Services, Inc.
Job ID: 240-178497-1
Project/Site: MSPS-2SA22-Verification-QC-GroupC-1-1

Client Sample ID: 122122FBFIELDBLANK
Lab Sample ID: 240-178497-1
Date Collected: 12/21/22 16:00
Matrix: Water
Date Received: 12/28/22 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			557477	SHB	EET CAN	12/29/22 12:00
Total Recoverable	Analysis	6020A		1	557644	DSH	EET CAN	12/30/22 14:32

Client Sample ID: 122122FDDUPLICATE
Lab Sample ID: 240-178497-2
Date Collected: 12/21/22 15:25
Matrix: Water
Date Received: 12/28/22 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			557477	SHB	EET CAN	12/29/22 12:00
Total Recoverable	Analysis	6020A		1	557644	DSH	EET CAN	12/30/22 14:36

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Dominion Energy Services, Inc. Job ID: 240-178497-1
Project/Site: MSPS-2SA22-Verification-QC-GroupC-1-1

Laboratory: Eurofins Canton

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	210	12-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020A	3005A	Water	Cobalt
6020A	3005A	Water	Lead

COC ID: MSBS-25A22-Verification-QC-Group C-1-1

2.6/25

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information	Sampler: M.Krez/V.Stirm	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-102517-34711.1
Client Contact: ~~Rachel Powell~~ mk Crystal Shadle	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: WV	Page: Page 1 of 1
Company: Golder Associates Inc	PWSID:	Analysis Requested		Job #:
Address: 2108 W Laburnum Ave, Suite 200	Due Date Requested:			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
City: Richmond	TAT Requested (days): Standard TAT			
State, Zip: VA, 23227	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 50168481			Other:
Email: ~~rachel_powell@golder.com~~ mk crystal.shadle@wsp.com	WO #: 2013993622			
Project Name: Mount Storm Power Station	Project #: 24021758			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	~~6010C~~ 6020A mk Cobalt, Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D		
~~12~~ ~~22NMW-13~~ mk				Water					-All samples preserved on ice
~~12~~ ~~22NMW-14~~ mk				Water					
~~12~~ ~~22NMW-15~~ mk				Water					
~~12~~ ~~22NMW-16R~~ mk				Water					
~~12~~ ~~22FBFieldBlank~~ mk 122122FBFieldBlank	12/21/22	1600	G	Water			1	1	
12 21 22FDDuplicate	12/21/22	1525	G	Water			1	1	
~~12 21 22MSMatrixSpike~~	~~12/21/22~~	~~1319~~	~~G~~	~~Water~~			1	1	mk
~~12 21 22MSDMatrixSpikeDup~~	~~12/21/22~~	~~1319~~	~~G~~	~~Water~~			1	1	mk

240-178497 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by: M.Krez	Date/Time: 12/22/22 @ 1145	Company: Golder	Received by: Rachelle Haines	Date/Time: 12-22-22 1150	Company: EETNC		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Virginia Beach #202

Eurofins - Canton Sample Receipt Form/Narrative Login # : 178497
Barberton Facility

Client Golder Site Name _____ Cooler unpacked by: Rachelle Haidet

Cooler Received on 12-28-22 Opened on 12-28-22

FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag (None) Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # IR-13 (CF -0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN # IR-16 (CF -0.1°C) Observed Cooler Temp. 2.6 °C Corrected Cooler Temp. 2.5 °C

IR GUN # IR-17 (CF -0.3°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11. Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC291590
14. Were VOAs on the COC?	Yes	(No)
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No (NA)
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	(No)
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
122122FBFIELDBLANK	240-178497-A-1	Plastic 500ml - with Nitric Acid	<2			
22FDDUPLICATE	240-178497-A-2	Plastic 500ml - with Nitric Acid	<2			

This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the samples collected as part of:

Mt. Storm Power Station Groundwater Sampling
Samples Collected: 12/21/2022

This review was performed with guidance from the associated US EPA data validation guidelines and in accordance with the Quality Assurance Program Plan. These validation guidance documents specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the US EPA, SW-846, and Standard Methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the US EPA, SW-846, and Standard Methods utilized by the laboratory. This QA review was performed on the data associated with Job Number:

2401784961

The findings offered in this report are based on a review of holding times and preservation, method blank results, field blank results, filter blank results, equipment blank results, tubing blank results, matrix spike/matrix spike duplicate recoveries and precision, laboratory control sample/laboratory control sample duplicate recoveries and precision, laboratory and field duplicate precision, total and dissolved results comparisons, and/or positive results between the method detection limit and quantitation limit.

The following results were qualified based on the data verification effort:

Based on QA review, qualification of data was not warranted.

Data Qualifiers	
U	The analyte was not detected above the level of the sample reporting limit.
J	Quantitation is approximate due to limitations identified during data validation.
J+	The result is an estimated quantity; the result may be biased high.
J-	The result is an estimated quantity; the result may be biased low.
UJ	The analyte was not detected; the reporting limit is approximate and may be inaccurate or imprecise.
R	Unreliable positive result; analyte may or may not be present in sample.
Reason Codes and Explanations	
BE	Equipment blank contamination.
BF	Field blank contamination.
BL	Laboratory blank contamination.
BN	Negative laboratory blank contamination.
FD	Field duplicate imprecision.
FG	Total versus Dissolved Imprecision.
H	Holding time exceeded.
L	LCS and LCSD recoveries outside of acceptance limits
LD	Laboratory duplicate imprecision.
LP	LCS/LCSD imprecision.
M	MS and MSD recoveries outside of acceptance limits
MP	MS/MSD imprecision.
Q	Chemical Preservation issue.
RL	Reported Results between the MDL and QL.
S	Radium-226+228 flagged due to reporting protocol for combined results

T	Temperature preservation issue.
X	Percent solids < 50%.
Y	Chemical yield outside of acceptance limits
ZZ	Other

Facility: Mt. Storm Power Station
SDG: 2401784961

Lab Sample ID	240-178496-1
Sys Sample Code	122122NOW2A
Sample Name	122122NOW2A
Sample Date	12/21/2022 3:20:00 PM
Location	MSPS-LVWSP-OW-02A / OW-2A
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
SW-846 6020B	Cobalt	7440-48-4	T	ug/L	15				0.19	0.19	1.0	Y	Yes	1	NA

Lab Sample ID	240-178496-2
Sys Sample Code	122122NOW12
Sample Name	122122NOW12
Sample Date	12/21/2022 4:15:00 PM
Location	MSPS-LVWSP-OW-12 / OW-12
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
SW-846 6020B	Cobalt	7440-48-4	T	ug/L	66				0.19	0.19	1.0	Y	Yes	1	NA

This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the samples collected as part of:

Mt. Storm Power Station Groundwater Sampling
Samples Collected: 12/21/2022

This review was performed with guidance from the associated US EPA data validation guidelines and in accordance with the Quality Assurance Program Plan. These validation guidance documents specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the US EPA, SW-846, and Standard Methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the US EPA, SW-846, and Standard Methods utilized by the laboratory. This QA review was performed on the data associated with Job Number:

2401784971

The findings offered in this report are based on a review of holding times and preservation, method blank results, field blank results, filter blank results, equipment blank results, tubing blank results, matrix spike/matrix spike duplicate recoveries and precision, laboratory control sample/laboratory control sample duplicate recoveries and precision, laboratory and field duplicate precision, total and dissolved results comparisons, and/or positive results between the method detection limit and quantitation limit.

The following results were qualified based on the data verification effort:

Based on QA review, qualification of data was not warranted.

Data Qualifiers	
U	The analyte was not detected above the level of the sample reporting limit.
J	Quantitation is approximate due to limitations identified during data validation.
J+	The result is an estimated quantity; the result may be biased high.
J-	The result is an estimated quantity; the result may be biased low.
UJ	The analyte was not detected; the reporting limit is approximate and may be inaccurate or imprecise.
R	Unreliable positive result; analyte may or may not be present in sample.
Reason Codes and Explanations	
BE	Equipment blank contamination.
BF	Field blank contamination.
BL	Laboratory blank contamination.
BN	Negative laboratory blank contamination.
FD	Field duplicate imprecision.
FG	Total versus Dissolved Imprecision.
H	Holding time exceeded.
L	LCS and LCSD recoveries outside of acceptance limits
LD	Laboratory duplicate imprecision.
LP	LCS/LCSD imprecision.
M	MS and MSD recoveries outside of acceptance limits
MP	MS/MSD imprecision.
Q	Chemical Preservation issue.
RL	Reported Results between the MDL and QL.
S	Radium-226+228 flagged due to reporting protocol for combined results

T	Temperature preservation issue.
X	Percent solids < 50%.
Y	Chemical yield outside of acceptance limits
ZZ	Other

Facility: Mt. Storm Power Station
SDG: 2401784971

Lab Sample ID	240-178497-1
Sys Sample Code	122122FBFIELDBLANK
Sample Name	122122FBFIELDBLANK
Sample Date	12/21/2022 4:00:00 PM
Location	MSPS-FB / Field Blank
Sample Type	FB
Matrix	AQ
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
SW-846 6020B	Cobalt	7440-48-4	T	ug/L		U			0.19	0.19	1.0	N	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA

Facility: Mt. Storm Power Station
SDG: 2401784971

Lab Sample ID	240-178497-2
Sys Sample Code	122122FDDUPLICATE
Sample Name	122122FDDUPLICATE
Sample Date	12/21/2022 3:25:00 PM
Location	MSPS-LVWSP-OW-02A / OW-2A
Sample Type	FD
Matrix	GW
Parent Sample	122122NOW2A

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
SW-846 6020B	Cobalt	7440-48-4	T	ug/L	15				0.19	0.19	1.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA

APPENDIX C

2021 SECOND SEMI-ANNUAL ASSESSMENT MONITORING PROGRAM EVENT STATISTICAL WORKSHEETS

Appendix C
Groundwater Protection Standard Comparison
Confidence Limit Method

Date: February 25, 2022

Site Owner: Dominion Energy

Site: Mt. Storm - LVWSP

Monitoring Well: OW-2A

Constituent: Cobalt

Sample Number	Sample Date	Result (ug/L)	Notes
1	11/3/2015	13.3	Detection
2	2/2/2016	2.0	Non-Detect
3	5/4/2016	2.9	Detection
4	8/24/2016	104	Detection
5	10/11/2016	4.5	Detection
6	11/30/2016	11.7	Detection
7	2/14/2017	5.1	Detection
8	5/17/2017	7.3	Detection
9	8/16/2017	7.1	Detection
10	3/19/2018	4.2	Detection
11	6/5/2018	6.8	Detection
12	1/2/2019	13.3	Detection (Verification)
13	4/17/2019	5.2	Detection
14	10/30/2019	99	Detection
15	4/15/2020	20	Detection
16	10/14/2020	72	Detection
17	4/29/2021	25	Detection
18	11/4/2021	180	Detection

Sample Group Mean (X):	32.41
Sample Group Standard Deviation (S):	49.15
Confidence Level:	95%
Sample Group Count:	18
Degrees of Freedom (n-1):	17
Critical Value (tc):	1.74
Lower Confidence Limit (ug/L):	12.255
Upper Confidence Limit (ug/L):	52.567
Groundwater Protection Standard (ug/L):	34
GPS Exceedance Confirmed?:	NO

Note: GPS exceedance indicated if Lower Confidence Limit exceeds the GPS.

Appendix C
Groundwater Protection Standard Comparison
Confidence Limit Method

Date: February 25, 2022

Site Owner: Dominion Energy

Site: Mt. Storm - LVWSP

Monitoring Well: OW-12

Constituent: Cobalt

Sample Number	Sample Date	Result (ug/L)	Notes
1	11/29/2016	8.8	Detection
2	1/18/2017	7.9	Detection
3	2/16/2017	12.8	Detection
4	3/23/2017	10	Detection
5	4/19/2017	6.5	Detection
6	5/16/2017	9.1	Detection
7	6/19/2017	16.8	Detection
8	8/17/2017	11.3	Detection
9	3/20/2018	22.8	Detection
10	6/5/2018	5.3	Detection
11	10/31/2018	10.3	Detection
12	4/17/2019	27	Detection
13	10/30/2019	27	Detection
14	4/15/2020	54	Detection
15	10/14/2020	39	Detection
16	4/29/2021	30	Detection
17	11/4/2021	49	Detection

Sample Group Mean (X):	20.45
Sample Group Standard Deviation (S):	15.17
Confidence Level:	95%
Sample Group Count:	17
Degrees of Freedom (n-1):	16
Critical Value (tc):	1.746
Lower Confidence Limit (ug/L):	14.024
Upper Confidence Limit (ug/L):	26.870
Groundwater Protection Standard (ug/L):	34
GPS Exceedance Confirmed?:	NO

Note: GPS exceedance indicated if Lower Confidence Limit exceeds the GPS.

APPENDIX D

2022 FIRST SEMI-ANNUAL ASSESSMENT MONITORING PROGRAM EVENT STATISTICAL WORKSHEETS

Appendix D
Groundwater Protection Standard Comparison
Confidence Limit Method

Date: August 4, 2022

Site Owner: Dominion Energy

Site: Mt. Storm - LVWSP

Monitoring Well: OW-2A

Constituent: Cobalt

Sample Number	Sample Date	Result (ug/L)	Notes
1	11/3/2015	13.3	Detection
2	2/2/2016	2.0	Non-Detect
3	5/4/2016	2.9	Detection
4	8/24/2016	104	Detection
5	10/11/2016	4.5	Detection
6	11/30/2016	11.7	Detection
7	2/14/2017	5.1	Detection
8	5/17/2017	7.3	Detection
9	8/16/2017	7.1	Detection
10	3/19/2018	4.2	Detection
11	6/5/2018	6.8	Detection
12	1/2/2019	13.3	Detection (Verification)
13	4/17/2019	5.2	Detection
14	10/30/2019	99	Detection
15	4/15/2020	20	Detection
16	10/14/2020	72	Detection
17	4/29/2021	25	Detection
18	11/4/2021	180	Detection
19	4/28/2022	36	Detection

Sample Group Mean (X):	32.60
Sample Group Standard Deviation (S):	47.77
Confidence Level:	95%
Sample Group Count:	19
Degrees of Freedom (n-1):	18
Critical Value (tc):	1.734
Lower Confidence Limit (ug/L):	13.597
Upper Confidence Limit (ug/L):	51.603
Groundwater Protection Standard (ug/L):	34
GPS Exceedance Confirmed?:	NO

Note: GPS exceedance indicated if Lower Confidence Limit exceeds the GPS.