



# 2023 CCR Annual Groundwater Monitoring and Corrective Action Report

*Mount Storm Power Station  
Low Volume Waste Settling Ponds*

Prepared for:



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## EXECUTIVE SUMMARY

This 2023 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 LVWSP were reconstructed with a composite liner system consistent with 40 CFR 257.72 and are considered new 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 31<sup>st</sup> 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 2023. More specifically, this Report describes the results of the CCR Rule Assessment Monitoring Program (AMP) activities performed in 2023 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 2023, 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 2023, the Unit was operating under the AMP in accordance with §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 2023, there were statistically significant increases identified over background for the following Appendix III constituents at the following wells during the second semi-annual 2022 event and the first semi-annual 2023 event:
      - Chloride – OW-12
      - pH – wells OW-2A, OW-12

- (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 2023, there were no confirmed statistically significant levels above the groundwater protection standards.
- (B) Provide the date when the assessment of corrective measures was initiated for the CCR unit
- Not applicable
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- Not applicable
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- 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 2023 sampling and data analysis results, WSP recommends that Dominion Energy continue to maintain an AMP at this Unit.

## 1.0 INTRODUCTION

This 2023 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 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 31<sup>st</sup> 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 2022 event that were completed in 2023, provides the monitoring data and required data evaluations for the first semi-annual 2023 CCR monitoring compliance event performed in April 2023, and provides the monitoring data for the second semi-annual 2023 CCR monitoring compliance event performed in October 2023.

### 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 2023 AMP compliance sampling event on April 19, 2023, and completed the sample analyses on May 30, 2023, pursuant to the CCR Rule [257.95(d)(1)];
- Closure completion certification for former Ponds A, B, C, and D, per CCR Rule [257.102(c)], was issued on October 5, 2023, documenting the completed closure the ponds as of August 19, 2019; and
- Conducted the second semi-annual 2023 AMP compliance sampling event on October 25, 2023, and completed the sample analyses on December 28, 2023, pursuant to the CCR Rule [257.95(d)(1)].

## **1.4 Monitoring Program Concerns**

There were no monitoring program concerns identified during the 2023 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.

As part of the Station operations, Dominion Energy operates the LVWSP to manage Station low volume wastes including carryover CCR wash water from the ash silos and hydrobin loading areas. 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 2023.

## 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 2019, the groundwater flow direction in the uppermost aquifer beneath the LVWSP was towards the south and east. As part of the LVWSP reconstruction 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 19, 2023. The Potentiometric Surface Map presented as Drawing 3 was prepared using static water level data obtained during the second semi-annual AMP event on October 24, 2023.

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 captured and 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)  
 $\theta$  = 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 ( $V_{gw}$ ) 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 ( $\theta$ )	Estimated Groundwater Velocity	
						(cm/s)	(feet/year)
1 <sup>st</sup> Semi-Annual Assessment Monitoring Program Event (April 2023)							
$V_{gw}$	7.06E-04	3252-3242	209	0.041	0.10	2.89E-04	299
		3258-3242	249		0.20	1.45E-04	150
		3244-3242	170				
2 <sup>nd</sup> Semi-Annual Assessment Monitoring Program Event (October 2023)							
$V_{gw}$	7.06E-04	3252-3242	202	0.041	0.10	2.89E-04	299
		3258-3242	249		0.20	1.45E-04	150
		3244-3242	199				

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 150 to 299 feet per year. The calculated flow rate for the events conducted in 2023 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 were completed for the LVWSP in 2023 for the constituents and parameters listed in Appendix III and Appendix IV of the CCR Rule. Summaries of the 2023 AMP sampling events are presented below.

Monitoring Event	Sample Dates	Final Laboratory Package Receipt Date
1 <sup>st</sup> Semi-Annual Assessment Monitoring Program Event	April 19, 2023	May 30, 2023
2 <sup>nd</sup> Semi-Annual Assessment Monitoring Program Event	October 25, 2023	December 28, 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 Cleveland in Barberton, Ohio. Total dissolved solids and radium samples were then shipped to Eurofins Pittsburgh and Eurofins St. Louis (TestAmerica Missouri) for analysis. The three (3) Eurofins laboratory locations are DEP accredited laboratories (Eurofins Cleveland #210, Eurofins Pittsburgh #142, and TestAmerica Missouri #381) 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 2023 are summarized in the following sections.

### 4.1 2<sup>nd</sup> Semi-Annual 2022 Assessment Monitoring Program Event

The groundwater samples collected during the second semi-annual 2022 AMP event were analyzed by Eurofins 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 *2022 CCR Annual Groundwater Monitoring and Corrective Action Report*. A summary of the CCR sampling data for the Unit is presented in Table 2.

#### 4.1.1 2<sup>nd</sup> Semi-Annual 2022 Verification Event

The groundwater samples collected during the second semi-annual 2022 verification event were analyzed by Eurofins for the presence of concentrations of cobalt. The laboratory certificates of analysis, chain-of-custody forms, and field logs for the sampling event were previously submitted in the *2022 CCR Annual Groundwater Monitoring and Corrective Action Report*. A summary of the verification sampling data for the Unit is presented in Table 3.

### 4.2 1<sup>st</sup> Semi-Annual 2023 Assessment Monitoring Program Event

The groundwater samples collected during the first semi-annual 2023 AMP event were analyzed by Eurofins 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 4.

### 4.3 2<sup>nd</sup> Semi-Annual 2023 Assessment Monitoring Program Event

The groundwater samples collected during the second semi-annual 2023 AMP event were analyzed by Eurofins for the presence of concentrations of the constituents and parameters listed in Appendix III and Appendix IV constituents.

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 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 United States Environmental Protection Agency (EPA) National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA, 2017).

### 5.1 1<sup>st</sup> Semi-Annual 2023 Compliance Event Findings

The laboratory and field QA/QC data for the first semi-annual compliance monitoring event samples collected April 19, 2023, were reviewed by ESI. Field QA/QC samples for this event included a field blank and a duplicate sample that was collected from compliance well OW-7A that were collected at the LVWSP on April 19, 2023. 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 select lithium results were flagged as estimated due to laboratory blank contamination and/or field blank contamination. A copy of the data validation record is presented in Appendix A.

### 5.2 2<sup>nd</sup> Semi-Annual 2023 Compliance Event Findings

The laboratory and field QA/QC data for the second semi-annual compliance monitoring event samples collected October 25, 2023, were reviewed by ESI. Field QA/QC samples for this event included a field blank and a duplicate sample that was collected from compliance well OW-4A that were collected at the LVWSP on October 25, 2023. 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 select radium results were flagged as estimated due to field duplicate imprecision. Select lithium results were flagged as estimated due to field blank contamination. Select TDS results were flagged as estimated due to sample preparation anomalies as detailed in the case narrative of laboratory data package. A copy of the data validation record is presented in Appendix B.

## 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 2022 event data and the 2023 monitoring results were compared to Facility background concentrations and GWPS established on October 17, 2018, as updated.

### 6.1 2<sup>nd</sup> Semi-Annual 2022 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 2022 AMP sampling event. Concentrations above background are identified in Table 2.

The following potential GWPS exceedance was identified for the 2<sup>nd</sup> semi-annual 2022 AMP sampling event based on a value-to-standard evaluation.

Constituent	Federal CCR GWPS	Assessment Monitoring Well	2SA2022 Concentration	2SA2022 Verification
Cobalt (µg/L)	34	OW-2A	440	15
		OW-12	69	66

Note: ug/L = Microgram per liter

As presented, the suspect cobalt concentration in the sample collected at downgradient well OW-2A was not confirmed with verification sampling (see Table 3).

Pursuant to 40 CFR Subpart 257.95(e,f,g), the second semi-annual 2022 results were evaluated against the GWPS. Based on the potential value-to-standard exceedance for cobalt, the cobalt detection at OW-12 was statistically evaluated with a lower confidence limit (LCL) statistical approach. As presented in Appendix C, the LCL calculated for OW-12 was 16.36 ug/L, which is less than the GWPS. As a result, cobalt in well OW-12 is not detected at a statistically significant level above the GWPS during the 2022 2<sup>nd</sup> semi-annual event.

## 6.2 1<sup>st</sup> Semi-Annual 2023 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 4.

The following potential GWPS exceedance was identified for the 1<sup>st</sup> semi-annual 2023 AMP sampling event based on a value-to-standard evaluation.

Constituent	Federal CCR GWPS	Assessment Monitoring Well	1SA2023 Concentration
Cobalt ( $\mu\text{g/L}$ )	34	OW-12	68

Note: ug/L = Microgram per liter

Pursuant to 40 CFR Subpart 257.95(e,f,g), the first semi-annual 2023 results were evaluated against the GWPS. Based on the potential value-to-standard exceedance for cobalt, the cobalt detection at OW-12 was statistically evaluated with a LCL statistical approach. As presented in Appendix D, the LCL calculated for OW-12 was 17.97 ug/L, which is lower than the GWPS. As a result, cobalt in well OW-12 is not detected at a statistically significant level above the GWPS during the 2022 1<sup>st</sup> semi-annual event.

## 6.3 2<sup>nd</sup> Semi-Annual 2023 Assessment Monitoring Data Evaluations

The data for the second semi-annual 2023 AMP sampling event (Table 5) 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 will be presented in the *2024 Annual Groundwater Monitoring and Corrective Action Report*.

## 7.0 CONCLUSIONS

### 7.1 Findings

The first semi-annual 2023 AMP compliance sampling event was completed on April 19, 2023, with sample analyses completed on May 30, 2023. The second semi-annual 2023 AMP compliance sampling event was completed on October 25, 2023, with sample analyses complete on December 28, 2023. These groundwater sampling and analysis activities were conducted in general accordance with the requirements of the LVWSP's GMP.

Comparisons of the laboratory analytical results from the 2022 second semi-annual and 2023 first semiannual sampling events to Federal and WV CCR GWPS identified no statistically confirmed GWPS exceedances. Monitoring results from the second semiannual 2023 AMP event conducted in October 2023 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 2023 AMP sampling event within the CCR Rule prescribed time frames and continue with semi-annual groundwater monitoring activities in 2024 that are consistent with the provisions in the CCR Rule [Part 257.95 et. seq], the WV CCR Rule, and the LVWSP's GMP.

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## 9.0 SIGNATURE SECTION

This 2023 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

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<https://wsponlinenam.sharepoint.com/sites/us-rvadominion/shared%20documents/mt%20storm/31406066.005%20msps%202023%20gw%20deliverables/vwsp/2024-01-xx%202023%20amr/draft%20-%202024-01-31%20mount%20storm%20lwsp%20ccr%20amr.docx>

# **TABLES**

TABLE 1				
SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA				
MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS				
Monitoring	Top of Casing	Date	Depth to Water	Static Water Level Elevation
Well	Elevation (ft ASML)		(feet)	(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
		11/14/2022	13.69	3244.16
		4/19/2023	11.19	3246.66
		10/24/2023	12.48	3245.37
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
		11/14/2022	14.39	3243.02
		4/19/2023	14.10	3243.31
		10/24/2023	13.40	3244.01

TABLE 1				
SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA				
MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS				
Monitoring	Top of Casing	Date	Depth to Water	Static Water Level Elevation
Well	Elevation (ft ASML)		(feet)	(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
		11/14/2022	16.66	3242.07
OW-4A	3257.40	4/19/2023	15.40	3243.33
		10/24/2023	14.19	3244.54
		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
		11/14/2022	14.41	3242.99
		4/19/2023	14.22	3243.18
		10/24/2023	12.91	3244.49

TABLE 1				
SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA				
MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS				
Monitoring	Top of Casing	Date	Depth to Water	Static Water Level Elevation
Well	Elevation (ft ASML)		(feet)	(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
	3251.84	06/04/2018	4.65	3247.23
		10/30/2018	8.71	3243.17
		04/17/2019	6.33	3245.55
		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
		11/14/2022	7.94	3243.90
OW-6B	3252.68	4/19/2023	7.35	3244.49
		10/24/2023	6.65	3245.19
		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
		11/14/2022	9.31	3243.37
		4/19/2023	9.27	3243.41
		10/24/2023	8.43	3244.25

TABLE 1				
SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA				
MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS				
Monitoring	Top of Casing	Date	Depth to Water	Static Water Level Elevation
Well	Elevation (ft ASML)		(feet)	(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
		11/14/2022	37.68	3250.36
		4/19/2023	36.71	3251.33
		10/24/2023	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
		11/14/2022	36.61	3252.70
		4/19/2023	35.16	3254.15
		10/24/2023	36.29	3253.02

TABLE 1				
SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA				
MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS				
Monitoring	Top of Casing	Date	Depth to Water	Static Water Level Elevation
Well	Elevation (ft ASML)		(feet)	(ft AMSL)
OW-8	3304.78	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	3260.34
		11/04/2021	45.03	3259.75
		04/27/2022	44.30	3260.48
		11/14/2022	48.04	3256.74
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
		11/14/2022	59.46	3245.94
		4/19/2023	58.10	3247.30
		10/24/2023	58.73	3246.67

TABLE 1				
SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA				
MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS				
Monitoring	Top of Casing	Date	Depth to Water	Static Water Level Elevation
Well	Elevation (ft AMSL)		(feet)	(ft AMSL)
<b>OW-9A</b>	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
		11/14/2022	>13.33	<3244.43
<b>OW-9B</b>	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
		11/14/2022	14.01	3243.56
		4/19/2023	13.75	3243.82
		10/24/2023	12.73	3244.84

TABLE 1				
SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA				
MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS				
Monitoring	Top of Casing	Date	Depth to Water	Static Water Level Elevation
Well	Elevation (ft AMSL)		(feet)	(ft AMSL)
<b>OW-10</b>	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
		11/14/2022	13.90	3242.96
		4/19/2023	13.68	3243.18
		10/24/2023	12.42	3244.44
<b>OW-11</b>	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
		11/14/2022	16.61	3243.87
		4/19/2023	17.54	3242.94
		10/24/2023	16.90	3243.58

TABLE 1				
SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA				
MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS				
Monitoring	Top of Casing	Date	Depth to Water	Static Water Level Elevation
Well	Elevation (ft ASML)		(feet)	(ft AMSL)
<b>OW-12</b>	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
		11/14/2022	27.03	3242.97
		4/19/2023	26.80	3243.20
		10/24/2023	26.00	3244.00
<b>OW-13</b>	3260.04	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	3243.92
		11/04/2021	15.59	3244.45
		04/27/2022	15.95	3244.09
		11/14/2022	17.06	3242.98
		4/19/2023	16.10	3243.94
		10/24/2023	16.58	3243.46

TABLE 1				
SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA				
MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS				
Monitoring	Top of Casing	Date	Depth to Water	Static Water Level Elevation
Well	Elevation (ft ASML)		(feet)	(ft AMSL)
<b>OW-14</b>	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
		11/14/2022	17.21	3244.40
		4/19/2023	17.50	3244.11
		10/24/2023	16.95	3244.66
<b>OW-15</b>	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
		11/14/2022	11.15	3242.93
		4/19/2023	10.95	3243.13
		10/24/2023	9.61	3244.47
<b>OW-16A</b>	3262.91	10/30/2018	24.21	3238.70
		04/17/2019	20.50	3242.41
		3264.07	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
		11/14/2022	23.63	3240.44
		4/19/2023	22.42	3241.65
		10/24/2023	21.35	3242.72

TABLE 1				
SUMMARY OF HISTORICAL CCR STATIC WATER LEVEL DATA				
MOUNT STORM POWER STATION - LOW VOLUME WASTE SETTLING PONDS				
Monitoring	Top of Casing	Date	Depth to Water	Static Water Level Elevation
Well	Elevation (ft ASML)		(feet)	(ft AMSL)
<b>OW-17A</b>	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
		11/14/2022	22.76	3241.66
		4/19/2023	22.80	3241.62
		10/24/2023	22.35	3242.07
<b>OW-18A</b>	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
		11/14/2022	22.20	3242.28
		4/19/2023	22.03	3242.45
		10/24/2023	21.93	3242.55
<b>OW-19</b>	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
		11/14/2022	19.96	3249.74
		4/19/2023	27.95	3241.75
		10/24/2023	27.93	3241.77
Note:		ft AMSL = feet Above Mean Sea Level		
< = Water level elevation is below the top of pump				



**Table 3**  
**Summary of 2nd Semi-Annual 2022 Verification Event Data (December 2022)**  
**Low Volume Waste Settling Ponds, Mount Storm Power Station**

		Sample ID: Sample Date:			Downgradient Wells						Field Quality Control									
					OW-2A 12/21/2022				OW-12 12/21/2022				OW-2A - Duplicate 12/21/2022				Field Blank 12/21/2022			
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
<b>CCR Appendix IV Constituents</b>																				
Cobalt	µg/L	34	34	34	15		0.19	1.0	66		0.19	1.0	15		0.19	1.0	< 0.19	U	0.19	1.0
<b>Field Parameters</b>																				
Conductivity	µS/cm	--	--	--	894		0.1	0.1	1100		0.1	0.1	--	--	--	--	--	--	--	--
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:**

BKGD = Background  
CCR = Coal Combustion Residuals  
WV CCR = West Virginia CCR Rule  
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  
**Bold font = Detected laboratory constituent**

**Qualifiers (Qual):**

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

 = Concentration greater than site specific background

 = Concentration greater than WV CCR GWPS and site background

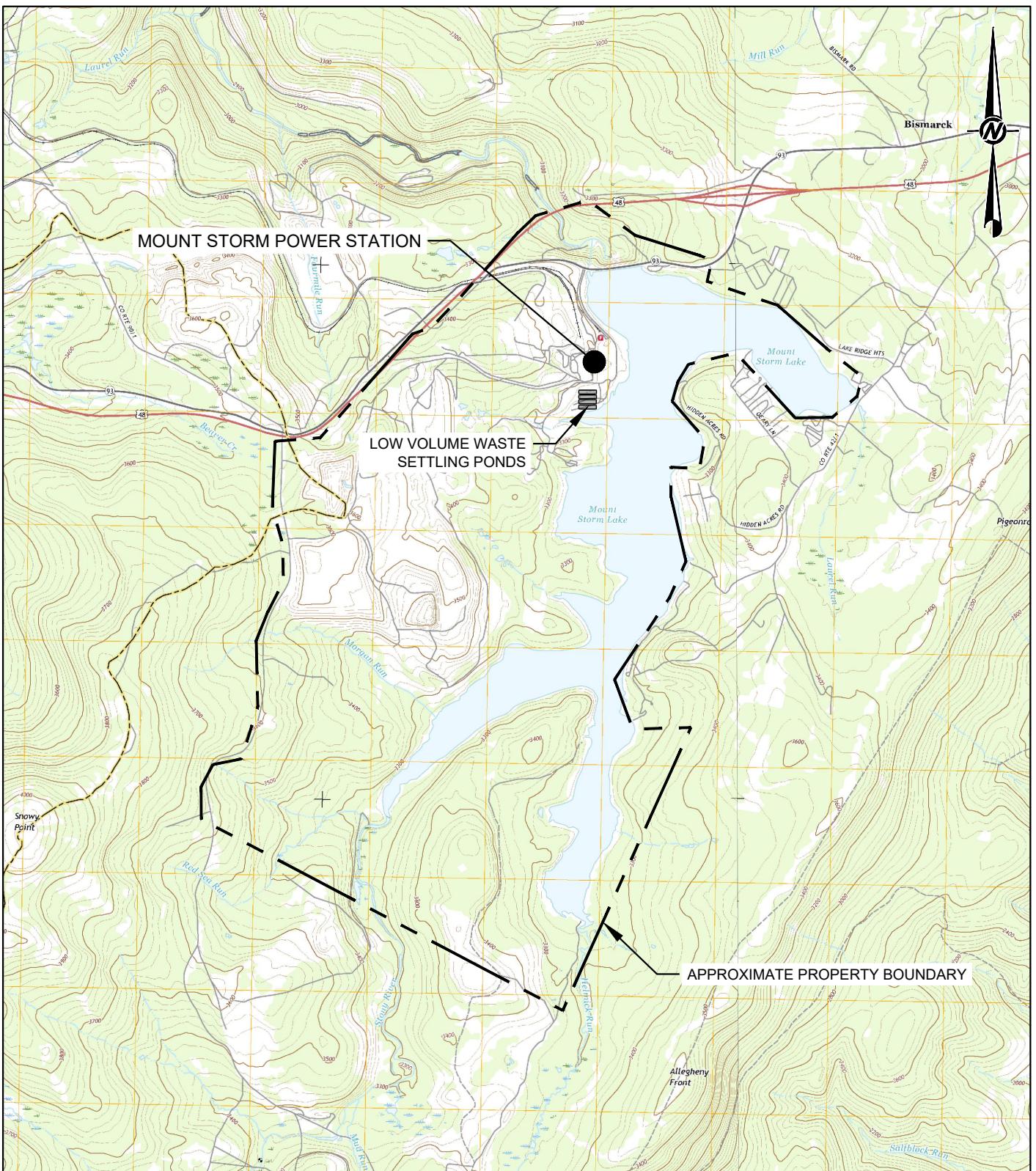
 = Concentration greater than Federal GWPS, WV CCR GWPS, and site background

Table 4  
Summary of 1st Semi-Annual 2023 Assessment Monitoring Program Event Data (April 2023)  
Low Volume Waste Settling Ponds, Mount Storm Power Station

		Upgradient Wells								Downgradient Wells								Field Quality Control																							
		Sample ID: 4/19/2023				OW-7A 4/19/2023				OW-8 4/19/2023				OW-2A 4/19/2023				OW-4A 4/19/2023				OW-10 4/19/2023				OW-12 4/19/2023				OW-13 4/19/2023				OW-7A - Duplicate 4/19/2023				Field Blank 4/19/2023			
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					
<b>CCR Appendix III Constituents</b>																																									
Boron	µg/L	170	--	--	< 57	J	57	100	83	J	57	100	81	J	57	100	57	J	57	100	120	J	57	100	< 57	J	57	100	< 57	J	57	100									
Calcium	µg/L	460000	--	--	42000		250	1000	330000		250	1000	120000		250	1000	64000		250	1000	120000		250	1000	24000		250	1000	42000		250	1000	< 250	J	250	1000					
Chloride	mg/L	208.1	--	--	99	0.13	1.0	180	0.13	1.0	17	0.13	1.0	8.9	0.13	1.0	43	0.13	1.0	210	1.3	10	25	0.13	1.0	96	0.13	1.0	< 0.13	J	0.28	1.0									
Fluoride	mg/L	0.540	--	4.0	0.091	0.024	0.050	0.035	J	0.024	0.050	0.19	0.024	0.050	0.039	J	0.024	0.050	0.11	0.024	0.050	< 0.024	U	0.024	0.050	< 0.024	U	0.024	0.050	0.024	0.050	0.024	0.050								
pH	SU	5.77-7.17	--	--	5.97	0.01	0.01	6.39	0.01	0.01	7.17	0.01	0.01	6.77	0.01	0.01	6.35	0.01	0.01	5.73	0.01	0.01	6.27	0.01	0.01	--	--	--	--	--	--	--	--	--							
Sulfate	mg/L	1000	--	--	9.1	0.35	1.0	770	3.5	10	130	0.35	1.0	32	0.35	1.0	32	0.35	1.0	210	1.3	10	< 0.35	U	0.35	1.0	8.6	0.35	1.0	< 0.35	J	0.35	1.0								
Total Dissolved Solids	mg/L	1819	--	--	260		10	10	1600		10	10	460		10	10	350		10	10	730		10	10	560		10	10	270		10	10	< 10	J	10	10					
<b>CCR Appendix IV Constituents</b>																																									
Antimony	µg/L	QL (2)	--	--	< 0.57	J	0.57	2.0	< 0.57	J	0.57	2.0	< 0.57	J	0.57	2.0	< 0.57	J	0.57	2.0	< 0.57	J	0.57	2.0	< 0.57	J	0.57	2.0	< 0.57	J	0.57	2.0	< 0.57	J	0.57	2.0					
Arsenic	µg/L	QL (5)	10	10	< 0.75	J	0.75	5.0	< 0.75	J	0.75	5.0	< 0.75	J	0.75	5.0	< 0.75	J	0.75	5.0	4.6	J	0.75	5.0	< 0.75	J	0.75	5.0	< 0.75	J	0.75	5.0									
Barium	µg/L	370	2000	2000	320		2.2	5.0	9.6		2.2	5.0	240		2.2	5.0	390		2.2	5.0	90		2.2	5.0	150		2.2	5.0	< 2.2	J	2.2	5.0									
Beryllium	µg/L	QL (4)	4	4	< 0.62	J	0.62	1.0	< 0.62	J	0.62	1.0	< 0.62	J	0.62	1.0	< 0.62	J	0.62	1.0	< 0.62	J	0.62	1.0	< 0.62	J	0.62	1.0	< 0.62	J	0.62	1.0									
Cadmium	µg/L	QL (3)	5	5	< 0.20	J	0.20	1.0	< 0.20	J	0.20	1.0	1.2	J	0.20	1.0	< 0.20	J	0.20	1.0	0.51	J	0.20	1.0	< 0.20	J	0.20	1.0	< 0.20	J	0.20	1.0									
Chromium	µg/L	11	100	100	< 1.2	J	1.2	5.0	< 1.2	J	1.2	5.0	< 1.2	J	1.2	5.0	1.7	J	1.2	5.0	< 1.2	J	1.2	5.0	5.5	J	1.2	5.0	< 1.2	J	1.2	5.0									
Cobalt	µg/L	34	34	34	3.4	0.19	1.0	21	0.19	1.0	3.6	0.19	1.0	0.66	J	0.19	1.0	0.80	J	0.19	1.0	68	J	0.19	1.0	4.0	J	0.19	1.0	< 0.19	J	0.19	1.0								
Fluoride	mg/L	0.540	4.0	4.0	0.091	0.024	0.050	0.035	J	0.024	0.050	0.19	0.024	0.050	0.039	J	0.024	0.050	0.11	0.024	0.050	< 0.024	J	0.024	0.050	< 0.024	J	0.024	0.050	0.024	0.050	0.024	0.050								
Lead	µg/L	QL (10)	15	QL (10)	< 0.45	J	0.45	1.0	< 0.45	J	0.45	1.0	< 0.45	J	0.45	1.0	< 0.45	J	0.45	1.0	< 0.45	J	0.45	1.0	0.80	J	0.45	1.0	< 0.45	J	0.45	1.0									
Lithium	µg/L	QL (40)	40	QL (40)	18		1.7	8.0	< 12	J	12	12	< 9.1	J	9.1	9.1	< 5.5	J	5.5	8.0	< 7.0	J	7.0	8.0	< 4.3	J	4.3	8.0	< 4.9	J	4.9	8.0	19	J	1.7	8.0					
Mercury	µg/L	QL (0.2)	2	2	< 0.13	J	0.13	0.20	< 0.13	J	0.13	0.20	< 0.13	J	0.13	0.20	< 0.13	J	0.13	0.20	< 0.13	J	0.13	0.20	< 0.13	J	0.13	0.20	< 0.13	J	0.13	0.20									
Molybdenum	µg/L	QL (50)	100	QL (50)	< 1.1	J	1.1	5.0	< 1.1	J	1.1	5.0	3.4	J	1.1	5.0	< 1.1	J	1.1	5.0	< 1.1	J	1.1	5.0	< 1.1	J	1.1														



# **DRAWINGS**



## REFERENCE

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

4000 0 4000  
SCALE FEET

CLIENT  
DOMINION ENERGY

PROJECT  
MOUNT STORM POWER STATION  
LOW VOLUME WASTE SETTLING PONDS

CONSULTANT



YYYY-MM-DD 2024-01-29

DESIGNED

SIB

PREPARED

REVIEWED

APPROVED

TITLE

**SITE LOCATION MAP**

PROJECT NO.  
31-406066

REV.  
0

DRAWING  
1



## LEGEND

- 3250** - - - POTENTIOMETRIC SURFACE CONTOUR
- APPROXIMATE GROUNDWATER FLOW LINE
- $i_{1gw} = 195'$  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)
- (3243.13) STATIC GROUNDWATER ELEVATION FOR APRIL 19, 2023 (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.

PROJECT NO.	TITLE	DOMINION ENERGY	
		CONSULTANT	DESIGNED BY
31-406066 005	POTENTIOMETRIC SURFACE MAP APRIL 19, 2023	2024-01-11	MHK SIB
		PREPARED BY	REVIEWED BY
			APPROVED BY

CLIENT DOMINION ENERGY

PROJECT NO. 31-406066 005 IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B 1in

TITLE POTENTIOMETRIC SURFACE MAP APRIL 19, 2023

PROJECT MOUNT STORM POWER STATION LOW VOLUME WASTE SETTLING PONDS

DRAWING NO. 2



## LEGEND

- |  |  |
|--|--|
| <b>3250</b>   | POTENTIOMETRIC SURFACE CONTOUR   |
| <i>i, gw = 195'</i>  | APPROXIMATE GROUNDWATER FLOW LINE  |
|  <b>OW-9A</b> | GROUNDWATER FLOW PATH LENGTH (FEET)  |
|  <b>OW-4A</b> | EXISTING GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION (SHALLOW AQUIFER) |
| (3244.15)  | EXISTING GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION (DEEP AQUIFER)    |
|  <b>OW-9B</b> | STATIC GROUNDWATER ELEVATION FOR OCTOBER 24, 2023 (FEET ABOVE MEAN SEA LEVEL)      |
|  <b>OW-15</b> | EXISTING OBSERVATION WELL LOCATION AND IDENTIFICATION (DEEP AQUIFER)               |
|  <b>OW-15</b> | 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.

CON  
TITLE  
**POTENTIOMETRIC SURFACE MAP**  
**OCTOBER 24, 2023**

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PROJECT NO.  
**31-406066.005**

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DRAWING

1 in If this measurement does not match what is shown, the sheet size has been modified from ANSI B

	2023-12-27
DESIGNED	CPM
PREPARED	SIB
REVIEWED	CKS
APPROVED	CKS

TITLE  
**POTENSIOMETRIC SURFACE MAP**  
**OCTOBER 24, 2023**

**TITLE** **POTENTIOMETER**  
**OCTOBER 24, '05**

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**PROJECT NO.** **31-406066.005**

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**DRAWING**

## **APPENDIX A**

**FIRST SEMI-ANNUAL 2023  
ASSESSMENT MONITORING  
PROGRAM EVENT FIELD DATA  
SHEETS, LABORATORY  
CERTIFICATES OF ANALYSIS,  
CHAIN-OF-CUSTODY FORMS, AND  
DATA VALIDATION FORMS**

Date: 04/19/23WELL GAUGING LOGProject Name: MSPS LVWSPProject No./Task No.: 31406066.005.300.1.LBRSampler(s): C. Megee, M. KnezEquipment: 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	CM	0903	36.71	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-8	CM	1117	45.96	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-2A	MK	1232	14.10	—	<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-4A	CM	1422	14.22	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-10	MK	1141	13.68	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-12	CM	1416 1538	26.80	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-13	CM	0913	16.10	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-2	MK	1300	11.19	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-4	CM	1423	15.40	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-6A	MK	1339	7.35	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-6B	MK	1335	9.27	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-7B	CM	0901	35.16	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-8A	CM	1115	58.10	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-9A	CM	1244	BTOP	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-9B	CM	1243	13.75	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-11	CM	1237	17.54	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
					<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> OK <input type="checkbox"/> Damaged

Observations/Notes:

Signature: C. MegeeDate: 04/19/23QA/QC Signature: M. KnezDate: 04/21/23

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Date: 04/19/23

## WELL GAUGING LOG

Project Name: MSPS LVWSP

Project No./Task No.: 31406066.005.300.1.LBR

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	CM	1239	17.50	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-15	CM	1235	10.95	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-16	CM	0924	22.42	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-17	CM	0921	22.80	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-18	CM	0927	22.03	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-19	CM	0929	27.95	—	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
					<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> OK <input type="checkbox"/> Damaged
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					<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> OK <input type="checkbox"/> Damaged
					<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> OK <input type="checkbox"/> Damaged

**Observations/Notes:**

Signature: 

Date: 04/14/23

QA/QC Signature: M. Kuy

Date: 04/21/13













## MICROPURGE SAMPLING LOG

Date: 04/19/2023

Weather: Sunny 60's

Project Name:	<u>Mount Storm Power Station</u>	Project No./Task No.:	31406066.005
Event:	1SA23 <u>LVNSP</u>	Sampler(s):	<u>C.Meyer</u>
Well ID:	<u>DN-12</u>	Field Calibration Completed:	<u>04/19/23 @ 0830</u>
Well Diameter:	<u>2.0</u> inches	Initial Depth to Water:	<u>BTOP</u> feet
Depth to Bottom:	— feet	Water Column Thickness:	— feet
Equipment Used:	<input checked="" type="checkbox"/> WL Indicator <input type="checkbox"/> Turbidity Meter <input type="checkbox"/> Air Tank <input type="checkbox"/> Dedicated Bladder Pump <input checked="" type="checkbox"/> YSI <u>7000SS18X100510</u> <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Compressor <input checked="" type="checkbox"/> Non-dedicated BP <input type="checkbox"/> In-Situ <input type="checkbox"/> MP-10 Controller Box <input checked="" type="checkbox"/> MP-15 Controller Box <input type="checkbox"/> —		

Purge Cycle (End): 26/4 seconds @ ~~20~~~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):

Total Purge Volume (Gallons): ~~1,000~~ ~1.5 Purge Water Management: O.W.S. On-site

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

Purge time: 1540

Sample Time: 1605

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],  Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl], Cl, SO<sub>4</sub>, TDS, TSS) Cr Tot, NO<sub>2</sub>+NO<sub>3</sub> N, SO<sub>4</sub>, NH<sub>3</sub>-N Tot, TDS, TSS)

Variance (Diss [Be, Cd, Cr, Pb, Ni])  LVWSP 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, Ti, Rad 226-228)

#### **Other Observations / Equipment Operation Problems:**

Sample ID: 041923Nov12

Sampler Signature: Celia  
QA/QC Signature: M. Kuy

Date: 04/10/23

Date: 04/21/23



## MICROPURGE SAMPLING LOG

Date: 04/19/2023

Weather: Sunny 60°

Project Name:	Mount Storm Power Station	Project No./Task No.:	31406066.005
Event:	1SA23 LVWSP	Sampler(s):	C.Meyer
Well ID:	OW-13	Field Calibration Completed:	04/19/23 @ 0830
Well Diameter:	2.0 inches	Initial Depth to Water:	17.00 feet
Depth to Bottom:	— feet	Water Column Thickness:	— feet
Equipment Used:	<input checked="" type="checkbox"/> WL Indicator <input type="checkbox"/> Turbidity Meter <input type="checkbox"/> Air Tank <input type="checkbox"/> Dedicated Bladder Pump <input checked="" type="checkbox"/> YSI 7800SS18K100510 <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Compressor <input checked="" type="checkbox"/> Non-dedicated BP <input type="checkbox"/> In-Situ <input type="checkbox"/> MP-10 Controller Box <input checked="" type="checkbox"/> MP-15 Controller Box <input type="checkbox"/>		

Time (5 minute int.)	pH (S.U.)	Sp. Cond. ( $\mu\text{S}/\text{cm}$ ) <sup>oC</sup>	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
1226	6.26	890	57.19	0.44	11.5	-39.4	18.70	~200
1231	6.26	878	49.80	0.28	11.6	-44.3	18.70	~200
1236	6.26	871	51.66	0.18	11.7	-47.6	18.70	~200
1241	6.26	854	48.93	0.14	11.7	-50.9	18.70	~200
1246	6.27	838	41.39	0.12	11.8	-54.3	19.00	~200
1251	6.27	816	36.75	0.08	11.9	-55.8	19.20	~200
1256	6.26	780	59.03	0.13	11.7	-57.7	19.70	~200
1301	6.26	769	55.50	0.06	11.9	-59.0	19.70	~200
1306	6.26	752	57.83	0.05	12.0	-60.0	19.60	~200
1311	6.26	734	54.62	0.04	12.1	-60.9	19.60	~200
1316	6.26	711	41.35	0.03	12.2	-61.5	19.60	~200
1321	6.26	689	33.10	0.03	12.2	-61.8	19.58	~200
1326	6.26	672	21.51	0.03	12.3	-62.1	19.60	~200
1331	6.26	663	19.40	0.03	12.2	-62.3	19.60	~200
1336	6.27	667	20.15	0.02	12.1	-62.8	19.60	~200
1340	—	S	A	M	P	L	E	—
1359	6.27	645	21.42	0.22	12.2	-63.1	19.65	~200

Purge Cycle (End): 24/6 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): ~6.5 Purge Water Management: O.W.S. On-Site

Purge Observations (color, odor, turbidity, sheen): Clear grates fit for grab sample

Purge time: 1216

Sample Time: 1340

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], Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bo, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Ti], Cl, SO4, TDS, TSS) Cr Tot, NO2+NO3 N, SO4, NH3-N Tot, TDS, TSS) Variance (Diss [Be, Cd, Cr, LVWSP IV Detects (As, Ba, Be, Cd, Cr, Co, Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Cr, Co, Pb, Mo, Ti, Rad 226-228) Pb, Li, Se, Rad 226-228) Be, Cd, Cr, Co, Pb, Li, Mo, Se, Pb, Ni])

Other Observations / Equipment Operation Problems:

Sample ID: 041923NOW13

Sampler Signature:

Date: 04/19/23

Page 1 of 1

QA/QC Signature:

Date: 04/21/23



## MICROPURGE SAMPLING LOG

Date: 04/19/2023

Weather: Sunny, windy, 70's

Project Name: Mount Storm Power Station

Project No./Task No.: 31406066.005

Event: 1SA23 LVWSP

Sampler(s): C. Meador

Well ID: Field Blank

Field Calibration Completed: 04/ 23 @ —

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  \_\_\_\_\_

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 near Hwy-9A

W1 bath provisioned DI water

Sample Time: 1450 Field Filtered (0.45μm):  Yes  No

---

Petro (DBO)       CCR Appendix III       CCR Appendix IV

Phase A&B NPDES (Diss [Al, Sb, As, Ba, Be, Bc, Cd, Cu, Fe, Pb, Mn, Hg, Ni, Se, Tl] Cl)

Variance (Disc [Ba, Cd, Cr, Mn, Pb, SO<sub>4</sub>, TDS, TSS])  LHMCD-IV B (As, Ba, Cd, Cr, Mn, Pb, SO<sub>4</sub>, NH<sub>3</sub>-N Tot, TDS, TSS) Phase B IV Detects (As, Ba, Cd, Cr, Mn, Pb, SO<sub>4</sub>, NH<sub>3</sub>-N Tot, TDS, TSS)

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

Other Observations / Equipment Operation Problems:

Sample ID: 041923 FB Field Blank

Sampler Signature: CJW Date: 04/19/2023 Page 1 of 1

QA/QC Signature: *M. Kuz* Date: 04/21/2023



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kelly Hicks  
Dominion Energy Services, Inc.  
5000 Dominion Blvd  
Glen Allen, Virginia 23060

Generated 5/30/2023 10:49:18 AM

## JOB DESCRIPTION

MSPS-1SA2023-LVWSP CCR-D  
SDG NUMBER LVWSP CCR Group D

## JOB NUMBER

240-184000-1

# Eurofins Cleveland

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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## Authorization



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Authorized for release by  
Roxanne Cisneros, Senior Project Manager  
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(615)301-5761

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# Definitions/Glossary

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

## Qualifiers

### Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
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

# Case Narrative

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

## Job ID: 240-184000-1

### Laboratory: Eurofins Cleveland

#### Narrative

#### Job Narrative 240-184000-1

#### Receipt

The samples were received on 4/21/2023 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 3 coolers at receipt time were 0.5°C, 3.3°C and 5.3°C

#### Metals

Method 6020B: The continuing calibration verification (CCV) associated with batch 240-570845 recovered above the upper control limit for beryllium. The samples associated with this CCV were below the reported limit for the affected analytes; therefore, the data have been reported. The associated samples are impacted: 041923NOW10 (240-184000-5), 041923NOW12 (240-184000-6), 041923NOW13 (240-184000-7), 041923FBFIELDLANK (240-184000-8) and 041923FDDUPLICATE (240-184000-9).

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 prep batch 160-609999: 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. 041923NOW7A (240-184000-1), 041923NOW8 (240-184000-2), 041923NOW2A (240-184000-3), 041923NOW4A (240-184000-4), 041923NOW4A (240-184000-4[MS]), 041923NOW4A (240-184000-4[MSD]), 041923NOW10 (240-184000-5), 041923NOW12 (240-184000-6), 041923NOW13 (240-184000-7), 041923FBFIELDLANK (240-184000-8), 041923FDDUPLICATE (240-184000-9), (LCS 160-609999/2-A) and (MB 160-609999/1-A)

Method 9320\_Ra228: Radium-228 batch 610015: 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. 041923NOW7A (240-184000-1), 041923NOW8 (240-184000-2), 041923NOW2A (240-184000-3), 041923NOW4A (240-184000-4), 041923NOW4A (240-184000-4[MS]), 041923NOW4A (240-184000-4[MSD]), 041923NOW10 (240-184000-5), 041923NOW12 (240-184000-6), 041923NOW13 (240-184000-7), 041923FBFIELDLANK (240-184000-8), 041923FDDUPLICATE (240-184000-9), (LCS 160-610015/2-A) and (MB 160-610015/1-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.  
 Project/Site: MSPS-1SA2023-LWWSP CCR-D

Job ID: 240-184000-1  
 SDG: LWWSP CCR Group D

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
9056A	Anions, Ion Chromatography	SW846	EET CLE
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 CLE
7470A	Preparation, Mercury	SW846	EET CLE
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 CLE = Eurofins Cleveland, 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: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-184000-1	041923NOW7A	Water	04/19/23 10:25	04/21/23 09:30
240-184000-2	041923NOW8	Water	04/19/23 11:55	04/21/23 09:30
240-184000-3	041923NOW2A	Water	04/19/23 13:15	04/21/23 09:30
240-184000-4	041923NOW4A	Water	04/19/23 14:55	04/21/23 09:30
240-184000-5	041923NOW10	Water	04/19/23 12:15	04/21/23 09:30
240-184000-6	041923NOW12	Water	04/19/23 16:05	04/21/23 09:30
240-184000-7	041923NOW13	Water	04/19/23 13:40	04/21/23 09:30
240-184000-8	041923FBFIELDBLANK	Water	04/19/23 14:50	04/21/23 09:30
240-184000-9	041923FDDUPLICATE	Water	04/19/23 10:50	04/21/23 09:30

# Detection Summary

Client: Dominion Energy Services, Inc.  
 Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
 SDG: LVWSP CCR Group D

## Client Sample ID: 041923NOW7A

## Lab Sample ID: 240-184000-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	320		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	42000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	3.4		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	18	B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Chloride	99		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.091		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	9.1		1.0	0.35	mg/L	1		9056A	Total/NA
Total Dissolved Solids	260		10	10	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: 041923NOW8

## Lab Sample ID: 240-184000-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	83	J	100	57	ug/L	1		6010D	Total Recoverable
Barium	9.6		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	330000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	21		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	12	B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Chloride	180		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.035	J	0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	770		10	3.5	mg/L	10		9056A	Total/NA
Total Dissolved Solids	1600		10	10	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: 041923NOW2A

## Lab Sample ID: 240-184000-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	81	J	100	57	ug/L	1		6010D	Total Recoverable
Barium	240		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cadmium	1.2		1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	120000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	3.6		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	9.1	B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Molybdenum	3.4	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Chloride	17		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.19		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	460		10	10	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

## Client Sample ID: 041923NOW4A

## Lab Sample ID: 240-184000-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	100		5.0	2.2	ug/L	1		6020B	Total Recoverable
Beryllium	0.62	J	1.0	0.62	ug/L	1		6020B	Total Recoverable
Calcium	31000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.66	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	5.5	J B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Molybdenum	1.7	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Thallium	0.45	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Chloride	8.9		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.039	J	0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	32		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: 041923NOW10

## Lab Sample ID: 240-184000-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	57	J	100	57	ug/L	1		6010D	Total Recoverable
Barium	390		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	64000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.7	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.80	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	7.0	J B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Chloride	43		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	32		1.0	0.35	mg/L	1		9056A	Total/NA
Total Dissolved Solids	350		10	10	mg/L	1		SM 2540C	Total/NA

## Client Sample ID: 041923NOW12

## Lab Sample ID: 240-184000-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	120		100	57	ug/L	1		6010D	Total Recoverable
Barium	90		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cadmium	0.51	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	120000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	68		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	4.3	J B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Chloride	210		10	1.3	mg/L	10		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

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## Detection Summary

Client: Dominion Energy Services, Inc.  
 Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
 SDG: LVWSP CCR Group D

### **Client Sample ID: 041923NOW12 (Continued)**

### **Lab Sample ID: 240-184000-6**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	210		10	3.5	mg/L	10		9056A	Total/NA
Total Dissolved Solids	730		10	10	mg/L	1		SM 2540C	Total/NA

### **Client Sample ID: 041923NOW13**

### **Lab Sample ID: 240-184000-7**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.6	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	150		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	24000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	5.5		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	4.0		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.80	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	4.9	J B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Chloride	25		1.0	0.13	mg/L	1		9056A	Total/NA
Total Dissolved Solids	560		10	10	mg/L	1		SM 2540C	Total/NA

### **Client Sample ID: 041923FBFIELDBLANK**

### **Lab Sample ID: 240-184000-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	2.6	J B	8.0	1.7	ug/L	1		6020B	Total Recoverable

### **Client Sample ID: 041923FDDUPLICATE**

### **Lab Sample ID: 240-184000-9**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	320		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	42000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	3.1		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	19	B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Chloride	96		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	8.6		1.0	0.35	mg/L	1		9056A	Total/NA
Total Dissolved Solids	270		10	10	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923NOW7A**

**Lab Sample ID: 240-184000-1**

**Matrix: Water**

Date Collected: 04/19/23 10:25

Date Received: 04/21/23 09:30

## Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		04/24/23 14:00	04/26/23 06:22	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		04/24/23 14:00	04/25/23 18:11	1
Arsenic	<0.75		5.0	0.75	ug/L		04/24/23 14:00	04/25/23 18:11	1
<b>Barium</b>	<b>320</b>		5.0	2.2	ug/L		04/24/23 14:00	04/25/23 18:11	1
Beryllium	<0.62		1.0	0.62	ug/L		04/24/23 14:00	04/25/23 18:11	1
Cadmium	<0.20		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 18:11	1
<b>Calcium</b>	<b>42000</b>		1000	250	ug/L		04/24/23 14:00	04/25/23 18:11	1
Chromium	<1.2		5.0	1.2	ug/L		04/24/23 14:00	04/25/23 18:11	1
<b>Cobalt</b>	<b>3.4</b>		1.0	0.19	ug/L		04/24/23 14:00	04/25/23 18:11	1
Lead	<0.45		1.0	0.45	ug/L		04/24/23 14:00	04/25/23 18:11	1
<b>Lithium</b>	<b>18 B</b>		8.0	1.7	ug/L		04/24/23 14:00	04/25/23 18:11	1
Molybdenum	<1.1		5.0	1.1	ug/L		04/24/23 14:00	04/25/23 18:11	1
Selenium	<0.89		5.0	0.89	ug/L		04/24/23 14:00	04/25/23 18:11	1
Thallium	<0.20		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 18:11	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		04/24/23 14:00	04/25/23 14:29	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	99		1.0	0.13	mg/L			05/15/23 07:49	1
Fluoride (SW846 9056A)	0.091		0.050	0.024	mg/L			05/15/23 07:49	1
Sulfate (SW846 9056A)	9.1		1.0	0.35	mg/L			05/15/23 07:49	1
Total Dissolved Solids (SM 2540C)	260		10	10	mg/L			04/26/23 21:09	1

## Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-226	0.140	U	0.112	0.113	1.00	0.165	pCi/L	05/03/23 12:59	05/25/23 16:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.2		30 - 110					05/03/23 12:59	05/25/23 16:12	1

## Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-228	0.192	U	0.300	0.301	1.00	0.511	pCi/L	05/03/23 15:17	05/22/23 16:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.2		30 - 110					05/03/23 15:17	05/22/23 16:06	1
Y Carrier	81.9		30 - 110					05/03/23 15:17	05/22/23 16:06	1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923NOW7A**

**Lab Sample ID: 240-184000-1**

Matrix: Water

Date Collected: 04/19/23 10:25  
Date Received: 04/21/23 09:30

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Radium 226 and 228	0.332	U	0.320	0.322	5.00	0.511	pCi/L		05/26/23 14:30	1

# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923NOW8**

**Lab Sample ID: 240-184000-2**

**Matrix: Water**

Date Collected: 04/19/23 11:55  
Date Received: 04/21/23 09:30

## Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	83	J	100	57	ug/L		04/24/23 14:00	04/26/23 06:26	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		04/24/23 14:00	04/25/23 18:13	1
Arsenic	<0.75		5.0	0.75	ug/L		04/24/23 14:00	04/25/23 18:13	1
<b>Barium</b>	<b>9.6</b>		5.0	2.2	ug/L		04/24/23 14:00	04/25/23 18:13	1
Beryllium	<0.62		1.0	0.62	ug/L		04/24/23 14:00	04/25/23 18:13	1
Cadmium	<0.20		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 18:13	1
<b>Calcium</b>	<b>330000</b>		1000	250	ug/L		04/24/23 14:00	04/25/23 18:13	1
Chromium	<1.2		5.0	1.2	ug/L		04/24/23 14:00	04/25/23 18:13	1
<b>Cobalt</b>	<b>21</b>		1.0	0.19	ug/L		04/24/23 14:00	04/25/23 18:13	1
Lead	<0.45		1.0	0.45	ug/L		04/24/23 14:00	04/25/23 18:13	1
<b>Lithium</b>	<b>12</b> B		8.0	1.7	ug/L		04/24/23 14:00	04/25/23 18:13	1
Molybdenum	<1.1		5.0	1.1	ug/L		04/24/23 14:00	04/25/23 18:13	1
Selenium	<0.89		5.0	0.89	ug/L		04/24/23 14:00	04/25/23 18:13	1
Thallium	<0.20		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 18:13	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		04/24/23 14:00	04/25/23 14:31	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	180		1.0	0.13	mg/L			05/15/23 08:10	1
Fluoride (SW846 9056A)	0.035 J		0.050	0.024	mg/L			05/15/23 08:10	1
Sulfate (SW846 9056A)	770		10	3.5	mg/L			05/15/23 08:32	10
Total Dissolved Solids (SM 2540C)	1600		10	10	mg/L			04/26/23 21:09	1

## Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-226	0.0463	U	0.0827	0.0828	1.00	0.148	pCi/L	05/03/23 12:59	05/25/23 16:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		30 - 110					05/03/23 12:59	05/25/23 16:12	1

## Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-228	0.561	U	0.426	0.429	1.00	0.661	pCi/L	05/03/23 15:17	05/22/23 16:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		30 - 110					05/03/23 15:17	05/22/23 16:06	1
Y Carrier	76.6		30 - 110					05/03/23 15:17	05/22/23 16:06	1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923NOW8**

**Lab Sample ID: 240-184000-2**

Matrix: Water

Date Collected: 04/19/23 11:55  
Date Received: 04/21/23 09:30

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Radium 226 and 228	0.607	U	0.434	0.437	5.00	0.661	pCi/L		05/26/23 14:30	1

# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923NOW2A**

**Lab Sample ID: 240-184000-3**

**Matrix: Water**

Date Collected: 04/19/23 13:15  
Date Received: 04/21/23 09:30

## Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	81	J	100	57	ug/L		04/24/23 14:00	04/26/23 06:31	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		04/24/23 14:00	04/25/23 18:16	1
Arsenic	<0.75		5.0	0.75	ug/L		04/24/23 14:00	04/25/23 18:16	1
<b>Barium</b>	<b>240</b>		5.0	2.2	ug/L		04/24/23 14:00	04/25/23 18:16	1
Beryllium	<0.62		1.0	0.62	ug/L		04/24/23 14:00	04/25/23 18:16	1
<b>Cadmium</b>	<b>1.2</b>		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 18:16	1
<b>Calcium</b>	<b>120000</b>		1000	250	ug/L		04/24/23 14:00	04/25/23 18:16	1
Chromium	<1.2		5.0	1.2	ug/L		04/24/23 14:00	04/25/23 18:16	1
<b>Cobalt</b>	<b>3.6</b>		1.0	0.19	ug/L		04/24/23 14:00	04/25/23 18:16	1
Lead	<0.45		1.0	0.45	ug/L		04/24/23 14:00	04/25/23 18:16	1
<b>Lithium</b>	<b>9.1</b>	<b>B</b>	8.0	1.7	ug/L		04/24/23 14:00	04/25/23 18:16	1
<b>Molybdenum</b>	<b>3.4</b>	<b>J</b>	5.0	1.1	ug/L		04/24/23 14:00	04/25/23 18:16	1
Selenium	<0.89		5.0	0.89	ug/L		04/24/23 14:00	04/25/23 18:16	1
Thallium	<0.20		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 18:16	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		04/24/23 14:00	04/25/23 14:33	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride (SW846 9056A)</b>	<b>17</b>		1.0	0.13	mg/L			05/15/23 08:54	1
<b>Fluoride (SW846 9056A)</b>	<b>0.19</b>		0.050	0.024	mg/L			05/15/23 08:54	1
<b>Sulfate (SW846 9056A)</b>	<b>130</b>		1.0	0.35	mg/L			05/15/23 08:54	1
<b>Total Dissolved Solids (SM 2540C)</b>	<b>460</b>		10	10	mg/L			04/26/23 21:09	1

## Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-226	0.367		0.154	0.158	1.00	0.153	pCi/L	05/03/23 12:59	05/25/23 16:12	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	79.3		30 - 110					05/03/23 12:59	05/25/23 16:12	1

## Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-228	0.365	U	0.353	0.355	1.00	0.565	pCi/L	05/03/23 15:17	05/22/23 16:06	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	79.3		30 - 110					05/03/23 15:17	05/22/23 16:06	1
Y Carrier	84.5		30 - 110					05/03/23 15:17	05/22/23 16:06	1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923NOW2A**

**Lab Sample ID: 240-184000-3**

Date Collected: 04/19/23 13:15

Matrix: Water

Date Received: 04/21/23 09:30

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2 $\sigma$ +/-)	(2 $\sigma$ +/-)						
Radium 226 and 228	0.732		0.385	0.389	5.00	0.565	pCi/L		05/26/23 14:30	1

# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923NOW4A**

**Lab Sample ID: 240-184000-4**

**Matrix: Water**

Date Collected: 04/19/23 14:55  
Date Received: 04/21/23 09:30

## Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		04/24/23 14:00	04/26/23 05:10	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		04/24/23 14:00	04/25/23 17:26	1
<b>Arsenic</b>	<b>1.3 J</b>		5.0	0.75	ug/L		04/24/23 14:00	04/25/23 17:26	1
<b>Barium</b>	<b>100</b>		5.0	2.2	ug/L		04/24/23 14:00	04/25/23 17:26	1
<b>Beryllium</b>	<b>0.62 J</b>		1.0	0.62	ug/L		04/24/23 14:00	04/25/23 17:26	1
Cadmium	<0.20		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 17:26	1
<b>Calcium</b>	<b>31000</b>		1000	250	ug/L		04/24/23 14:00	04/25/23 17:26	1
Chromium	<1.2		5.0	1.2	ug/L		04/24/23 14:00	04/25/23 17:26	1
<b>Cobalt</b>	<b>0.66 J</b>		1.0	0.19	ug/L		04/24/23 14:00	04/25/23 17:26	1
Lead	<0.45		1.0	0.45	ug/L		04/24/23 14:00	04/25/23 17:26	1
<b>Lithium</b>	<b>5.5 JB</b>		8.0	1.7	ug/L		04/24/23 14:00	04/25/23 17:26	1
<b>Molybdenum</b>	<b>1.7 J</b>		5.0	1.1	ug/L		04/24/23 14:00	04/25/23 17:26	1
Selenium	<0.89		5.0	0.89	ug/L		04/24/23 14:00	04/25/23 17:26	1
<b>Thallium</b>	<b>0.45 J</b>		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 17:26	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		04/24/23 14:00	04/25/23 13:57	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride (SW846 9056A)</b>	<b>8.9</b>		1.0	0.13	mg/L			05/15/23 06:43	1
<b>Fluoride (SW846 9056A)</b>	<b>0.039 J</b>		0.050	0.024	mg/L			05/15/23 06:43	1
<b>Sulfate (SW846 9056A)</b>	<b>32</b>		1.0	0.35	mg/L			05/15/23 06:43	1
<b>Total Dissolved Solids (SM 2540C)</b>	<b>140</b>		10	10	mg/L			04/26/23 21:09	1

## Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-226	0.0272	U	0.103	0.103	1.00	0.193	pCi/L	05/03/23 12:59	05/25/23 16:13	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	92.0		30 - 110					05/03/23 12:59	05/25/23 16:13	1

## Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-228	0.556		0.356	0.360	1.00	0.528	pCi/L	05/03/23 15:17	05/22/23 16:07	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	92.0		30 - 110					05/03/23 15:17	05/22/23 16:07	1
Y Carrier	81.5		30 - 110					05/03/23 15:17	05/22/23 16:07	1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923NOW4A**

**Lab Sample ID: 240-184000-4**

Date Collected: 04/19/23 14:55

Matrix: Water

Date Received: 04/21/23 09:30

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2 $\sigma$ +/-)	(2 $\sigma$ +/-)						
Radium 226 and 228	0.583		0.371	0.374	5.00	0.528	pCi/L		05/26/23 14:30	1

# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923NOW10**

**Lab Sample ID: 240-184000-5**

**Matrix: Water**

Date Collected: 04/19/23 12:15  
Date Received: 04/21/23 09:30

## Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	57	J	100	57	ug/L		04/24/23 14:00	04/26/23 06:43	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		04/24/23 14:00	04/25/23 18:24	1
Arsenic	<0.75		5.0	0.75	ug/L		04/24/23 14:00	04/25/23 18:24	1
<b>Barium</b>	<b>390</b>		5.0	2.2	ug/L		04/24/23 14:00	04/25/23 18:24	1
Beryllium	<0.62	^+	1.0	0.62	ug/L		04/24/23 14:00	04/25/23 18:24	1
Cadmium	<0.20		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 18:24	1
<b>Calcium</b>	<b>64000</b>		1000	250	ug/L		04/24/23 14:00	04/25/23 18:24	1
<b>Chromium</b>	<b>1.7 J</b>		5.0	1.2	ug/L		04/24/23 14:00	04/25/23 18:24	1
<b>Cobalt</b>	<b>0.80 J</b>		1.0	0.19	ug/L		04/24/23 14:00	04/25/23 18:24	1
Lead	<0.45		1.0	0.45	ug/L		04/24/23 14:00	04/25/23 18:24	1
<b>Lithium</b>	<b>7.0 JB</b>		8.0	1.7	ug/L		04/24/23 14:00	04/25/23 18:24	1
Molybdenum	<1.1		5.0	1.1	ug/L		04/24/23 14:00	04/25/23 18:24	1
Selenium	<0.89		5.0	0.89	ug/L		04/24/23 14:00	04/25/23 18:24	1
Thallium	<0.20		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 18:24	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		04/24/23 14:00	04/25/23 14:35	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride (SW846 9056A)</b>	<b>43</b>		1.0	0.13	mg/L			05/15/23 10:21	1
<b>Fluoride (SW846 9056A)</b>	<b>0.11</b>		0.050	0.024	mg/L			05/15/23 10:21	1
<b>Sulfate (SW846 9056A)</b>	<b>32</b>		1.0	0.35	mg/L			05/15/23 10:21	1
<b>Total Dissolved Solids (SM 2540C)</b>	<b>350</b>		10	10	mg/L			04/26/23 21:09	1

## Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-226	0.424		0.219	0.222	1.00	0.280	pCi/L	05/03/23 12:59	05/25/23 16:13	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	81.5		30 - 110					05/03/23 12:59	05/25/23 16:13	1

## Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-228	1.66		0.696	0.713	1.00	0.932	pCi/L	05/03/23 15:17	05/22/23 16:08	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	81.5		30 - 110					05/03/23 15:17	05/22/23 16:08	1
Y Carrier	75.1		30 - 110					05/03/23 15:17	05/22/23 16:08	1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923NOW10**

**Lab Sample ID: 240-184000-5**

Date Collected: 04/19/23 12:15

Matrix: Water

Date Received: 04/21/23 09:30

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2 $\sigma$ +/-)	(2 $\sigma$ +/-)						
Radium 226 and 228	2.08		0.730	0.747	5.00	0.932	pCi/L		05/26/23 14:30	1

# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923NOW12**

**Lab Sample ID: 240-184000-6**

**Matrix: Water**

Date Collected: 04/19/23 16:05  
Date Received: 04/21/23 09:30

## Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	120		100	57	ug/L		04/24/23 14:00	04/26/23 06:48	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		04/24/23 14:00	04/25/23 18:26	1
Arsenic	<0.75		5.0	0.75	ug/L		04/24/23 14:00	04/25/23 18:26	1
<b>Barium</b>	<b>90</b>		5.0	2.2	ug/L		04/24/23 14:00	04/25/23 18:26	1
Beryllium	<0.62	^+	1.0	0.62	ug/L		04/24/23 14:00	04/25/23 18:26	1
<b>Cadmium</b>	<b>0.51 J</b>		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 18:26	1
<b>Calcium</b>	<b>120000</b>		1000	250	ug/L		04/24/23 14:00	04/25/23 18:26	1
Chromium	<1.2		5.0	1.2	ug/L		04/24/23 14:00	04/25/23 18:26	1
<b>Cobalt</b>	<b>68</b>		1.0	0.19	ug/L		04/24/23 14:00	04/25/23 18:26	1
Lead	<0.45		1.0	0.45	ug/L		04/24/23 14:00	04/25/23 18:26	1
<b>Lithium</b>	<b>4.3 JB</b>		8.0	1.7	ug/L		04/24/23 14:00	04/25/23 18:26	1
Molybdenum	<1.1		5.0	1.1	ug/L		04/24/23 14:00	04/25/23 18:26	1
Selenium	<0.89		5.0	0.89	ug/L		04/24/23 14:00	04/25/23 18:26	1
Thallium	<0.20		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 18:26	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		04/24/23 14:00	04/25/23 14:37	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride (SW846 9056A)</b>	<b>210</b>		10	1.3	mg/L			05/15/23 11:05	10
Fluoride (SW846 9056A)	<0.024		0.050	0.024	mg/L			05/15/23 10:43	1
<b>Sulfate (SW846 9056A)</b>	<b>210</b>		10	3.5	mg/L			05/15/23 11:05	10
<b>Total Dissolved Solids (SM 2540C)</b>	<b>730</b>		10	10	mg/L			04/26/23 21:09	1

## Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Radium-226	0.211	U	0.156	0.157	1.00	0.230	pCi/L	05/03/23 12:59	05/25/23 16:14	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	82.2		30 - 110					05/03/23 12:59	05/25/23 16:14	1

## Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Radium-228	0.777		0.390	0.396	1.00	0.527	pCi/L	05/03/23 15:17	05/22/23 16:08	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	82.2		30 - 110					05/03/23 15:17	05/22/23 16:08	1
Y Carrier	80.4		30 - 110					05/03/23 15:17	05/22/23 16:08	1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923NOW12**

**Lab Sample ID: 240-184000-6**

Date Collected: 04/19/23 16:05

Matrix: Water

Date Received: 04/21/23 09:30

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2 $\sigma$ +/-)	(2 $\sigma$ +/-)						
Radium 226 and 228	0.988		0.420	0.426	5.00	0.527	pCi/L		05/26/23 14:30	1

# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923NOW13**

**Lab Sample ID: 240-184000-7**

**Matrix: Water**

Date Collected: 04/19/23 13:40  
Date Received: 04/21/23 09:30

## Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		04/24/23 14:00	04/26/23 06:52	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		04/24/23 14:00	04/25/23 18:29	1
<b>Arsenic</b>	<b>4.6</b>	<b>J</b>	5.0	0.75	ug/L		04/24/23 14:00	04/25/23 18:29	1
<b>Barium</b>	<b>150</b>		5.0	2.2	ug/L		04/24/23 14:00	04/25/23 18:29	1
Beryllium	<0.62	^+	1.0	0.62	ug/L		04/24/23 14:00	04/25/23 18:29	1
Cadmium	<0.20		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 18:29	1
<b>Calcium</b>	<b>24000</b>		1000	250	ug/L		04/24/23 14:00	04/25/23 18:29	1
<b>Chromium</b>	<b>5.5</b>		5.0	1.2	ug/L		04/24/23 14:00	04/25/23 18:29	1
<b>Cobalt</b>	<b>4.0</b>		1.0	0.19	ug/L		04/24/23 14:00	04/25/23 18:29	1
<b>Lead</b>	<b>0.80</b>	<b>J</b>	1.0	0.45	ug/L		04/24/23 14:00	04/25/23 18:29	1
<b>Lithium</b>	<b>4.9</b>	<b>J B</b>	8.0	1.7	ug/L		04/24/23 14:00	04/25/23 18:29	1
Molybdenum	<1.1		5.0	1.1	ug/L		04/24/23 14:00	04/25/23 18:29	1
Selenium	<0.89		5.0	0.89	ug/L		04/24/23 14:00	04/25/23 18:29	1
Thallium	<0.20		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 18:29	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		04/24/23 14:00	04/25/23 14:44	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride (SW846 9056A)</b>	<b>25</b>		1.0	0.13	mg/L			05/15/23 11:26	1
Fluoride (SW846 9056A)	<0.024		0.050	0.024	mg/L			05/15/23 11:26	1
Sulfate (SW846 9056A)	<0.35		1.0	0.35	mg/L			05/15/23 11:26	1
<b>Total Dissolved Solids (SM 2540C)</b>	<b>560</b>		10	10	mg/L			04/26/23 21:09	1

## Method: SW846 9315 - Radium-226 (GFPC)

Count Uncert. (2σ+/-) Total Uncert. (2σ+/-) RL MDC Unit Prepared Analyzed Dil Fac

Ba Carrier 88.8 30 - 110

Prepared Analyzed Dil Fac

05/03/23 12:59 05/25/23 16:14 1

## Method: SW846 9320 - Radium-228 (GFPC)

Count Uncert. (2σ+/-) Total Uncert. (2σ+/-) RL MDC Unit Prepared Analyzed Dil Fac

Radium-228 0.630 U 0.495 0.498 1.00 0.768 pCi/L 05/03/23 15:17 05/22/23 16:08 1

Carrier %Yield Qualifier Limits

Ba Carrier 88.8 30 - 110

Y Carrier 78.9 30 - 110

Prepared Analyzed Dil Fac

05/03/23 15:17 05/22/23 16:08 1

05/03/23 15:17 05/22/23 16:08 1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923NOW13**

**Lab Sample ID: 240-184000-7**

Date Collected: 04/19/23 13:40

Matrix: Water

Date Received: 04/21/23 09:30

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2 $\sigma$ +/-)	(2 $\sigma$ +/-)						
Radium 226 and 228	0.880		0.521	0.525	5.00	0.768	pCi/L		05/26/23 14:30	1

# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923FBFIELDBLANK**

**Lab Sample ID: 240-184000-8**

**Matrix: Water**

Date Collected: 04/19/23 14:50  
Date Received: 04/21/23 09:30

## Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		04/24/23 14:00	04/26/23 06:57	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		04/24/23 14:00	04/25/23 18:32	1
Arsenic	<0.75		5.0	0.75	ug/L		04/24/23 14:00	04/25/23 18:32	1
Barium	<2.2		5.0	2.2	ug/L		04/24/23 14:00	04/25/23 18:32	1
Beryllium	<0.62	^+	1.0	0.62	ug/L		04/24/23 14:00	04/25/23 18:32	1
Cadmium	<0.20		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 18:32	1
Calcium	<250		1000	250	ug/L		04/24/23 14:00	04/25/23 18:32	1
Chromium	<1.2		5.0	1.2	ug/L		04/24/23 14:00	04/25/23 18:32	1
Cobalt	<0.19		1.0	0.19	ug/L		04/24/23 14:00	04/25/23 18:32	1
Lead	<0.45		1.0	0.45	ug/L		04/24/23 14:00	04/25/23 18:32	1
Lithium	2.6 JB		8.0	1.7	ug/L		04/24/23 14:00	04/25/23 18:32	1
Molybdenum	<1.1		5.0	1.1	ug/L		04/24/23 14:00	04/25/23 18:32	1
Selenium	<0.89		5.0	0.89	ug/L		04/24/23 14:00	04/25/23 18:32	1
Thallium	<0.20		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 18:32	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		04/24/23 14:00	04/25/23 14:46	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	<0.13		1.0	0.13	mg/L			05/15/23 11:48	1
Fluoride (SW846 9056A)	<0.024		0.050	0.024	mg/L			05/15/23 11:48	1
Sulfate (SW846 9056A)	<0.35		1.0	0.35	mg/L			05/15/23 11:48	1
Total Dissolved Solids (SM 2540C)	<10		10	10	mg/L			04/26/23 21:09	1

## Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Radium-226	-0.0574	U	0.0597	0.0599	1.00	0.168	pCi/L	05/03/23 12:59	05/25/23 16:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		30 - 110					05/03/23 12:59	05/25/23 16:14	1

## Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Radium-228	0.212	U	0.344	0.345	1.00	0.588	pCi/L	05/03/23 15:17	05/22/23 16:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		30 - 110					05/03/23 15:17	05/22/23 16:08	1
Y Carrier	76.3		30 - 110					05/03/23 15:17	05/22/23 16:08	1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923FBFIELDBLANK**

**Lab Sample ID: 240-184000-8**

Matrix: Water

Date Collected: 04/19/23 14:50

Date Received: 04/21/23 09:30

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Radium 226 and 228	0.212	U	0.349	0.350	5.00	0.588	pCi/L		05/26/23 14:30	1

# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923FDDUPLICATE**

**Lab Sample ID: 240-184000-9**

**Matrix: Water**

Date Collected: 04/19/23 10:50

Date Received: 04/21/23 09:30

## Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		04/24/23 14:00	04/26/23 07:01	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		04/24/23 14:00	04/25/23 18:35	1
Arsenic	<0.75		5.0	0.75	ug/L		04/24/23 14:00	04/25/23 18:35	1
<b>Barium</b>	<b>320</b>		5.0	2.2	ug/L		04/24/23 14:00	04/25/23 18:35	1
Beryllium	<0.62	^+	1.0	0.62	ug/L		04/24/23 14:00	04/25/23 18:35	1
Cadmium	<0.20		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 18:35	1
<b>Calcium</b>	<b>42000</b>		1000	250	ug/L		04/24/23 14:00	04/25/23 18:35	1
Chromium	<1.2		5.0	1.2	ug/L		04/24/23 14:00	04/25/23 18:35	1
<b>Cobalt</b>	<b>3.1</b>		1.0	0.19	ug/L		04/24/23 14:00	04/25/23 18:35	1
Lead	<0.45		1.0	0.45	ug/L		04/24/23 14:00	04/25/23 18:35	1
<b>Lithium</b>	<b>19 B</b>		8.0	1.7	ug/L		04/24/23 14:00	04/25/23 18:35	1
Molybdenum	<1.1		5.0	1.1	ug/L		04/24/23 14:00	04/25/23 18:35	1
Selenium	<0.89		5.0	0.89	ug/L		04/24/23 14:00	04/25/23 18:35	1
Thallium	<0.20		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 18:35	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		04/24/23 14:00	04/25/23 14:48	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride (SW846 9056A)</b>	<b>96</b>		1.0	0.13	mg/L			05/15/23 12:10	1
<b>Fluoride (SW846 9056A)</b>	<b>0.11</b>		0.050	0.024	mg/L			05/15/23 12:10	1
<b>Sulfate (SW846 9056A)</b>	<b>8.6</b>		1.0	0.35	mg/L			05/15/23 12:10	1
<b>Total Dissolved Solids (SM 2540C)</b>	<b>270</b>		10	10	mg/L			04/26/23 21:09	1

## Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-226	0.246		0.126	0.128	1.00	0.148	pCi/L	05/03/23 12:59	05/25/23 16:14	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	91.5		30 - 110					05/03/23 12:59	05/25/23 16:14	1

## Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-228	0.457		0.308	0.311	1.00	0.457	pCi/L	05/03/23 15:17	05/22/23 16:08	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	91.5		30 - 110					05/03/23 15:17	05/22/23 16:08	1
Y Carrier	87.1		30 - 110					05/03/23 15:17	05/22/23 16:08	1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923FDDUPLICATE**

**Lab Sample ID: 240-184000-9**

Matrix: Water

Date Collected: 04/19/23 10:50  
Date Received: 04/21/23 09:30

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2 $\sigma$ +/-)	(2 $\sigma$ +/-)						
Radium 226 and 228	0.702		0.333	0.336	5.00	0.457	pCi/L		05/26/23 14:30	1

# Tracer/Carrier Summary

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

## Method: 9315 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (30-110)	
240-184000-1	041923NOW7A	94.2	
240-184000-2	041923NOW8	89.5	
240-184000-3	041923NOW2A	79.3	
240-184000-4	041923NOW4A	92.0	
240-184000-4 MS	041923NOW4A	90.8	
240-184000-4 MSD	041923NOW4A	88.6	
240-184000-5	041923NOW10	81.5	
240-184000-6	041923NOW12	82.2	
240-184000-7	041923NOW13	88.8	
240-184000-8	041923FBFIELDBLANK	85.6	
240-184000-9	041923FDDUPLICATE	91.5	
LCS 160-609999/2-A	Lab Control Sample	89.8	
MB 160-609999/1-A	Method Blank	91.5	

### Tracer/Carrier Legend

Ba = Ba Carrier

## Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (30-110)	Y (30-110)
240-184000-1	041923NOW7A	94.2	81.9
240-184000-2	041923NOW8	89.5	76.6
240-184000-3	041923NOW2A	79.3	84.5
240-184000-4	041923NOW4A	92.0	81.5
240-184000-4 MS	041923NOW4A	90.8	73.3
240-184000-4 MSD	041923NOW4A	88.6	79.3
240-184000-5	041923NOW10	81.5	75.1
240-184000-6	041923NOW12	82.2	80.4
240-184000-7	041923NOW13	88.8	78.9
240-184000-8	041923FBFIELDBLANK	85.6	76.3
240-184000-9	041923FDDUPLICATE	91.5	87.1
LCS 160-610015/2-A	Lab Control Sample	89.8	83.0
MB 160-610015/1-A	Method Blank	91.5	78.1

### Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

# QC Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LWWSP CCR-D

Job ID: 240-184000-1  
SDG: LWWSP CCR Group D

## Method: 6010D - Metals (ICP)

**Lab Sample ID: MB 240-570584/1-A**

**Matrix: Water**

**Analysis Batch: 570858**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		04/24/23 14:00	04/26/23 05:02	1

**Lab Sample ID: LCS 240-570584/2-A**

**Matrix: Water**

**Analysis Batch: 570858**

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

**Lab Sample ID: 240-184000-4 MS**

**Matrix: Water**

**Analysis Batch: 570858**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Boron	<57		1000	1080		ug/L		108	75 - 125

**Lab Sample ID: 240-184000-4 MSD**

**Matrix: Water**

**Analysis Batch: 570858**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD
Boron	<57		1000	1080		ug/L		108	75 - 125

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

**Lab Sample ID: MB 240-570584/1-A**

**Matrix: Water**

**Analysis Batch: 570845**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57		2.0	0.57	ug/L		04/24/23 14:00	04/25/23 17:20	1
Arsenic	<0.75		5.0	0.75	ug/L		04/24/23 14:00	04/25/23 17:20	1
Barium	<2.2		5.0	2.2	ug/L		04/24/23 14:00	04/25/23 17:20	1
Beryllium	<0.62		1.0	0.62	ug/L		04/24/23 14:00	04/25/23 17:20	1
Cadmium	<0.20		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 17:20	1
Calcium	<250		1000	250	ug/L		04/24/23 14:00	04/25/23 17:20	1
Chromium	<1.2		5.0	1.2	ug/L		04/24/23 14:00	04/25/23 17:20	1
Cobalt	<0.19		1.0	0.19	ug/L		04/24/23 14:00	04/25/23 17:20	1
Lead	<0.45		1.0	0.45	ug/L		04/24/23 14:00	04/25/23 17:20	1
Lithium	2.68	J	8.0	1.7	ug/L		04/24/23 14:00	04/25/23 17:20	1
Molybdenum	<1.1		5.0	1.1	ug/L		04/24/23 14:00	04/25/23 17:20	1
Selenium	<0.89		5.0	0.89	ug/L		04/24/23 14:00	04/25/23 17:20	1
Thallium	<0.20		1.0	0.20	ug/L		04/24/23 14:00	04/25/23 17:20	1

**Lab Sample ID: LCS 240-570584/27-A**

**Matrix: Water**

**Analysis Batch: 570845**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	100	98.7		ug/L		99	80 - 120

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 570584**

# QC Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

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

**Lab Sample ID: LCS 240-570584/27-A**

**Matrix: Water**

**Analysis Batch: 570845**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total Recoverable**

**Prep Batch: 570584**

**%Rec**

**Limits**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	1000	927		ug/L	93	80 - 120	
Barium	1000	940		ug/L	94	80 - 120	
Beryllium	500	516		ug/L	103	80 - 120	
Cadmium	500	471		ug/L	94	80 - 120	
Calcium	25000	22700		ug/L	91	80 - 120	
Chromium	500	482		ug/L	96	80 - 120	
Cobalt	500	457		ug/L	91	80 - 120	
Lead	500	461		ug/L	92	80 - 120	
Lithium	500	483		ug/L	97	80 - 120	
Molybdenum	500	464		ug/L	93	80 - 120	
Selenium	1000	943		ug/L	94	80 - 120	
Thallium	1000	941		ug/L	94	80 - 120	

**Lab Sample ID: 240-184000-4 MS**

**Matrix: Water**

**Analysis Batch: 570845**

**Client Sample ID: 041923NOW4A**

**Prep Type: Total Recoverable**

**Prep Batch: 570584**

**%Rec**

**Limits**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.57		100	97.8		ug/L	98	80 - 120	
Arsenic	1.3 J		1000	950		ug/L	95	80 - 120	
Barium	100		1000	1050		ug/L	95	80 - 120	
Beryllium	0.62 J		500	534		ug/L	107	80 - 120	
Cadmium	<0.20		500	478		ug/L	96	80 - 120	
Calcium	31000		25000	54800		ug/L	93	80 - 120	
Chromium	<1.2		500	486		ug/L	97	80 - 120	
Cobalt	0.66 J		500	468		ug/L	94	80 - 120	
Lead	<0.45		500	471		ug/L	94	80 - 120	
Lithium	5.5 J B		500	502		ug/L	99	80 - 120	
Molybdenum	1.7 J		500	484		ug/L	96	80 - 120	
Selenium	<0.89		1000	958		ug/L	96	80 - 120	
Thallium	0.45 J		1000	957		ug/L	96	80 - 120	

**Lab Sample ID: 240-184000-4 MSD**

**Matrix: Water**

**Analysis Batch: 570845**

**Client Sample ID: 041923NOW4A**

**Prep Type: Total Recoverable**

**Prep Batch: 570584**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	<0.57		100	103		ug/L	103	80 - 120		6	20
Arsenic	1.3 J		1000	951		ug/L	95	80 - 120		0	20
Barium	100		1000	1080		ug/L	98	80 - 120		2	20
Beryllium	0.62 J		500	530		ug/L	106	80 - 120		1	20
Cadmium	<0.20		500	485		ug/L	97	80 - 120		1	20
Calcium	31000		25000	54400		ug/L	92	80 - 120		1	20
Chromium	<1.2		500	489		ug/L	98	80 - 120		1	20
Cobalt	0.66 J		500	466		ug/L	93	80 - 120		0	20
Lead	<0.45		500	476		ug/L	95	80 - 120		1	20
Lithium	5.5 J B		500	495		ug/L	98	80 - 120		1	20
Molybdenum	1.7 J		500	484		ug/L	97	80 - 120		0	20
Selenium	<0.89		1000	952		ug/L	95	80 - 120		1	20

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# QC Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LWWSP CCR-D

Job ID: 240-184000-1  
SDG: LWWSP CCR Group D

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

**Lab Sample ID:** 240-184000-4 MSD

**Matrix:** Water

**Analysis Batch:** 570845

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD	RPD Limit
Thallium	0.45	J	1000	967		ug/L		97	80 - 120	1 20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID:** MB 240-570587/1-A

**Matrix:** Water

**Analysis Batch:** 570815

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		04/24/23 14:00	04/25/23 13:53	1

**Lab Sample ID:** LCS 240-570587/2-A

**Matrix:** Water

**Analysis Batch:** 570815

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	5.00	4.44		ug/L		89	80 - 120

**Lab Sample ID:** 240-184000-4 MS

**Matrix:** Water

**Analysis Batch:** 570815

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.13	F1	1.00	0.907		ug/L		91	80 - 120

**Lab Sample ID:** 240-184000-4 MSD

**Matrix:** Water

**Analysis Batch:** 570815

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD	RPD Limit
Mercury	<0.13	F1	1.00	0.762	F1	ug/L		76	80 - 120	17 20

## Method: 9056A - Anions, Ion Chromatography

**Lab Sample ID:** MB 240-573228/3

**Matrix:** Water

**Analysis Batch:** 573228

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.13		1.0	0.13	mg/L			05/15/23 06:00	1
Fluoride	<0.024		0.050	0.024	mg/L			05/15/23 06:00	1
Sulfate	<0.35		1.0	0.35	mg/L			05/15/23 06:00	1

**Lab Sample ID:** LCS 240-573228/4

**Matrix:** Water

**Analysis Batch:** 573228

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chloride	50.0	49.7		mg/L		99	90 - 110
Fluoride	2.50	2.56		mg/L		102	90 - 110
Sulfate	50.0	51.2		mg/L		102	90 - 110

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

# QC Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LWWSP CCR-D

Job ID: 240-184000-1  
SDG: LWWSP CCR Group D

## Method: 9056A - Anions, Ion Chromatography

**Lab Sample ID: 240-184000-4 MS**

**Matrix: Water**

**Analysis Batch: 573228**

**Client Sample ID: 041923NOW4A**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Chloride	8.9		50.0	60.8		mg/L		104	80 - 120
Fluoride	0.039	J	2.50	2.74		mg/L		108	80 - 120
Sulfate	32		50.0	84.6		mg/L		106	80 - 120

**Lab Sample ID: 240-184000-4 MSD**

**Matrix: Water**

**Analysis Batch: 573228**

**Client Sample ID: 041923NOW4A**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
Chloride	8.9		50.0	61.6		mg/L		105	80 - 120	1	15
Fluoride	0.039	J	2.50	2.81		mg/L		111	80 - 120	3	15
Sulfate	32		50.0	85.3		mg/L		107	80 - 120	1	15

**Lab Sample ID: 240-184000-9 MS**

**Matrix: Water**

**Analysis Batch: 573228**

**Client Sample ID: 041923FDDUPLICATE**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Chloride	96		50.0	145		mg/L		97	80 - 120
Fluoride	0.11		2.50	2.89		mg/L		111	80 - 120
Sulfate	8.6		50.0	63.0		mg/L		109	80 - 120

**Lab Sample ID: 240-184000-9 MSD**

**Matrix: Water**

**Analysis Batch: 573228**

**Client Sample ID: 041923FDDUPLICATE**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
Chloride	96		50.0	144		mg/L		97	80 - 120	0	15
Fluoride	0.11		2.50	2.91		mg/L		112	80 - 120	0	15
Sulfate	8.6		50.0	62.8		mg/L		108	80 - 120	0	15

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

**Lab Sample ID: MB 180-433502/1**

**Matrix: Water**

**Analysis Batch: 433502**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	<10		10	10	mg/L			04/26/23 21:09	1

**Lab Sample ID: LCS 180-433502/2**

**Matrix: Water**

**Analysis Batch: 433502**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				
Total Dissolved Solids	580	564		mg/L		97	85 - 115

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# QC Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LWWSP CCR-D

Job ID: 240-184000-1  
SDG: LWWSP CCR Group D

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

**Lab Sample ID: 180-155407-B-1 DU**

**Matrix: Water**

**Analysis Batch: 433502**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	470		476		mg/L		0.6	10

**Lab Sample ID: 180-155438-A-4 DU**

**Matrix: Water**

**Analysis Batch: 433502**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	1800		1800		mg/L		0.2	10

## Method: 9315 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-609999/1-A**

**Matrix: Water**

**Analysis Batch: 613103**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 609999**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03578	U	0.0768	0.0768	1.00	0.141	pCi/L	05/03/23 12:59	05/25/23 16:09	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		30 - 110	05/03/23 12:59	05/25/23 16:09	1

**Lab Sample ID: LCS 160-609999/2-A**

**Matrix: Water**

**Analysis Batch: 613103**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 609999**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	Limits
Radium-226	11.3	10.69		1.19	1.00	0.214	pCi/L	94	75 - 113

Carrier	LCS %Yield	LCS Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	89.8		30 - 110	05/03/23 12:59	05/25/23 16:09	1

**Lab Sample ID: 240-184000-4 MS**

**Matrix: Water**

**Analysis Batch: 613104**

**Client Sample ID: 041923NOW4A**  
**Prep Type: Total/NA**  
**Prep Batch: 609999**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	Limits
Radium-226	0.0272	U	11.4	10.25		1.16	1.00	0.195	pCi/L	90	60 - 140

Carrier	MS %Yield	MS Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	90.8		30 - 110	05/03/23 12:59	05/25/23 16:09	1

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# QC Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LWWSP CCR-D

Job ID: 240-184000-1  
SDG: LWWSP CCR Group D

## Method: 9315 - Radium-226 (GFPC) (Continued)

**Lab Sample ID:** 240-184000-4 MSD

**Matrix:** Water

**Analysis Batch:** 613104

**Client Sample ID:** 041923NOW4A

**Prep Type:** Total/NA

**Prep Batch:** 609999

Analyte	Sample	Sample	Spike Added	MSD	MSD	Total	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
	Result	Qual		Result	Qual	Uncert. (2σ+/-)							
Radium-226	0.0272	U	11.3	11.07		1.24	1.00	0.198	pCi/L	97	60 - 140	0.34	1
<i>MSD MSD</i>													
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>											
Ba Carrier	88.6			30 - 110									

## Method: 9320 - Radium-228 (GFPC)

**Lab Sample ID:** MB 160-610015/1-A

**Matrix:** Water

**Analysis Batch:** 612492

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 610015

Analyte	MB	MB	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	-0.2276	U	0.273	0.273	1.00	0.573	pCi/L	05/03/23 15:17	05/22/23 16:05	1
<i>MB MB</i>										
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>								
Ba Carrier	91.5		30 - 110					05/03/23 15:17	05/22/23 16:05	1
Y Carrier	78.1		30 - 110					05/03/23 15:17	05/22/23 16:05	1

**Lab Sample ID:** LCS 160-610015/2-A

**Matrix:** Water

**Analysis Batch:** 612492

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 610015

Analyte	Spikes	LCS	LCS	Total	Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	Dil Fac
	Added										
Radium-228	8.18	6.968		1.03	1.00	0.467	pCi/L	85	75 - 125		
<i>LCS LCS</i>											
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>									
Ba Carrier	89.8		30 - 110								
Y Carrier	83.0		30 - 110								

**Lab Sample ID:** 240-184000-4 MS

**Matrix:** Water

**Analysis Batch:** 612492

**Client Sample ID:** 041923NOW4A

**Prep Type:** Total/NA

**Prep Batch:** 610015

Analyte	Sample	Sample	Spike Added	MS	MS	Total	Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
	Result	Qual		Result	Qual							
Radium-228	0.556		8.20	8.720		1.25	1.00	0.548	pCi/L	100	60 - 140	
<i>MS MS</i>												
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>										
Ba Carrier	90.8		30 - 110									
Y Carrier	73.3		30 - 110									

# QC Sample Results

Client: Dominion Energy Services, Inc.  
 Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
 SDG: LVWSP CCR Group D

## Method: 9320 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: 240-184000-4 MSD**

**Matrix: Water**

**Analysis Batch: 612492**

**Client Sample ID: 041923NOW4A**

**Prep Type: Total/NA**

**Prep Batch: 610015**

Analyte	Sample	Sample	Spike	MSD	MSD	Total	Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec	RER	
	Result	Qual	Added	Result	Qual	(2σ+/-)						Limits	RER Limit	
Radium-228	0.556		8.19	9.225		1.29		1.00	0.558	pCi/L	106	60 - 140	0.20	1
<i>MSD MSD</i>														
<i>Carrier</i>	<i>MSD</i>	<i>MSD</i>		<i>Yield</i>	<i>Qualifier</i>		<i>Limits</i>							
Ba Carrier	88.6						30 - 110							
Y Carrier	79.3						30 - 110							

# QC Association Summary

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LWWSP CCR-D

Job ID: 240-184000-1  
SDG: LWWSP CCR Group D

## Metals

### Prep Batch: 570584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-184000-1	041923NOW7A	Total Recoverable	Water	3005A	
240-184000-2	041923NOW8	Total Recoverable	Water	3005A	
240-184000-3	041923NOW2A	Total Recoverable	Water	3005A	
240-184000-4	041923NOW4A	Total Recoverable	Water	3005A	
240-184000-5	041923NOW10	Total Recoverable	Water	3005A	
240-184000-6	041923NOW12	Total Recoverable	Water	3005A	
240-184000-7	041923NOW13	Total Recoverable	Water	3005A	
240-184000-8	041923FBFIELDBLANK	Total Recoverable	Water	3005A	
240-184000-9	041923FDDUPLICATE	Total Recoverable	Water	3005A	
MB 240-570584/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-570584/27-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-570584/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-184000-4 MS	041923NOW4A	Total Recoverable	Water	3005A	
240-184000-4 MS	041923NOW4A	Total Recoverable	Water	3005A	
240-184000-4 MSD	041923NOW4A	Total Recoverable	Water	3005A	
240-184000-4 MSD	041923NOW4A	Total Recoverable	Water	3005A	

### Prep Batch: 570587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-184000-1	041923NOW7A	Total/NA	Water	7470A	
240-184000-2	041923NOW8	Total/NA	Water	7470A	
240-184000-3	041923NOW2A	Total/NA	Water	7470A	
240-184000-4	041923NOW4A	Total/NA	Water	7470A	
240-184000-5	041923NOW10	Total/NA	Water	7470A	
240-184000-6	041923NOW12	Total/NA	Water	7470A	
240-184000-7	041923NOW13	Total/NA	Water	7470A	
240-184000-8	041923FBFIELDBLANK	Total/NA	Water	7470A	
240-184000-9	041923FDDUPLICATE	Total/NA	Water	7470A	
MB 240-570587/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-570587/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-184000-4 MS	041923NOW4A	Total/NA	Water	7470A	
240-184000-4 MSD	041923NOW4A	Total/NA	Water	7470A	

### Analysis Batch: 570815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-184000-1	041923NOW7A	Total/NA	Water	7470A	570587
240-184000-2	041923NOW8	Total/NA	Water	7470A	570587
240-184000-3	041923NOW2A	Total/NA	Water	7470A	570587
240-184000-4	041923NOW4A	Total/NA	Water	7470A	570587
240-184000-5	041923NOW10	Total/NA	Water	7470A	570587
240-184000-6	041923NOW12	Total/NA	Water	7470A	570587
240-184000-7	041923NOW13	Total/NA	Water	7470A	570587
240-184000-8	041923FBFIELDBLANK	Total/NA	Water	7470A	570587
240-184000-9	041923FDDUPLICATE	Total/NA	Water	7470A	570587
MB 240-570587/1-A	Method Blank	Total/NA	Water	7470A	570587
LCS 240-570587/2-A	Lab Control Sample	Total/NA	Water	7470A	570587
240-184000-4 MS	041923NOW4A	Total/NA	Water	7470A	570587
240-184000-4 MSD	041923NOW4A	Total/NA	Water	7470A	570587

# QC Association Summary

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LWWSP CCR-D

Job ID: 240-184000-1  
SDG: LWWSP CCR Group D

## Metals

### Analysis Batch: 570845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-184000-1	041923NOW7A	Total Recoverable	Water	6020B	570584
240-184000-2	041923NOW8	Total Recoverable	Water	6020B	570584
240-184000-3	041923NOW2A	Total Recoverable	Water	6020B	570584
240-184000-4	041923NOW4A	Total Recoverable	Water	6020B	570584
240-184000-5	041923NOW10	Total Recoverable	Water	6020B	570584
240-184000-6	041923NOW12	Total Recoverable	Water	6020B	570584
240-184000-7	041923NOW13	Total Recoverable	Water	6020B	570584
240-184000-8	041923FBFIELDBLANK	Total Recoverable	Water	6020B	570584
240-184000-9	041923FDDUPLICATE	Total Recoverable	Water	6020B	570584
MB 240-570584/1-A	Method Blank	Total Recoverable	Water	6020B	570584
LCS 240-570584/27-A	Lab Control Sample	Total Recoverable	Water	6020B	570584
240-184000-4 MS	041923NOW4A	Total Recoverable	Water	6020B	570584
240-184000-4 MSD	041923NOW4A	Total Recoverable	Water	6020B	570584

### Analysis Batch: 570858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-184000-1	041923NOW7A	Total Recoverable	Water	6010D	570584
240-184000-2	041923NOW8	Total Recoverable	Water	6010D	570584
240-184000-3	041923NOW2A	Total Recoverable	Water	6010D	570584
240-184000-4	041923NOW4A	Total Recoverable	Water	6010D	570584
240-184000-5	041923NOW10	Total Recoverable	Water	6010D	570584
240-184000-6	041923NOW12	Total Recoverable	Water	6010D	570584
240-184000-7	041923NOW13	Total Recoverable	Water	6010D	570584
240-184000-8	041923FBFIELDBLANK	Total Recoverable	Water	6010D	570584
240-184000-9	041923FDDUPLICATE	Total Recoverable	Water	6010D	570584
MB 240-570584/1-A	Method Blank	Total Recoverable	Water	6010D	570584
LCS 240-570584/2-A	Lab Control Sample	Total Recoverable	Water	6010D	570584
240-184000-4 MS	041923NOW4A	Total Recoverable	Water	6010D	570584
240-184000-4 MSD	041923NOW4A	Total Recoverable	Water	6010D	570584

## General Chemistry

### Analysis Batch: 433502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-184000-1	041923NOW7A	Total/NA	Water	SM 2540C	
240-184000-2	041923NOW8	Total/NA	Water	SM 2540C	
240-184000-3	041923NOW2A	Total/NA	Water	SM 2540C	
240-184000-4	041923NOW4A	Total/NA	Water	SM 2540C	
240-184000-5	041923NOW10	Total/NA	Water	SM 2540C	
240-184000-6	041923NOW12	Total/NA	Water	SM 2540C	
240-184000-7	041923NOW13	Total/NA	Water	SM 2540C	
240-184000-8	041923FBFIELDBLANK	Total/NA	Water	SM 2540C	
240-184000-9	041923FDDUPLICATE	Total/NA	Water	SM 2540C	
MB 180-433502/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-433502/2	Lab Control Sample	Total/NA	Water	SM 2540C	
180-155407-B-1 DU	Duplicate	Total/NA	Water	SM 2540C	
180-155438-A-4 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 573228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-184000-1	041923NOW7A	Total/NA	Water	9056A	

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# QC Association Summary

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LWWSP CCR-D

Job ID: 240-184000-1  
SDG: LWWSP CCR Group D

## General Chemistry (Continued)

### Analysis Batch: 573228 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-184000-2	041923NOW8	Total/NA	Water	9056A	
240-184000-2	041923NOW8	Total/NA	Water	9056A	
240-184000-3	041923NOW2A	Total/NA	Water	9056A	
240-184000-4	041923NOW4A	Total/NA	Water	9056A	
240-184000-5	041923NOW10	Total/NA	Water	9056A	
240-184000-6	041923NOW12	Total/NA	Water	9056A	
240-184000-6	041923NOW12	Total/NA	Water	9056A	
240-184000-7	041923NOW13	Total/NA	Water	9056A	
240-184000-8	041923FBFIELDBLANK	Total/NA	Water	9056A	
240-184000-9	041923FDDUPLICATE	Total/NA	Water	9056A	
MB 240-573228/3	Method Blank	Total/NA	Water	9056A	
LCS 240-573228/4	Lab Control Sample	Total/NA	Water	9056A	
240-184000-4 MS	041923NOW4A	Total/NA	Water	9056A	
240-184000-4 MSD	041923NOW4A	Total/NA	Water	9056A	
240-184000-9 MS	041923FDDUPLICATE	Total/NA	Water	9056A	
240-184000-9 MSD	041923FDDUPLICATE	Total/NA	Water	9056A	

## Rad

### Prep Batch: 609999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-184000-1	041923NOW7A	Total/NA	Water	PrecSep-21	
240-184000-2	041923NOW8	Total/NA	Water	PrecSep-21	
240-184000-3	041923NOW2A	Total/NA	Water	PrecSep-21	
240-184000-4	041923NOW4A	Total/NA	Water	PrecSep-21	
240-184000-5	041923NOW10	Total/NA	Water	PrecSep-21	
240-184000-6	041923NOW12	Total/NA	Water	PrecSep-21	
240-184000-7	041923NOW13	Total/NA	Water	PrecSep-21	
240-184000-8	041923FBFIELDBLANK	Total/NA	Water	PrecSep-21	
240-184000-9	041923FDDUPLICATE	Total/NA	Water	PrecSep-21	
MB 160-609999/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-609999/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-184000-4 MS	041923NOW4A	Total/NA	Water	PrecSep-21	
240-184000-4 MSD	041923NOW4A	Total/NA	Water	PrecSep-21	

### Prep Batch: 610015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-184000-1	041923NOW7A	Total/NA	Water	PrecSep_0	
240-184000-2	041923NOW8	Total/NA	Water	PrecSep_0	
240-184000-3	041923NOW2A	Total/NA	Water	PrecSep_0	
240-184000-4	041923NOW4A	Total/NA	Water	PrecSep_0	
240-184000-5	041923NOW10	Total/NA	Water	PrecSep_0	
240-184000-6	041923NOW12	Total/NA	Water	PrecSep_0	
240-184000-7	041923NOW13	Total/NA	Water	PrecSep_0	
240-184000-8	041923FBFIELDBLANK	Total/NA	Water	PrecSep_0	
240-184000-9	041923FDDUPLICATE	Total/NA	Water	PrecSep_0	
MB 160-610015/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-610015/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-184000-4 MS	041923NOW4A	Total/NA	Water	PrecSep_0	
240-184000-4 MSD	041923NOW4A	Total/NA	Water	PrecSep_0	

# Lab Chronicle

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923NOW7A**

**Lab Sample ID: 240-184000-1**

Matrix: Water

Date Collected: 04/19/23 10:25

Date Received: 04/21/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6010D		1	570858	KLC	EET CLE	04/26/23 06:22
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6020B		1	570845	RKT	EET CLE	04/25/23 18:11
Total/NA	Prep	7470A			570587	AJC	EET CLE	04/24/23 14:00
Total/NA	Analysis	7470A		1	570815	MRL	EET CLE	04/25/23 14:29
Total/NA	Analysis	9056A		1	573228	JWW	EET CLE	05/15/23 07:49
Total/NA	Analysis	SM 2540C		1	433502	LWM	EET PIT	04/26/23 21:09
Total/NA	Prep	PrecSep-21			609999	KAC	EET SL	05/03/23 12:59
Total/NA	Analysis	9315		1	613103	SCB	EET SL	05/25/23 16:12
Total/NA	Prep	PrecSep_0			610015	KAC	EET SL	05/03/23 15:17
Total/NA	Analysis	9320		1	612492	FLC	EET SL	05/22/23 16:06
Total/NA	Analysis	Ra226_Ra228 Pos		1	613378	CAH	EET SL	05/26/23 14:30

**Client Sample ID: 041923NOW8**

**Lab Sample ID: 240-184000-2**

Matrix: Water

Date Collected: 04/19/23 11:55

Date Received: 04/21/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6010D		1	570858	KLC	EET CLE	04/26/23 06:26
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6020B		1	570845	RKT	EET CLE	04/25/23 18:13
Total/NA	Prep	7470A			570587	AJC	EET CLE	04/24/23 14:00
Total/NA	Analysis	7470A		1	570815	MRL	EET CLE	04/25/23 14:31
Total/NA	Analysis	9056A		1	573228	JWW	EET CLE	05/15/23 08:10
Total/NA	Analysis	9056A		10	573228	JWW	EET CLE	05/15/23 08:32
Total/NA	Analysis	SM 2540C		1	433502	LWM	EET PIT	04/26/23 21:09
Total/NA	Prep	PrecSep-21			609999	KAC	EET SL	05/03/23 12:59
Total/NA	Analysis	9315		1	613103	SCB	EET SL	05/25/23 16:12
Total/NA	Prep	PrecSep_0			610015	KAC	EET SL	05/03/23 15:17
Total/NA	Analysis	9320		1	612492	FLC	EET SL	05/22/23 16:06
Total/NA	Analysis	Ra226_Ra228 Pos		1	613378	CAH	EET SL	05/26/23 14:30

**Client Sample ID: 041923NOW2A**

**Lab Sample ID: 240-184000-3**

Matrix: Water

Date Collected: 04/19/23 13:15

Date Received: 04/21/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6010D		1	570858	KLC	EET CLE	04/26/23 06:31
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6020B		1	570845	RKT	EET CLE	04/25/23 18:16

# Lab Chronicle

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923NOW2A**

**Lab Sample ID: 240-184000-3**

**Matrix: Water**

Date Collected: 04/19/23 13:15

Date Received: 04/21/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			570587	AJC	EET CLE	04/24/23 14:00
Total/NA	Analysis	7470A		1	570815	MRL	EET CLE	04/25/23 14:33
Total/NA	Analysis	9056A		1	573228	JWW	EET CLE	05/15/23 08:54
Total/NA	Analysis	SM 2540C		1	433502	LWM	EET PIT	04/26/23 21:09
Total/NA	Prep	PrecSep-21			609999	KAC	EET SL	05/03/23 12:59
Total/NA	Analysis	9315		1	613103	SCB	EET SL	05/25/23 16:12
Total/NA	Prep	PrecSep_0			610015	KAC	EET SL	05/03/23 15:17
Total/NA	Analysis	9320		1	612492	FLC	EET SL	05/22/23 16:06
Total/NA	Analysis	Ra226_Ra228 Pos		1	613378	CAH	EET SL	05/26/23 14:30

**Client Sample ID: 041923NOW4A**

**Lab Sample ID: 240-184000-4**

**Matrix: Water**

Date Collected: 04/19/23 14:55

Date Received: 04/21/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6010D		1	570858	KLC	EET CLE	04/26/23 05:10
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6020B		1	570845	RKT	EET CLE	04/25/23 17:26
Total/NA	Prep	7470A			570587	AJC	EET CLE	04/24/23 14:00
Total/NA	Analysis	7470A		1	570815	MRL	EET CLE	04/25/23 13:57
Total/NA	Analysis	9056A		1	573228	JWW	EET CLE	05/15/23 06:43
Total/NA	Analysis	SM 2540C		1	433502	LWM	EET PIT	04/26/23 21:09
Total/NA	Prep	PrecSep-21			609999	KAC	EET SL	05/03/23 12:59
Total/NA	Analysis	9315		1	613104	SCB	EET SL	05/25/23 16:13
Total/NA	Prep	PrecSep_0			610015	KAC	EET SL	05/03/23 15:17
Total/NA	Analysis	9320		1	612492	FLC	EET SL	05/22/23 16:07
Total/NA	Analysis	Ra226_Ra228 Pos		1	613378	CAH	EET SL	05/26/23 14:30

**Client Sample ID: 041923NOW10**

**Lab Sample ID: 240-184000-5**

**Matrix: Water**

Date Collected: 04/19/23 12:15

Date Received: 04/21/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6010D		1	570858	KLC	EET CLE	04/26/23 06:43
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6020B		1	570845	RKT	EET CLE	04/25/23 18:24
Total/NA	Prep	7470A			570587	AJC	EET CLE	04/24/23 14:00
Total/NA	Analysis	7470A		1	570815	MRL	EET CLE	04/25/23 14:35
Total/NA	Analysis	9056A		1	573228	JWW	EET CLE	05/15/23 10:21
Total/NA	Analysis	SM 2540C		1	433502	LWM	EET PIT	04/26/23 21:09
Total/NA	Prep	PrecSep-21			609999	KAC	EET SL	05/03/23 12:59
Total/NA	Analysis	9315		1	613104	SCB	EET SL	05/25/23 16:13

Eurofins Cleveland

# Lab Chronicle

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

**Client Sample ID: 041923NOW10**

**Lab Sample ID: 240-184000-5**

**Matrix: Water**

**Date Collected: 04/19/23 12:15**

**Date Received: 04/21/23 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep_0			610015	KAC	EET SL	05/03/23 15:17
Total/NA	Analysis	9320		1	612492	FLC	EET SL	05/22/23 16:08
Total/NA	Analysis	Ra226_Ra228 Pos		1	613378	CAH	EET SL	05/26/23 14:30

**Client Sample ID: 041923NOW12**

**Lab Sample ID: 240-184000-6**

**Matrix: Water**

**Date Collected: 04/19/23 16:05**

**Date Received: 04/21/23 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6010D		1	570858	KLC	EET CLE	04/26/23 06:48
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6020B		1	570845	RKT	EET CLE	04/25/23 18:26
Total/NA	Prep	7470A			570587	AJC	EET CLE	04/24/23 14:00
Total/NA	Analysis	7470A		1	570815	MRL	EET CLE	04/25/23 14:37
Total/NA	Analysis	9056A		1	573228	JWW	EET CLE	05/15/23 10:43
Total/NA	Analysis	9056A		10	573228	JWW	EET CLE	05/15/23 11:05
Total/NA	Analysis	SM 2540C		1	433502	LWM	EET PIT	04/26/23 21:09
Total/NA	Prep	PrecSep-21			609999	KAC	EET SL	05/03/23 12:59
Total/NA	Analysis	9315		1	613104	SCB	EET SL	05/25/23 16:14
Total/NA	Prep	PrecSep_0			610015	KAC	EET SL	05/03/23 15:17
Total/NA	Analysis	9320		1	612492	FLC	EET SL	05/22/23 16:08
Total/NA	Analysis	Ra226_Ra228 Pos		1	613378	CAH	EET SL	05/26/23 14:30

**Client Sample ID: 041923NOW13**

**Lab Sample ID: 240-184000-7**

**Matrix: Water**

**Date Collected: 04/19/23 13:40**

**Date Received: 04/21/23 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6010D		1	570858	KLC	EET CLE	04/26/23 06:52
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6020B		1	570845	RKT	EET CLE	04/25/23 18:29
Total/NA	Prep	7470A			570587	AJC	EET CLE	04/24/23 14:00
Total/NA	Analysis	7470A		1	570815	MRL	EET CLE	04/25/23 14:44
Total/NA	Analysis	9056A		1	573228	JWW	EET CLE	05/15/23 11:26
Total/NA	Analysis	SM 2540C		1	433502	LWM	EET PIT	04/26/23 21:09
Total/NA	Prep	PrecSep-21			609999	KAC	EET SL	05/03/23 12:59
Total/NA	Analysis	9315		1	613104	SCB	EET SL	05/25/23 16:14
Total/NA	Prep	PrecSep_0			610015	KAC	EET SL	05/03/23 15:17
Total/NA	Analysis	9320		1	612492	FLC	EET SL	05/22/23 16:08
Total/NA	Analysis	Ra226_Ra228 Pos		1	613378	CAH	EET SL	05/26/23 14:30

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# Lab Chronicle

Client: Dominion Energy Services, Inc.  
 Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
 SDG: LVWSP CCR Group D

**Client Sample ID: 041923FBFIELDBLANK**

**Date Collected: 04/19/23 14:50**

**Date Received: 04/21/23 09:30**

**Lab Sample ID: 240-184000-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6010D		1	570858	KLC	EET CLE	04/26/23 06:57
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6020B		1	570845	RKT	EET CLE	04/25/23 18:32
Total/NA	Prep	7470A			570587	AJC	EET CLE	04/24/23 14:00
Total/NA	Analysis	7470A		1	570815	MRL	EET CLE	04/25/23 14:46
Total/NA	Analysis	9056A		1	573228	JWW	EET CLE	05/15/23 11:48
Total/NA	Analysis	SM 2540C		1	433502	LWM	EET PIT	04/26/23 21:09
Total/NA	Prep	PrecSep-21			609999	KAC	EET SL	05/03/23 12:59
Total/NA	Analysis	9315		1	613104	SCB	EET SL	05/25/23 16:14
Total/NA	Prep	PrecSep_0			610015	KAC	EET SL	05/03/23 15:17
Total/NA	Analysis	9320		1	612492	FLC	EET SL	05/22/23 16:08
Total/NA	Analysis	Ra226_Ra228 Pos		1	613378	CAH	EET SL	05/26/23 14:30

**Client Sample ID: 041923FDDUPLICATE**

**Date Collected: 04/19/23 10:50**

**Date Received: 04/21/23 09:30**

**Lab Sample ID: 240-184000-9**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6010D		1	570858	KLC	EET CLE	04/26/23 07:01
Total Recoverable	Prep	3005A			570584	AJC	EET CLE	04/24/23 14:00
Total Recoverable	Analysis	6020B		1	570845	RKT	EET CLE	04/25/23 18:35
Total/NA	Prep	7470A			570587	AJC	EET CLE	04/24/23 14:00
Total/NA	Analysis	7470A		1	570815	MRL	EET CLE	04/25/23 14:48
Total/NA	Analysis	9056A		1	573228	JWW	EET CLE	05/15/23 12:10
Total/NA	Analysis	SM 2540C		1	433502	LWM	EET PIT	04/26/23 21:09
Total/NA	Prep	PrecSep-21			609999	KAC	EET SL	05/03/23 12:59
Total/NA	Analysis	9315		1	613104	SCB	EET SL	05/25/23 16:14
Total/NA	Prep	PrecSep_0			610015	KAC	EET SL	05/03/23 15:17
Total/NA	Analysis	9320		1	612492	FLC	EET SL	05/22/23 16:08
Total/NA	Analysis	Ra226_Ra228 Pos		1	613378	CAH	EET SL	05/26/23 14:30

#### **Laboratory References:**

EET CLE = Eurofins Cleveland, 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

Eurofins Cleveland

# Accreditation/Certification Summary

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-1SA2023-LVWSP CCR-D

Job ID: 240-184000-1  
SDG: LVWSP CCR Group D

## Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	210	12-31-23

## Laboratory: Eurofins Pittsburgh

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

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	142	05-03-23

## 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	10-31-23

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 Sample Receipt Form/Narrative  
Barberton Facility**

Login # : \_\_\_\_\_

Client WSP USA Inc

Site Name \_\_\_\_\_

Cooler unpacked by: Leah M. Smith

Cooler Received on 04-21-23

Opened on 04-22-23

FedEx: 1<sup>st</sup> 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 # 13 (CF 50.2 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity \_\_\_\_\_

-Were the seals on the outside of the cooler(s) signed & dated?

-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?

-Were tamper/custody seals intact and uncompromised?

Yes  No

Yes  No NA

Yes  No

Yes  No NA

Yes  No

Temperature readings: \_\_\_\_\_

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservative Temp</u>	<u>Preservative Added (mls)</u>	<u>Preservative Lot #</u>	
041923NOW7A	240-184000-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	5
041923NOW7A	240-184000-D-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	6
041923NOW7A	240-184000-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	7
041923NOW8	240-184000-C-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	8
041923NOW8	240-184000-D-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	9
041923NOW8	240-184000-E-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	10
041923NOW2A	240-184000-C-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	11
041923NOW2A	240-184000-D-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	12
041923NOW2A	240-184000-E-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	13
041923NOW4A	240-184000-G-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	14
041923NOW4A	240-184000-H-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	15
041923NOW4A	240-184000-I-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	
041923NOW4A	240-184000-J-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	
041923NOW4A	240-184000-K-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	
041923NOW4A	240-184000-L-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	
041923NOW4A	240-184000-M-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	
041923NOW4A	240-184000-N-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	
041923NOW4A	240-184000-O-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	
041923NOW10	240-184000-C-5	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	
041923NOW10	240-184000-D-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	
041923NOW10	240-184000-E-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	
041923NOW12	240-184000-C-6	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	
041923NOW12	240-184000-D-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	
041923NOW12	240-184000-E-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	
041923NOW13	240-184000-C-7	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	
041923NOW13	240-184000-D-7	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	
041923NOW13	240-184000-E-7	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	
041923FBFIELD BLANK	240-184000-C-8	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	
041923FBFIELD BLANK	240-184000-D-8	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	
041923FBFIELD BLANK	240-184000-E-8	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	
041923FDDUPLICATE	240-184000-C-9	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	
041923FDDUPLICATE	240-184000-D-9	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	
041923FDDUPLICATE	240-184000-E-9	Plastic 1 liter - Nitric Acid	<2	_____	_____	_____	

**Login # :** \_\_\_\_\_

Eurofins - Canton Sample Receipt Multiple Cooler Form

See Temperature Excursion Form



## **Chain of Custody Record**

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

-533101e H27181D 12/11/2011

DISCONTINUED

FILM/ART DEPARTMENT REAUX. 2

Date:

Published by

28

**RECEIVED**  
FBI  
Custody Seal Intact:  Custody Seal No.:   
Renewed by:  Relinquished by:

Renounced by:

10

Custody Seal intact: Custody Seal No:

104

Custody Set



## **Chain of Custody Record**

Sample ID: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method analytes & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the sample is sent to another laboratory for analysis/test/ matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to the sample ID, method analytes or accreditation status must be communicated to Eurofins Environment Testing North Central, LLC 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.

Return To Client     Disposal By Lab     Archive For \_\_\_\_\_

**Method of Shipment:** \_\_\_\_\_

Received by: [Signature] Date/TIME: [Signature]

Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Received by: \_\_\_\_\_ Date/time: \_\_\_\_\_ Company: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks:

## Login Sample Receipt Checklist

Client: Dominion Energy Services, Inc.

Job Number: 240-184000-1  
SDG Number: LVWSP CCR Group D

**Login Number:** 184000

**List Source:** Eurofins Pittsburgh  
**List Creation:** 04/25/23 07:59 PM

**List Number:** 3

**Creator:** Watson, Debbie

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: 240-184000-1  
SDG Number: LVWSP CCR Group D

**Login Number:** 184000

**List Source:** Eurofins St. Louis

**List Number:** 2

**List Creation:** 04/25/23 02:05 PM

**Creator:** Farrell, Conor P

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

## Login Sample Receipt Checklist

Client: Dominion Energy Services, Inc.

Job Number: 240-184000-1  
SDG Number: LVWSP CCR Group D

**Login Number:** 184000

**List Source:** Eurofins St. Louis  
**List Creation:** 04/26/23 10:03 AM

**List Number:** 4

**Creator:** Worthington, Sierra M

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: 4/17/2023 and 4/20/2023**

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:

**2401840001**

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	Analyte	T/D	Result	Qual	Reason Code(s)	MDL	QL	Uncertainty	Unit
041923NOW8	OW-8	N	SW-846 6010D	Boron	T	83	J	RL	57	100		ug/L
041923NOW8	OW-8	N	SW-846 6020B	Lithium	T		U	BF,BL	12	12		ug/L
041923NOW8	OW-8	N	SW-846 9056A	Fluoride	N	0.035	J	RL	0.024	0.050		mg/L
041923NOW2A	OW-2A	N	CALC	Radium-226/228	N	0.732	J	S			0.389	pCi/L
041923NOW2A	OW-2A	N	SW-846 6010D	Boron	T	81	J	RL	57	100		ug/L
041923NOW2A	OW-2A	N	SW-846 6020B	Lithium	T		U	BF,BL	9.1	9.1		ug/L
041923NOW2A	OW-2A	N	SW-846 6020B	Molybdenum	T	3.4	J	RL	1.1	5.0		ug/L
041923NOW4A	OW-4A	N	CALC	Radium-226/228	N	0.583	J	S			0.374	pCi/L
041923NOW4A	OW-4A	N	SW-846 6020B	Arsenic	T	1.3	J	RL	0.75	5.0		ug/L
041923NOW4A	OW-4A	N	SW-846 6020B	Beryllium	T	0.62	J	RL	0.62	1.0		ug/L
041923NOW4A	OW-4A	N	SW-846 6020B	Cobalt	T	0.66	J	RL	0.19	1.0		ug/L
041923NOW4A	OW-4A	N	SW-846 6020B	Lithium	T		U	BF,BL	5.5	8.0		ug/L
041923NOW4A	OW-4A	N	SW-846 6020B	Molybdenum	T	1.7	J	RL	1.1	5.0		ug/L
041923NOW4A	OW-4A	N	SW-846 6020B	Thallium	T	0.45	J	RL	0.20	1.0		ug/L
041923NOW4A	OW-4A	N	SW-846 9056A	Fluoride	N	0.039	J	RL	0.024	0.050		mg/L
041923NOW10	OW-10	N	SW-846 6010D	Boron	T	57	J	RL	57	100		ug/L
041923NOW10	OW-10	N	SW-846 6020B	Chromium	T	1.7	J	RL	1.2	5.0		ug/L
041923NOW10	OW-10	N	SW-846 6020B	Cobalt	T	0.80	J	RL	0.19	1.0		ug/L
041923NOW10	OW-10	N	SW-846 6020B	Lithium	T		U	BF,BL	7.0	8.0		ug/L
041923NOW12	OW-12	N	CALC	Radium-226/228	N	0.988	J	S			0.426	pCi/L
041923NOW12	OW-12	N	SW-846 6020B	Cadmium	T	0.51	J	RL	0.20	1.0		ug/L
041923NOW12	OW-12	N	SW-846 6020B	Lithium	T		U	BF,BL	4.3	8.0		ug/L
041923NOW13	OW-13	N	CALC	Radium-226/228	N	0.880	J	S			0.525	pCi/L
041923NOW13	OW-13	N	SW-846 6020B	Arsenic	T	4.6	J	RL	0.75	5.0		ug/L
041923NOW13	OW-13	N	SW-846 6020B	Lead	T	0.80	J	RL	0.45	1.0		ug/L
041923NOW13	OW-13	N	SW-846 6020B	Lithium	T		U	BF,BL	4.9	8.0		ug/L
041923FBFIELDBLANK	Field Blank	FB	CALC	Radium-226/228	N	0.212	U	S			0.350	pCi/L
041923FBFIELDBLANK	Field Blank	FB	SW-846 6020B	Lithium	T	2.6	J	RL	1.7	8.0		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

Lab Sample ID	240-184000-1												
Sys Sample Code	041923NOW7A												
Sample Name	041923NOW7A												
Sample Date	4/19/2023 10:25:00 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	0.332	U		0.322				N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	260				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	320				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	42000				250	250	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.2	1.2	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	3.4				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	18				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	99				0.13	0.13	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.091				0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	9.1				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.140	U		0.113	0.165	0.165	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.192	U		0.301	0.511	0.511	1.00	N	Yes	1	NA

<b>Lab Sample ID</b>	240-184000-2												
<b>Sys Sample Code</b>	041923NOW8												
<b>Sample Name</b>	041923NOW8												
<b>Sample Date</b>	4/19/2023 11:55:00 AM												
<b>Location</b>	MSPS-LVWSP-OW-08 / OW-8												
<b>Sample Type</b>	N												
<b>Matrix</b>	GW												
<b>Parent Sample</b>													

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	0.607	U		0.437				N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	1600				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L	83	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	9.6				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	330000				250	250	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.2	1.2	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	21				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	BF,BL		12	12	12	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	180				0.13	0.13	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.035	J	RL		0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	770				3.5	3.5	10	Y	Yes	10	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.0463	U		0.0828	0.148	0.148	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.561	U		0.429	0.661	0.661	1.00	N	Yes	1	NA

Lab Sample ID	240-184000-3												
Sys Sample Code	041923NOW2A												
Sample Name	041923NOW2A												
Sample Date	4/19/2023 1:15:00 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	0.732	J	S	0.389				Y	Yes	1	NA	
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	460				10	10	10	Y	Yes	1	NA	
SW-846 6010D	Boron	7440-42-8	T	ug/L	81	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	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	1.2				0.20	0.20	1.0	Y	Yes	1	NA	
	Calcium	7440-70-2	T	ug/L	120000				250	250	1000	Y	Yes	1	NA	
	Chromium	7440-47-3	T	ug/L			U		1.2	1.2	5.0	N	Yes	1	NA	
	Cobalt	7440-48-4	T	ug/L	3.6				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			U	BF,BL		9.1	9.1	9.1	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	3.4	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	17				0.13	0.13	1.0	Y	Yes	1	NA	
	Fluoride	16984-48-8	N	mg/L	0.19				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	0.367			0.158	0.153	0.153	1.00	Y	Yes	1	NA	
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.365	U		0.355	0.565	0.565	1.00	N	Yes	1	NA	

Lab Sample ID	240-184000-4												
Sys Sample Code	041923NOW4A												
Sample Name	041923NOW4A												
Sample Date	4/19/2023 2:55:00 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	0.583	J	S	0.374				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	1.3	J	RL		0.75	0.75	5.0	Y	Yes	1	NA	
	Barium	7440-39-3	T	ug/L	100				2.2	2.2	5.0	Y	Yes	1	NA	
	Beryllium	7440-41-7	T	ug/L	0.62	J	RL		0.62	0.62	1.0	Y	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	31000				250	250	1000	Y	Yes	1	NA	
	Chromium	7440-47-3	T	ug/L			U			1.2	1.2	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			U	BF,BL		5.5	5.5	8.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	1.7	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	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	8.9				0.13	0.13	1.0	Y	Yes	1	NA	
	Fluoride	16984-48-8	N	mg/L	0.039	J	RL		0.024	0.024	0.050	Y	Yes	1	NA	
	Sulfate	14808-79-8	N	mg/L	32				0.35	0.35	1.0	Y	Yes	1	NA	
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.0272	U		0.103	0.193	0.193	1.00	N	Yes	1	NA	
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.556			0.360	0.528	0.528	1.00	Y	Yes	1	NA	

<b>Lab Sample ID</b>	240-184000-5
<b>Sys Sample Code</b>	041923NOW10
<b>Sample Name</b>	041923NOW10
<b>Sample Date</b>	4/19/2023 12:15:00 PM
<b>Location</b>	MSPS-LVWSP-OW-10 / OW-10
<b>Sample Type</b>	N
<b>Matrix</b>	GW
<b>Parent Sample</b>	

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	2.08			0.747				Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	350				10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L	57	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	390				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	64000				250	250	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L	1.7	J	RL		1.2	1.2	5.0	Y	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	0.80	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	BF,BL		7.0	7.0	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	43				0.13	0.13	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	32				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.424			0.222	0.280	0.280	1.00	Y	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	1.66			0.713	0.932	0.932	1.00	Y	Yes	1	NA

<b>Lab Sample ID</b>	240-184000-6												
<b>Sys Sample Code</b>	041923NOW12												
<b>Sample Name</b>	041923NOW12												
<b>Sample Date</b>	4/19/2023 4:05:00 PM												
<b>Location</b>	MSPS-LVWSP-OW-12 / OW-12												
<b>Sample Type</b>	N												
<b>Matrix</b>	GW												
<b>Parent Sample</b>													

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	0.988	J	S	0.426				Y	Yes	1	NA	
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	730				10	10	10	Y	Yes	1	NA	
SW-846 6010D	Boron	7440-42-8	T	ug/L	120				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	90				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	0.51	J	RL		0.20	0.20	1.0	Y	Yes	1	NA	
	Calcium	7440-70-2	T	ug/L	120000				250	250	1000	Y	Yes	1	NA	
	Chromium	7440-47-3	T	ug/L			U		1.2	1.2	5.0	N	Yes	1	NA	
	Cobalt	7440-48-4	T	ug/L	68				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	BF,BL		4.3	4.3	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	210				1.3	1.3	10	Y	Yes	10	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	210				3.5	3.5	10	Y	Yes	10	NA	
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.211	U		0.157	0.230	0.230	1.00	N	Yes	1	NA	
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.777			0.396	0.527	0.527	1.00	Y	Yes	1	NA	

<b>Lab Sample ID</b>	240-184000-7												
<b>Sys Sample Code</b>	041923NOW13												
<b>Sample Name</b>	041923NOW13												
<b>Sample Date</b>	4/19/2023 1:40:00 PM												
<b>Location</b>	MSPS-LVWSP-OW-13 / OW-13												
<b>Sample Type</b>	N												
<b>Matrix</b>	GW												
<b>Parent Sample</b>													

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	0.880	J	S	0.525				Y	Yes	1	NA	
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	560				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	4.6	J	RL		0.75	0.75	5.0	Y	Yes	1	NA	
	Barium	7440-39-3	T	ug/L	150				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	24000				250	250	1000	Y	Yes	1	NA	
	Chromium	7440-47-3	T	ug/L	5.5				1.2	1.2	5.0	Y	Yes	1	NA	
	Cobalt	7440-48-4	T	ug/L	4.0				0.19	0.19	1.0	Y	Yes	1	NA	
	Lead	7439-92-1	T	ug/L	0.80	J	RL		0.45	0.45	1.0	Y	Yes	1	NA	
	Lithium	7439-93-2	T	ug/L			U	BF,BL		4.9	4.9	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	25				0.13	0.13	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	0.250			0.165	0.222	0.222	1.00	Y	Yes	1	NA	
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.630	U		0.498	0.768	0.768	1.00	N	Yes	1	NA	

<b>Lab Sample ID</b>	240-184000-8
<b>Sys Sample Code</b>	041923FBFIELDDBLANK
<b>Sample Name</b>	041923FBFIELDDBLANK
<b>Sample Date</b>	4/19/2023 2:50:00 PM
<b>Location</b>	MSPS-FB / Field Blank
<b>Sample Type</b>	FB
<b>Matrix</b>	AQ
<b>Parent Sample</b>	

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	0.212	U	S	0.350				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			250	250	1000	N	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.2	1.2	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	2.6	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
SW-846 9315	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
	Mercury	7439-97-6	T	ug/L		U			0.13	0.13	0.20	N	Yes	1	NA
	SW-846 9320	Chloride	16887-00-6	N	mg/L		U		0.13	0.13	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	-0.0574	U		0.0599	0.168	0.168	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.212	U		0.345	0.588	0.588	1.00	N	Yes	1	NA

<b>Lab Sample ID</b>	240-184000-9
<b>Sys Sample Code</b>	041923FDDUPPLICATE
<b>Sample Name</b>	041923FDDUPPLICATE
<b>Sample Date</b>	4/19/2023 10:50:00 AM
<b>Location</b>	MSPS-LVWSP-OW-07A / OW-7A
<b>Sample Type</b>	FD
<b>Matrix</b>	GW
<b>Parent Sample</b>	041923NOW7A

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	0.702			0.336				Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	270				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	320				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	42000				250	250	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.2	1.2	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	3.1				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	19				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	96				0.13	0.13	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	8.6				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.246			0.128	0.148	0.148	1.00	Y	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.457			0.311	0.457	0.457	1.00	Y	Yes	1	NA

## **APPENDIX B**

**SECOND SEMI-ANNUAL 2023  
ASSESSMENT MONITORING  
PROGRAM EVENT FIELD DATA  
SHEETS, LABORATORY  
CERTIFICATES OF ANALYSIS,  
CHAIN-OF-CUSTODY FORMS, AND  
DATA VALIDATION FORMS**

Date: 10/24/23

## WELL GAUGING LOG

Project Name: MSPS LVWSP

Project No./Task No. 31406066.005

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	1645	37.68	51.30	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-8	CM	1640	46.70	46.82	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-2A	MK	1702	13.40	32.57	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-4A	MK	1713	12.91	32.95	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-10	MK	1708	12.42	32.75	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-12	CM	1702	26.00	31.00	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-13	CM	1650	16.58	27.30	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-2	MK	1703	12.48	-	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-4	MK	1715	14.19	-	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-6A	MK	1659	6.65	-	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-6B	MK	1658	8.43	-	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-7B	MK	1642	36.29	-	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-8A	CM	1642	58.73	-	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-9A	CM	1659	BTUP (JHP: 16.25)	-	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-9B	CM	1657	12.73	-	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-11	CM	1652	16.90	-	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
					<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> OK <input type="checkbox"/> Damaged

Observations/Notes:

Signature: MK

Date: 10/27/23

QA/QC Signature: Vh

Date: 10/27/23

Page 1 of 2

Date: 10/24/23

## WELL GAUGING LOG

Project Name: MSPS LVWSPProject No./Task No. 31406066.005Sampler(s): C. Megee, M. KnezEquipment: 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	CM	1655	16.95	-	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-15	CM	1647	9.61	-	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-16	CM	1710	21.35	-	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-17	CM	1705	22.35	-	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-18	MK	1653	21.93	-	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
OW-19	MK	1649	27.93	-	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged
					<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> OK <input type="checkbox"/> Damaged
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					<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> OK <input type="checkbox"/> Damaged
					<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> OK <input type="checkbox"/> Damaged
					<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> OK <input type="checkbox"/> Damaged
					<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> OK <input type="checkbox"/> Damaged
					<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> OK <input type="checkbox"/> Damaged
					<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> OK <input type="checkbox"/> Damaged
					<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> OK <input type="checkbox"/> Damaged
					<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> OK <input type="checkbox"/> Damaged
					<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Damaged	<input type="checkbox"/> OK <input type="checkbox"/> Inadequate	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> OK <input type="checkbox"/> Damaged

Observations/Notes: \_\_\_\_\_

Signature: M. KnezQA/QC Signature: V.H.Date: 10/27/23Date: 10/27/23Page 2 of 2



## MICROPURGE SAMPLING LOG

Project Name:	<u>Mount Storm Power Station</u>	Project No./Task No.:	31406066.005
Event:	2SA2023 <u>LVWSP</u>	Sampler(s):	<u>C. Meyer</u>
Well ID:	<u>OW-7A</u>	Field Calibration Completed:	<u>0745 on 10/25/23</u>
Well Diameter:	<u>2.0</u> inches	Initial Depth to Water:	<u>37-69</u> feet
Depth to Bottom:	<u>51.30</u> feet	Water Column Thickness:	<u>—</u> feet
Equipment Used:	<input checked="" type="checkbox"/> WL Indicator <input type="checkbox"/> Turbidity Meter <input type="checkbox"/> Air Tank <input checked="" type="checkbox"/> Dedicated Bladder Pump <input checked="" type="checkbox"/> YSI ProDSS16 E100132 <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Compressor <input type="checkbox"/> Non-dedicated BP <input type="checkbox"/> In-Situ <u>—</u> <input type="checkbox"/> MP-10 Controller Box <input checked="" type="checkbox"/> MP-15 Controller Box <input type="checkbox"/> —		

Purge Cycle (End): 56/4 seconds @ ~40 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)  $(46.25 \text{ ft} \times 0.006 \text{ gal/ft}) = \sim 0.28$

Total Purge Volume (Gallons): ~2.0 Purge Water Management: O.W.S. On-site

Purge Observations (color, odor, turbidity, sheen): Clear grab sample  
Purge time: 08:15

Purge time: 0.893

Sample Time: 0935 Field Filtered (0.45um):  Yes  No

Petro (DRO)       CCR Appendix III       CCR Appendix IV

Closed 5-year NPDES (Diss [As, Ba, Be, Cd, Ca, Fe, Pb, Mn, Mo, Se], Chloride, SO4, TDS, TSS) BLUNSp. IV Detests (As, Ba, Be, Cd, Cr, Cu, Hg, Mo, Pb, Se, SO4, TDS, TSS)

Phase II (Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl, Sn, V, Zn, Hg), Cyanide, Sulfide     Phase A IV Detects (As, Ba,  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: 102523N0W7A

Sampler Signature:  Date: 10/25/23 Page: 1 of 1

Sampler Signature: J. M. DeWitt Date: 10/23/23 Page 2 of 1



## MICROPURGE SAMPLING LOG

Project Name:	<u>Mount Storm Power Station</u>	Project No./Task No.:	<u>31406066.005</u>
Event:	<u>2SA2023 LVNSP</u>	Sampler(s):	<u>M-Knez</u>
Well ID:	<u>OW-8</u>	Field Calibration Completed:	<u>10/25/23 @ 0745</u>
Well Diameter:	<u>2.0</u> inches	Initial Depth to Water:	<u>46.75</u> feet
Depth to Bottom:	<u>62.82</u> feet	Water Column Thickness:	<u>—</u> feet
Equipment Used:	<input checked="" type="checkbox"/> WL Indicator <input type="checkbox"/> Turbidity Meter <input type="checkbox"/> Air Tank <input checked="" type="checkbox"/> Dedicated Bladder Pump <input checked="" type="checkbox"/> YSI ProDSS 3B104947 <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Compressor <input type="checkbox"/> Non-dedicated BP <input type="checkbox"/> In-Situ <input type="checkbox"/> MP-10 Controller Box <input checked="" type="checkbox"/> MP-15 Controller Box <input type="checkbox"/>		

Purge Cycle (End): 24/6 seconds @ 35 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):  $53.33(0.006) \leq 0.32$

Total Purge Volume (Gallons): ~4.0      Purge Water Management: D.W.S.

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

MS/MS taken here

Sample Time: 9/23 Field Filtered (0.45um):  Yes  No

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

Closed 5-year NPDES (Diss [As, Ba, Bo, Cd, Ca, Fe, Pb, Mn, Mo, Sel, Chloride, SO<sub>4</sub>, TDS, TSS])

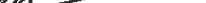
Phase II (Sh, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Ti, Sn)       Phase A-IV Detects (As, Ba, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Ti, Sn)       Phase B-IV Detects (As, Ba, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Ti, Sn)

**Other Observations / Equipment Operation Problems:**

Sample ID: 102523N0W18 : 102523MSM-1-1-5 : Site #: 102523MSM-1-1-5 : Date: 10/08/2018

Sample ID: IVAS-310003 IVAS-310003 Matrix spike, IVAS-310003 Matrix Spike Drip

Sampler Signature: M. Kipp Date: 10/26/23 Page 1 of 1

QA/QC Signature:  Date: 10/27/23

660 1990



## MICROPURGE SAMPLING LOG

Date: 10/25/23

Weather: sunny, 60°

Project Name:	<u>Mount Storm Power Station</u>	Project No./Task No.:	31406066.005
Event:	2SA2023 <u>LWSP</u>	Sampler(s):	<u>M. Knez</u>
Well ID:	<u>0W-2A</u>	Field Calibration Completed:	<u>10/25/23 @ 0745</u>
Well Diameter:	<u>2.0</u> inches	Initial Depth to Water:	<u>13.40</u> feet
Depth to Bottom:	<u>32.57</u> feet	Water Column Thickness:	<u> </u> feet
Equipment Used:	<input checked="" type="checkbox"/> WL Indicator <input type="checkbox"/> Turbidity Meter <input type="checkbox"/> Air Tank <input checked="" type="checkbox"/> Dedicated Bladder Pump <input checked="" type="checkbox"/> YSI Pro <sup>2</sup> D <sup>2</sup> 3B104947 <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Compressor <input type="checkbox"/> Non-dedicated BP <input type="checkbox"/> In-Situ <input type="checkbox"/> MP-10 Controller Box <input checked="" type="checkbox"/> MP-15 Controller Box <input type="checkbox"/>		

Purge Cycle (End): 25/5 seconds @ ~23 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):  $27.76(0.006) = 0.17$

Total Purge Volume (Gallons): ~3.0      Purge Water Management: O.W.S.

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

Purge time: 1130

Sample Time: 1210

### Field Filtered (0.45μm):

Yes

No

### Sample Parameters/Analyte(s):

Petro (DRO)

## CCR Appendix III

CCR Appendix IV

Closed 5-year NPDES (Diss [As, Ba, Bo, Cd, Ca, Fe, Pb, Mn, Mo, Se], Chloride, SO4, TDS, TSS)

Phase II (Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl, Sn, V, Zn, Hg), Cyanide, Sulfide     Phase A IV Detects (As, Ba,  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)

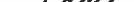
#### **Other Observations / Equipment Operation Problems:**

Sample ID: 102523 NOW2A \*: change air tank at end of sampling

Sampler Signature: M. Kuy

Date: 10/25/23

Page ( of )

QA/QC Signature: 

Date: 10/27/23

drive signature: *[Signature]*

1907, 1-3



## MICROPURGE SAMPLING LOG

Project Name:	<u>Mount Storm Power Station</u>	Project No./Task No.:	31406066.005
Event:	2SA2023 <u>LWNSP</u>	Sampler(s):	<u>C Meyer</u>
Well ID:	<u>OW-4A</u>	Field Calibration Completed:	<u>0745 on 10/25/23</u>
Well Diameter:	<u>2.0</u> inches	Initial Depth to Water:	<u>12.85</u> feet
Depth to Bottom:	<u>32.95</u> feet	Water Column Thickness:	<u>—</u> feet
Equipment Used:	<input checked="" type="checkbox"/> WL Indicator <input type="checkbox"/> Turbidity Meter <input type="checkbox"/> Air Tank <input checked="" type="checkbox"/> Dedicated Bladder Pump <input checked="" type="checkbox"/> YSI ProDSS/6Eloc132 <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Compressor <input type="checkbox"/> Non-dedicated BP <input type="checkbox"/> In-Situ <u>—</u> <input type="checkbox"/> MP-10 Controller Box <input checked="" type="checkbox"/> MP-15 Controller Box <input type="checkbox"/>		

Purge Cycle (End): 24/6 seconds @ 20 psi Flow Rate (ml/min End): 2400

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft):  $28.15(0.006) = \sim 0.17$

Total Purge Volume (Gallons): ~3.0 Purge Water Management: O.W.S. On-site

Purge Observations (color, odor, turbidity, sheen): lt. tan grab Sample  
Purge time: 12:30

Purge time: 1220

Sample Time: 1250

Field Filtered (0.45um):

No

**Sample Parameters/Analyte(s):**

Petro (DRO)

CCR Appendix III

CCR Appendix IV

~~⑧ LVHNSP IV Detects (As, B<sub>2</sub>, B<sub>C</sub>, C<sub>J</sub>, Cr, C<sub>A</sub>, P<sub>G</sub>, MO, T<sub>I</sub>, Rad 226-238)~~

Closed 5-year NPDES (Diss [As, Ba, Bo, Cd, Ca, Fe, Pb, Mn, Mo, Se], Chloride, SO<sub>4</sub>, TDS, TSS)

Phase II (Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Ti, Sn, V, Zn, Hg), Cyanide, Sulfide       Phase A IV Detects (As, Ba, Pb, Li, Se, Rad 226-228)       Cd, Cr, Co, Pb, Li, Mo, Se, Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Rad 226-228)

#### **Other Observations / Equipment Operation Problems:**

Sample ID: 102523NON4A

Sampler Signature: 

QA/QC Signature: M. Kuy

Date: 10/25/23

Date: 10/27/23

Page 1 of 1



## MICROPURGE SAMPLING LOG

Date: 10/25/23  
Weather: Sunny/windy, 60's

Project Name:	Mount Storm Power Station	Project No./Task No.:	31406066.005
Event:	2SA2023 LVWSP	Sampler(s):	M. Knez
Well ID:	DW-10	Field Calibration Completed:	10/25/23 at 0745
Well Diameter:	2.0 inches	Initial Depth to Water:	2.40 feet
Depth to Bottom:	32.75 feet	Water Column Thickness:	feet
Equipment Used:	<input checked="" type="checkbox"/> WL Indicator <input type="checkbox"/> Turbidity Meter <input type="checkbox"/> Air Tank <input checked="" type="checkbox"/> Dedicated Bladder Pump <input checked="" type="checkbox"/> YSI ProPlus 23 B04947 <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Compressor <input type="checkbox"/> Non-dedicated BP <input type="checkbox"/> In-Situ <input type="checkbox"/> MP-10 Controller Box <input checked="" type="checkbox"/> MP-15 Controller Box <input type="checkbox"/>		

Purge Cycle (End): 14/6 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) ~~18.02~~(0.006) = ~~0.11~~ 0.11 m<sup>3</sup>

Total Purge Volume (Gallons): ~3.50      Purge Water Management: O.W.S. 28.05

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

Purge time: 1039

Sample Time: 1100 Field Filtered (0.45μm):  Yes  No

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

Closed 5-year NPDES (Diss [As, Ba, Bc, Cd, Ca, Fe, Pb, Mn, Mo, Se], Chloride, SO4, TDS, TSS)

Phase II (Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Ag, Tl, Sr)     Phase III (Al, Cd, Hg, Pb, S, Zn, Cu, Cr, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Ag, Tl, Sr)     Phase IV Detects (As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Ag, Tl, Sr)

Phase II (Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Hg, Sn, V, Zn, Hg), Cyanide, Sulfide       Phase A IV Detects (As, Ba, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)       Phase B IV Detects (V, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Rad 226-228)

Other Observations (Explain or Comment):

**Other Observations / Equipment Operation Problems:** \_\_\_\_\_

Sample ID: 10523N0W10

Sampler Signature: M. King Date: 10/25/23 Page 1 of 1

QA/QC Signature:  Date: 10/29/23



## MICROPURGE SAMPLING LOG

Date: 10/25/23  
Weather: Sunny 60's

Project Name:	Mount Storm Power Station	Project No./Task No.:	31406066 005
Event:	2SA2023 LVNSP	Sampler(s):	C. Meyer
Well ID:	DN-12	Field Calibration Completed:	0745 on 10/25/23
Well Diameter:	2.0 inches	Initial Depth to Water:	BTOP feet
Depth to Bottom:	31.00 feet	Water Column Thickness:	— feet
Equipment Used:	<input checked="" type="checkbox"/> WL Indicator <input type="checkbox"/> Turbidity Meter <input type="checkbox"/> Air Tank <input checked="" type="checkbox"/> Dedicated Bladder Pump <input checked="" type="checkbox"/> YSI 6600 DSS16 E100132 <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Compressor <input checked="" type="checkbox"/> Non-dedicated BP <input type="checkbox"/> In-Situ — <input type="checkbox"/> MP-10 Controller Box <input checked="" type="checkbox"/> MP-15 Controller Box <input type="checkbox"/>		

Purge Cycle (End): 25/5 seconds @ 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): 25.406

Total Purge Volume (Gallons): 85,000 Purge Water Management: O.W.S. On-site

Purge Observations (color, odor, turbidity, sheen): It took 906 Sample  
Purging time: 12.11

Purge time: 1341

Sample Time: 1400

Field Filtered (0.45um):  Yes  No

Sample Parameters/Analyte(s):  Petro (DRO)  CCR Appendix III  CCR Appendix IV  
 Closed 5-year NPDES (Diss [As, Ba, Bo, Cd, Ca, Fe, Pb, Mn, Mo, Se], Chloride, SO<sub>4</sub>, TDS, TSS)  
 Phase II (Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Ti, Sn, V, Zn, Hg), Cyanide, Sulfide  Phase A IV Detects (As, Ba, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)  Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Rad 226-228)

#### **Other Observations / Equipment Operation Problems:**

Sample ID: ~~10125/23a~~ 102523N0W12

Sampler Signature: CJH Date: 10/25/23 Page 1 of 1

QA/QC Signature: M. Kuy Date: 10/27/23



## MICROPURGE SAMPLING LOG

Date: 10/25/23  
 Weather: Partly Cloudy 60°

Project Name:	Mount Storm Power Station	Project No./Task No.:	31406066.005
Event:	2SA2023 LVNSP	Sampler(s):	C.megee
Well ID:	OW-13	Field Calibration Completed:	0745 on 10/25/23
Well Diameter:	2.0 inches	Initial Depth to Water:	16.55 feet
Depth to Bottom:	27.30 feet	Water Column Thickness:	— feet
Equipment Used:	<input checked="" type="checkbox"/> WL Indicator <input type="checkbox"/> Turbidity Meter <input type="checkbox"/> Air Tank <input checked="" type="checkbox"/> Dedicated Bladder Pump <input checked="" type="checkbox"/> YSI <u>proDSS16 E100132</u> <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Compressor <input checked="" type="checkbox"/> Non-dedicated BP <input type="checkbox"/> In-Situ <input type="checkbox"/> MP-10 Controller Box <input checked="" type="checkbox"/> MP-15 Controller Box <input type="checkbox"/>		

Time (5 minute Int.)	pH (S.U.)	Sp. Cond. ( $\mu\text{S}/\text{cm}^{\circ\text{C}}$ )	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
1016	6.21	814	240.44	0.78	14.7	-74.3	17.73	~240
1021	6.25	813	233.03	0.43	14.7	-78.7	18.36	~240
1026	6.24	828	153.90	0.36	14.5	-78.2	18.75	~240
1031	6.24	832	220.30	0.30	14.5	-78.4	18.85	~240
1036	6.24	840	150.18	0.24	14.6	-80.1	19.08	~240
1041	6.24	846	115.85	0.20	14.6	-81.7	19.16	~240
1046	6.25	841	92.56	0.18	14.6	-82.6	19.25	~240
1051	6.21	834	89.68	0.15	14.6	-70.4	19.25	~240
1056	6.24	817	68.62	0.14	14.6	-76.0	19.25	~240
1101	6.25	798	49.17	0.16	14.7	-78.2	19.26	~240
1106	6.25	787	42.46	0.15	14.8	-79.4	19.26	~240
1111	6.27	774	44.18	0.16	14.8	-80.2	19.26	~240
1116	6.28	768	42.76	0.16	14.5	-80.6	19.29	~240
1121	6.28	768	44.25	0.13	14.7	-81.1	19.32	~240
1125	—	S	A	M	P	L	E	—
1137	6.29	807	59.25	0.40	14.9	-79.0	19.30	~240

Purge Cycle (End): 25/5 seconds @ ~30 psi Flow Rate (ml/min End): ~400

Purge volume (gallons) prior to stabilization monitoring (3/8" I.D. Tube: Vol=Depth to Pump x 0.006 gal/ft): 19.93 (6 ucs) = ~0.12

Total Purge Volume (Gallons): ~5.0 Purge Water Management: O.W.S. On-site

Purge Observations (color, odor, turbidity, sheen): 1st tan grab sample

Purge time: 1010

Sample Time: 1125 Field Filtered (0.45um):  Yes  No

Sample Parameters/Analyte(s):  Petro (DRO)  CCR Appendix III  CCR Appendix IV  
 Closed 5-year NPDES (Diss [As, Ba, Br, Cd, Ca, Fe, Pb, Mn, Mo, Se], Chloride, SO4, TDS, TSS)  
 Phase II (Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Ti, Sn, V, Zn, Hg), Cyanide, Sulfide  Phase A IV Detects (As, Ba, Cd, Cr, Co, Pb, Li, Se, Rad 226-228)  Phase B IV Detects (As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Rad 226-228)

Other Observations / Equipment Operation Problems:

Sample ID: 102523N0N13

Sampler Signature: C.L. Date: 10/25/23 Page 1 of 1

QA/QC Signature: M.K.W. Date: 10/27/23



## MICROPURGE SAMPLING LOG

Date: 10/25/23  
Weather: partly cloudy 60's

Project Name:	Mount Storm Power Station	Project No./Task No.:	31406066.005
Event:	2SA2023 LVWSP	Sampler(s):	C. Meger
Well ID:	FB Field Blank	Field Calibration Completed:	
Well Diameter:	— inches	Initial Depth to Water:	— feet
Depth to Bottom:	— feet	Water Column Thickness:	— feet
Equipment Used:	<input checked="" type="checkbox"/> WL Indicator <input checked="" type="checkbox"/> TST <input type="checkbox"/> In-Situ —		
	<input type="checkbox"/> Turbidity Meter <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> MP-10 Controller Box		
	<input type="checkbox"/> Air Tank <input type="checkbox"/> Compressor <input checked="" type="checkbox"/> MP-15 Controller Box		
	<input checked="" type="checkbox"/> Dedicated Bladder Pump <input type="checkbox"/> Non-dedicated BP <input type="checkbox"/> —		

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 near 0W-13  
Purge time: 16:11 - 16:31 Period: 10 min

Parse time: 100 ms 2.66 MB 0.1.2020

Sample Time: 1025 Field Filtered (0.45um):  Yes  No

Petro (DRO)       CCR Appendix III       CCR Appendix IV

Closed 5-year NPDES (Diss [As, Ba, Bo, Cd, Ca, Fe, Pb, Mn, Mo, Se], Chloride, SO<sub>4</sub>, TDS, TSS)

Phase II (Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Ti, Sn,  Phase A IV Detects (As, Ba, ~~Cd~~, Cr, Co,  Phase B IV Detects (As, Ba,

V, Zn, Hg), Cyanide, Sulfide Pb, Li, Se, Rad 226-228) Be, Cu, Cr, Co, Pb, Li, Mo, Se, Ti, Rad 226-228)

#### **Other Observations / Equipment Operation Problems:**

Sample ID: 102523 EB Field S-1

$$x_1 x_2 \dots x_n = \frac{1}{2} \cdot \frac{1}{2} \cdots \frac{1}{2} = \frac{1}{2^n}$$

Sampler Signature: John Smith Date: 10/25/23 Page 1 of 1

QA/QC Signature: M. May Date: 10/27/23



## MICROPURGE SAMPLING LOG

Date: 10/25/23  
Weather: Sunny 60°

Project Name:	<u>Mount Storm Power Station</u>	Project No./Task No.:	31406066.005
Event:	2SA2023 <u>LWSP</u>	Sampler(s):	<u>Chuguee</u>
Well ID:	<u>FDDuplicate</u>	Field Calibration Completed:	<u>07450 on 10/25/23</u>
Well Diameter:	— inches	Initial Depth to Water:	— feet
Depth to Bottom:	— feet	Water Column Thickness:	— feet
Equipment Used:	<input checked="" type="checkbox"/> WL Indicator <input type="checkbox"/> Turbidity Meter <input type="checkbox"/> Air Tank <input checked="" type="checkbox"/> Dedicated Bladder Pump <input checked="" type="checkbox"/> YSI 8100-16E00132 <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Compressor <input type="checkbox"/> Non-dedicated BP <input type="checkbox"/> In-Situ — <input type="checkbox"/> MP-10 Controller Box <input checked="" type="checkbox"/> MP-15 Controller Box <input type="checkbox"/> —		

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): ft. tan grab Sample taken @ DW-4A

Purge time:

Sample Time: 1300 Field Filtered (0.45um):  Yes  No

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

Closed 5-year NPDES (Diss [As, Ba, Bo, Cd, Ca, Fe, Pb, Mn, Mo, Se], Chloride, SO4, TDS, TSS) UV/VIS Detects (As, Ba, Bo, Cd, Ca, Fe, Pb, Mn, Mo, Se)

Phase II (Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl, Sn)     Phase A IV Detects (As, Ba, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl, Sn)     Phase B IV Detects (As, Ba, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl, Sn)

Pb, Li, Se, Rad 226-228) Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Rad 226-228)

**Other Observations / Equipment Operation Problems:**

---

Sample ID: J02-533 FDR Date: 6/1/14

Billie Jean King 1973

Sampler Signature:  Date: 10/15/23 Page 1 of 1

QA/QC Signature: m.kug Date: 10/2/125

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kelly Hicks  
Dominion Energy Services, Inc.  
5000 Dominion Blvd  
Glen Allen, Virginia 23060

Generated 12/28/2023 3:23:56 PM

## JOB DESCRIPTION

MSPS-2SA2023-LVWSP-D

## JOB NUMBER

240-194365-1

# Eurofins Cleveland

## Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

## Authorization

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Authorized for release by  
Roxanne Cisneros, Senior Project Manager  
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(615)301-5761

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# Definitions/Glossary

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## Qualifiers

### Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

## Glossary

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

# Case Narrative

Client: Dominion Energy Services, Inc.  
Project: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Job ID: 240-194365-1**

**Eurofins Cleveland**

## Job Narrative 240-194365-1

### Receipt

The samples were received on 10/27/2023 9:20 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 1.2° C, 2.1° C, 2.5° C and 4.4° C.

### RAD

Method 9320: Radium-228 batch 638567: The detection goal was not met for the following sample. Sample was prepped at a reduced volume due to the presence of matrix interferences: 102523NOW13 (240-194365-7). Analytical results are reported with the detection limit achieved.

Method 9320: There was insufficient volume remaining to perform MS/MSD on the re-extract. 240-194365-2 MS & MSD

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

### Metals

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

### General Chemistry

Method SM 2540C: The sample did not reach a stable weight following 3 cycles of heating, cooling, and desiccation. The cycle 3 weight was used to calculate the Total Dissolved Solids (TDS) for the sample result. 102523NOW8 (240-194365-2), 102523NOW4A (240-194365-4), 102523NOW10 (240-194365-5) and 102523NOW12 (240-194365-6)

Method SM 2540C: The sample did not reach a stable weight following 3 cycles of heating, cooling, and desiccation. The cycle 3 weight was used to calculate the Total Dissolved Solids (TDS) for the sample result. 102523FDDUPLICATE (240-194365-9)

Method 9056A: Bracketing CCB failed for the following samples, however samples are being reported as secondary for in hold results. 102523NOW7A (240-194365-1), 102523NOW2A (240-194365-3) and 102523NOW10 (240-194365-5)

Method 9056A: Reanalysis of the following sample(s) was performed outside of the analytical holding time due to failure of quality control parameters in the initial analysis. 102523NOW7A (240-194365-1), 102523NOW2A (240-194365-3) and 102523NOW10 (240-194365-5)

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.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2540C - 2015	Total Dissolved Solids (Dried at 180 °C)	SM	EET PIT
9056A	Anions, Ion Chromatography	SW846	EET CLE
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 CLE
7470A	Preparation, Mercury	SW846	EET CLE
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 CLE = Eurofins Cleveland, 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: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-194365-1	102523NOW7A	Water	10/25/23 09:35	10/27/23 09:20
240-194365-2	102523NOW8	Water	10/25/23 09:25	10/27/23 09:20
240-194365-3	102523NOW2A	Water	10/25/23 12:10	10/27/23 09:20
240-194365-4	102523NOW4A	Water	10/25/23 12:50	10/27/23 09:20
240-194365-5	102523NOW10	Water	10/25/23 11:00	10/27/23 09:20
240-194365-6	102523NOW12	Water	10/25/23 14:00	10/27/23 09:20
240-194365-7	102523NOW13	Water	10/25/23 11:25	10/27/23 09:20
240-194365-8	102523FBFIELDBLANK	Water	10/25/23 10:25	10/27/23 09:20
240-194365-9	102523FDDUPLICATE	Water	10/25/23 13:00	10/27/23 09:20

# Detection Summary

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## **Client Sample ID: 102523NOW7A**

## **Lab Sample ID: 240-194365-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.57	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Barium	290		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	41000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	3.1		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	14		8.0	1.7	ug/L	1		6020B	Total Recoverable
Thallium	1.2		1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Dissolved Solids	240		10	10	mg/L	1		2540C - 2015	Total/NA
Chloride	100		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.15 ^2		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	9.4 ^2		1.0	0.35	mg/L	1		9056A	Total/NA
Fluoride - RA	0.12 H		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate - RA	8.6 H		1.0	0.35	mg/L	1		9056A	Total/NA

## **Client Sample ID: 102523NOW8**

## **Lab Sample ID: 240-194365-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	11		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	220000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	13		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	8.8		8.0	1.7	ug/L	1		6020B	Total Recoverable
Thallium	0.64 J		1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Dissolved Solids	890		10	10	mg/L	1		2540C - 2015	Total/NA
Chloride	120		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	430		5.0	1.7	mg/L	5		9056A	Total/NA

## **Client Sample ID: 102523NOW2A**

## **Lab Sample ID: 240-194365-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	88 J		100	57	ug/L	1		6010D	Total Recoverable
Barium	150		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cadmium	0.67 J		1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	87000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	39		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	5.4 J		8.0	1.7	ug/L	1		6020B	Total Recoverable
Molybdenum	1.4 J		5.0	1.1	ug/L	1		6020B	Total Recoverable
Thallium	0.56 J		1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Dissolved Solids	370		10	10	mg/L	1		2540C - 2015	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## Client Sample ID: 102523NOW2A (Continued)

## Lab Sample ID: 240-194365-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	28		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.15	^2	0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	47	^2	1.0	0.35	mg/L	1		9056A	Total/NA
Fluoride - RA	0.11	H	0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate - RA	42	H	1.0	0.35	mg/L	1		9056A	Total/NA

## Client Sample ID: 102523NOW4A

## Lab Sample ID: 240-194365-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	74	J	100	57	ug/L	1		6010D	Total
Arsenic	0.96	J	5.0	0.75	ug/L	1		6020B	Recoverable
Barium	86		5.0	2.2	ug/L	1		6020B	Total
Calcium	27000		1000	250	ug/L	1		6020B	Recoverable
Cobalt	0.39	J	1.0	0.19	ug/L	1		6020B	Total
Lithium	3.4	J	8.0	1.7	ug/L	1		6020B	Recoverable
Molybdenum	1.5	J	5.0	1.1	ug/L	1		6020B	Total
Thallium	0.34	J	1.0	0.20	ug/L	1		6020B	Recoverable
Total Dissolved Solids	120		10	10	mg/L	1		2540C - 2015	Total/NA
Chloride	8.5		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.10		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	37		1.0	0.35	mg/L	1		9056A	Total/NA

## Client Sample ID: 102523NOW10

## Lab Sample ID: 240-194365-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	67	J	100	57	ug/L	1		6010D	Total
Barium	420		5.0	2.2	ug/L	1		6020B	Recoverable
Calcium	59000		1000	250	ug/L	1		6020B	Total
Cobalt	0.36	J	1.0	0.19	ug/L	1		6020B	Recoverable
Lithium	9.5		8.0	1.7	ug/L	1		6020B	Total
Thallium	0.23	J	1.0	0.20	ug/L	1		6020B	Recoverable
Total Dissolved Solids	240		10	10	mg/L	1		2540C - 2015	Total/NA
Chloride	16		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.23	^2	0.050	0.024	mg/L	1		9056A	Total/NA
Fluoride - RA	0.16	H	0.050	0.024	mg/L	1		9056A	Total/NA

## Client Sample ID: 102523NOW12

## Lab Sample ID: 240-194365-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	62	J	100	57	ug/L	1		6010D	Total

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

# Detection Summary

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## **Client Sample ID: 102523NOW12 (Continued)**

## **Lab Sample ID: 240-194365-6**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.83	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	79		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	100000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.6	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	71		1.0	0.19	ug/L	1		6020B	Total Recoverable
Thallium	0.20	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Dissolved Solids	680		10	10	mg/L	1		2540C - 2015	Total/NA
Chloride	140		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.031	J	0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	220		5.0	1.7	mg/L	5		9056A	Total/NA

## **Client Sample ID: 102523NOW13**

## **Lab Sample ID: 240-194365-7**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.5		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	200		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	22000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	8.4		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	4.0		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.8		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	4.4	J	8.0	1.7	ug/L	1		6020B	Total Recoverable
Selenium	1.2	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Total Dissolved Solids	400		10	10	mg/L	1		2540C - 2015	Total/NA
Chloride	26		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.027	J	0.050	0.024	mg/L	1		9056A	Total/NA

## **Client Sample ID: 102523FBFIELDBLANK**

## **Lab Sample ID: 240-194365-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	2.1	J	8.0	1.7	ug/L	1		6020B	Total Recoverable

## **Client Sample ID: 102523FDDUPLICATE**

## **Lab Sample ID: 240-194365-9**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	72	J	100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.2	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	80		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	25000		1000	250	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

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## Detection Summary

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

### Client Sample ID: 102523FDDUPLICATE (Continued)

### Lab Sample ID: 240-194365-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.31	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	3.2	J	8.0	1.7	ug/L	1		6020B	Total Recoverable
Molybdenum	1.4	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Total Dissolved Solids	110		10	10	mg/L	1		2540C - 2015	Total/NA
Chloride	8.6		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.096		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	38		1.0	0.35	mg/L	1		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523NOW7A**

**Lab Sample ID: 240-194365-1**

Matrix: Water

Date Collected: 10/25/23 09:35

Date Received: 10/27/23 09:20

## Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		10/30/23 14:00	10/31/23 22:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.57</b>	<b>J</b>	2.0	0.57	ug/L		10/30/23 14:00	11/01/23 19:03	1
Arsenic	<0.75		5.0	0.75	ug/L		10/30/23 14:00	11/01/23 19:03	1
<b>Barium</b>	<b>290</b>		5.0	2.2	ug/L		10/30/23 14:00	11/01/23 19:03	1
Beryllium	<0.62		1.0	0.62	ug/L		10/30/23 14:00	11/01/23 19:03	1
Cadmium	<0.20		1.0	0.20	ug/L		10/30/23 14:00	11/01/23 19:03	1
<b>Calcium</b>	<b>41000</b>		1000	250	ug/L		10/30/23 14:00	11/01/23 19:03	1
Chromium	<1.2		5.0	1.2	ug/L		10/30/23 14:00	11/01/23 19:03	1
<b>Cobalt</b>	<b>3.1</b>		1.0	0.19	ug/L		10/30/23 14:00	11/01/23 19:03	1
Lead	<0.45		1.0	0.45	ug/L		10/30/23 14:00	11/01/23 19:03	1
<b>Lithium</b>	<b>14</b>		8.0	1.7	ug/L		10/30/23 14:00	11/01/23 19:03	1
Molybdenum	<1.1		5.0	1.1	ug/L		10/30/23 14:00	11/01/23 19:03	1
Selenium	<0.89		5.0	0.89	ug/L		10/30/23 14:00	11/01/23 19:03	1
<b>Thallium</b>	<b>1.2</b>		1.0	0.20	ug/L		10/30/23 14:00	11/01/23 19:03	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		10/30/23 14:00	10/31/23 17:31	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	240		10	10	mg/L			10/31/23 16:17	1
Chloride (SW846 9056A)	100		1.0	0.13	mg/L			11/18/23 21:11	1
Fluoride (SW846 9056A)	0.15 ^2		0.050	0.024	mg/L			11/18/23 21:11	1
Sulfate (SW846 9056A)	9.4 ^2		1.0	0.35	mg/L			11/18/23 21:11	1

## General Chemistry - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SW846 9056A)	0.12 H		0.050	0.024	mg/L			11/23/23 00:24	1
Sulfate (SW846 9056A)	8.6 H		1.0	0.35	mg/L			11/23/23 00:24	1

## Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-226	0.159		0.101	0.102	1.00	0.136	pCi/L	11/02/23 09:49	12/01/23 18:07	1
<b>Carrier</b>	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.3		30 - 110					11/02/23 09:49	12/01/23 18:07	1

## Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-228	0.409	U	0.450	0.452	1.00	0.734	pCi/L	11/28/23 11:06	12/05/23 11:24	1
<b>Carrier</b>	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	67.7		30 - 110					11/28/23 11:06	12/05/23 11:24	1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523NOW7A**

**Lab Sample ID: 240-194365-1**

Date Collected: 10/25/23 09:35

Matrix: Water

Date Received: 10/27/23 09:20

**Method: SW846 9320 - Radium-228 (GFPC) (Continued)**

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	78.9		30 - 110	11/28/23 11:06	12/05/23 11:24	1

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Radium 226 and 228	0.567	U	0.461	0.463	5.00	0.734	pCi/L	12/04/23 16:01		1

# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523NOW8**

**Lab Sample ID: 240-194365-2**

Date Collected: 10/25/23 09:25

Matrix: Water

Date Received: 10/27/23 09:20

## Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		10/30/23 14:00	10/31/23 21:50	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		10/30/23 14:00	11/01/23 18:51	1
Arsenic	<0.75		5.0	0.75	ug/L		10/30/23 14:00	11/01/23 18:51	1
<b>Barium</b>	<b>11</b>		5.0	2.2	ug/L		10/30/23 14:00	11/01/23 18:51	1
Beryllium	<0.62	F1	1.0	0.62	ug/L		10/30/23 14:00	11/01/23 18:51	1
Cadmium	<0.20		1.0	0.20	ug/L		10/30/23 14:00	11/01/23 18:51	1
<b>Calcium</b>	<b>220000</b>		1000	250	ug/L		10/30/23 14:00	11/01/23 18:51	1
Chromium	<1.2		5.0	1.2	ug/L		10/30/23 14:00	11/01/23 18:51	1
<b>Cobalt</b>	<b>13</b>		1.0	0.19	ug/L		10/30/23 14:00	11/01/23 18:51	1
Lead	<0.45		1.0	0.45	ug/L		10/30/23 14:00	11/01/23 18:51	1
<b>Lithium</b>	<b>8.8</b>		8.0	1.7	ug/L		10/30/23 14:00	11/01/23 18:51	1
Molybdenum	<1.1		5.0	1.1	ug/L		10/30/23 14:00	11/01/23 18:51	1
Selenium	<0.89		5.0	0.89	ug/L		10/30/23 14:00	11/01/23 18:51	1
<b>Thallium</b>	<b>0.64 J</b>		1.0	0.20	ug/L		10/30/23 14:00	11/01/23 18:51	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		10/30/23 14:00	10/31/23 17:24	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	890		10	10	mg/L			10/31/23 16:17	1
Chloride (SW846 9056A)	120		1.0	0.13	mg/L			11/18/23 13:47	1
Fluoride (SW846 9056A)	0.11		0.050	0.024	mg/L			11/18/23 13:47	1
Sulfate (SW846 9056A)	430		5.0	1.7	mg/L			11/18/23 14:48	5

## Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-226	0.00559	U	0.0646	0.0646	1.00	0.132	pCi/L	11/02/23 09:49	12/01/23 18:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		30 - 110					11/02/23 09:49	12/01/23 18:07	1

## Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-228	0.204	U	0.314	0.314	1.00	0.531	pCi/L	11/28/23 11:06	12/05/23 11:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.5		30 - 110					11/28/23 11:06	12/05/23 11:19	1
Y Carrier	83.0		30 - 110					11/28/23 11:06	12/05/23 11:19	1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523NOW8**

**Lab Sample ID: 240-194365-2**

Date Collected: 10/25/23 09:25

Matrix: Water

Date Received: 10/27/23 09:20

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Radium 226 and 228	0.209	U	0.321	0.321	5.00	0.531	pCi/L		12/04/23 16:01	1

# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523NOW2A**

**Lab Sample ID: 240-194365-3**

**Matrix: Water**

Date Collected: 10/25/23 12:10

Date Received: 10/27/23 09:20

## Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	88	J	100	57	ug/L		10/30/23 14:00	10/31/23 22:24	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		10/30/23 14:00	11/01/23 19:05	1
Arsenic	<0.75		5.0	0.75	ug/L		10/30/23 14:00	11/01/23 19:05	1
<b>Barium</b>	<b>150</b>		5.0	2.2	ug/L		10/30/23 14:00	11/01/23 19:05	1
Beryllium	<0.62		1.0	0.62	ug/L		10/30/23 14:00	11/01/23 19:05	1
Cadmium	0.67	J	1.0	0.20	ug/L		10/30/23 14:00	11/01/23 19:05	1
Calcium	87000		1000	250	ug/L		10/30/23 14:00	11/01/23 19:05	1
Chromium	<1.2		5.0	1.2	ug/L		10/30/23 14:00	11/01/23 19:05	1
Cobalt	39		1.0	0.19	ug/L		10/30/23 14:00	11/01/23 19:05	1
Lead	<0.45		1.0	0.45	ug/L		10/30/23 14:00	11/01/23 19:05	1
Lithium	5.4	J	8.0	1.7	ug/L		10/30/23 14:00	11/01/23 19:05	1
Molybdenum	1.4	J	5.0	1.1	ug/L		10/30/23 14:00	11/01/23 19:05	1
Selenium	<0.89		5.0	0.89	ug/L		10/30/23 14:00	11/01/23 19:05	1
Thallium	0.56	J	1.0	0.20	ug/L		10/30/23 14:00	11/01/23 19:05	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		10/30/23 14:00	10/31/23 17:33	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	370		10	10	mg/L			10/31/23 16:17	1
Chloride (SW846 9056A)	28		1.0	0.13	mg/L			11/18/23 22:11	1
Fluoride (SW846 9056A)	0.15	^2	0.050	0.024	mg/L			11/18/23 22:11	1
Sulfate (SW846 9056A)	47	^2	1.0	0.35	mg/L			11/18/23 22:11	1

## General Chemistry - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SW846 9056A)	0.11	H	0.050	0.024	mg/L			11/23/23 01:29	1
Sulfate (SW846 9056A)	42	H	1.0	0.35	mg/L			11/23/23 01:29	1

## Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-226	0.572		0.160	0.168	1.00	0.123	pCi/L	11/02/23 09:49	12/01/23 18:08	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	88.4		30 - 110					11/02/23 09:49	12/01/23 18:08	1

## Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-228	0.415	U	0.372	0.374	1.00	0.591	pCi/L	11/28/23 11:06	12/05/23 11:19	1
<b>Carrier</b>	<b>%Yield</b>	<b>Qualifier</b>	<b>Limits</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Ba Carrier	85.8		30 - 110					11/28/23 11:06	12/05/23 11:19	1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523NOW2A**

**Lab Sample ID: 240-194365-3**

Date Collected: 10/25/23 12:10

Matrix: Water

Date Received: 10/27/23 09:20

**Method: SW846 9320 - Radium-228 (GFPC) (Continued)**

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	84.1		30 - 110	11/28/23 11:06	12/05/23 11:19	1

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Radium 226 and 228	0.987		0.405	0.410	5.00	0.591	pCi/L	12/04/23 16:01		1

# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523NOW4A**

**Lab Sample ID: 240-194365-4**

Date Collected: 10/25/23 12:50

Matrix: Water

Date Received: 10/27/23 09:20

## Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	74	J	100	57	ug/L		10/30/23 14:00	10/31/23 22:28	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		10/30/23 14:00	11/01/23 19:08	1
Arsenic	0.96	J	5.0	0.75	ug/L		10/30/23 14:00	11/01/23 19:08	1
Barium	86		5.0	2.2	ug/L		10/30/23 14:00	11/01/23 19:08	1
Beryllium	<0.62		1.0	0.62	ug/L		10/30/23 14:00	11/01/23 19:08	1
Cadmium	<0.20		1.0	0.20	ug/L		10/30/23 14:00	11/01/23 19:08	1
Calcium	27000		1000	250	ug/L		10/30/23 14:00	11/01/23 19:08	1
Chromium	<1.2		5.0	1.2	ug/L		10/30/23 14:00	11/01/23 19:08	1
Cobalt	0.39	J	1.0	0.19	ug/L		10/30/23 14:00	11/01/23 19:08	1
Lead	<0.45		1.0	0.45	ug/L		10/30/23 14:00	11/01/23 19:08	1
Lithium	3.4	J	8.0	1.7	ug/L		10/30/23 14:00	11/01/23 19:08	1
Molybdenum	1.5	J	5.0	1.1	ug/L		10/30/23 14:00	11/01/23 19:08	1
Selenium	<0.89		5.0	0.89	ug/L		10/30/23 14:00	11/01/23 19:08	1
Thallium	0.34	J	1.0	0.20	ug/L		10/30/23 14:00	11/01/23 19:08	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		10/30/23 14:00	10/31/23 17:35	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	120		10	10	mg/L			10/31/23 16:17	1
Chloride (SW846 9056A)	8.5		1.0	0.13	mg/L			11/18/23 19:30	1
Fluoride (SW846 9056A)	0.10		0.050	0.024	mg/L			11/18/23 19:30	1
Sulfate (SW846 9056A)	37		1.0	0.35	mg/L			11/18/23 19:30	1

## Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-226	0.0728	U	0.0808	0.0811	1.00	0.129	pCi/L	11/02/23 09:49	12/01/23 18:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.7		30 - 110					11/02/23 09:49	12/01/23 18:08	1

## Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-228	0.683		0.397	0.402	1.00	0.576	pCi/L	11/28/23 11:06	12/05/23 11:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.8		30 - 110					11/28/23 11:06	12/05/23 11:19	1
Y Carrier	83.7		30 - 110					11/28/23 11:06	12/05/23 11:19	1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523NOW4A**

**Lab Sample ID: 240-194365-4**

Date Collected: 10/25/23 12:50

Matrix: Water

Date Received: 10/27/23 09:20

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Radium 226 and 228	0.756		0.405	0.410	5.00	0.576	pCi/L		12/04/23 16:01	1

# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523NOW10**

**Lab Sample ID: 240-194365-5**

**Matrix: Water**

Date Collected: 10/25/23 11:00

Date Received: 10/27/23 09:20

## Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	67	J	100	57	ug/L		10/30/23 14:00	10/31/23 22:32	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		10/30/23 14:00	11/01/23 19:10	1
Arsenic	<0.75		5.0	0.75	ug/L		10/30/23 14:00	11/01/23 19:10	1
<b>Barium</b>	<b>420</b>		5.0	2.2	ug/L		10/30/23 14:00	11/01/23 19:10	1
Beryllium	<0.62		1.0	0.62	ug/L		10/30/23 14:00	11/01/23 19:10	1
Cadmium	<0.20		1.0	0.20	ug/L		10/30/23 14:00	11/01/23 19:10	1
<b>Calcium</b>	<b>59000</b>		1000	250	ug/L		10/30/23 14:00	11/01/23 19:10	1
Chromium	<1.2		5.0	1.2	ug/L		10/30/23 14:00	11/01/23 19:10	1
<b>Cobalt</b>	<b>0.36</b>	<b>J</b>	1.0	0.19	ug/L		10/30/23 14:00	11/01/23 19:10	1
Lead	<0.45		1.0	0.45	ug/L		10/30/23 14:00	11/01/23 19:10	1
<b>Lithium</b>	<b>9.5</b>		8.0	1.7	ug/L		10/30/23 14:00	11/01/23 19:10	1
Molybdenum	<1.1		5.0	1.1	ug/L		10/30/23 14:00	11/01/23 19:10	1
Selenium	<0.89		5.0	0.89	ug/L		10/30/23 14:00	11/01/23 19:10	1
<b>Thallium</b>	<b>0.23</b>	<b>J</b>	1.0	0.20	ug/L		10/30/23 14:00	11/01/23 19:10	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		10/30/23 14:00	10/31/23 17:37	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	240		10	10	mg/L			10/31/23 16:17	1
Chloride (SW846 9056A)	16		1.0	0.13	mg/L			11/18/23 22:31	1
Fluoride (SW846 9056A)	0.23	^2	0.050	0.024	mg/L			11/18/23 22:31	1
Sulfate (SW846 9056A)	<0.35		1.0	0.35	mg/L			11/18/23 22:31	1

## General Chemistry - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SW846 9056A)	0.16	H	0.050	0.024	mg/L			11/23/23 01:50	1
Sulfate (SW846 9056A)	<0.35	H	1.0	0.35	mg/L			11/23/23 01:50	1

## Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-226	0.582		0.186	0.193	1.00	0.169	pCi/L	11/02/23 09:49	12/01/23 18:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.0		30 - 110					11/02/23 09:49	12/01/23 18:08	1

## Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-228	0.133	U	0.384	0.384	1.00	0.685	pCi/L	11/28/23 11:06	12/05/23 11:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		30 - 110					11/28/23 11:06	12/05/23 11:19	1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523NOW10**

**Lab Sample ID: 240-194365-5**

Date Collected: 10/25/23 11:00

Matrix: Water

Date Received: 10/27/23 09:20

**Method: SW846 9320 - Radium-228 (GFPC) (Continued)**

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	83.4		30 - 110	11/28/23 11:06	12/05/23 11:19	1

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium 226 and 228	0.714		0.427	0.430	5.00	0.685	pCi/L	12/04/23 16:01		1

# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523NOW12**

**Lab Sample ID: 240-194365-6**

Date Collected: 10/25/23 14:00

Matrix: Water

Date Received: 10/27/23 09:20

## Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	62	J	100	57	ug/L		10/30/23 14:00	10/31/23 22:37	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		10/30/23 14:00	11/01/23 19:18	1
Arsenic	0.83	J	5.0	0.75	ug/L		10/30/23 14:00	11/01/23 19:18	1
Barium	79		5.0	2.2	ug/L		10/30/23 14:00	11/01/23 19:18	1
Beryllium	<0.62		1.0	0.62	ug/L		10/30/23 14:00	11/01/23 19:18	1
Cadmium	<0.20		1.0	0.20	ug/L		10/30/23 14:00	11/01/23 19:18	1
Calcium	100000		1000	250	ug/L		10/30/23 14:00	11/01/23 19:18	1
Chromium	1.6	J	5.0	1.2	ug/L		10/30/23 14:00	11/01/23 19:18	1
Cobalt	71		1.0	0.19	ug/L		10/30/23 14:00	11/01/23 19:18	1
Lead	<0.45		1.0	0.45	ug/L		10/30/23 14:00	11/01/23 19:18	1
Lithium	<1.7		8.0	1.7	ug/L		10/30/23 14:00	11/01/23 19:18	1
Molybdenum	<1.1		5.0	1.1	ug/L		10/30/23 14:00	11/01/23 19:18	1
Selenium	<0.89		5.0	0.89	ug/L		10/30/23 14:00	11/01/23 19:18	1
Thallium	0.20	J	1.0	0.20	ug/L		10/30/23 14:00	11/01/23 19:18	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		10/30/23 14:00	10/31/23 17:39	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	680		10	10	mg/L			10/31/23 16:17	1
Chloride (SW846 9056A)	140		1.0	0.13	mg/L			11/18/23 18:29	1
Fluoride (SW846 9056A)	0.031	J	0.050	0.024	mg/L			11/18/23 18:29	1
Sulfate (SW846 9056A)	220		5.0	1.7	mg/L			11/18/23 18:50	5

## Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-226	0.375		0.162	0.165	1.00	0.178	pCi/L	11/02/23 09:49	12/01/23 18:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.1		30 - 110					11/02/23 09:49	12/01/23 18:09	1

## Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-228	0.230	U	0.419	0.420	1.00	0.722	pCi/L	11/28/23 11:06	12/05/23 11:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.8		30 - 110					11/28/23 11:06	12/05/23 11:19	1
Y Carrier	83.0		30 - 110					11/28/23 11:06	12/05/23 11:19	1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523NOW12**  
**Date Collected: 10/25/23 14:00**  
**Date Received: 10/27/23 09:20**

**Lab Sample ID: 240-194365-6**  
**Matrix: Water**

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Radium 226 and 228	0.604	U	0.449	0.451	5.00	0.722	pCi/L		12/04/23 16:01	1

# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523NOW13**

**Lab Sample ID: 240-194365-7**

**Matrix: Water**

Date Collected: 10/25/23 11:25

Date Received: 10/27/23 09:20

## Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		10/30/23 14:00	10/31/23 22:41	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		10/30/23 14:00	11/01/23 19:20	1
<b>Arsenic</b>	<b>7.5</b>		5.0	0.75	ug/L		10/30/23 14:00	11/01/23 19:20	1
<b>Barium</b>	<b>200</b>		5.0	2.2	ug/L		10/30/23 14:00	11/01/23 19:20	1
Beryllium	<0.62		1.0	0.62	ug/L		10/30/23 14:00	11/01/23 19:20	1
Cadmium	<0.20		1.0	0.20	ug/L		10/30/23 14:00	11/01/23 19:20	1
<b>Calcium</b>	<b>22000</b>		1000	250	ug/L		10/30/23 14:00	11/01/23 19:20	1
<b>Chromium</b>	<b>8.4</b>		5.0	1.2	ug/L		10/30/23 14:00	11/01/23 19:20	1
<b>Cobalt</b>	<b>4.0</b>		1.0	0.19	ug/L		10/30/23 14:00	11/01/23 19:20	1
<b>Lead</b>	<b>1.8</b>		1.0	0.45	ug/L		10/30/23 14:00	11/01/23 19:20	1
<b>Lithium</b>	<b>4.4 J</b>		8.0	1.7	ug/L		10/30/23 14:00	11/01/23 19:20	1
Molybdenum	<1.1		5.0	1.1	ug/L		10/30/23 14:00	11/01/23 19:20	1
<b>Selenium</b>	<b>1.2 J</b>		5.0	0.89	ug/L		10/30/23 14:00	11/01/23 19:20	1
Thallium	<0.20		1.0	0.20	ug/L		10/30/23 14:00	11/01/23 19:20	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		10/30/23 14:00	10/31/23 17:41	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	400		10	10	mg/L			11/01/23 21:12	1
Chloride (SW846 9056A)	26		1.0	0.13	mg/L			11/18/23 17:49	1
Fluoride (SW846 9056A)	0.027 J		0.050	0.024	mg/L			11/18/23 17:49	1
Sulfate (SW846 9056A)	<0.35		1.0	0.35	mg/L			11/18/23 17:49	1

## Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-226	0.572		0.302	0.307	1.00	0.366	pCi/L	11/02/23 09:49	12/01/23 18:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	61.7		30 - 110					11/02/23 09:49	12/01/23 18:09	1

## Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-228	0.709	U G	0.786	0.789	1.00	1.29	pCi/L	11/28/23 11:06	12/05/23 11:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.6		30 - 110					11/28/23 11:06	12/05/23 11:19	1
Y Carrier	82.6		30 - 110					11/28/23 11:06	12/05/23 11:19	1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523NOW13**

**Lab Sample ID: 240-194365-7**

Date Collected: 10/25/23 11:25

Matrix: Water

Date Received: 10/27/23 09:20

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Radium 226 and 228	1.28	U	0.842	0.847	5.00	1.29	pCi/L		12/04/23 16:01	1

# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## **Client Sample ID: 102523FBFIELDBLANK**

**Lab Sample ID: 240-194365-8**

**Matrix: Water**

Date Collected: 10/25/23 10:25

Date Received: 10/27/23 09:20

### **Method: SW846 6010D - Metals (ICP) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		10/30/23 14:00	10/31/23 22:45	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		10/30/23 14:00	11/01/23 19:23	1
Arsenic	<0.75		5.0	0.75	ug/L		10/30/23 14:00	11/01/23 19:23	1
Barium	<2.2		5.0	2.2	ug/L		10/30/23 14:00	11/01/23 19:23	1
Beryllium	<0.62		1.0	0.62	ug/L		10/30/23 14:00	11/01/23 19:23	1
Cadmium	<0.20		1.0	0.20	ug/L		10/30/23 14:00	11/01/23 19:23	1
Calcium	<250		1000	250	ug/L		10/30/23 14:00	11/01/23 19:23	1
Chromium	<1.2		5.0	1.2	ug/L		10/30/23 14:00	11/01/23 19:23	1
Cobalt	<0.19		1.0	0.19	ug/L		10/30/23 14:00	11/01/23 19:23	1
Lead	<0.45		1.0	0.45	ug/L		10/30/23 14:00	11/01/23 19:23	1
Lithium	2.1 J		8.0	1.7	ug/L		10/30/23 14:00	11/01/23 19:23	1
Molybdenum	<1.1		5.0	1.1	ug/L		10/30/23 14:00	11/01/23 19:23	1
Selenium	<0.89		5.0	0.89	ug/L		10/30/23 14:00	11/01/23 19:23	1
Thallium	<0.20		1.0	0.20	ug/L		10/30/23 14:00	11/01/23 19:23	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		10/30/23 14:00	10/31/23 17:47	1

### **General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	<10		10	10	mg/L			11/01/23 21:12	1
Chloride (SW846 9056A)	<0.13		1.0	0.13	mg/L			11/18/23 18:09	1
Fluoride (SW846 9056A)	<0.024		0.050	0.024	mg/L			11/18/23 18:09	1
Sulfate (SW846 9056A)	<0.35		1.0	0.35	mg/L			11/18/23 18:09	1

### **Method: SW846 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-226	0.0787	U	0.0862	0.0865	1.00	0.136	pCi/L	11/02/23 09:49	12/01/23 18:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.3		30 - 110					11/02/23 09:49	12/01/23 18:09	1

### **Method: SW846 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-228	0.157	U	0.279	0.280	1.00	0.484	pCi/L	11/28/23 11:06	12/05/23 11:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.5		30 - 110					11/28/23 11:06	12/05/23 11:19	1
Y Carrier	81.9		30 - 110					11/28/23 11:06	12/05/23 11:19	1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523FBFIELDLANK**

**Lab Sample ID: 240-194365-8**

Date Collected: 10/25/23 10:25

Matrix: Water

Date Received: 10/27/23 09:20

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Radium 226 and 228	0.235	U	0.292	0.293	5.00	0.484	pCi/L		12/05/23 17:03	1

# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## Client Sample ID: 102523FDDUPLICATE

Lab Sample ID: 240-194365-9

Matrix: Water

Date Collected: 10/25/23 13:00

Date Received: 10/27/23 09:20

### Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	72	J	100	57	ug/L		10/30/23 14:00	10/31/23 22:58	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		10/30/23 14:00	11/01/23 19:25	1
Arsenic	1.2	J	5.0	0.75	ug/L		10/30/23 14:00	11/01/23 19:25	1
Barium	80		5.0	2.2	ug/L		10/30/23 14:00	11/01/23 19:25	1
Beryllium	<0.62		1.0	0.62	ug/L		10/30/23 14:00	11/01/23 19:25	1
Cadmium	<0.20		1.0	0.20	ug/L		10/30/23 14:00	11/01/23 19:25	1
Calcium	25000		1000	250	ug/L		10/30/23 14:00	11/01/23 19:25	1
Chromium	<1.2		5.0	1.2	ug/L		10/30/23 14:00	11/01/23 19:25	1
Cobalt	0.31	J	1.0	0.19	ug/L		10/30/23 14:00	11/01/23 19:25	1
Lead	<0.45		1.0	0.45	ug/L		10/30/23 14:00	11/01/23 19:25	1
Lithium	3.2	J	8.0	1.7	ug/L		10/30/23 14:00	11/01/23 19:25	1
Molybdenum	1.4	J	5.0	1.1	ug/L		10/30/23 14:00	11/01/23 19:25	1
Selenium	<0.89		5.0	0.89	ug/L		10/30/23 14:00	11/01/23 19:25	1
Thallium	<0.20		1.0	0.20	ug/L		10/30/23 14:00	11/01/23 19:25	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		10/30/23 14:00	10/31/23 17:49	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C - 2015)	110		10	10	mg/L			11/01/23 21:12	1
Chloride (SW846 9056A)	8.6		1.0	0.13	mg/L			11/18/23 19:10	1
Fluoride (SW846 9056A)	0.096		0.050	0.024	mg/L			11/18/23 19:10	1
Sulfate (SW846 9056A)	38		1.0	0.35	mg/L			11/18/23 19:10	1

### Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-226	0.126	U	0.106	0.106	1.00	0.156	pCi/L	11/02/23 09:49	12/01/23 18:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.3		30 - 110					11/02/23 09:49	12/01/23 18:09	1

### Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-228	0.110	U	0.307	0.307	1.00	0.545	pCi/L	11/28/23 11:06	12/05/23 11:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.1		30 - 110					11/28/23 11:06	12/05/23 11:18	1
Y Carrier	86.4		30 - 110					11/28/23 11:06	12/05/23 11:18	1

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# Client Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523FDDUPLICATE**

**Lab Sample ID: 240-194365-9**

Date Collected: 10/25/23 13:00

Matrix: Water

Date Received: 10/27/23 09:20

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Radium 226 and 228	0.236	U	0.325	0.325	5.00	0.545	pCi/L		12/05/23 17:03	1

## **Tracer/Carrier Summary**

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## Method: 9315 - Radium-226 (GFPC)

## Matrix: Water

### **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (30-110)	
240-194365-1	102523NOW7A	94.3	
240-194365-2	102523NOW8	95.3	
240-194365-2 MS	102523NOW8	95.1	
240-194365-2 MSD	102523NOW8	96.5	
240-194365-3	102523NOW2A	88.4	
240-194365-4	102523NOW4A	85.7	
240-194365-5	102523NOW10	96.0	
240-194365-6	102523NOW12	93.1	
240-194365-7	102523NOW13	61.7	
240-194365-8	102523FBFIELDDBLANK	75.3	
240-194365-9	102523FDDUPLICATE	75.3	
LCS 160-634954/2-A	Lab Control Sample	97.0	
MB 160-634954/1-A	Method Blank	97.5	

### Tracer/Carrier Legend

---

Ba = Ba Carrier

**Method: 9320 - Radium-228 (GFPC)**

## Matrix: Water

### Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (30-110)	Y (30-110)
240-194365-1	102523NOW7A	67.7	78.9
240-194365-2	102523NOW8	95.5	83.0
240-194365-2 DU	102523NOW8	93.0	80.0
240-194365-3	102523NOW2A	85.8	84.1
240-194365-4	102523NOW4A	82.8	83.7
240-194365-5	102523NOW10	86.6	83.4
240-194365-6	102523NOW12	90.8	83.0
240-194365-7	102523NOW13	80.6	82.6
240-194365-8	102523FBFIELDDBLANK	92.5	81.9
240-194365-9	102523FDDUPLICATE	84.1	86.4
LCS 160-638567/2-A	Lab Control Sample	94.8	82.6
MB 160-638567/1-A	Method Blank	91.0	85.2

### Tracer/Carrier Legend

---

Ba = Ba Carrier

$\mathbf{Y} = \mathbf{Y}_{\text{Carrier}}$

# QC Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## Method: 6010D - Metals (ICP)

**Lab Sample ID: MB 240-592744/1-A**

**Matrix: Water**

**Analysis Batch: 592957**

**Client Sample ID: Method Blank**

**Prep Type: Total Recoverable**

**Prep Batch: 592744**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<57		100	57	ug/L		10/30/23 14:00	10/31/23 21:42	1

**Lab Sample ID: LCS 240-592744/2-A**

**Matrix: Water**

**Analysis Batch: 592957**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total Recoverable**

**Prep Batch: 592744**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Boron	1000	991		ug/L		99	80 - 120

**Lab Sample ID: 240-194365-2 MS**

**Matrix: Water**

**Analysis Batch: 592957**

**Client Sample ID: 102523NOW8**

**Prep Type: Total Recoverable**

**Prep Batch: 592744**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Boron	<57		1000	943		ug/L		94	75 - 125

**Lab Sample ID: 240-194365-2 MSD**

**Matrix: Water**

**Analysis Batch: 592957**

**Client Sample ID: 102523NOW8**

**Prep Type: Total Recoverable**

**Prep Batch: 592744**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD	RPD	Limit
Boron	<57		1000	1070		ug/L		107	75 - 125	12	20

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

**Lab Sample ID: MB 240-592744/1-A**

**Matrix: Water**

**Analysis Batch: 593128**

**Client Sample ID: Method Blank**

**Prep Type: Total Recoverable**

**Prep Batch: 592744**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57		2.0	0.57	ug/L		10/30/23 14:00	11/01/23 18:41	1
Arsenic	<0.75		5.0	0.75	ug/L		10/30/23 14:00	11/01/23 18:41	1
Barium	<2.2		5.0	2.2	ug/L		10/30/23 14:00	11/01/23 18:41	1
Beryllium	<0.62		1.0	0.62	ug/L		10/30/23 14:00	11/01/23 18:41	1
Cadmium	<0.20		1.0	0.20	ug/L		10/30/23 14:00	11/01/23 18:41	1
Calcium	<250		1000	250	ug/L		10/30/23 14:00	11/01/23 18:41	1
Chromium	<1.2		5.0	1.2	ug/L		10/30/23 14:00	11/01/23 18:41	1
Cobalt	<0.19		1.0	0.19	ug/L		10/30/23 14:00	11/01/23 18:41	1
Lead	<0.45		1.0	0.45	ug/L		10/30/23 14:00	11/01/23 18:41	1
Lithium	<1.7		8.0	1.7	ug/L		10/30/23 14:00	11/01/23 18:41	1
Molybdenum	<1.1		5.0	1.1	ug/L		10/30/23 14:00	11/01/23 18:41	1
Selenium	<0.89		5.0	0.89	ug/L		10/30/23 14:00	11/01/23 18:41	1
Thallium	<0.20		1.0	0.20	ug/L		10/30/23 14:00	11/01/23 18:41	1

**Lab Sample ID: LCS 240-592744/3-A**

**Matrix: Water**

**Analysis Batch: 593128**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total Recoverable**

**Prep Batch: 592744**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	100	108		ug/L		108	80 - 120

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# QC Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

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

**Lab Sample ID: LCS 240-592744/3-A**

**Matrix: Water**

**Analysis Batch: 593128**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total Recoverable**

**Prep Batch: 592744**

Analyte		Spike	LCS	LCS	Unit	D	%Rec	Limits	
		Added	Result	Qualifier					
Arsenic		1000	1000		ug/L		100	80 - 120	
Barium		1000	1000		ug/L		100	80 - 120	
Beryllium		500	465		ug/L		93	80 - 120	
Cadmium		500	503		ug/L		101	80 - 120	
Calcium		25000	24700		ug/L		99	80 - 120	
Chromium		500	501		ug/L		100	80 - 120	
Cobalt		500	491		ug/L		98	80 - 120	
Lead		500	475		ug/L		95	80 - 120	
Lithium		500	495		ug/L		99	80 - 120	
Molybdenum		500	477		ug/L		95	80 - 120	
Selenium		1000	979		ug/L		98	80 - 120	
Thallium		1000	993		ug/L		99	80 - 120	

**Lab Sample ID: 240-194365-2 MS**

**Matrix: Water**

**Analysis Batch: 593128**

**Client Sample ID: 102523NOW8**

**Prep Type: Total Recoverable**

**Prep Batch: 592744**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits	
	Result	Qualifier	Added	Result	Qualifier					
Antimony	<0.57		100	106		ug/L		106	80 - 120	
Arsenic	<0.75		1000	948		ug/L		95	80 - 120	
Barium	11		1000	935		ug/L		92	80 - 120	
Beryllium	<0.62	F1	500	423		ug/L		85	80 - 120	
Cadmium	<0.20		500	459		ug/L		92	80 - 120	
Calcium	220000		25000	234000	4	ug/L		45	80 - 120	
Chromium	<1.2		500	458		ug/L		92	80 - 120	
Cobalt	13		500	455		ug/L		89	80 - 120	
Lead	<0.45		500	438		ug/L		88	80 - 120	
Lithium	8.8		500	452		ug/L		89	80 - 120	
Molybdenum	<1.1		500	454		ug/L		91	80 - 120	
Selenium	<0.89		1000	914		ug/L		91	80 - 120	
Thallium	0.64	J	1000	936		ug/L		94	80 - 120	

**Lab Sample ID: 240-194365-2 MSD**

**Matrix: Water**

**Analysis Batch: 593128**

**Client Sample ID: 102523NOW8**

**Prep Type: Total Recoverable**

**Prep Batch: 592744**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Antimony	<0.57		100	94.6		ug/L		95	80 - 120	11	20
Arsenic	<0.75		1000	889		ug/L		89	80 - 120	6	20
Barium	11		1000	870		ug/L		86	80 - 120	7	20
Beryllium	<0.62	F1	500	392	F1	ug/L		78	80 - 120	8	20
Cadmium	<0.20		500	432		ug/L		86	80 - 120	6	20
Calcium	220000		25000	211000	4	ug/L		-48	80 - 120	10	20
Chromium	<1.2		500	429		ug/L		86	80 - 120	7	20
Cobalt	13		500	418		ug/L		81	80 - 120	9	20
Lead	<0.45		500	408		ug/L		82	80 - 120	7	20
Lithium	8.8		500	433		ug/L		85	80 - 120	4	20
Molybdenum	<1.1		500	422		ug/L		84	80 - 120	7	20
Selenium	<0.89		1000	864		ug/L		86	80 - 120	6	20

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# QC Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

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

**Lab Sample ID:** 240-194365-2 MSD

**Matrix:** Water

**Analysis Batch:** 593128

**Client Sample ID:** 102523NOW8

**Prep Type:** Total Recoverable

**Prep Batch:** 592744

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
Thallium	0.64	J	1000	877		ug/L		88	80 - 120	6	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID:** MB 240-592747/1-A

**Matrix:** Water

**Analysis Batch:** 592899

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 592747

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.13		0.20	0.13	ug/L		10/30/23 14:00	10/31/23 17:16	1

**Lab Sample ID:** LCS 240-592747/2-A

**Matrix:** Water

**Analysis Batch:** 592899

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 592747

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Mercury	5.00	5.36		ug/L		107	80 - 120

**Lab Sample ID:** 240-194365-2 MS

**Matrix:** Water

**Analysis Batch:** 592899

**Client Sample ID:** 102523NOW8

**Prep Type:** Total/NA

**Prep Batch:** 592747

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Mercury	<0.13		1.00	1.15		ug/L		115	80 - 120

**Lab Sample ID:** 240-194365-2 MSD

**Matrix:** Water

**Analysis Batch:** 592899

**Client Sample ID:** 102523NOW8

**Prep Type:** Total/NA

**Prep Batch:** 592747

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Mercury	<0.13		1.00	1.07		ug/L		107	80 - 120

## Method: 2540C - 2015 - Total Dissolved Solids (Dried at 180 °C)

**Lab Sample ID:** MB 180-450666/1

**Client Sample ID:** Method Blank

**Matrix:** Water

**Prep Type:** Total/NA

**Analysis Batch:** 450666

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	<10		10	10	mg/L			10/31/23 16:17	1

**Lab Sample ID:** LCS 180-450666/2

**Client Sample ID:** Lab Control Sample

**Matrix:** Water

**Prep Type:** Total/NA

**Analysis Batch:** 450666

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Total Dissolved Solids	336	312		mg/L		93	85 - 115

# QC Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## Method: 2540C - 2015 - Total Dissolved Solids (Dried at 180 °C) (Continued)

**Lab Sample ID: 240-194365-1 DU**

**Matrix: Water**

**Analysis Batch: 450666**

**Client Sample ID: 102523NOW7A**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	240		252		mg/L		4	10

**Lab Sample ID: 240-194365-2 DU**

**Matrix: Water**

**Analysis Batch: 450666**

**Client Sample ID: 102523NOW8**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	890		879		mg/L		1	10

**Lab Sample ID: MB 180-450776/1**

**Matrix: Water**

**Analysis Batch: 450776**

**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			11/01/23 21:12	1

**Lab Sample ID: LCS 180-450776/2**

**Matrix: Water**

**Analysis Batch: 450776**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	336	316		mg/L		94	85 - 115

**Lab Sample ID: 240-194365-7 DU**

**Matrix: Water**

**Analysis Batch: 450776**

**Client Sample ID: 102523NOW13**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	400		415		mg/L		4	10

## Method: 9056A - Anions, Ion Chromatography

**Lab Sample ID: MB 240-595121/3**

**Matrix: Water**

**Analysis Batch: 595121**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.13		1.0	0.13	mg/L			11/18/23 13:07	1
Fluoride	<0.024		0.050	0.024	mg/L			11/18/23 13:07	1
Sulfate	<0.35		1.0	0.35	mg/L			11/18/23 13:07	1

**Lab Sample ID: LCS 240-595121/4**

**Matrix: Water**

**Analysis Batch: 595121**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chloride	50.0	50.2		mg/L		100	90 - 110
Fluoride	2.50	2.60		mg/L		104	90 - 110
Sulfate	50.0	52.3		mg/L		105	90 - 110

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# QC Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## Method: 9056A - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 240-194365-1 MS**

**Matrix: Water**

**Analysis Batch: 595121**

**Client Sample ID: 102523NOW7A**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Chloride	100		50.0	150		mg/L		95	80 - 120		

**Lab Sample ID: 240-194365-1 MSD**

**Matrix: Water**

**Analysis Batch: 595121**

**Client Sample ID: 102523NOW7A**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Chloride	100		50.0	150		mg/L		95	80 - 120	0	15

**Lab Sample ID: 240-194365-2 MS**

**Matrix: Water**

**Analysis Batch: 595121**

**Client Sample ID: 102523NOW8**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Chloride	120		50.0	168		mg/L		97	80 - 120		
Fluoride	0.11		2.50	2.89		mg/L		111	80 - 120		

**Lab Sample ID: 240-194365-2 MS**

**Matrix: Water**

**Analysis Batch: 595121**

**Client Sample ID: 102523NOW8**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Sulfate	430		250	644		mg/L		86	80 - 120		

**Lab Sample ID: 240-194365-2 MSD**

**Matrix: Water**

**Analysis Batch: 595121**

**Client Sample ID: 102523NOW8**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Chloride	120		50.0	164		mg/L		89	80 - 120	2	15
Fluoride	0.11		2.50	2.66		mg/L		102	80 - 120	8	15

**Lab Sample ID: 240-194365-2 MSD**

**Matrix: Water**

**Analysis Batch: 595121**

**Client Sample ID: 102523NOW8**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Sulfate	430		250	656		mg/L		91	80 - 120	2	15

**Lab Sample ID: MB 240-595388/3**

**Matrix: Water**

**Analysis Batch: 595388**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<0.13		1.0	0.13	mg/L			11/22/23 23:40	1
Fluoride	<0.024		0.050	0.024	mg/L			11/22/23 23:40	1
Sulfate	<0.35		1.0	0.35	mg/L			11/22/23 23:40	1

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# QC Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## Method: 9056A - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 240-595388/4**

**Matrix: Water**

**Analysis Batch: 595388**

**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	48.2		mg/L		96	90 - 110	
Fluoride	2.50	2.50		mg/L		100	90 - 110	
Sulfate	50.0	49.5		mg/L		99	90 - 110	

**Lab Sample ID: 240-194365-1 MS**

**Matrix: Water**

**Analysis Batch: 595388**

**Client Sample ID: 102523NOW7A**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
Chloride	96	H	50.0	138		mg/L		84	80 - 120	
Fluoride	0.12	H	2.50	2.57		mg/L		98	80 - 120	
Sulfate	8.6	H	50.0	56.5		mg/L		96	80 - 120	

**Lab Sample ID: 240-194365-1 MSD**

**Matrix: Water**

**Analysis Batch: 595388**

**Client Sample ID: 102523NOW7A**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	96	H	50.0	138		mg/L		84	80 - 120	0	15
Fluoride	0.12	H	2.50	2.64		mg/L		101	80 - 120	3	15
Sulfate	8.6	H	50.0	57.5		mg/L		98	80 - 120	2	15

## Method: 9315 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-634954/1-A**

**Matrix: Water**

**Analysis Batch: 639153**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 634954**

Analyte	MB		Count		Total		MDC	Unit	Prepared	Analyzed	Dil Fac	
	Result	Qualifier	Uncert.	(2σ+/-)	Uncert.	(2σ+/-)						
Radium-226	-0.02155	U	0.0631	0.0631	1.00		0.140	pCi/L	11/02/23 09:49	12/01/23 16:17	1	
<b>Carrier</b>	<b>MB</b>		<b>MB</b>		<b>MB</b>		<b>MB</b>		<b>MB</b>		<b>MB</b>	
Ba Carrier	%Yield	Qualifier		Limits					Prepared	Analyzed	Dil Fac	
Ba Carrier	97.5			30 - 110					11/02/23 09:49	12/01/23 16:17	1	

**Lab Sample ID: LCS 160-634954/2-A**

**Matrix: Water**

**Analysis Batch: 639153**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 634954**

Analyte	Spike		LCS		Total		MDC	Unit	%Rec	Limits	
	Added	Result	Qual	Result	Qual	Uncert.					
Radium-226	11.3	11.71		1.24	1.00	0.147	0.147	pCi/L	103	75 - 125	
<b>Carrier</b>	<b>LCS</b>		<b>LCS</b>		<b>LCS</b>		<b>LCS</b>		<b>LCS</b>		
Ba Carrier	%Yield	Qualifier		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.0			30 - 110					11/02/23 09:49	12/01/23 16:17	1

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# QC Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## Method: 9315 - Radium-226 (GFPC) (Continued)

**Lab Sample ID:** 240-194365-2 MS

**Matrix:** Water

**Analysis Batch:** 638995

**Client Sample ID:** 102523NOW8

**Prep Type:** Total/NA

**Prep Batch:** 634954

Analyte	Sample	Sample	Spike	MS	MS	Total	Uncert.	(2σ+/-)	RL	MDC	Unit	%Rec	Limits	%Rec
	Result	Qual	Added	Result	Qual									
Radium-226	0.00559	U	11.4	9.341		1.03			1.00	0.131	pCi/L	82	60 - 140	
<i>MS MS</i>														
<i>Carrier</i>	%Yield	Qualifier		Limits										
Ba Carrier	95.1			30 - 110										

**Lab Sample ID:** 240-194365-2 MSD

**Matrix:** Water

**Analysis Batch:** 638995

**Client Sample ID:** 102523NOW8

**Prep Type:** Total/NA

**Prep Batch:** 634954

Analyte	Sample	Sample	Spike	MSD	MSD	Total	Uncert.	(2σ+/-)	RL	MDC	Unit	%Rec	Limits	RER
	Result	Qual	Added	Result	Qual									
Radium-226	0.00559	U	11.3	9.460		1.04			1.00	0.150	pCi/L	84	60 - 140	0.06
<i>MSD MSD</i>														
<i>Carrier</i>	%Yield	Qualifier		Limits										
Ba Carrier	96.5			30 - 110										

## Method: 9320 - Radium-228 (GFPC)

**Lab Sample ID:** MB 160-638567/1-A

**Matrix:** Water

**Analysis Batch:** 639397

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 638567

Analyte	MB	MB	Count	Uncert.	Total	Uncert.	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac	
	Result	Qualifier	(2σ+/-)	(2σ+/-)										
Radium-228	0.4721	U	0.397	0.399	1.00				0.628	pCi/L	11/28/23 11:06	12/05/23 11:20	1	
<i>MB MB</i>														
<i>Carrier</i>	%Yield	Qualifier		Limits								Prepared	Analyzed	Dil Fac
Ba Carrier	91.0			30 - 110								11/28/23 11:06	12/05/23 11:20	1
Y Carrier	85.2			30 - 110								11/28/23 11:06	12/05/23 11:20	1

**Lab Sample ID:** LCS 160-638567/2-A

**Matrix:** Water

**Analysis Batch:** 639397

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 638567

Analyte	Spike	LCS	LCS	Total	Uncert.	(2σ+/-)	RL	MDC	Unit	%Rec	Limits	%Rec
	Added	Result	Qual	(2σ+/-)								
Radium-228	9.43	9.785		1.30			1.00	0.503	pCi/L	104	75 - 125	
<i>LCS LCS</i>												
<i>Carrier</i>	%Yield	Qualifier		Limits								
Ba Carrier	94.8			30 - 110								
Y Carrier	82.6			30 - 110								

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# QC Sample Results

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 240-194365-2 DU

Client Sample ID: 102523NOW8

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 639537

Prep Batch: 638567

Analyte	Sample		DU		Total		RER	Limit		
	Result	Qual	Result	Qual	Uncert. (2σ+/-)	RL	MDC	Unit		
Radium-228	0.204	U	0.2158	U	0.311	1.00	0.524	pCi/L	0.02	1
<i>DU DU</i>										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	93.0		30 - 110							
Y Carrier	80.0		30 - 110							

# QC Association Summary

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## Metals

### Prep Batch: 592744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194365-1	102523NOW7A	Total Recoverable	Water	3005A	1
240-194365-2	102523NOW8	Total Recoverable	Water	3005A	2
240-194365-3	102523NOW2A	Total Recoverable	Water	3005A	3
240-194365-4	102523NOW4A	Total Recoverable	Water	3005A	4
240-194365-5	102523NOW10	Total Recoverable	Water	3005A	5
240-194365-6	102523NOW12	Total Recoverable	Water	3005A	6
240-194365-7	102523NOW13	Total Recoverable	Water	3005A	7
240-194365-8	102523FBFIELDBLANK	Total Recoverable	Water	3005A	8
240-194365-9	102523FDDUPLICATE	Total Recoverable	Water	3005A	9
MB 240-592744/1-A	Method Blank	Total Recoverable	Water	3005A	10
LCS 240-592744/2-A	Lab Control Sample	Total Recoverable	Water	3005A	11
LCS 240-592744/3-A	Lab Control Sample	Total Recoverable	Water	3005A	12
240-194365-2 MS	102523NOW8	Total Recoverable	Water	3005A	13
240-194365-2 MS	102523NOW8	Total Recoverable	Water	3005A	14
240-194365-2 MSD	102523NOW8	Total Recoverable	Water	3005A	15
240-194365-2 MSD	102523NOW8	Total Recoverable	Water	3005A	

### Prep Batch: 592747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194365-1	102523NOW7A	Total/NA	Water	7470A	13
240-194365-2	102523NOW8	Total/NA	Water	7470A	14
240-194365-3	102523NOW2A	Total/NA	Water	7470A	15
240-194365-4	102523NOW4A	Total/NA	Water	7470A	
240-194365-5	102523NOW10	Total/NA	Water	7470A	
240-194365-6	102523NOW12	Total/NA	Water	7470A	
240-194365-7	102523NOW13	Total/NA	Water	7470A	
240-194365-8	102523FBFIELDBLANK	Total/NA	Water	7470A	
240-194365-9	102523FDDUPLICATE	Total/NA	Water	7470A	
MB 240-592747/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-592747/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-194365-2 MS	102523NOW8	Total/NA	Water	7470A	
240-194365-2 MSD	102523NOW8	Total/NA	Water	7470A	

### Analysis Batch: 592899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194365-1	102523NOW7A	Total/NA	Water	7470A	592747
240-194365-2	102523NOW8	Total/NA	Water	7470A	592747
240-194365-3	102523NOW2A	Total/NA	Water	7470A	592747
240-194365-4	102523NOW4A	Total/NA	Water	7470A	592747
240-194365-5	102523NOW10	Total/NA	Water	7470A	592747
240-194365-6	102523NOW12	Total/NA	Water	7470A	592747
240-194365-7	102523NOW13	Total/NA	Water	7470A	592747
240-194365-8	102523FBFIELDBLANK	Total/NA	Water	7470A	592747
240-194365-9	102523FDDUPLICATE	Total/NA	Water	7470A	592747
MB 240-592747/1-A	Method Blank	Total/NA	Water	7470A	592747
LCS 240-592747/2-A	Lab Control Sample	Total/NA	Water	7470A	592747
240-194365-2 MS	102523NOW8	Total/NA	Water	7470A	592747
240-194365-2 MSD	102523NOW8	Total/NA	Water	7470A	592747

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# QC Association Summary

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## Metals

### Analysis Batch: 592957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194365-1	102523NOW7A	Total Recoverable	Water	6010D	592744
240-194365-2	102523NOW8	Total Recoverable	Water	6010D	592744
240-194365-3	102523NOW2A	Total Recoverable	Water	6010D	592744
240-194365-4	102523NOW4A	Total Recoverable	Water	6010D	592744
240-194365-5	102523NOW10	Total Recoverable	Water	6010D	592744
240-194365-6	102523NOW12	Total Recoverable	Water	6010D	592744
240-194365-7	102523NOW13	Total Recoverable	Water	6010D	592744
240-194365-8	102523FBFIELDBLANK	Total Recoverable	Water	6010D	592744
240-194365-9	102523FDDUPLICATE	Total Recoverable	Water	6010D	592744
MB 240-592744/1-A	Method Blank	Total Recoverable	Water	6010D	592744
LCS 240-592744/2-A	Lab Control Sample	Total Recoverable	Water	6010D	592744
240-194365-2 MS	102523NOW8	Total Recoverable	Water	6010D	592744
240-194365-2 MSD	102523NOW8	Total Recoverable	Water	6010D	592744

### Analysis Batch: 593128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194365-1	102523NOW7A	Total Recoverable	Water	6020B	592744
240-194365-2	102523NOW8	Total Recoverable	Water	6020B	592744
240-194365-3	102523NOW2A	Total Recoverable	Water	6020B	592744
240-194365-4	102523NOW4A	Total Recoverable	Water	6020B	592744
240-194365-5	102523NOW10	Total Recoverable	Water	6020B	592744
240-194365-6	102523NOW12	Total Recoverable	Water	6020B	592744
240-194365-7	102523NOW13	Total Recoverable	Water	6020B	592744
240-194365-8	102523FBFIELDBLANK	Total Recoverable	Water	6020B	592744
240-194365-9	102523FDDUPLICATE	Total Recoverable	Water	6020B	592744
MB 240-592744/1-A	Method Blank	Total Recoverable	Water	6020B	592744
LCS 240-592744/3-A	Lab Control Sample	Total Recoverable	Water	6020B	592744
240-194365-2 MS	102523NOW8	Total Recoverable	Water	6020B	592744
240-194365-2 MSD	102523NOW8	Total Recoverable	Water	6020B	592744

## General Chemistry

### Analysis Batch: 450666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194365-1	102523NOW7A	Total/NA	Water	2540C - 2015	
240-194365-2	102523NOW8	Total/NA	Water	2540C - 2015	
240-194365-3	102523NOW2A	Total/NA	Water	2540C - 2015	
240-194365-4	102523NOW4A	Total/NA	Water	2540C - 2015	
240-194365-5	102523NOW10	Total/NA	Water	2540C - 2015	
240-194365-6	102523NOW12	Total/NA	Water	2540C - 2015	
MB 180-450666/1	Method Blank	Total/NA	Water	2540C - 2015	
LCS 180-450666/2	Lab Control Sample	Total/NA	Water	2540C - 2015	
240-194365-1 DU	102523NOW7A	Total/NA	Water	2540C - 2015	
240-194365-2 DU	102523NOW8	Total/NA	Water	2540C - 2015	

### Analysis Batch: 450776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194365-7	102523NOW13	Total/NA	Water	2540C - 2015	
240-194365-8	102523FBFIELDBLANK	Total/NA	Water	2540C - 2015	
240-194365-9	102523FDDUPLICATE	Total/NA	Water	2540C - 2015	
MB 180-450776/1	Method Blank	Total/NA	Water	2540C - 2015	

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# QC Association Summary

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## General Chemistry (Continued)

### Analysis Batch: 450776 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 180-450776/2	Lab Control Sample	Total/NA	Water	2540C - 2015	
240-194365-7 DU	102523NOW13	Total/NA	Water	2540C - 2015	

### Analysis Batch: 595121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194365-1	102523NOW7A	Total/NA	Water	9056A	
240-194365-2	102523NOW8	Total/NA	Water	9056A	
240-194365-2	102523NOW8	Total/NA	Water	9056A	
240-194365-3	102523NOW2A	Total/NA	Water	9056A	
240-194365-4	102523NOW4A	Total/NA	Water	9056A	
240-194365-5	102523NOW10	Total/NA	Water	9056A	
240-194365-6	102523NOW12	Total/NA	Water	9056A	
240-194365-6	102523NOW12	Total/NA	Water	9056A	
240-194365-7	102523NOW13	Total/NA	Water	9056A	
240-194365-8	102523FBFIELDBLANK	Total/NA	Water	9056A	
240-194365-9	102523FDDUPLICATE	Total/NA	Water	9056A	
MB 240-595121/3	Method Blank	Total/NA	Water	9056A	
LCS 240-595121/4	Lab Control Sample	Total/NA	Water	9056A	
240-194365-1 MS	102523NOW7A	Total/NA	Water	9056A	
240-194365-1 MSD	102523NOW7A	Total/NA	Water	9056A	
240-194365-2 MS	102523NOW8	Total/NA	Water	9056A	
240-194365-2 MS	102523NOW8	Total/NA	Water	9056A	
240-194365-2 MSD	102523NOW8	Total/NA	Water	9056A	
240-194365-2 MSD	102523NOW8	Total/NA	Water	9056A	

### Analysis Batch: 595388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194365-1 - RA	102523NOW7A	Total/NA	Water	9056A	
240-194365-3 - RA	102523NOW2A	Total/NA	Water	9056A	
240-194365-5 - RA	102523NOW10	Total/NA	Water	9056A	
MB 240-595388/3	Method Blank	Total/NA	Water	9056A	
LCS 240-595388/4	Lab Control Sample	Total/NA	Water	9056A	
240-194365-1 MS	102523NOW7A	Total/NA	Water	9056A	
240-194365-1 MSD	102523NOW7A	Total/NA	Water	9056A	

## Rad

### Prep Batch: 634954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194365-1	102523NOW7A	Total/NA	Water	PrecSep-21	
240-194365-2	102523NOW8	Total/NA	Water	PrecSep-21	
240-194365-3	102523NOW2A	Total/NA	Water	PrecSep-21	
240-194365-4	102523NOW4A	Total/NA	Water	PrecSep-21	
240-194365-5	102523NOW10	Total/NA	Water	PrecSep-21	
240-194365-6	102523NOW12	Total/NA	Water	PrecSep-21	
240-194365-7	102523NOW13	Total/NA	Water	PrecSep-21	
240-194365-8	102523FBFIELDBLANK	Total/NA	Water	PrecSep-21	
240-194365-9	102523FDDUPLICATE	Total/NA	Water	PrecSep-21	
MB 160-634954/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-634954/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-194365-2 MS	102523NOW8	Total/NA	Water	PrecSep-21	

# QC Association Summary

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## Rad (Continued)

### Prep Batch: 634954 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194365-2 MSD	102523NOW8	Total/NA	Water	PrecSep_21	

### Prep Batch: 638567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-194365-1	102523NOW7A	Total/NA	Water	PrecSep_0	
240-194365-2	102523NOW8	Total/NA	Water	PrecSep_0	
240-194365-3	102523NOW2A	Total/NA	Water	PrecSep_0	
240-194365-4	102523NOW4A	Total/NA	Water	PrecSep_0	
240-194365-5	102523NOW10	Total/NA	Water	PrecSep_0	
240-194365-6	102523NOW12	Total/NA	Water	PrecSep_0	
240-194365-7	102523NOW13	Total/NA	Water	PrecSep_0	
240-194365-8	102523FBFIELDBLANK	Total/NA	Water	PrecSep_0	
240-194365-9	102523FDDUPLICATE	Total/NA	Water	PrecSep_0	
MB 160-638567/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-638567/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-194365-2 DU	102523NOW8	Total/NA	Water	PrecSep_0	

## Lab Chronicle

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523NOW7A**

**Lab Sample ID: 240-194365-1**

Matrix: Water

Date Collected: 10/25/23 09:35

Date Received: 10/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6010D		1	592957	KLC	EET CLE	10/31/23 22:19
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6020B		1	593128	RKT	EET CLE	11/01/23 19:03
Total/NA	Prep	7470A			592747	S4FJ	EET CLE	10/30/23 14:00
Total/NA	Analysis	7470A		1	592899	DSH	EET CLE	10/31/23 17:31
Total/NA	Analysis	2540C - 2015		1	450666	LWM	EET PIT	10/31/23 16:17
Total/NA	Analysis	9056A	RA	1	595388	JWW	EET CLE	11/23/23 00:24
Total/NA	Analysis	9056A		1	595121	JWW	EET CLE	11/18/23 21:11
Total/NA	Prep	PrecSep-21			634954	KAC	EET SL	11/02/23 09:49
Total/NA	Analysis	9315		1	638995	SCB	EET SL	12/01/23 18:07
Total/NA	Prep	PrecSep_0			638567	KAC	EET SL	11/28/23 11:06
Total/NA	Analysis	9320		1	639508	FLC	EET SL	12/05/23 11:24
Total/NA	Analysis	Ra226_Ra228 Pos		1	639385	EMH	EET SL	12/04/23 16:01

**Client Sample ID: 102523NOW8**

**Lab Sample ID: 240-194365-2**

Matrix: Water

Date Collected: 10/25/23 09:25

Date Received: 10/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6010D		1	592957	KLC	EET CLE	10/31/23 21:50
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6020B		1	593128	RKT	EET CLE	11/01/23 18:51
Total/NA	Prep	7470A			592747	S4FJ	EET CLE	10/30/23 14:00
Total/NA	Analysis	7470A		1	592899	DSH	EET CLE	10/31/23 17:24
Total/NA	Analysis	2540C - 2015		1	450666	LWM	EET PIT	10/31/23 16:17
Total/NA	Analysis	9056A		1	595121	JWW	EET CLE	11/18/23 13:47
Total/NA	Analysis	9056A		5	595121	JWW	EET CLE	11/18/23 14:48
Total/NA	Prep	PrecSep-21			634954	KAC	EET SL	11/02/23 09:49
Total/NA	Analysis	9315		1	638995	SCB	EET SL	12/01/23 18:07
Total/NA	Prep	PrecSep_0			638567	KAC	EET SL	11/28/23 11:06
Total/NA	Analysis	9320		1	639537	FLC	EET SL	12/05/23 11:19
Total/NA	Analysis	Ra226_Ra228 Pos		1	639385	EMH	EET SL	12/04/23 16:01

**Client Sample ID: 102523NOW2A**

**Lab Sample ID: 240-194365-3**

Matrix: Water

Date Collected: 10/25/23 12:10

Date Received: 10/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6010D		1	592957	KLC	EET CLE	10/31/23 22:24
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6020B		1	593128	RKT	EET CLE	11/01/23 19:05

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## Lab Chronicle

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

### **Client Sample ID: 102523NOW2A**

**Lab Sample ID: 240-194365-3**

**Matrix: Water**

Date Collected: 10/25/23 12:10

Date Received: 10/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			592747	S4FJ	EET CLE	10/30/23 14:00
Total/NA	Analysis	7470A		1	592899	DSH	EET CLE	10/31/23 17:33
Total/NA	Analysis	2540C - 2015		1	450666	LWM	EET PIT	10/31/23 16:17
Total/NA	Analysis	9056A	RA	1	595388	JWW	EET CLE	11/23/23 01:29
Total/NA	Analysis	9056A		1	595121	JWW	EET CLE	11/18/23 22:11
Total/NA	Prep	PrecSep-21			634954	KAC	EET SL	11/02/23 09:49
Total/NA	Analysis	9315		1	638995	SCB	EET SL	12/01/23 18:08
Total/NA	Prep	PrecSep_0			638567	KAC	EET SL	11/28/23 11:06
Total/NA	Analysis	9320		1	639537	FLC	EET SL	12/05/23 11:19
Total/NA	Analysis	Ra226_Ra228 Pos		1	639385	EMH	EET SL	12/04/23 16:01

### **Client Sample ID: 102523NOW4A**

**Lab Sample ID: 240-194365-4**

**Matrix: Water**

Date Collected: 10/25/23 12:50

Date Received: 10/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6010D		1	592957	KLC	EET CLE	10/31/23 22:28
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6020B		1	593128	RKT	EET CLE	11/01/23 19:08
Total/NA	Prep	7470A			592747	S4FJ	EET CLE	10/30/23 14:00
Total/NA	Analysis	7470A		1	592899	DSH	EET CLE	10/31/23 17:35
Total/NA	Analysis	2540C - 2015		1	450666	LWM	EET PIT	10/31/23 16:17
Total/NA	Analysis	9056A		1	595121	JWW	EET CLE	11/18/23 19:30
Total/NA	Prep	PrecSep-21			634954	KAC	EET SL	11/02/23 09:49
Total/NA	Analysis	9315		1	638995	SCB	EET SL	12/01/23 18:08
Total/NA	Prep	PrecSep_0			638567	KAC	EET SL	11/28/23 11:06
Total/NA	Analysis	9320		1	639537	FLC	EET SL	12/05/23 11:19
Total/NA	Analysis	Ra226_Ra228 Pos		1	639385	EMH	EET SL	12/04/23 16:01

### **Client Sample ID: 102523NOW10**

**Lab Sample ID: 240-194365-5**

**Matrix: Water**

Date Collected: 10/25/23 11:00

Date Received: 10/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6010D		1	592957	KLC	EET CLE	10/31/23 22:32
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6020B		1	593128	RKT	EET CLE	11/01/23 19:10
Total/NA	Prep	7470A			592747	S4FJ	EET CLE	10/30/23 14:00
Total/NA	Analysis	7470A		1	592899	DSH	EET CLE	10/31/23 17:37
Total/NA	Analysis	2540C - 2015		1	450666	LWM	EET PIT	10/31/23 16:17
Total/NA	Analysis	9056A	RA	1	595388	JWW	EET CLE	11/23/23 01:50
Total/NA	Analysis	9056A		1	595121	JWW	EET CLE	11/18/23 22:31

Eurofins Cleveland

# Lab Chronicle

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

## **Client Sample ID: 102523NOW10**

Date Collected: 10/25/23 11:00

Date Received: 10/27/23 09:20

**Lab Sample ID: 240-194365-5**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			634954	KAC	EET SL	11/02/23 09:49
Total/NA	Analysis	9315		1	638995	SCB	EET SL	12/01/23 18:08
Total/NA	Prep	PrecSep_0			638567	KAC	EET SL	11/28/23 11:06
Total/NA	Analysis	9320		1	639537	FLC	EET SL	12/05/23 11:19
Total/NA	Analysis	Ra226_Ra228 Pos		1	639385	EMH	EET SL	12/04/23 16:01

## **Client Sample ID: 102523NOW12**

Date Collected: 10/25/23 14:00

Date Received: 10/27/23 09:20

**Lab Sample ID: 240-194365-6**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6010D		1	592957	KLC	EET CLE	10/31/23 22:37
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6020B		1	593128	RKT	EET CLE	11/01/23 19:18
Total/NA	Prep	7470A			592747	S4FJ	EET CLE	10/30/23 14:00
Total/NA	Analysis	7470A		1	592899	DSH	EET CLE	10/31/23 17:39
Total/NA	Analysis	2540C - 2015		1	450666	LWM	EET PIT	10/31/23 16:17
Total/NA	Analysis	9056A		1	595121	JWW	EET CLE	11/18/23 18:29
Total/NA	Analysis	9056A		5	595121	JWW	EET CLE	11/18/23 18:50
Total/NA	Prep	PrecSep-21			634954	KAC	EET SL	11/02/23 09:49
Total/NA	Analysis	9315		1	638995	SCB	EET SL	12/01/23 18:09
Total/NA	Prep	PrecSep_0			638567	KAC	EET SL	11/28/23 11:06
Total/NA	Analysis	9320		1	639537	FLC	EET SL	12/05/23 11:19
Total/NA	Analysis	Ra226_Ra228 Pos		1	639385	EMH	EET SL	12/04/23 16:01

## **Client Sample ID: 102523NOW13**

Date Collected: 10/25/23 11:25

Date Received: 10/27/23 09:20

**Lab Sample ID: 240-194365-7**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6010D		1	592957	KLC	EET CLE	10/31/23 22:41
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6020B		1	593128	RKT	EET CLE	11/01/23 19:20
Total/NA	Prep	7470A			592747	S4FJ	EET CLE	10/30/23 14:00
Total/NA	Analysis	7470A		1	592899	DSH	EET CLE	10/31/23 17:41
Total/NA	Analysis	2540C - 2015		1	450776	LWM	EET PIT	11/01/23 21:12
Total/NA	Analysis	9056A		1	595121	JWW	EET CLE	11/18/23 17:49
Total/NA	Prep	PrecSep-21			634954	KAC	EET SL	11/02/23 09:49
Total/NA	Analysis	9315		1	638995	SCB	EET SL	12/01/23 18:09
Total/NA	Prep	PrecSep_0			638567	KAC	EET SL	11/28/23 11:06
Total/NA	Analysis	9320		1	639537	FLC	EET SL	12/05/23 11:19
Total/NA	Analysis	Ra226_Ra228 Pos		1	639385	EMH	EET SL	12/04/23 16:01

Eurofins Cleveland

## Lab Chronicle

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

**Client Sample ID: 102523FBFIELDBLANK**

**Lab Sample ID: 240-194365-8**

**Matrix: Water**

Date Collected: 10/25/23 10:25

Date Received: 10/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6010D		1	592957	KLC	EET CLE	10/31/23 22:45
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6020B		1	593128	RKT	EET CLE	11/01/23 19:23
Total/NA	Prep	7470A			592747	S4FJ	EET CLE	10/30/23 14:00
Total/NA	Analysis	7470A		1	592899	DSH	EET CLE	10/31/23 17:47
Total/NA	Analysis	2540C - 2015		1	450776	LWM	EET PIT	11/01/23 21:12
Total/NA	Analysis	9056A		1	595121	JWW	EET CLE	11/18/23 18:09
Total/NA	Prep	PrecSep-21			634954	KAC	EET SL	11/02/23 09:49
Total/NA	Analysis	9315		1	638995	SCB	EET SL	12/01/23 18:09
Total/NA	Prep	PrecSep_0			638567	KAC	EET SL	11/28/23 11:06
Total/NA	Analysis	9320		1	639537	FLC	EET SL	12/05/23 11:19
Total/NA	Analysis	Ra226_Ra228 Pos		1	639385	EMH	EET SL	12/05/23 17:03

**Client Sample ID: 102523FDDUPLICATE**

**Lab Sample ID: 240-194365-9**

**Matrix: Water**

Date Collected: 10/25/23 13:00

Date Received: 10/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6010D		1	592957	KLC	EET CLE	10/31/23 22:58
Total Recoverable	Prep	3005A			592744	S4FJ	EET CLE	10/30/23 14:00
Total Recoverable	Analysis	6020B		1	593128	RKT	EET CLE	11/01/23 19:25
Total/NA	Prep	7470A			592747	S4FJ	EET CLE	10/30/23 14:00
Total/NA	Analysis	7470A		1	592899	DSH	EET CLE	10/31/23 17:49
Total/NA	Analysis	2540C - 2015		1	450776	LWM	EET PIT	11/01/23 21:12
Total/NA	Analysis	9056A		1	595121	JWW	EET CLE	11/18/23 19:10
Total/NA	Prep	PrecSep-21			634954	KAC	EET SL	11/02/23 09:49
Total/NA	Analysis	9315		1	638995	SCB	EET SL	12/01/23 18:09
Total/NA	Prep	PrecSep_0			638567	KAC	EET SL	11/28/23 11:06
Total/NA	Analysis	9320		1	639537	FLC	EET SL	12/05/23 11:18
Total/NA	Analysis	Ra226_Ra228 Pos		1	639385	EMH	EET SL	12/05/23 17:03

**Laboratory References:**

EET CLE = Eurofins Cleveland, 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

Eurofins Cleveland

## Accreditation/Certification Summary

Client: Dominion Energy Services, Inc.  
Project/Site: MSPS-2SA2023-LVWSP-D

Job ID: 240-194365-1

### Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	210	12-31-23

### Laboratory: Eurofins Pittsburgh

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

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	142	01-31-24

### 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	12-20-23

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



## Barberton Facility

Client LSP

Site Name \_\_\_\_\_

Cooler unpacked by:

Rachelle HandelCooler Received on 10 - 27 - 23Opened on 10 - 27 - 23FedEx: 1<sup>st</sup> Grd Exp UPS FAS Waypoint

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

IR GUN # 21 (CF -02 °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

- Were the seals on the outside of the cooler(s) signed & dated?
- Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?
- Were tamper/custody seals intact and uncompromised?

See Multiple Cooler Form

Yes  No  NA

3. Shippers' packing slip attached to the cooler(s)?

4. Did custody papers accompany the sample(s)?

5. Were the custody papers relinquished & signed in the appropriate place?

6. Was/were the person(s) who collected the samples clearly identified on the COC?

7. Did all bottles arrive in good condition (Unbroken)?

8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?

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?

11. Sufficient quantity received to perform indicated analyses?

12. Are these work share samples and all listed on the COC?

If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt?

14. Were VOAs on the COC?

15. Were air bubbles >6 mm in any VOA vials?  Larger than this.

16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # \_\_\_\_\_

17. Was a LL Hg or Me Hg trip blank present? \_\_\_\_\_

Yes  No  NA

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 #:

194365

Eurofins - Canton Sample Receipt Multiple Cooler Form

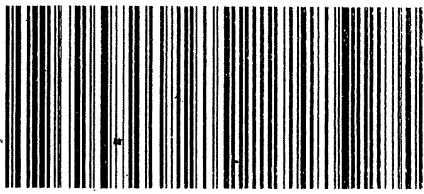
See Temperature Excursion Form

Temperature readings: \_\_\_\_\_

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>	<u>Preservative</u>	<u>Lot #</u>	<u>1</u>
			<u>pH</u>	<u>Temp</u>		<u>2</u>
102523NOW7A	240-194365-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	<u>3</u>
102523NOW7A	240-194365-D-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	<u>4</u>
102523NOW7A	240-194365-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____	<u>5</u>
102523NOW8	240-194365-G-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	<u>6</u>
102523NOW8	240-194365-H-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	<u>7</u>
102523NOW8	240-194365-I-2	Plastic 500ml - with Nitric Acid	<2	_____	_____	<u>8</u>
102523NOW8	240-194365-J-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	<u>9</u>
102523NOW8	240-194365-K-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	<u>10</u>
102523NOW8	240-194365-L-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	<u>11</u>
102523NOW8	240-194365-M-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	<u>12</u>
102523NOW8	240-194365-N-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	<u>13</u>
102523NOW8	240-194365-O-2	Plastic 1 liter - Nitric Acid	<2	_____	_____	<u>14</u>
102523NOW2A	240-194365-C-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	<u>15</u>
102523NOW2A	240-194365-D-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	
102523NOW2A	240-194365-E-3	Plastic 1 liter - Nitric Acid	<2	_____	_____	
102523NOW4A	240-194365-C-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	
102523NOW4A	240-194365-D-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	
102523NOW4A	240-194365-E-4	Plastic 1 liter - Nitric Acid	<2	_____	_____	
102523NOW10	240-194365-C-5	Plastic 500ml - with Nitric Acid	<2	_____	_____	
102523NOW10	240-194365-D-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	
102523NOW10	240-194365-E-5	Plastic 1 liter - Nitric Acid	<2	_____	_____	
102523NOW12	240-194365-C-6	Plastic 500ml - with Nitric Acid	<2	_____	_____	
102523NOW12	240-194365-D-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	
102523NOW12	240-194365-E-6	Plastic 1 liter - Nitric Acid	<2	_____	_____	
102523NOW13	240-194365-C-7	Plastic 500ml - with Nitric Acid	<2	_____	_____	
102523NOW13	240-194365-D-7	Plastic 1 liter - Nitric Acid	<2	_____	_____	
102523NOW13	240-194365-E-7	Plastic 1 liter - Nitric Acid	<2	_____	_____	
102523FBFIELD BLANK	240-194365-C-8	Plastic 500ml - with Nitric Acid	<2	_____	_____	
102523FBFIELD BLANK	240-194365-D-8	Plastic 1 liter - Nitric Acid	<2	_____	_____	
102523FBFIELD BLANK	240-194365-E-8	Plastic 1 liter - Nitric Acid	<2	_____	_____	
102523FDDUPLICATE	240-194365-C-9	Plastic 500ml - with Nitric Acid	<2	_____	_____	
102523FDDUPLICATE	240-194365-D-9	Plastic 1 liter - Nitric Acid	<2	_____	_____	
102523FDDUPLICATE	240-194365-E-9	Plastic 1 liter - Nitric Acid	<2	_____	_____	



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PA-US PT  
15238

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SATURDAY 12:00P  
TRK# 6549 1096 1373  
PRIOlTY OVERNIGHT

**E** FedEx Express

CF *E.C.* Initials *PE*

PT-WI-SR-001 effective 11/8/18

Uncorrected temp 17 °C

Thermometer ID 5.1

412 963-7068 REF.

PITTSBURGH PA 15238

CHRIS KOVITCH

301 ALPHABET DRIVE

EUROFINES PITTSBURGH

TO ENVIRONMENTAL SAMPLE RECEIPT

ORIGIN ID:CAKA (330) 312-0176 SHIP DATE: 22OCT23

LARGE HERSMAN ACTWG: 55.00 LB NET CAD: 0562065/CFE3755

EUROFINES ENVIRONMENTAL BARBERTON 180 S VAN BUREN

UNITED STATES OF AMERICA BILL THIRD PARTY

BARBERTON, OH 44203

•



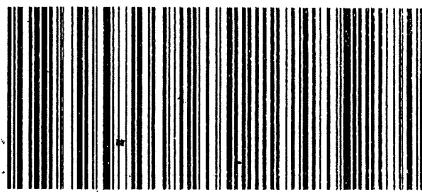
240-194365 Waybill

TestAmerica  
Environmental Testing

A 639 12.00 RT  
1028 1373 EZ

FedEx®

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PA-US Pkt  
15238

65 AGCA

SATURDAY 12:00P  
TRK# 6549 1096 1373  
0201 PRIORIT OVERNIGH



FedEx Express

Uncorrected temp 5.1 °C  
Thermometer ID 17

PT-WI-SR-001 effective 11/8/18

CF 5.4 Initials PE

CHRIS KOVITCH  
301 ALPHAD DRIVE  
EUROFINS PITTSBURGH  
TO ENVIRONMENTAL SAMPLE RECEIPT

SHIPPING DATE: 2020/12/06  
ORIGIN ID: GEA (330) 312-0176  
LANCE HERSHMAN  
EUROFINS ESTHERICA BARBERTON  
180 S VAN BUREN  
ACHTG: 0562065/CAFEE3755  
BREERTON, OH 44203  
UNITED STATES US  
BILL THIRD PARTY

A 12.00 RT 639  
10.28 1373  
TestAmeriCa  
Environmental Testing

Part # 159470-434 MTW EXP 06/24 •





Environment Technol

## Chain of Custody Record

180 S. Van Buren Avenue

180 S. Van Buren Avenue

Barberton, OH 44203  
Phone: 330-497-9396 Fax: 330-497-0772

## **Client Information (Sub Contract Lab)**

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

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

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Kit Relinquished By:

1200 C. J. H. BYRNE

Inquisitio by

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Journal of Health Politics, Policy and Law

Custody Seals Intact: Custody Seal No.:

Yes    No

10  
11  
12  
13  
14

- 1

Page 55 of 63

12/28/2023

**Eurofins Cleveland**  
1180 S. Van Buren Avenue

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

### **Chain of Custody Record**



Environmental Testing

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

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**Deliverable Requested:** I, II, III, IV, Other (specify) \_\_\_\_\_

Emory Kit Belincourt by

Digitized by Google

eliminated by:

Bibliotheek van de Rijksuniversiteit Leiden

卷之三

~~Relinquished by:~~

Custody Seals Intact: Custody Seal No.:

Λ Yes Δ No





Environment Testing

## **Chain of Custody Record**

Eurolines Cleveland

1180 S. Van Buren Avenue  
Barberton, OH 44203  
Phone: 330-497-9396 Fax: 330-497-9396

**Possible Hazard Identification**  
Eurofins Environment Testing North Central, LLC

### Possible Hazard Identification

### Unconfirmed

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

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Empty Kit Relinquished by:

Berlin published by

卷之三

Bellmawr by

卷之三

Reinforced by

Custody Seals Intact: Custody Seal No:

Yes  No

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12/28/2023

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



## Login Sample Receipt Checklist

Client: Dominion Energy Services, Inc.

Job Number: 240-194365-1

**Login Number:** 194365

**List Source:** Eurofins Pittsburgh

**List Number:** 2

**List Creation:** 10/28/23 03:33 PM

**Creator:** Watson, Debbie

Question	Answer	Comment	
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A		1
The cooler's custody seal, if present, is intact.	True		2
Sample custody seals, if present, are intact.	True		3
The cooler or samples do not appear to have been compromised or tampered with.	True		4
Samples were received on ice.	True		5
Cooler Temperature is acceptable.	True		6
Cooler Temperature is recorded.	True		7
COC is present.	True		8
COC is filled out in ink and legible.	True		9
COC is filled out with all pertinent information.	True		10
Is the Field Sampler's name present on COC?	N/A		11
There are no discrepancies between the containers received and the COC.	True		12
Samples are received within Holding Time (excluding tests with immediate HTs)	True		13
Sample containers have legible labels.	True		14
Containers are not broken or leaking.	True		15
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: 240-194365-1

**Login Number:** 194365

**List Source:** Eurofins Pittsburgh

**List Number:** 4

**List Creation:** 10/31/23 06:06 PM

**Creator:** Oster, Rachel A

Question	Answer	Comment	
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A		1
The cooler's custody seal, if present, is intact.	True		2
Sample custody seals, if present, are intact.	True		3
The cooler or samples do not appear to have been compromised or tampered with.	True		4
Samples were received on ice.	True		5
Cooler Temperature is acceptable.	True		6
Cooler Temperature is recorded.	True		7
COC is present.	True		8
COC is filled out in ink and legible.	True		9
COC is filled out with all pertinent information.	True		10
Is the Field Sampler's name present on COC?	N/A		11
There are no discrepancies between the containers received and the COC.	True		12
Samples are received within Holding Time (excluding tests with immediate HTs)	True		13
Sample containers have legible labels.	True		14
Containers are not broken or leaking.	True		15
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: 240-194365-1

**Login Number:** 194365

**List Source:** Eurofins St. Louis

**List Number:** 3

**List Creation:** 10/30/23 02:48 PM

**Creator:** Pinette, Meadow L

Question	Answer	Comment	
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True		1
The cooler's custody seal, if present, is intact.	True		2
Sample custody seals, if present, are intact.	True		3
The cooler or samples do not appear to have been compromised or tampered with.	True		4
Samples were received on ice.	N/A		5
Cooler Temperature is acceptable.	True		6
Cooler Temperature is recorded.	True		7
COC is present.	True		8
COC is filled out in ink and legible.	True		9
COC is filled out with all pertinent information.	True		10
Is the Field Sampler's name present on COC?	True		11
There are no discrepancies between the containers received and the COC.	True		12
Samples are received within Holding Time (excluding tests with immediate HTs)	True		13
Sample containers have legible labels.	True		14
Containers are not broken or leaking.	True		15
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: 10/23/2023 and 10/26/2023**

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:

**2401943651**

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	Analyte	T/D	Result	Qual	Reason Code(s)	MDL	QL	Uncertainty	Unit
102523NOW7A	OW-7A	N	CALC	Radium-226/228	N	0.567	J	S			0.463	pCi/L
102523NOW7A	OW-7A	N	SW-846 6020B	Antimony	T	0.57	J	RL	0.57	2.0		ug/L
102523NOW8	OW-8	N	SM 2540C	Total Dissolved Solids	N	890	J	ZZ	10	10		mg/L
102523NOW8	OW-8	N	SW-846 6020B	Lithium	T		U	BF	8.8	8.8		ug/L
102523NOW8	OW-8	N	SW-846 6020B	Thallium	T	0.64	J	RL	0.20	1.0		ug/L
102523NOW2A	OW-2A	N	CALC	Radium-226/228	N	0.987	J	S			0.410	pCi/L
102523NOW2A	OW-2A	N	SW-846 6010D	Boron	T	88	J	RL	57	100		ug/L
102523NOW2A	OW-2A	N	SW-846 6020B	Cadmium	T	0.67	J	RL	0.20	1.0		ug/L
102523NOW2A	OW-2A	N	SW-846 6020B	Lithium	T		U	BF	5.4	8.0		ug/L
102523NOW2A	OW-2A	N	SW-846 6020B	Molybdenum	T	1.4	J	RL	1.1	5.0		ug/L
102523NOW2A	OW-2A	N	SW-846 6020B	Thallium	T	0.56	J	RL	0.20	1.0		ug/L
102523NOW4A	OW-4A	N	CALC	Radium-226/228	N	0.756	J	FD,S			0.410	pCi/L
102523NOW4A	OW-4A	N	SM 2540C	Total Dissolved Solids	N	120	J	ZZ	10	10		mg/L
102523NOW4A	OW-4A	N	SW-846 6010D	Boron	T	74	J	RL	57	100		ug/L
102523NOW4A	OW-4A	N	SW-846 6020B	Arsenic	T	0.96	J	RL	0.75	5.0		ug/L
102523NOW4A	OW-4A	N	SW-846 6020B	Cobalt	T	0.39	J	RL	0.19	1.0		ug/L
102523NOW4A	OW-4A	N	SW-846 6020B	Lithium	T		U	BF	3.4	8.0		ug/L
102523NOW4A	OW-4A	N	SW-846 6020B	Molybdenum	T	1.5	J	RL	1.1	5.0		ug/L
102523NOW4A	OW-4A	N	SW-846 6020B	Thallium	T	0.34	J	RL	0.20	1.0		ug/L
102523NOW4A	OW-4A	N	SW-846 9320	Radium-228	N	0.683	J	FD	0.576	1.00	0.402	pCi/L
102523NOW10	OW-10	N	CALC	Radium-226/228	N	0.714	J	S			0.430	pCi/L
102523NOW10	OW-10	N	SM 2540C	Total Dissolved Solids	N	240	J	ZZ	10	10		mg/L
102523NOW10	OW-10	N	SW-846 6010D	Boron	T	67	J	RL	57	100		ug/L
102523NOW10	OW-10	N	SW-846 6020B	Cobalt	T	0.36	J	RL	0.19	1.0		ug/L
102523NOW10	OW-10	N	SW-846 6020B	Lithium	T		U	BF	9.5	9.5		ug/L
102523NOW10	OW-10	N	SW-846 6020B	Thallium	T	0.23	J	RL	0.20	1.0		ug/L
102523NOW12	OW-12	N	CALC	Radium-226/228	N	0.604	J	S			0.451	pCi/L
102523NOW12	OW-12	N	SM 2540C	Total Dissolved Solids	N	680	J	ZZ	10	10		mg/L
102523NOW12	OW-12	N	SW-846 6010D	Boron	T	62	J	RL	57	100		ug/L
102523NOW12	OW-12	N	SW-846 6020B	Arsenic	T	0.83	J	RL	0.75	5.0		ug/L

Sample	Location	Sample Type	Method	Analyte	T/D	Result	Qual	Reason Code(s)	MDL	QL	Uncertainty	Unit
102523NOW12	OW-12	N	SW-846 6020B	Chromium	T	1.6	J	RL	1.2	5.0		ug/L
102523NOW12	OW-12	N	SW-846 6020B	Thallium	T	0.20	J	RL	0.20	1.0		ug/L
102523NOW12	OW-12	N	SW-846 9056A	Fluoride	N	0.031	J	RL	0.024	0.050		mg/L
102523NOW13	OW-13	N	CALC	Radium-226/228	N	1.28	J	S			0.847	pCi/L
102523NOW13	OW-13	N	SW-846 6020B	Lithium	T		U	BF	4.4	8.0		ug/L
102523NOW13	OW-13	N	SW-846 6020B	Selenium	T	1.2	J	RL	0.89	5.0		ug/L
102523NOW13	OW-13	N	SW-846 9056A	Fluoride	N	0.027	J	RL	0.024	0.050		mg/L
102523FBFIELDBLANK_1025	Field Blank	FB	SW-846 6020B	Lithium	T	2.1	J	RL	1.7	8.0		ug/L
102523FDDUPPLICATE_1300	OW-4A	FD	CALC	Radium-226/228	N	0.236	UJ	FD			0.325	pCi/L
102523FDDUPPLICATE_1300	OW-4A	FD	SM 2540C	Total Dissolved Solids	N	110	J	ZZ	10	10		mg/L
102523FDDUPPLICATE_1300	OW-4A	FD	SW-846 6010D	Boron	T	72	J	RL	57	100		ug/L
102523FDDUPPLICATE_1300	OW-4A	FD	SW-846 6020B	Arsenic	T	1.2	J	RL	0.75	5.0		ug/L
102523FDDUPPLICATE_1300	OW-4A	FD	SW-846 6020B	Cobalt	T	0.31	J	RL	0.19	1.0		ug/L
102523FDDUPPLICATE_1300	OW-4A	FD	SW-846 6020B	Lithium	T		U	BF	3.2	8.0		ug/L
102523FDDUPPLICATE_1300	OW-4A	FD	SW-846 6020B	Molybdenum	T	1.4	J	RL	1.1	5.0		ug/L
102523FDDUPPLICATE_1300	OW-4A	FD	SW-846 9320	Radium-228	N	0.110	UJ	FD	0.545	1.00	0.307	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.
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

<b>Lab Sample ID</b>	240-194365-1												
<b>Sys Sample Code</b>	102523NOW7A												
<b>Sample Name</b>	102523NOW7A												
<b>Sample Date</b>	10/25/2023 9:35:00 AM												
<b>Location</b>	MSPS-LVWSP-OW-07A / OW-7A												
<b>Sample Type</b>	N												
<b>Matrix</b>	GW												
<b>Parent Sample</b>													

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	0.567	J	S	0.463				Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	240				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	0.57	J	RL		0.57	0.57	2.0	Y	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	290				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	41000				250	250	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.2	1.2	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	3.1				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	1.2				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				0.13	0.13	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	9.4				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.159			0.102	0.136	0.136	1.00	Y	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.409	U		0.452	0.734	0.734	1.00	N	Yes	1	NA

<b>Lab Sample ID</b>	240-194365-2
<b>Sys Sample Code</b>	102523NOW8
<b>Sample Name</b>	102523NOW8
<b>Sample Date</b>	10/25/2023 9:25:00 AM
<b>Location</b>	MSPS-LVWSP-OW-08 / OW-8
<b>Sample Type</b>	N
<b>Matrix</b>	GW
<b>Parent Sample</b>	

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	0.209	U		0.321				N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	890	J	ZZ		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	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	220000				250	250	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.2	1.2	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	13				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	BF		8.8	8.8	8.8	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	0.64	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	120				0.13	0.13	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	430				1.7	1.7	5.0	Y	Yes	5	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.00559	U		0.0646	0.132	0.132	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.204	U		0.314	0.531	0.531	1.00	N	Yes	1	NA

<b>Lab Sample ID</b>	240-194365-3												
<b>Sys Sample Code</b>	102523NOW2A												
<b>Sample Name</b>	102523NOW2A												
<b>Sample Date</b>	10/25/2023 12:10:00 PM												
<b>Location</b>	MSPS-LVWSP-OW-02A / OW-2A												
<b>Sample Type</b>	N												
<b>Matrix</b>	GW												
<b>Parent Sample</b>													

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	0.987	J	S	0.410				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	88	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	150				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	0.67	J	RL		0.20	0.20	1.0	Y	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	87000				250	250	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.2	1.2	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	39				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	BF		5.4	5.4	8.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	1.4	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	0.56	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	28				0.13	0.13	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	47				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.572			0.168	0.123	0.123	1.00	Y	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.415	U		0.374	0.591	0.591	1.00	N	Yes	1	NA

<b>Lab Sample ID</b>	240-194365-4												
<b>Sys Sample Code</b>	102523NOW4A												
<b>Sample Name</b>	102523NOW4A												
<b>Sample Date</b>	10/25/2023 12:50:00 PM												
<b>Location</b>	MSPS-LVWSP-OW-04A / OW-4A												
<b>Sample Type</b>	N												
<b>Matrix</b>	GW												
<b>Parent Sample</b>													

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	0.756	J	FD,S	0.410				Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	120	J	ZZ		10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L	74	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	0.96	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	86				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	27000				250	250	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.2	1.2	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	0.39	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	BF		3.4	3.4	8.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	1.5	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	0.34	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	8.5				0.13	0.13	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	37				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.0728	U		0.0811	0.129	0.129	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.683	J	FD	0.402	0.576	0.576	1.00	Y	Yes	1	NA

<b>Lab Sample ID</b>	240-194365-5												
<b>Sys Sample Code</b>	102523NOW10												
<b>Sample Name</b>	102523NOW10												
<b>Sample Date</b>	10/25/2023 11:00:00 AM												
<b>Location</b>	MSPS-LVWSP-OW-10 / OW-10												
<b>Sample Type</b>	N												
<b>Matrix</b>	GW												
<b>Parent Sample</b>													

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	0.714	J	S	0.430				Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	240	J	ZZ		10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L	67	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	420				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	59000				250	250	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.2	1.2	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	0.36	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	BF		9.5	9.5	9.5	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	0.23	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	16				0.13	0.13	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.23				0.024	0.024	0.050	Y	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	0.582			0.193	0.169	0.169	1.00	Y	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.133	U		0.384	0.685	0.685	1.00	N	Yes	1	NA

<b>Lab Sample ID</b>	240-194365-6
<b>Sys Sample Code</b>	102523NOW12
<b>Sample Name</b>	102523NOW12
<b>Sample Date</b>	10/25/2023 2:00:00 PM
<b>Location</b>	MSPS-LVWSP-OW-12 / OW-12
<b>Sample Type</b>	N
<b>Matrix</b>	GW
<b>Parent Sample</b>	

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	0.604	J	S	0.451				Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	680	J	ZZ		10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L	62	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	0.83	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	79				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	100000				250	250	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L	1.6	J	RL		1.2	1.2	5.0	Y	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	71				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	0.20	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	140				0.13	0.13	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.031	J	RL		0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	220				1.7	1.7	5.0	Y	Yes	5	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.375			0.165	0.178	0.178	1.00	Y	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.230	U		0.420	0.722	0.722	1.00	N	Yes	1	NA

<b>Lab Sample ID</b>	240-194365-7
<b>Sys Sample Code</b>	102523NOW13
<b>Sample Name</b>	102523NOW13
<b>Sample Date</b>	10/25/2023 11:25:00 AM
<b>Location</b>	MSPS-LVWSP-OW-13 / OW-13
<b>Sample Type</b>	N
<b>Matrix</b>	GW
<b>Parent Sample</b>	

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	1.28	J	S	0.847				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		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	7.5				0.75	0.75	5.0	Y	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	22000				250	250	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L	8.4				1.2	1.2	5.0	Y	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	4.0				0.19	0.19	1.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L	1.8				0.45	0.45	1.0	Y	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U	BF		4.4	4.4	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	1.2	J	RL		0.89	0.89	5.0	Y	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				0.13	0.13	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		U			0.35	0.35	1.0	N	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.572			0.307	0.366	0.366	1.00	Y	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.709	U		0.789	1.29	1.29	1.00	N	Yes	1	NA

<b>Lab Sample ID</b>	240-194365-8
<b>Sys Sample Code</b>	102523FBFIELDLDBLANK_1025
<b>Sample Name</b>	102523FBFIELDLDBLANK
<b>Sample Date</b>	10/25/2023 10:25:00 AM
<b>Location</b>	MSPS-FB / Field Blank
<b>Sample Type</b>	FB
<b>Matrix</b>	AQ
<b>Parent Sample</b>	

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	0.235	U		0.293				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			250	250	1000	N	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.2	1.2	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	2.1	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		U			0.13	0.13	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	0.0787	U		0.0865	0.136	0.136	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.157	U		0.280	0.484	0.484	1.00	N	Yes	1	NA

<b>Lab Sample ID</b>	240-194365-9
<b>Sys Sample Code</b>	102523FDDUPPLICATE_1300
<b>Sample Name</b>	102523FDDUPPLICATE
<b>Sample Date</b>	10/25/2023 1:00:00 PM
<b>Location</b>	MSPS-LVWSP-OW-04A / OW-4A
<b>Sample Type</b>	FD
<b>Matrix</b>	GW
<b>Parent Sample</b>	102523NOW4A

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	0.236	UJ	FD	0.325				N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	110	J	ZZ		10	10	10	Y	Yes	1	NA
SW-846 6010D	Boron	7440-42-8	T	ug/L	72	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	1.2	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	80				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				250	250	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.2	1.2	5.0	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	0.31	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	BF		3.2	3.2	8.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	1.4	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	8.6				0.13	0.13	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.096				0.024	0.024	0.050	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	38				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.126	U		0.106	0.156	0.156	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.110	UJ	FD	0.307	0.545	0.545	1.00	N	Yes	1	NA

## **APPENDIX C**

# **2022 SECOND SEMI-ANNUAL ASSESSMENT MONITORING PROGRAM EVENT STATISTICAL WORKSHEETS**

**Attachment 3**  
**Groundwater Protection Standard Comparison**  
**Confidence Limit Method**

**Date:** 3/13/2023  
**Site Owner:** Dominion Energy  
**Site:** Mt. Storm - LVWSP  
**Monitoring Well:** OW-12  
**Constituent:** Cobalt

<b>Sample Number</b>	<b>Sample Date</b>	<b>Result (ug/L)</b>	<b>Notes</b>
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
18	4/28/2022	32	Detection
19	11/10/2022	69	Detection

**Sample Group Mean (X):** 23.61  
**Sample Group Standard Deviation (S):** 18.23  
**Confidence Level:** 95%  
**Sample Group Count:** 19  
**Degrees of Freedom (n-1):** 18  
**Critical Value (tc):** 1.734  
**Lower Confidence Limit (ug/L):** 16.358  
**Upper Confidence Limit (ug/L):** 30.863

**Groundwater Protection Standard (ug/L):** 34  
**GPS Exceedance Confirmed?:** NO

Note: GPS exceedance indicated if Lower Confidence Limit exceeds the GPS.

## **APPENDIX D**

# **2023 FIRST SEMI-ANNUAL ASSESSMENT MONITORING PROGRAM EVENT STATISTICAL WORKSHEETS**

**Attachment 3**  
**Groundwater Protection Standard Comparison**  
**Confidence Limit Method**

**Date:** May 31, 2023  
**Site Owner:** Dominion Energy  
**Site:** Mt. Storm - LVWSP  
**Monitoring Well:** OW-12  
**Constituent:** Cobalt

<b>Sample Number</b>	<b>Sample Date</b>	<b>Result (ug/L)</b>	<b>Notes</b>
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
18	4/28/2022	32	Detection
19	11/10/2022	69	Detection
20	4/19/2023	68	Detection

**Sample Group Mean (X):** 25.83  
**Sample Group Standard Deviation (S):** 20.33  
**Confidence Level:** 95%  
**Sample Group Count:** 20  
**Degrees of Freedom (n-1):** 19  
**Critical Value (tc):** 1.729  
**Lower Confidence Limit (ug/L):** 17.970  
**Upper Confidence Limit (ug/L):** 33.690

**Groundwater Protection Standard (ug/L):** 34  
**GPS Exceedance Confirmed?:** NO

Note: GPS exceedance indicated if Lower Confidence Limit exceeds the GPS.

WSP