



DOMINION ENERGY VIRGINIA

**DRAFT Assessment of Corrective Measures
Chesterfield Power Station – Ash Ponds**

July 27, 2026



Contents

Executive Summary	i
1.0 Introduction.....	1-1
1.1 Purpose and Approach.....	1-2
2.0 Background	2-1
2.1 Lower Ash Pond Site History	2-1
2.1.1 Cutoff Barrier Wall & Dewatering System	2-2
2.1.2 LAP Groundwater Monitoring System.....	2-2
2.2 Upper Ash Pond Site History	2-3
2.2.1 UAP Groundwater Monitoring System	2-3
3.0 Conceptual Site Model.....	3-1
3.1 Regional Geology	3-1
3.1.1 Physiographic Setting	3-1
3.1.2 Depositional Environment.....	3-2
3.2 Site Geology	3-2
3.2.1 Basement Bedrock	3-3
3.3 Hydrogeology	3-3
3.4 Summary.....	3-4
4.0 Surface Water Sampling.....	4-1
5.0 Constituents of Concern in Groundwater	5-2
5.1 Constituents Exceeding the Groundwater Protection Standard.....	5-2
5.1.1 Lower Ash Pond.....	5-2
5.1.2 Upper Ash Pond	5-2
5.2 Constituents of Concern Source Areas and Source Characterization	5-3
5.3 Nature & Extent of Constituents of Concern	5-3
5.3.1 Arsenic	5-4
5.3.1.1 Nature of Arsenic	5-4
5.3.1.2 Extent of Arsenic	5-4
5.3.2 Arsenic concentrations within the UAP GMS are shown on Figure 5.	
Cobalt	5-5
5.3.2.1 Nature of Cobalt.....	5-5
5.3.2.2 Extent of Cobalt.....	5-6
5.3.3 Lithium	5-7
5.3.3.1 Nature of Lithium	5-7
5.3.3.2 Extent of Lithium	5-8
5.3.4 Radium-226 and Radium-228.....	5-8



5.3.4.1	Nature of Radium-226 and Radium-228	5-8
5.3.4.2	Extent of Radium-226 and Radium-228	5-9
5.4	Potential for Off-Site Transport	5-10
5.5	Potential Receptors and Exposure Pathways	5-11
6.0	Corrective Measures Alternatives Evaluation	6-1
6.1	Evaluation Criteria	6-1
6.1.1	Performance	6-1
6.1.2	Reliability	6-1
6.1.3	Ease of Implementation	6-2
6.1.4	Potential Impacts of the Alternative	6-2
6.1.5	Time Required to Begin and Complete the Alternative	6-2
6.1.6	Institutional Requirements	6-2
6.2	Source Removal Summary	6-2
6.3	Potential Groundwater Corrective Measure Alternatives Evaluation	6-3
6.3.1	Monitored Natural Attenuation	6-3
6.3.2	Hydraulic Containment and Ex-Situ Treatment	6-4
6.3.3	In-Situ Flushing/Infiltration	6-6
6.3.4	In-Situ Treatment/Permeable Reactive Barrier	6-7
6.3.5	Phytoremediation	6-8
6.4	Summary of Potential Corrective Measures Alternatives Evaluation	6-9
6.5	Additional Data Needs	6-11
6.5.1	Monitored Natural Attenuation	6-11
6.5.2	Hydraulic Containment & Ex-Situ Treatment	6-12
6.5.3	In-Situ Flushing/Infiltration	6-12
6.5.4	In-Situ Treatment/Permeable Reactive Barrier	6-13
6.5.5	Phytoremediation	6-13
7.0	Next Steps	7-1
8.0	References	8-1

Appendix A – Surface Impoundment GMS

Appendix B – Public Participation

Appendix C – Geologic Cross Sections

Appendix D – Field Notes, Laboratory & Data Validation Reports

Figures

Figure 1 – Site Location Map

Figure 2 – CCR Surface Impoundment Locations

Figure 3 – Surface Impoundments Monitoring Well Network

Figure 4 – Lower Ash Pond Arsenic Results

Figure 5 – Upper Ash Pond – Columbia Aquifer Arsenic Results



Figure 6 – Lower Ash Pond Cobalt Results

Figure 7 – Upper Ash Pond – Columbia Aquifer Cobalt Results

Figure 8 – Upper Ash Pond – Potomac Aquifer Cobalt Results

Figure 9 – Upper Ash Pond – Columbia Aquifer Lithium Results

Figure 10 – Upper Ash Pond – Potomac Aquifer Lithium Results

Figure 11 – Upper Ash Pond – Columbia Aquifer Radium 226/228 Results

Figure 12 – Upper Ash Pond – Potomac Aquifer Radium 226/228 Results

Tables

Table 1 – Historical Constituents of Concern Concentrations in the LAP GMS

Table 2 – Historical Constituents of Concern Concentrations in the UAP GMS

Table 3 – Surface Water Sample Results Summary



List of Abbreviations

Abbreviation	Term/Phrase/Name
2019 ACM	Assessment of Corrective Measures Report Lower and Upper Ash Ponds
2023 GMP	Groundwater Monitoring Plan for the Chesterfield Power Station, Upper and Lower Ash Ponds, August 2023.
40 CFR	Title 40 of the Code of Federal Regulations
ACM	Assessment of Corrective Measures
amsl	above mean sea level
bgs	below ground surface
bmsl	below mean sea level
CCR	Coal Combustion Residuals
CCR Rule	Disposal of CCR from Electric Utilities Rule
CFR	Code of Federal Regulations
COC	Constituent of Concern
CSM	Conceptual Site Model
Dominion	Virginia Electric and Power Company d/b/a Dominion Energy Virginia
EPA	United States Environmental Protection Agency
Eurofins	Eurofins Environment Testing North Central, LLC
GMS	Groundwater Monitoring System
GPS	Solid Waste Permit No. 619 Groundwater Protection Standard
GWPS	Federal CCR Rule Groundwater Protection Standard
MCL	Maximum Contaminant Level
msl	mean sea level
MNA	Monitored Natural Attenuation
LAP	Lower Ash Pond
L	Liter
pCi	picoCuries
PRB	Permeable Reactive Barrier
UAP	Upper Ash Pond
SSI	Statistically Significant Increase
SSL	Statistically Significant Levels
“Station” or “Site”	Chesterfield Power Station
Surface Impoundments	Lower Ash Pond & Upper Ash Pond
TRD	Trench remixing and deep soil mixing
VASWQS	Virginia Surface Water Quality Standards
VPDES	Virginia Pollutant Discharge Elimination System
VSWMR	Virginia Solid Waste Management Regulations
VDEQ	Virginia Department of Environmental Quality
VAC	Virginia Administrative Code
µg	microgram



Index and Certification

Dominion Energy Virginia

DRAFT Assessment of Corrective Measures

Report Index

Chapter Number	Chapter Title	Number of Pages
ES	Executive Summary	2
1.0	Introduction	2
2.0	Background	3
3.0	Conceptual Site Model	4
4.0	Surface Water Sampling	1
5.0	Constituents of Concern in Groundwater	11
6.0	Corrective Measures Alternatives Evaluation	13
7.0	Next Steps	1
8.0	References	1
	Figures	12
	Tables	26
Appendix A	Surface Impoundment GMS	5
Appendix B	Public Participation	—
Appendix C	Geologic Cross Sections	7
Appendix D	Laboratory and Data Validation Reports	78

Certification

I hereby certify, as a Professional Engineer in the state of Virginia, that the information in this document was assembled under my direct personal charge. This report is not intended or represented to be suitable for reuse by Dominion Energy Virginia or others without specific verification or adaptation by the Engineer.

NAME

Virginia P.E. No. _____

Date: _____



Executive Summary

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion) owns and operates the Chesterfield Power Station (“Station” or “Site”), located in Chester, Virginia. The Station historically operated as a coal-fired generating facility and currently operates as a natural gas-fired combustion turbine station following the closure of coal-burning units in 2023. Coal combustion residuals (CCR) generated during historical operations were managed in three regulated CCR surface impoundments at the Site: the Fossil Fuel Combustion Products Management Facility, the Upper Ash Pond (UAP), and the Lower Ash Pond (LAP). These three units are subject to the federal CCR Rule (40 CFR Part 257, Subpart D) and the Virginia Solid Waste Management Regulations (VSWMR).

The UAP and LAP (collectively known as “Surface Impoundments”) ceased receiving CCR in 2017 and are currently undergoing closure by removal in accordance with Solid Waste Permit (SWP) No. 619, issued by the Virginia Department of Environmental Quality (VDEQ) in September 2025. Groundwater monitoring within the respective groundwater monitoring systems (GMS) is continuing throughout the closure by removal construction and has identified constituents of concern (COCs) at statistically significant levels (SSL) above established groundwater protection standards. Identified COCs include arsenic and cobalt in the LAP GMS, and arsenic, cobalt, lithium, and radium 226 and 228 (combined) in the UAP GMS.

Dominion previously completed an Assessment of Corrective Measures (ACM) in 2019 that evaluated CCR source removal as the primary corrective action. Since that time, Site conditions have evolved due to ongoing closure activities, installation of a hydraulic cutoff wall and dewatering system at the LAP, issuance of updated permit requirements, and continued groundwater monitoring. As a result, this updated ACM has been developed to comply with both federal and state regulatory requirements and to evaluate additional groundwater corrective measures to address residual impacts.

Current legislation in Virginia (Virginia Code §10.1-1402.03) requires the removal of CCR units by removing all CCR, which will function as the closure mechanism for the Surface Impoundments. CCR source removal and performance monitoring are currently being implemented as the primary corrective action for the Surface Impoundments. This ACM evaluates the following potential groundwater corrective measure alternatives that may supplement source removal and address residual groundwater impacts:

- **Option 1:** Monitored natural attenuation (MNA);
- **Option 2:** Hydraulic containment with ex-situ treatment;
- **Option 3:** In-situ flushing/infiltration;
- **Option 4:** In-situ treatment/permeable reactive barrier (PRB); and,
- **Option 5:** Phytoremediation

Ongoing CCR source removal is expected to provide the primary corrective action benefit by eliminating the source of groundwater impacts. Following source removal, performance monitoring will be implemented to monitor the effectiveness of source removal on groundwater quality.

Dominion will continue groundwater monitoring to evaluate concentration trends, confirm plume stability, and assess remedy performance. Additional data collection and analysis will be conducted, as needed, to refine the conceptual site model (CSM) and support potential implementation of supplemental corrective measures. Progress will be documented through semiannual and annual reporting, and remedy selection will be finalized in accordance with the performance standards outlined in 40 CFR 257.97 and 9VAC20-81-260.



This ACM represents the current best understanding of Site conditions and corrective measure applicability. The document may be updated as new data become available to continue protection of human health and the environment and compliance with applicable regulatory requirements.



1.0 Introduction

This Assessment of Corrective Measures (ACM) Report was developed to evaluate groundwater conditions at the Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion) Chesterfield Power Station (“Station” or “Site”), located in Chester, Virginia. A Site location map is provided as **Figure 1**. Dominion owns and operates the Station, a natural gas-fired combustion turbine electric generating station. The Station formerly burned coal but retired its coal burning units in 2023.

There are three Coal Combustion Residuals (CCR) units at the Station that are regulated under the United States Environmental Protection Agency’s “Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments” (CCR Rule, 40 CFR §257 Subpart D): the Fossil Fuel Combustion Product Management Facility, the Upper Ash Pond (UAP), and the Lower Ash Pond (LAP). The UAP and LAP (collectively known as “Surface Impoundments”) were formerly regulated in accordance with Virginia Pollutant Discharge Elimination System (VPDES) Permit No. VA0004146 and functioned as components of the Station’s wastewater management system. The location of the UAP and LAP are shown on **Figure 2**. These Surface Impoundments are currently undergoing CCR (source) removal, and each has a dedicated groundwater monitoring system (GMS). The GMS for each Surface Impoundment is illustrated in **Appendix A** (WSP, 2023)¹.

In May 2019, a United States Environmental Protection Agency (EPA)-compliant ACM, titled *Assessment of Corrective Measures Report Lower and Upper Ash Ponds* (2019 ACM)² was prepared by Haley & Aldrich, Inc. to evaluate the applicability and effectiveness of potential corrective measures to mitigate the environmental impacts associated with arsenic, cobalt, molybdenum, and radium 226 and 228 (combined) within the LAP GMS, and those constituents, along with lithium, within the UAP GMS. The Surface Impoundments ceased receiving CCR in 2017. The 2019 ACM assessed CCR source removal as a means for corrective action and did not include other potential remedies.

Effective July 1, 2019, Code of Virginia §10.1-1402.03 requires the closure-by-removal of the Surface Impoundments. The law requires that the CCR be removed for disposal to a lined landfill or for beneficial use. The Virginia Department of Environmental Quality (VDEQ) issued solid waste permit SWP619 to the Station on September 22, 2025, for the closure-by-removal of the Surface Impoundments. As a result, an updated ACM is necessary to:

- Meet the requirements of Title 9 of the Virginia Administrative Code (VAC), Agency 20, Virginia Waste Management Board, Chapter 81, Solid Waste Management Regulations, Section 9VAC20-81-260;
- Address CCR constituents detected at statistically significant levels (SSLs) above established groundwater protection standards in the respective Surface Impoundment’s GMS;
- Address applicable permit-related constituents or requirements; and,
- Reflect current Site conditions, including ongoing CCR removal activities, installation of the LAP cutoff barrier wall, ongoing dewatering, and temporary influences on current groundwater conditions.

¹ WSP USA Inc. September 2017, Revised August 2023. *Groundwater Monitoring Plan, Chesterfield Power Station, Upper Lower Ash Pond*.

² Haley & Aldrich, Inc. May 2019. *Assessment of Corrective Measures Report, Lower and Upper Ash Ponds, Chesterfield Power Station, Chester, Virginia*

Although regulated as separate CCR units, due to their close proximity and similar constituents of concern (COC), they are jointly covered in this ACM. The COCs addressed in this ACM are arsenic and cobalt for the LAP, and arsenic, cobalt, lithium, and radium 226 and 228 (combined) for the UAP.

1.1 Purpose and Approach

The purpose of this assessment is to identify and evaluate potential groundwater corrective measure alternatives for the Surface Impoundments, including the benefits and limitations associated with each alternative. In accordance with Title 40 of the Code of Federal Regulations (40 CFR) Section 257.96(c) and 9VAC20-81-260C(3), this ACM includes a preliminary analysis of the feasibility of potential corrective measures in meeting the regulatory requirements and objectives. Potential corrective measure alternatives were evaluated for the Surface Impoundments to identify a remedy (or remedies) that may be implemented as part of the long-term corrective action plan.

Corrective measure alternatives were evaluated using the following criteria:

- Performance;
- Reliability;
- Ease of implementation;
- Potential impacts of the alternative;
- Time required to begin and complete the alternative; and
- Institutional requirements.

These evaluation criteria are discussed in more detail in **Section 6.1**.

Prior to selecting a formal remedy, Dominion will hold a 30-day public comment period, which will consist of a public meeting where Dominion will solicit comments on this ACM Report from interested and affected parties. This public meeting will occur no earlier than 15 days after the public comment period starts, and no later than seven days before the close of the 30-day comment period per 9VAC20-81-260(C)(4). Resources provided by Dominion for the public participation, as well as any comments received, can be found in **Appendix B**.

2.0 Background

The Site is owned and operated by Dominion and is located in Chesterfield County at 500 Coxendale Road, east of the intersection of Interstate-95 and Virginia Route 288. The Surface Impoundments are bound to the north by infrastructure associated with power generation at the Station, east by Henricus Park, south by the Old Channel of the James River and tidal lagoon, and to the west by the industrial effluent canal associated with the Station and the tidal lagoon, as shown on **Figure 1**. The surrounding properties to the east and south are owned by the County of Chesterfield. Both Surface Impoundments served as settling pond components for the Station's wastewater treatment system (VPDES No. VA0004146). Currently, all discharges from the Surface Impoundments are treated in the Station's Central Source Wastewater Treatment System and discharged via internal Outfall 101. The Surface Impoundments stopped receiving CCR material in 2017 and are subject to the CCR Rule's groundwater monitoring requirements. Both Surface Impoundments are currently undergoing closure by removal, as permitted in the Facility's solid waste permit SWP619, issued September 22, 2025.

2.1 Lower Ash Pond Site History

Virginia Electric and Power Company acquired the LAP property in 1959. The LAP was commissioned in 1964 by constructing dikes on its east, south and west sides. The east and west dikes tie into surrounding grades along the northern side of the LAP. The dikes are founded on native soils consisting of fine- and coarse-grained alluvial soils. The western, southern, and eastern dikes were raised approximately five feet in the late 1960's to increase the storage capacity of the LAP. The maximum height of the LAP dikes is approximately 19 feet above mean sea level (amsl). Available design information for the LAP indicates that the base of the impoundment is located at an approximate elevation of 1.5 feet amsl³ with CCR material delineation activities mapping the bottom of ash at a variable depth ranging from 10 feet below mean sea level (bmsl) to four feet amsl. The LAP footprint is approximately 111 acres.

In October 2016, following the installation of monitoring wells around the perimeter of the then active LAP, background sampling activities under the CCR Rule were initiated. The background sampling activities were completed in August 2017. The initial CCR Rule Detection Monitoring Program event for the LAP was completed in September 2017. Based on the results from the initial CCR Rule Detection Monitoring Program sampling event, a CCR Rule Assessment Monitoring Program was initiated for the LAP (i.e., the initial CCR Rule Appendix III and IV sampling event) following placement of the statistically significant increase (SSI) notification in the operating record on December 25, 2017. The initial assessment monitoring event for the LAP was completed in February 2018, followed by the first semi-annual assessment monitoring event, completed in May 2018. The 2018 groundwater monitoring program data indicated exceedances of federal CCR Rule groundwater protection standard (GWPS) during the 2018 first semi-annual sampling event for arsenic, cobalt, and radium 226 and 228 (combined). Additionally, Virginia CCR Rule groundwater protection standard (GPS) exceedances occurred for those same analytes as well as molybdenum. Since that time, the Virginia CCR Rule GPSs have been updated to match the federal GWPS.

The 2019 ACM evaluated remedial alternatives to address the GWPS exceedances and Commonwealth of Virginia statutory requirements for CCR source removal from unlined impoundments. Construction of a cutoff

³ Dames and Moore. 1984. Water Quality Impact Evaluation from Proposed Ash Tailing Impoundment at VEPCO's Chesterfield Power Station, Farrar Island, Virginia. Bethesda, Maryland. July 15.

barrier wall commenced in July 2022 and was completed in late 2023 to aid in dewatering as part of CCR removal from the LAP (see **Section 2.1.1**). A dewatering system was installed to remove pore water within and below the CCR material for treatment at the Centralized Source Wastewater Treatment Plant during excavation. The cutoff barrier wall is designed to limit the amount of groundwater and tidal influx into the LAP during excavation. CCR removal for the LAP began in the 2nd quarter of 2021, with complete closure forecasted in 2034. The excavated CCR material is being beneficially reused to the extent practical or disposed of at the Dominion owned off-Site Fossil Fuel Combustion Product Management Facility.

During the second semi-annual sampling event in 2025, which occurred in October, concentrations of arsenic and cobalt exceeded both the SWP619 GPS and federal CCR Rule GWPS.

2.1.1 Cutoff Barrier Wall & Dewatering System

A below-grade hydraulic cutoff wall was installed around the east, south, and western sides of the LAP as part of closure activities to provide subsurface containment and groundwater control. The wall was constructed using a trench remixing and deep soil mixing (TRD) method, with limited areas containing micropile-supported sheet pile walls. The combination of these techniques resulted in a near continuous barrier on three sides of the LAP designed to reduce permeability and limit lateral groundwater flow across the impoundment boundary. Construction began in July 2022 and was completed late 2023.

The vertical extent of the cutoff wall ties into existing natural containment elements, with the cutoff wall extending 50 to 80 feet below ground surface (bgs). The cutoff wall primarily consists of a concrete/bentonite mixture; however, alternative construction methods were used, where warranted, to address existing Site conditions. Alternative wall elements include sheet pile or reinforced wall segments. The wall extends vertically through surficial materials, including fill, alluvial deposits, and Cretaceous deposits. It is keyed into underlying fine-grained sediments with relatively low permeability. This design establishes a hydraulic seal by intercepting permeable sandy intervals in the shallow subsurface and terminating within more laterally continuous confining units at depth. Localized structural enhancements were incorporated into the wall system to accommodate Site-specific conditions. These include reinforced wall sections and areas supported by micropiles, which were used to maintain construction stability and promote wall integrity in zones of reduced bearing capacity or increased structural demand.

The cutoff wall paired with the dewatering system functions as a primary engineered control for the LAP by providing a low-permeability barrier that restricts lateral groundwater flow and supports maintenance of inward hydraulic gradients within the impoundment footprint. The cutoff wall also has a discrete remedial benefit by removing pore water volume and COC flux from the LAP and treating this dewatered fluid in the onsite permitted Central Source Wastewater Treatment System (CSWTS).

2.1.2 LAP Groundwater Monitoring System

The LAP GMS is designed to monitor the uppermost aquifer, and consists of the following monitoring wells:

Upgradient	Downgradient						
MW-29U	MW-20	MW-21R	MW-22R	MW-23R	MW-25	MW-26	MW-27
MW-35S	MW-28	MW-32SR	MW-33R	MW-34	MW-36S	MW-B50*	--

Note: * indicates monitoring well is part of the federal CCR Rule GMS; not associated with the SWP619 GMS.

The locations of the monitoring wells that are a part of the LAP GMS are presented in **Appendix A** (WSP, 2023)¹. For more information on the LAP GMS, refer to the 2019 ACM and the *2025 Virginia Solid Waste Management Regulations Annual Groundwater Monitoring Report* for the LAP⁴, and the *2025 CCR Annual Groundwater Monitoring and Corrective Action Report* for the LAP⁵.

2.2 Upper Ash Pond Site History

The UAP was formerly operated by Lone Star Industries, Inc. as a sand and gravel pit. The UAP property was originally leased by Virginia Electric and Power Company for construction and operation of the UAP circa 1983. Subsequently, Dominion acquired the UAP property and annexed it to the Station. The UAP was constructed within earthen perimeter embankments with a crest elevation of approximately 42 feet amsl. Available design information for the UAP indicates that the base of the impoundment is located at an approximate elevation of 2.5 feet amsl³. The UAP footprint is approximately 113 acres.

Background sampling activities under the CCR Rule were initiated in October 2016, following the installation of monitoring wells around the perimeter of the then active UAP. The background sampling activities were completed in August 2017. Dominion completed the initial CCR Rule Detection Monitoring Program event in September 2017. Based on the results from the initial CCR Rule Detection Monitoring Program sampling event, a CCR Rule Assessment Monitoring Program was initiated (i.e., the initial CCR Rule Appendix III and IV sampling event) for the UAP following placement of the SSI notification in the operating record on February 6, 2018. The initial assessment monitoring event for the UAP was completed in March 2018, followed by the first semi-annual assessment monitoring event completed in July 2018. The 2018 groundwater monitoring program data indicated exceedances of the federal CCR Rule GWPS during the 2018 first semi-annual sampling event. Concentrations of arsenic, cobalt, lithium, and radium 226 and 228 (combined) exceeded their respective GWPS. Concentrations of those same constituents exceeded the Virginia CCR Rule GPS with the addition of lead and molybdenum. In turn, Dominion initiated an ACM consistent with the CCR Rule requirements. On July 18, 2019, Dominion notified the County of Chesterfield, who owns land adjacent to and south of the UAP, of the exceedance of radium 226 and 228 at an off-Site monitoring well. This notification is provided in **Appendix B**.

The 2019 ACM evaluated remedial alternatives to address the GWPS exceedances and Commonwealth of Virginia statutory requirements for CCR source removal from unlined impoundments. The UAP began closure by removal of CCR in 2023. The excavated CCR material is beneficially reused off-Site or placed in the Dominion owned off-Site Fossil Fuel Combustion Product Management Facility.

Arsenic, cobalt, lithium, and radium 226 and 228 (combined) were detected in concentrations exceeding both the SWP619 GPS and federal CCR Rule GWPS during the October 2025 sampling event.

2.2.1 UAP Groundwater Monitoring System

Due to the UAP area's historical use as a sand and gravel pit, natural confining layers between various aquifers were potentially altered due to mining activities. As such, the UAP GMS monitors the Columbia, Potomac, and Triassic aquifer systems. The UAP GMS consists of the following monitoring wells:

⁴ WSP USA Inc. 2026. Virginia Solid Waste Management Regulations Annual Groundwater Monitoring Report, Chesterfield Power Station, Lower Ash Pond. January 30.

⁵ WSP USA Inc. 2026. CCR Annual Groundwater Monitoring and Corrective Action, Chesterfield Power Station, Lower Ash Pond. January 30.

Upgradient	Downgradient					
MW-29U (C)	MW-1 (C)	MW-1D (P)	MW-2 (C)	MW-3 (C)	MW-3D (T)	MW-4 (P)
MW-30U (P)	MW-5 (C)	MW-6 (P)	MW-6D (T)	MW-7 (P)	MW-8R (C)	MW-9R (C)
MW-35S (C)	MW-10 (P)	MW-11 (C)	MW-12 (C)	MW-13 (C)	MW-14 (P)	MW-15 (C)
MW-35D (P)	MW-16 (C)	MW-16D (P)	MW-17S (C)	MW-B31 (C)	MW-B32 (C)	--

Notes:

Parenthesis indicates aquifer monitored

C = Columbia Aquifer

P = Potomac Aquifer

T = Triassic Aquifer

Maps of the UAP GMS are presented in **Appendix A**¹. For more information on the UAP GMS, refer to the 2019 ACM and the 2025 *Virginia Solid Waste Management Regulations Annual Groundwater Monitoring Report* for the UAP⁶, and the 2025 *CCR Annual Groundwater Monitoring and Corrective Action Report* for the UAP⁷.

⁶ WSP USA Inc. 2026. CCR Annual Groundwater Monitoring and Corrective Action Report, Chesterfield Power Station, Upper Ash Pond January 30.

⁷ WSP USA Inc. 2026. CCR Annual Groundwater Monitoring and Corrective Action, Chesterfield Power Station, Upper Ash Pond. January 30.



3.0 Conceptual Site Model

A summary of historical Site investigations is presented in the 2019 ACM and the *Groundwater Monitoring Plan for the Chesterfield Power Station, Upper and Lower Ash Ponds, August, 2023* (2023 GMP)¹. A Conceptual Site Model (CSM) was generated for the Surface Impoundments based on those historical assessments. The uppermost Columbia Aquifer is monitored by both the LAP and UAP GMS. Generally, the emplaced CCR is in contact with the shallow Columbia Aquifer. Groundwater within this aquifer is tidally influenced and typically observed to flow radially away from the Surface Impoundments; however, the ongoing CCR removal and the cutoff barrier wall & dewatering system at the LAP (see **Section 2.1.1**) have altered surficial groundwater to flow inward.

The underlying Potomac Aquifer is semi-confined and is monitored by the UAP GMS. This multi-layer system consists of permeable sands and less permeable clay layers. Bedrock uplifts and multiple erosional events have led to a less than fully formed confining layer between the Columbia and the Potomac aquifers. The Potomac Aquifer generally flows in a southwestern direction across the Surface Impoundments; however, additional investigation is needed to understand the groundwater gradient of the Potomac Aquifer on the western and southern side of the Old Channel of the James River. The UAP GMS also monitors the deeper Triassic Aquifer, which underlies the Potomac Aquifer and is generally confined by competent bedrock units.

3.1 Regional Geology

3.1.1 Physiographic Setting

The Site is located in central-eastern Chesterfield County, Virginia, near the physiographic boundary between the Piedmont and Coastal Plain provinces, commonly referred to as the Atlantic Seaboard Fall Line⁸. This boundary marks the transition from the exposed crystalline bedrock terrain of the Piedmont to the unconsolidated sedimentary deposits of the Coastal Plain. The Site lies immediately east of the Piedmont province and west of the Upper Coastal Plain.

Piedmont bedrock in the vicinity consists predominantly of Precambrian to Paleozoic-aged crystalline igneous and metamorphic rocks, including granitic plutons⁹. These rocks are overlain unconformably to the east by Cretaceous to Quaternary Coastal Plain sediments composed primarily of sand, gravel, silt, and clay¹⁰. Coastal Plain strata gently thicken and dip eastward toward the Atlantic Ocean, reflecting deposition along the Atlantic passive continental margin and long-term erosion of the Appalachian highlands¹⁰.

The regional landscape and topography have been strongly influenced by Late Cenozoic eustatic sea-level fluctuations associated with glacial–interglacial cycles¹¹. Repeated marine transgressions and regressions across the Coastal Plain resulted in the development of a terraced geomorphology characterized by relict

⁸ Virginia Department of Mines, Minerals and Energy, Division of Geology and Mineral Resources. 1993. *Geology of Virginia*.

⁹ Hibbard, J.P., et al. 2010. *The Appalachian Orogen: A Brief Summary*. Geological Society of America Memoir 206.

¹⁰ Meng, A.A. and Harsh, J.F. 1988. *Hydrogeologic Framework of the Virginia Coastal Plain*. U.S. Geological Survey Professional Paper 1404-C.

¹¹ Cronin, T.M., et al. 2005. *Quaternary Sea-Level History and Marine Terraces of the U.S. Atlantic Coastal Plain*. U.S. Geological Survey Open-File Report 2005-1020.



shoreline scarps and fluvial terrace deposits. These features have since been modified by river incision, erosion, and sediment reworking along the James River and its tributaries.

3.1.2 Depositional Environment

The depositional environment at the Site has evolved over time in response to relative sea-level fluctuations along the Atlantic passive margin, resulting in alternating fluvial, marginal marine, and shallow marine conditions¹². During periods of relatively low sea level (lowstand conditions), sediment derived from the Appalachian Mountains and Piedmont uplands to the west and northwest was transported by regional river systems, including the ancestral James River, and deposited eastward toward the Atlantic basin⁹. These sediments were subsequently reworked and redistributed by fluvial processes across the upper Coastal Plain in the vicinity of the Fall Line¹⁰.

During periods of higher sea level, marine transgressions inundated portions of the region, resulting in the deposition of shallow marine sands, silts, and clays overlying older fluvial deposits¹². As sea level later regressed, these marine sediments were exposed, reworked, and locally incised by fluvial processes, contributing to the development of terrace sequences and relict shoreline features.

At present, the Site lies within a dissected landscape shaped by prolonged fluvial incision and erosion. However, remnants of marginal to shallow marine Coastal Plain deposits persist east of the Fall Line and within alluvial and terrace sequences preserved along major river valleys, including those associated with the James River in the vicinity of the Site¹⁰.

3.2 Site Geology

Soil borings were advanced in the vicinity of the Surface Impoundments during previous Site investigations. Construction details for soil borings, observation wells, and monitoring wells are presented in the 2019 ACM and 2023 GMP. Subsurface information obtained from these borings, including visual classifications and geophysical data, has been compiled and evaluated to support development of the CSM for the Station. Geologic cross-sections are shown in **Appendix C** (Haley & Aldritch, 2019).

Subsurface conditions in the vicinity of the Surface Impoundments consist of a heterogeneous sequence of unconsolidated to semi-consolidated Coastal Plain deposits. Near-surface materials are predominantly alluvial in origin and include interbedded sands, silts, and clays of variable thickness and lateral continuity. These deposits reflect depositional processes associated with the adjacent James River system and exhibit significant local variability across the Site.

Underlying the alluvium, the subsurface consists of older sedimentary units interlayered with sands, silts, and clays, with occasional zones of more consolidated material identified in deeper borings. These units display varying degrees of sorting, plasticity, and consolidation, reflecting changes in depositional environment and geologic age. The contact between these materials and the underlying competent bedrock surface is irregular and was not encountered across all borings, indicating variability in total sediment thickness. The inactive Dutch Gap Fault Zone is identified as being underneath the eastern side of the Upper Ash Pond. Depth to bedrock varies approximately 100 feet due to displacement caused by the Dutch Gap Fault Zone. Site-specific boring data indicate that lower-permeability fine-grained strata are discontinuous and interbedded with more

¹² Ward, L. W., & Strickland, G. L. (1985). Outline of Tertiary stratigraphy and depositional history of the U.S. Atlantic Coastal Plain (Professional Paper 1218). U.S. Geological Survey.



permeable sandy intervals, resulting in a stratigraphic framework that is laterally heterogeneous. This heterogeneity influences the distribution of hydraulic properties within the subsurface and contributes to preferential pathways and localized variability in subsurface conditions beneath the Surface Impoundments. The compiled stratigraphic interpretation presented in the CSM reflects these observed conditions and is intended to provide a representative depiction of the subsurface to support this ACM.

3.2.1 Basement Bedrock

The subsurface stratigraphy at the Station is underlain by crystalline basement bedrock characteristic of the western Coastal Plain–Piedmont transition zone. Regionally, this bedrock surface consists primarily of the Petersburg Granite and associated metamorphic units, which form part of the Paleozoic crystalline basement underlying the Coastal Plain sedimentary sequence. The Petersburg Granite is typically composed of quartz, feldspar (both plagioclase and potassium feldspar), and biotite, with minor accessory minerals, and exhibits textures ranging from relatively uniform crystalline to more heterogeneous gneissic fabrics.

Site-specific investigations indicate that the bedrock surface beneath the Surface Impoundments is irregular and slopes generally eastward, consistent with the regional geologic structure. The depth to competent bedrock varies across the Site, reflecting both structural controls and erosional relief prior to deposition of overlying Coastal Plain sediments. In some locations, consolidated sedimentary materials, interpreted as Triassic-age deposits such as mudstone, arkose, and conglomerate, have been encountered overlying the crystalline basement, marking a transitional zone between the basement rock and the younger unconsolidated deposits.

The geometry of the basement surface, as interpreted from available boring and geophysical data, contributes to the overall stratigraphic framework developed for the CSM. Variations in bedrock elevation and the presence of intermediate consolidated units influence the thickness and distribution of overlying sediments, which in turn affect subsurface heterogeneity across the Site. Although bedrock was not intersected in all borings, its inferred configuration provides an important boundary condition in the conceptual understanding of subsurface conditions beneath the Surface Impoundments.

3.3 Hydrogeology

Groundwater at the Site occurs within the shallow, unconfined aquifer hosted in the surficial Coastal Plain sediments. Hydraulic behavior is primarily controlled by the distribution of permeable sandy intervals interbedded with discontinuous silt and clay layers, resulting in a laterally variable flow system with localized preferential pathways. Under current conditions, groundwater flow is influenced by Site activities associated with closure of the Surface Impoundments. Water level measurements from October 13, 2025, indicate that the hydraulic gradient is directed inward toward the LAP footprint due to active dewatering operations. This represents a departure from natural conditions and reflects a temporarily induced hydraulic regime rather than long-term equilibrium flow. Water level measurements from October 13, 2025, indicate that the hydraulic gradient of the Columbia Aquifer is directed radially outward from the UAP footprint. During this same water gauging event, the Potomac Aquifer hydraulic gradient was to the southwest. The groundwater gradient of the Potomac Aquifer to the west and south of the Old Channel of the James River is unknown; however, the 2019 ACM indicates that the Old Channel of the James River is a hydraulic divide.

Groundwater velocities calculated from Site-specific data are relatively low and variable, reflecting both aquifer heterogeneity and the imposed hydraulic gradient. The presence of interbedded fine-grained units contributes to localized variations in flow direction and magnitude across short distances, limiting the



continuity of flow paths and influencing the distribution of groundwater elevations observed in the monitoring network. Tidal influence induces short-term, cyclical fluctuations in shallow groundwater elevations near the Site, but does not control the overall groundwater flow regime, which is governed by Site conditions and regional gradients. The current hydrogeologic framework is therefore characterized by a shallow, heterogeneous aquifer system with transient flow conditions that are strongly influenced by ongoing Site operations.

3.4 Summary

The conceptual understanding of subsurface conditions at the Site is based on an integration of Site-specific investigation data with regional geologic context. Subsurface materials beneath the Surface Impoundments consist of a heterogeneous sequence of unconsolidated to semi-consolidated Coastal Plain sediments overlying crystalline basement bedrock. These sediments are characterized by interbedded sands, silts, and clays with variable lateral continuity, resulting in a stratigraphic framework that exhibits significant heterogeneity across the Site.

The crystalline basement surface, composed primarily of granitic and metamorphic units, is irregular and defines the lower boundary of the hydrostratigraphic system. Variability in the elevation of this surface, along with the presence of locally consolidated intermediate materials, contributes to the overall thickness and distribution of overlying sediments. Groundwater occurs within a shallow, unconfined aquifer system hosted in the surficial sediments. Flow conditions within this system are governed by the distribution of more permeable sandy units and the presence of discontinuous fine-grained layers that restrict flow. The resulting hydrogeologic system is spatially variable and characterized by localized differences in hydraulic behavior.

Current groundwater flow conditions at the LAP are strongly influenced by ongoing closure activities at the Site, including active dewatering associated with CCR removal. These operations, paired with the engineered cutoff wall, have established a temporary inward hydraulic gradient toward the impoundment footprint, altering natural flow patterns. As a result, the hydrogeologic system is presently in a transient state, and interpretations of groundwater flow and transport reflect these non-equilibrium conditions. Groundwater flow conditions at the UAP are radially outward from its footprint.

4.0 Surface Water Sampling

Groundwater protection standard exceedances identified at the Site are associated with monitoring wells located adjacent to the James River and associated surface water features. As a result, opportunities to install additional downgradient monitoring wells beyond the existing monitoring well network were not feasible. Therefore, surface water sampling was conducted to evaluate potential groundwater discharge to adjacent surface water bodies and to assess whether Site-related constituents may be migrating beyond the existing Surface Impoundment's GMS.

Surface water samples were collected on May 5, 2026, to delineate the extent of COC impacts around the Surface Impoundments. Surface water sample locations were selected based on the Station's proposed Surface Water Monitoring Plan associated with its SWP619 permit. The Surface Water Monitoring Plan is under review by VDEQ. **Figure 3** presents the surface water sample locations.

Burns & McDonnell collected samples from several surface water sample locations, identified as CH-01 through CH-07. Each sample was collected near the shoreline from the middle of the water column, approximately two feet below water surface. Samples were collected using a peristaltic pump with dedicated tubing. Samples were collected in Eurofins Environment Testing North Central, LLC (Eurofins) provided containers, properly labeled, and immediately stored in coolers containing wet ice. Samples were dropped off at the Eurofins laboratory in Cary, North Carolina, on May 6, 2026, where they were subsequently shipped to the Eurofins Cleveland laboratory under proper chain-of-custody protocols.

These samples were analyzed for the following constituents:

- Appendix III and IV constituents, including antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chloride, chromium (total, III, and VI), cobalt, copper, fluoride, lead, lithium, magnesium, molybdenum, mercury, nickel, selenium, silver, sulfate, thallium, total dissolved solids, and zinc;
- Hardness, pH, and temperature; and,
- Radium 226 and 228.

At each sample location, surface water quality parameters were collected, including temperature, pH, specific conductivity, oxygen reduction potential, and dissolved oxygen. One duplicate sample was collected for quality assurance / quality control purposes. The duplicate sample was collected at the same time as the sample it intended to replicate to assess precision or variability associated with laboratory analysis and the sample collection process. Once received, analytical results were validated by Environmental Standards dba Onteris as requested by Dominion. COC data was generally accepted, with estimated "J" qualifiers being added for concentrations between the method detection limit and laboratory reporting limit.

Analytical results and field measurements are presented in **Table 3**. The results are discussed for each COC in **Section 5.3**. The field notes, laboratory analytical report, and data validation summary are provided in **Appendix D**.

5.0 Constituents of Concern in Groundwater

5.1 Constituents Exceeding the Groundwater Protection Standard

Groundwater monitoring at the Station is governed by both the federal CCR Rule (40 CFR Part 257 Subpart D) and the VSWMR, and each framework establishes groundwater protection standards using a different regulatory basis. Under the federal CCR Rule, the GWPS is defined as the higher of the EPA Maximum Contaminant Level (MCL) or the Site-specific background concentration, reflecting a design that accounts for naturally occurring groundwater quality and avoids identifying naturally elevated conditions as releases. The recently issued VDEQ SWP619 Permit requires the GPS to be based on the EPA MCLs, alternate concentration levels, or approved, Site-specific background values. Due to the recent implementation of the permit, background values have not yet been approved by VDEQ; thus, EPA MCL/40 CFR 257.95(h)(2) values are used herein. Because these two programs are implemented concurrently at the Site, the LAP and UAP must evaluate groundwater data against both sets of standards, which can differ for the same constituent.

Evaluation of groundwater monitoring data has identified several COCs exceeding their respective GWPS/GPS values within the GMS associated with both Surface Impoundments. These COCs are carried forward in this ACM for evaluation of corrective action alternatives. Historical groundwater monitoring concentrations for COCs are summarized in **Table 1** and **Table 2**. At the time of this submittal, the groundwater results from March 2026 are received but have not been formally reported. Therefore, the March 2026 included in these tables are for informational purposes only.

5.1.1 Lower Ash Pond

Groundwater monitoring results for the LAP indicate that arsenic and cobalt concentrations in groundwater exceed their respective federal GWPS and SWP GPSs during the 2025 second semi-annual monitoring event. The CCR Rule GWPS and SWP GPS for arsenic were 19.8 micrograms (μg) per liter (L) and 10 $\mu\text{g/L}$, respectively. However, GWPS/GPS values are subject to change as background concentrations are updated. Since that sampling event, the CCR Rule GWPS for arsenic has been revised to 18.9 $\mu\text{g/L}$. The federal GWPS and SWP GPS for cobalt are 7.4 $\mu\text{g/L}$ and 6 $\mu\text{g/L}$, respectively.

Although other constituents were detected, arsenic and cobalt are the only constituents that were detected at concentrations exceeding their respective GWPS/GPS values during the 2025 monitoring period. The spatial distribution of exceedances indicates that impacts are present across multiple downgradient wells within the uppermost aquifer, with variability in constituent concentrations reflecting localized hydrogeologic and geochemical conditions. Groundwater flow conditions at the LAP are currently influenced by active dewatering and CCR removal activities, resulting in a transient inward hydraulic gradient. These conditions may affect constituent distribution and transport, resulting in localized areas of elevated concentrations within the monitoring network.

Arsenic and cobalt are identified as COCs for the LAP and are carried forward in this ACM for evaluation of corrective measures designed to achieve compliance with applicable GPSs. Historical COC concentrations in the LAP GMS are shown on **Table 1**.

5.1.2 Upper Ash Pond

Groundwater monitoring results for the UAP indicate that arsenic, cobalt, lithium, and radium 226 and 228 (combined) concentrations in groundwater exceed their respective federal CCR Rule GWPS and SWP GPSs



during the 2025 second semi-annual monitoring event. The CCR Rule GWPS and SWP GPS for UAP COCs are as follows:

Constituents of Concern	CCR Rule GWPS		SWP GPS
	Columbia Aquifer	Potomac Aquifer	
Arsenic	19.8 µg/L	17.4 µg/L	10 µg/L
Cobalt	7.4 µg/L	6.9 µg/L	6.0 µg/L
Lithium	40 µg/L	40 µg/L	40 µg/L
Radium 226 and 228 (combined)	5 pCi/L	5 pCi/L	5 pCi/L

Notes: The CCR Rule GWPS may reflect the Site-specific background value for each aquifer.
 GWPS – federal CCR rule groundwater protection standard
 SWP GPS – Virginia CCR Rule groundwater protection standard
 pCi/L – picocuries per liter
 µg/L – micrograms per liter

Although other constituents were detected, arsenic, cobalt, lithium, and radium 226 and 228 (combined) are the only constituents detected in groundwater at concentrations exceeding their respective GWPS/GPS values during the 2025 monitoring period. The spatial distribution of exceedances indicates that impacts are present across multiple downgradient wells within the Columbia, Potomac, and Triassic aquifers, with variability in constituent concentrations reflecting localized hydrogeologic and geochemical conditions. Groundwater flow conditions at the UAP are radial in nature within the Columbia Aquifer, which may influence constituent distribution and transport and result in variability in concentrations across the monitoring network.

Arsenic, cobalt, lithium, and radium 226 and 228 (combined) are identified as COCs for the UAP and are carried forward in this ACM for evaluation of corrective measures designed to achieve compliance with applicable GWPS/GPSs. Historical COC concentrations in the UAP GMS are shown on **Table 2**.

5.2 Constituents of Concern Source Areas and Source Characterization

A probable source of COCs in groundwater within and around the UAP and LAP are the CCR materials currently stored in the Surface Impoundments and residual impacts from CCR removed to date. CCR removal and closure activities for both Surface Impoundments began in 2021 and is forecasted to occur over the span of 13 years for closure completion. At the time of this submittal, no other sources of COCs have been identified.

5.3 Nature & Extent of Constituents of Concern

Arsenic and cobalt were detected above their respective GWPS/GPS in the LAP GMS, whereas arsenic, cobalt, lithium, and radium 226 and 228 (combined) were detected above their respective GWPS/GPS in the UAP GMS. These constituents make up the COCs at the Site. Due to limited space to install downgradient delineation wells, COC isoconcentration maps are too interpretive; however, the surface water data indicates that COCs are not migrating off-Site via groundwater to surface water interaction in concentrations exceeding applicable standards. As such, **Figures 4-12** display the spatial distribution of COC detections within the LAP and UAP GMS. The nature and extent of these COCs are discussed separately for each unit below.

5.3.1 Arsenic

5.3.1.1 Nature of Arsenic

Arsenic is a naturally occurring metalloid widely distributed in geologic materials and can be released to groundwater through both natural processes and anthropogenic activities. In groundwater systems, arsenic occurs in several chemical forms, or species. Inorganic arsenic forms when arsenic combines with elements such as oxygen, chlorine, or sulfur, while compounds containing carbon and hydrogen are classified as organic arsenic. The inorganic species, arsenite and arsenate, are of primary concern due to their greater toxicity, reactivity, and environmental relevance compared to organic forms. Arsenite typically occurs under reducing (low-oxygen) conditions, whereas arsenate predominates under oxidizing conditions. Arsenite is generally more toxic and more mobile than arsenate, making it the more critical species in groundwater systems.

The behavior of arsenic in groundwater is strongly controlled by redox conditions and pH, which influence both speciation and mobility. Under oxidizing conditions, arsenate is more stable and tends to adsorb strongly to mineral surfaces, particularly iron oxyhydroxides, resulting in reduced mobility. Under reducing conditions, dissolution of iron minerals can release sorbed arsenic into groundwater, increasing dissolved concentrations. Changes in pH further influence arsenic mobility by affecting both the charge of arsenic species and the surface charge of aquifer materials, thereby controlling adsorption and desorption processes. Interactions with iron and manganese oxides are a primary control on arsenic attenuation, as these minerals provide sorption sites that can immobilize arsenic, particularly in the form of arsenate. This balance between sorption and release results in spatial and temporal variability in arsenic concentrations within groundwater.

Arsenic adsorption to aquifer materials is strongly pH-dependent, with adsorption generally decreasing as pH increases. Iron-, manganese-, and aluminum-bearing minerals act as primary sinks for arsenic due to their strong sorption capacity. The mineralogical composition of subsurface materials therefore plays a key role in controlling arsenic attenuation. Under reducing conditions, arsenic speciation shifts toward arsenite, which exhibits greater mobility than arsenate. As a result, groundwater in reducing environments, such as wetlands or organic-rich sediments, may exhibit enhanced arsenic transport compared to more oxidizing environments.

In summary, arsenic is a redox-sensitive contaminant whose mobility and persistence in groundwater are governed by its chemical form, geochemical conditions, and interactions with aquifer materials. While arsenic can be attenuated through adsorption to mineral surfaces, changes in redox conditions or pH can mobilize it, leading to variable behavior in groundwater systems and complicating long-term management and remediation.

5.3.1.2 Extent of Arsenic

As stated in **Section 5.1.1**, arsenic is subject to different applicable groundwater protection standards. The SWP GPS is 10 µg/L, while the federal CCR Rule GWPS is 19.8 µg/L for the Columbia Aquifer and 17.8 µg/L for the Potomac Aquifer. As the SWP GPS (based on the MCL) is lower, that is the value to which the extent of arsenic is evaluated in this ACM.

5.3.1.2.1 Lower Ash Pond

During the second semi-annual 2025 groundwater sampling event, which occurred in October, arsenic was detected at concentrations exceeding the SWP GPS of 10 µg/L in compliance monitoring wells MW-23R (10.9 µg/L), MW-25 (18.7 µg/L), MW-28 (167 µg/L), MW-33R (11.4 µg/L), and MW-36S (16.1 µg/L). The arsenic concentrations detected in the compliance wells were generally consistent with historical monitoring results.



A review of the surface water analytical data was conducted to further evaluate the extent of arsenic, and the potential interaction between groundwater and surface water. Arsenic was detected in four of the surface water sample locations (CH-02, CH-04, CH-05, CH-07). The detected concentrations, in $\mu\text{g/L}$, were 2.3 J, 1.1 J, 1.3, and 0.81 J, respectively, where J represents an estimated value based on laboratory and/or data validation. These results were compared to the Virginia Surface Water Quality Standards (VASWQS) as outlined in 9VAC25-260-140. All detected concentrations were well below the freshwater chronic VASWQS of 150 $\mu\text{g/L}$. Thus, arsenic in groundwater does not appear to be migrating off-Site to the extent of negatively impacting surface water quality. See **Section 4** for more information on the surface water sampling conducted.

Arsenic concentrations within the LAP GMS are shown on **Figure 4**.

5.3.1.2.2 Upper Ash Pond

During the second semi-annual 2025 groundwater sampling event, which occurred in October, arsenic was detected in groundwater at concentrations exceeding the SWP GPS of 10 $\mu\text{g/L}$ in compliance monitoring wells MW-8R (13 $\mu\text{g/L}$), MW-13 (80.4 $\mu\text{g/L}$), and MW-17S (18.9 $\mu\text{g/L}$). The arsenic concentrations detected in the compliance wells were generally consistent with historical monitoring results.

A review of the surface water analytical data was conducted to further evaluate the extent of arsenic, and the potential interaction between groundwater and surface water. Arsenic was detected in four surface water sample locations (CH-02, CH-04, CH-05, CH-07). The detected concentrations, in $\mu\text{g/L}$, were 2.3 J, 1.1 J, 1.3, and 0.81 J, respectively, where J represents an estimated value. These results were compared to the VASWQS as outlined in 9VAC25-260-140. All detected concentrations were well below the freshwater chronic VASWQS of 150 $\mu\text{g/L}$. Thus, arsenic in groundwater does not appear to be migrating off-Site to the extent of negatively impacting surface water quality. See **Section 4** for more information on the surface water sampling conducted.

5.3.2 Arsenic concentrations within the UAP GMS are shown on Figure 5. Cobalt

5.3.2.1 Nature of Cobalt

Cobalt is a naturally occurring transition metal that is widely distributed in geologic materials and is typically present in soils and groundwater at trace concentrations. In groundwater systems, cobalt primarily occurs as dissolved inorganic species, most commonly in the divalent form (Co^{2+}). As a cationic metal, cobalt exhibits geochemical behavior distinct from oxyanion-forming constituents and is primarily influenced by sorption and mineral interactions. While cobalt may form complexes with dissolved constituents under certain conditions, the dissolved divalent form is the most environmentally relevant species controlling its mobility in groundwater systems. Although cobalt is an essential micronutrient in trace amounts, elevated concentrations may pose risks to human health and are therefore subject to regulatory evaluation.

The behavior of cobalt in groundwater is strongly controlled by redox conditions, pH, and the presence of mineral sorption sites. Under oxidizing conditions, cobalt tends to adsorb strongly to aquifer materials, particularly iron and manganese oxides, as well as clay minerals, which limits its mobility. Under reducing conditions, however, reductive dissolution of iron and manganese oxides can release sorbed cobalt into groundwater, resulting in increased dissolved concentrations. This indirect redox control, mediated by the stability of oxide minerals rather than changes in cobalt speciation, is a primary mechanism governing cobalt mobility. Changes in pH also influence cobalt behavior by affecting both its solubility and the surface charge of aquifer materials; lower pH conditions generally increase cobalt mobility by reducing sorption efficiency,

whereas higher pH conditions favor adsorption and attenuation. As a result, cobalt concentrations can exhibit spatial and temporal variability in response to evolving subsurface geochemical conditions.

Interactions with iron and manganese oxides represent the primary control on cobalt attenuation in groundwater systems. These mineral phases provide sorption sites that can effectively retain cobalt under stable geochemical conditions. In environments where these oxides persist, cobalt is typically immobilized and remains associated with the solid phase. In contrast, reducing environments, such as organic-rich sediments or areas influenced by stagnation or dewatering, dissolution of these oxides can mobilize cobalt and increase dissolved concentrations. Under strongly reducing, sulfidic conditions, cobalt may also associate with sulfide minerals, which can limit its mobility; however, such conditions are typically site-specific. The balance between sorption and release processes associated with mineral phase stability governs cobalt transport in groundwater.

In summary, cobalt is a redox-influenced metal whose mobility in groundwater is governed primarily by sorption to mineral surfaces and the geochemical stability of iron and manganese oxides. While cobalt can be attenuated effectively under oxidizing conditions, changes in redox conditions, pH, or mineral stability can result in its remobilization and increased concentrations in groundwater. This dynamic behavior leads to variability in observed concentrations and can complicate long-term monitoring and management at sites affected by both natural processes and anthropogenic sources such as CCR materials.

5.3.2.2 Extent of Cobalt

As stated in **Section 5.1.1**, cobalt is subject to different applicable groundwater protection standards. The SWP GPS is 6 µg/L, while the federal CCR Rule GWPS is 7.4 µg/L for the Columbia Aquifer and 6.9 µg/L for the Potomac Aquifer. As the SWP GPS (based on 40 CFR 257.95(h)(2)(i)) is lower, that is the value in which the extent of cobalt is determined.

5.3.2.2.1 Lower Ash Pond

During the second semi-annual 2025 groundwater sampling event, which occurred in October, cobalt was detected in groundwater at concentrations exceeding the SWP GPS of 6 µg/L in compliance monitoring wells MW-20 (280 µg/L), MW-27 (6.21 µg/L), and MW-36S (19.3 µg/L). The cobalt concentrations detected in the compliance wells were generally consistent with historical monitoring results.

A review of the surface water analytical data was conducted to further evaluate the extent of cobalt, and the potential interaction between groundwater and surface water. Cobalt was detected in all seven of the surface water sample locations (CH-01 through CH-07). Concentrations, in µg/L, ranged from 0.53 J to 2.6, where J represents an estimated value based on laboratory and/or data validation. Cobalt does not have an applicable VASWQS as outlined in 9VAC25-260-140; thus, these results were compared to the cobalt SWP GPS of 6 µg/L. All cobalt detections are below this threshold. Thus, cobalt in groundwater does not appear to be migrating off-Site to the extent of negatively impacting surface water quality. See **Section 4** for more information on the surface water sampling conducted.

Cobalt concentrations within the LAP GMS are shown on **Figure 6**.

5.3.2.2.2 Upper Ash Pond

As discussed in **Section 2.2.1**, the UAP GMS contains monitoring wells that monitor the various aquifers below the UAP footprint. Within the UAP GMS, during the second semi-annual 2025 groundwater sampling event which occurred in October, cobalt was detected in groundwater at concentrations that exceed the SWP GPS

of 6 µg/L in compliance monitoring wells located within the Columbia (surficial), Potomac, and Triassic aquifers. The monitoring wells screened in the Columbia Aquifer that had cobalt exceedances were MW-1 (15.0 µg/L), MW-2 (13.1 µg/L), MW-3 (8.53 µg/L), MW-5 (35.1 µg/L), MW-11 (6.13 µg/L), MW-12 (15.2 µg/L), MW-13 (225 µg/L), MW-15 (41.6 µg/L), MW-16 (24.8 µg/L), and MW-17S (14.2 µg/L). The monitoring wells screened in the Potomac Aquifer that had cobalt exceedances were MW-1D (15.0 µg/L), MW-4 (55.9 µg/L), and MW-10 (10.5 µg/L). The monitoring well screened in the Triassic Aquifer that had a cobalt exceedance was MW-6D (37.3 µg/L).

A review of the surface water analytical data was conducted to further evaluate the extent of cobalt, and the potential interaction between groundwater and surface water. Cobalt was detected in all seven surface water sample locations (CH-01 through CH-07). Concentrations, in µg/L, ranged from 0.53 J to 2.6, where J represents an estimated value. Cobalt does not have an applicable VASWQS as outlined in 9VAC25-260-140; thus, these results were compared to the cobalt GPS of 6 µg/L. All cobalt detections are below this threshold. Thus, cobalt in groundwater does not appear to be migrating off-Site to the extent of negatively impacting surface water quality. See **Section 4** for more information on the surface water sampling conducted.

Cobalt concentrations within the UAP GMS are shown on **Figure 7** and **Figure 8**.

5.3.3 Lithium

5.3.3.1 Nature of Lithium

Lithium is a naturally occurring alkali metal that is widely distributed in geologic materials and can be released to groundwater through natural weathering processes and anthropogenic activities. In groundwater systems, lithium occurs almost exclusively as a dissolved monovalent cation (Li^+). Unlike many other metals, lithium does not form multiple environmentally significant oxidation states or complex species under typical groundwater conditions, and therefore its behavior is not governed by speciation to the same extent as redox-sensitive elements.

Lithium is not considered highly toxic at low concentrations; however, elevated levels in drinking water have raised increasing concern due to potential human health effects, including impacts on neurological, renal, and metabolic systems. While regulatory limits for lithium are less established than for other metals, its presence and mobility in groundwater systems make it an important constituent to evaluate in the context of long-term exposure and resource protection.

The behavior of lithium in groundwater is fundamentally different from that of many other metals due to its high solubility and limited interaction with aquifer materials. Lithium exhibits weak sorption to mineral surfaces, including clays and iron or manganese oxides, and does not readily participate in precipitation reactions under typical environmental conditions. As a result, lithium remains predominantly in the dissolved phase and is transported with groundwater flow without significant retardation. Its mobility is therefore primarily controlled by physical processes such as advection, dispersion, and dilution rather than by geochemical reactions.

Lithium behavior is relatively insensitive to changes in redox conditions and only moderately influenced by pH. Unlike redox-sensitive metals, lithium does not undergo changes in valence state or participate in reduction-oxidation reactions that would influence its mobility. While cation exchange processes may allow limited partitioning of lithium onto mineral surfaces, these interactions are generally weak and reversible, particularly in the presence of competing ions such as sodium, calcium, and magnesium. Consequently, lithium is readily displaced back into the aqueous phase and migrates with groundwater flow.

Because lithium does not precipitate or strongly adsorb under typical aquifer conditions, there are few natural attenuation mechanisms available to limit its transport. As a result, lithium often behaves as a conservative tracer in groundwater systems, meaning it moves at rates similar to groundwater velocity and is present downgradient over extended distances. The mineralogical composition of aquifer sediments has relatively limited influence on lithium attenuation compared to other metals, and variations in geochemical conditions do not significantly enhance natural removal from groundwater.

In summary, lithium is a highly soluble and conservative constituent in groundwater systems whose mobility is controlled primarily by physical transport processes rather than geochemical reactions.

5.3.3.2 Extent of Lithium

Lithium was detected in groundwater in excess of the GWPS/GPS of 40 µg/L in the UAP GMS. No groundwater concentrations in the LAP GMS exceeded the GWPS/GPS. As discussed in **Section 2.2.1**, the UAP GMS contains monitoring wells that monitor the various aquifers below the UAP footprint. Within the UAP GMS, during the second semi-annual 2025 groundwater sampling event, lithium was detected at concentrations exceeding the GWPS/GPS in compliance monitoring wells located both within the Columbia (surficial), Potomac, and Triassic aquifers. The monitoring wells screened in the Columbia Aquifer that had lithium exceedances were MW-5 (78.8 µg/L), MW-13 (155 µg/L), and MW-16 (183 µg/L). The monitoring wells zoned in the Potomac Aquifer that had lithium exceedances were MW-4 (120 µg/L) and MW-6 (181 µg/L). The monitoring well zoned in the Triassic Aquifer that had a lithium exceedance was MW-6D (140 µg/L). The lithium concentrations detected in the compliance wells were generally consistent with historical monitoring results.

A review of the surface water analytical data was conducted to further evaluate the extent of lithium, and the potential interaction between groundwater and surface water. Lithium was detected in two of the surface water sample locations (CH-02 and CH-04). The detected concentrations, in µg/L, were 6.3 J and 4.3 J, respectively, where J represents an estimated value based on laboratory and/or data validation. Lithium does not have an applicable VASWQS as outlined in 9VAC25-260-140; thus, these results were compared to the lithium SWP GPS of 40 µg/L. Both lithium detections are well below this threshold. Thus, lithium in groundwater does not appear to be migrating off-Site to the extent of negatively impacting surface water quality. See **Section 4** for more information on the surface water sampling conducted.

Lithium concentrations within the UAP GMS are shown on **Figure 9** and **Figure 10**.

5.3.4 Radium-226 and Radium-228

5.3.4.1 Nature of Radium-226 and Radium-228

Radium 226 and 228 (combined) are naturally occurring radioactive isotopes of radium that are commonly found in geologic materials and can be released to groundwater through natural weathering processes and, to a lesser extent, anthropogenic activities. These isotopes are part of the uranium-238 and thorium-232 decay series, respectively, and occur in groundwater primarily as dissolved divalent cations (Ra^{2+}). Unlike redox-sensitive metals, radium does not exist in multiple oxidation states under typical environmental conditions, and its behavior is instead governed by geochemical interactions such as sorption and precipitation.

Radium is recognized as a radiological contaminant of concern due to its potential health effects. Chronic exposure through drinking water is associated with an increased risk of bone cancer and other adverse health outcomes, as radium behaves similarly to calcium and can accumulate in bone tissue. Because radium emits

ionizing radiation, it is subject to strict regulatory standards in drinking water and groundwater protection contexts.

The behavior of radium in groundwater is controlled primarily by geochemical conditions that influence its solubility and interaction with aquifer materials. Radium mobility is strongly affected by the presence of competing cations (e.g., calcium, barium, and strontium), as well as by adsorption to mineral surfaces such as clays and iron/manganese oxides. Sorption processes can retard radium transport; however, these interactions are often reversible and dependent on groundwater chemistry, particularly ionic strength and the concentration of competing ions.

A key mechanism controlling radium attenuation is precipitation and co-precipitation, particularly in the presence of sulfate. Under sulfate-rich conditions, radium can form low-solubility minerals such as radium sulfate or can co-precipitate with barium sulfate (barite), effectively removing radium from the dissolved phase. This process can reduce radium mobility and represents one of the most effective natural attenuation pathways. Conversely, in environments with limited sulfate availability, radium remains more mobile and is transported more readily with groundwater flow.

Radium mobility is also influenced by aquifer mineralogy and geochemical conditions, including pH and ionic strength. While radium is not strongly affected by redox conditions, changes in groundwater chemistry, such as increases in salinity or hardness, can enhance desorption or ion exchange processes, leading to increased dissolved concentrations. As a result, radium can exhibit variable behavior depending on site-specific conditions, with mobility ranging from moderately mobile to relatively immobile.

In summary, radium 226 and 228 are radioactive contaminants whose behavior in groundwater is governed primarily by solubility, sorption, and precipitation processes rather than redox-driven speciation. While radium can be effectively attenuated through precipitation and co-precipitation mechanisms, particularly in sulfate-rich environments, its mobility can increase under conditions that limit these processes or promote desorption. As a result, radium exhibits variable transport behavior that is highly dependent on site-specific geochemistry but is generally more controllable than highly mobile constituents.

5.3.4.2 Extent of Radium-226 and Radium-228

Radium 226 and 228 (combined) was detected in groundwater in excess of the GWPS/GPS of 5 pCi/L in the UAP GMS. No groundwater concentration in the LAP GMS exceeded the GWPS/GPS. As discussed in **Section 2.2.1**, the UAP GMS contains monitoring wells that monitor the various aquifers below the UAP footprint. Within the UAP GMS, during the second semi-annual 2025 groundwater sampling event, radium 226 and 228 (combined) was detected in groundwater at concentrations that exceed the GWPS/GPS in compliance monitoring wells located both within the Columbia (surficial) and Potomac aquifers. The monitoring wells screened in the Columbia Aquifer that had radium 226 and 228 (combined) exceedances were MW-2 (9.73 J+ pCi/L) and MW-17S (7.54 J+ pCi/L). Note that the data qualifier “J+” indicates that the reported concentration is biased high based on data validation, and that the actual concentration is likely lower. The monitoring well zoned in the Potomac Aquifer that had a radium 226 and 228 (combined) exceedance was MW-1D (10.0 pCi/L).

A review of the surface water analytical data was conducted to further evaluate the extent of radium 226 and 228 (combined), and the potential interaction between groundwater and surface water. Radium 226 and 228 (combined) were not detected in any of the seven surface water samples. As such, radium 226 and 228 (combined) in groundwater does not appear to be migrating off-Site to the extent of negatively impacting surface water quality. See **Section 4** for more information on the surface water sampling conducted.

Radium 226 and 228 (combined) concentrations within the UAP GMS are shown on **Figure 11** and **Figure 12**.

5.4 Potential for Off-Site Transport

The Site is situated along the southern bank of the James River within a low-lying, tidally influenced floodplain setting. Both Surface Impoundments are hydraulically connected to the uppermost aquifer (Columbia Aquifer), which is unconfined and exhibits groundwater flow that generally mimics surface topography and discharges toward adjacent surface water features, including the James River and associated tidal channels. The Potomac Aquifer beneath the Surface Impoundments flows to the southwest toward the Old Channel of the James River; however, regional flow of the Potomac Aquifer is to the east. This suggests that the Old Channel of the James River acts as a downgradient hydraulic border for the Potomac Aquifer.

Groundwater flow beneath both CCR units is characterized as radial, with mounding beneath the impoundments and outward flow toward surrounding discharge boundaries. As a result, under pre-closure conditions, there was an inherent pathway for dissolved COCs to migrate laterally from the footprint of the impoundments toward downgradient receptors. The proximity of the LAP and UAP to tidally influenced surface water bodies further enhances the potential for groundwater/surface water interaction, particularly along the margins where the water table fluctuates in response to river stage and tidal forcing.

Despite these potential transport pathways, several Site-specific factors limit the likelihood of significant off-Site migration:

- The Site is bounded on multiple sides by the James River and associated tidal wetlands, which function as primary hydraulic sinks, promoting discharge rather than continued downgradient transport;
- There are no known downgradient potable water wells between the CCR units and the discharge boundary, reducing the risk of direct human exposure via groundwater use;
- The CSM indicates that contaminant plumes are expected to discharge to nearby surface water systems rather than extend significantly beyond Site property boundaries; and,
- Surface water analytical data indicates there are no substantial concentrations of COCs migrating off-Site.

Additionally, ongoing and planned closure-by-removal activities influence the transport dynamics. For the LAP, installation of a cutoff barrier wall and active dewatering (see **Section 2.1.1**) induces an inward hydraulic gradient, effectively reversing natural flow directions in localized areas and limiting outward migration during excavation. For the UAP, removal of CCR materials and associated infrastructure will reduce long-term source loading to groundwater.

In summary, while hydrogeologic conditions (e.g., unconfined aquifer, radial flow, hydraulic connectivity to surface water) provide mechanisms for off-Site transport of COCs, risk of exposure to COCs is low. The combination of Site setting, source removal, and hydraulic management measures reduces the likelihood of significant off-Site plume migration. The most probable transport endpoint remains discharge to adjacent surface water bodies in proximity to the CCR unit boundaries, rather than migration to distant off-Site receptors.

5.5 Potential Receptors and Exposure Pathways

Potential receptors and exposure pathways were identified using the framework outlined in the EPA Office of Solid Waste and Emergency Response best management practices¹³. This guidance evaluates the linkage between contaminant sources, release mechanisms, environmental transport media, exposure points, and receptors to determine whether complete or potentially complete exposure pathways exist. At the Site, the primary source of COCs are the CCR materials historically managed within the Surface Impoundments. Release mechanisms are primarily associated with leaching of constituents from CCR materials into pore water, followed by migration within the underlying unconfined Columbia Aquifer. Groundwater monitoring under the CCR Rule and SWP has identified GWPS and GPS exceedances that prompted corrective action evaluations, demonstrating that release and transport mechanisms are active within the uppermost aquifer system.

The principal environmental transport medium is groundwater within the Columbia Aquifer, which underlies both Surface Impoundments and exhibits radial flow outward from the impoundments toward surrounding discharge boundaries. Groundwater flow is influenced by Site topography and proximity to the James River, resulting in hydraulic gradients directed toward adjacent surface water bodies and associated tidal systems. The uppermost aquifer is unconfined and composed of heterogeneous sediments with variable hydraulic conductivity, allowing for advective transport of dissolved constituents, particularly through higher-permeability zones such as sand and gravel units. Upon discharge, surface water serves as a secondary transport medium, facilitating potential dilution and dispersion within the receiving aquatic system.

Exposure points include groundwater discharge zones located along the perimeter of the impoundments where groundwater migrates into adjacent surface water features such as the James River, tidal channels, and wetlands. The groundwater-surface water interface is dynamic due to tidal influence, which can induce fluctuations in groundwater elevation and localized mixing along the margins of the Surface Impoundments. Additional potential exposure points include limited areas where shallow groundwater may seep or intersect the ground surface, although such conditions have not been observed and are not expected to be spatially extensive given the dominance of discharge to surface water bodies.

Receptors associated with these exposure points include both ecological and human populations, with ecological receptors representing the primary potentially impacted group due to incomplete or weak exposure pathways for humans. Aquatic organisms within the James River and associated surface water systems, as well as wetland vegetation and wildlife inhabiting adjacent tidal marsh environments, have a potential of exposure to constituents through contact with surface water and sediments. Human receptors are limited and include on-Site personnel and potential recreational or occupational users of nearby surface water bodies; however, ingestion of impacted groundwater is not considered a complete exposure pathway because no downgradient potable water supply wells are present between the CCR units and the primary discharge boundary. Additionally, surface water samples collected indicate that groundwater has minimal, if any, impact on surface water quality.

Ongoing closure-by-removal activities and hydraulic control measures further influence these pathways. Installation of hydraulic barriers and implementation of dewatering are expected to induce inward hydraulic gradients during active CCR removal at the LAP, thereby reducing outward migration of impacted groundwater.

¹³ U.S. Environmental Protection Agency. (2011) *Environmental Cleanup Best Management Practices: Effective Use of the Project Life Cycle Conceptual Site Model*. Office of Solid Waste and Emergency Response (OSWER), EPA 542-F-11-011. Available at: <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P100CAA9.TXT>.

Additionally, excavation and removal of CCR materials from both impoundments will remove the source of long-term COC loading, thereby decreasing the magnitude of releases to groundwater over time. Collectively, these factors indicate that while a complete ecological exposure pathway exists via groundwater discharge to surface water, surface water quality does not appear appreciably influenced by Site-related, potentially migrating COCs. Furthermore, the potential for human exposure is limited, and overall exposure potential is expected to decline as source removal continues.



6.0 Corrective Measures Alternatives Evaluation

This section acknowledges that CCR source removal is the primary remedial action (source control) and further evaluates the following five corrective measure alternatives that could potentially be investigated and implemented separately or in combination to address residual groundwater impacts at the Site:

- **Option 1:** Monitored natural attenuation (MNA)
- **Option 2:** Hydraulic containment and ex-situ treatment
- **Option 3:** In-situ flushing / infiltration
- **Option 4:** In-situ treatment / permeable reactive barrier
- **Option 5:** Phytoremediation

The sections below include descriptions of the evaluation criteria, a summary of the mandated CCR source removal activities that are currently occurring, an evaluation of each potential alternative, a summary of additional data needed to further remedy selection, and a timeline for work going forward. The CSM is used to evaluate alternatives and is summarized by:

- The shallowest aquifer at the Site is the Columbia Aquifer, consisting of Quaternary and Tertiary sediments, including sands, silts, clays, and localized gravel units.
- Variably distributed fine-grained sediments within the uppermost aquifer and overlying units act as semi-confining intervals that locally influence vertical flow and groundwater migration.
- The contact between surficial sediments and underlying units is irregular and reflects historical depositional and erosional processes associated with fluvial and tidal environments.
- Groundwater flow beneath the LAP and UAP is generally radial, with groundwater mounding beneath the impoundments and flow directed outward toward adjacent surface water features, primarily the James River and associated tidal systems.
- Groundwater flow and hydraulic gradients are influenced by proximity to tidal surface water bodies, resulting in localized fluctuations in groundwater elevation and flow direction near discharge boundaries.
- Elevated concentrations of arsenic, cobalt, lithium, and radium 226 and 228 (combined) have been identified in groundwater within and downgradient of the LAP and UAP at concentrations exceeding their respective GWPS/GPS..

6.1 Evaluation Criteria

Consistent with 40 CFR 257.96(c) and 9VAC20-81-260.C.3, the corrective measures must be evaluated on the factors outlined in the following subsections.

6.1.1 Performance

Factors considered for evaluating performance of a corrective measure alternative include the degree to which the alternative removes COCs from the environment and the ability of the alternative to achieve the GWPS/GPS for these constituents at point(s) of compliance.

6.1.2 Reliability

Factors considered for evaluating the reliability of a potential corrective measure include:



- Effectiveness of engineering and institutional controls to maintain the alternative;
- Proven track record or established efficacy;
- Expected uptime / downtime;
- Potential need for replacement of components, replenishment of materials, or maintenance of the alternative;
- Sensitivity to unknown, unforeseen, or uncontrollable Site conditions; and,
- Any other operational reliability issues that may arise for the alternative that will limit its use or effectiveness in meeting corrective action objectives.

6.1.3 Ease of Implementation

Factors considered for evaluating ease of implementation of a corrective measure alternative include the degree of difficulty associated with installing or constructing the alternative given Site conditions, including:

- The need to obtain necessary access, approvals and/or permits;
- Availability of necessary equipment, materials, and/or specialists to implement;
- Cost of implementing, operating, and maintaining the selected remedy;
- Available capacity and location of treatment, storage, or disposal services needed; and,
- Impacts on Station operations.

6.1.4 Potential Impacts of the Alternative

Factors considered for evaluating potential impacts of a corrective measure alternative include:

- Risks that may impact the community or environment during implementation, maintenance, operation, or retirement of the alternative,
- Potential human health or environmental receptor exposure to COCs during or following implementation, and
- Cross-media impacts due to implementation of the corrective measure alternative.

6.1.5 Time Required to Begin and Complete the Alternative

Factors considered for evaluating the time to begin and complete the corrective measure alternative include the time needed to completely design and implement (i.e., begin) the alternative and the time necessary to achieve applicable GWPS/GPS at point(s) of compliance.

6.1.6 Institutional Requirements

Institutional requirements can vary from site to site and technology to technology. State, local, or site-specific requirements (e.g., permits), or other environmental or public health requirements are considered where they could substantially affect the construction or implementation of the remedy.

6.2 Source Removal Summary

Virginia Code Section 10.1-1402.03 governs the closure, reporting, and cost recovery for CCR units operated by electric utilities within the Chesapeake Bay watershed, where the Station is located. The law and its associated subsequent regulations include A) removing all CCR in accordance with applicable standards established by VSWMR (9VAC20-81), and B) either beneficially reusing all such CCR in a recycling process for encapsulated beneficial use or disposing of the CCR in a permitted landfill on the property upon which the CCR unit is located, adjacent to the property upon which the CCR unit is located, or off of the property on which

the CCR unit is located, that includes, at a minimum, a composite liner and leachate collection system that meets or exceeds the federal Criteria for Municipal Solid Waste Landfills pursuant to 40 CFR Part 258. Closure by removal is regulated by the VSWMR and SWP619. The LAP/UAP closure plans outline the performance standards for closure by removal, which include CCR removal certified by a Virginia licensed professional engineer followed by a minimum of six inches of residual soil removal beneath the ash/residual soil interface, and finally core samples to verify complete removal. The closure of both Surface Impoundments began in 2021, with expected completion in 2034.

6.3 Potential Groundwater Corrective Measure Alternatives Evaluation

This section presents potential corrective measure alternatives and evaluations in accordance with 40 CFR 257.96 to address residual CCR constituents present in groundwater exceeding GWPS after source removal. An evaluation of each corrective measure and suggested further actions are presented below. Additional data needs for each corrective action are outlined in **Section 6.5**.

6.3.1 Monitored Natural Attenuation

MNA was evaluated as a potential component of the corrective action strategy for addressing residual groundwater impacts associated with the LAP and UAP. MNA is the reliance on natural physical, chemical, and biological processes, such as dilution, dispersion, sorption, precipitation, and radioactive decay, to reduce contaminant concentrations in groundwater to levels that achieve applicable GWPS/GPS within a reasonable timeframe. MNA is typically implemented in conjunction with source control measures and requires a comprehensive monitoring program to demonstrate that attenuation processes are occurring at rates sufficient to achieve remedial objectives.

At the Site, closure-by-removal of CCR materials represents the primary source control mechanism and is expected to significantly reduce or eliminate ongoing leaching of COCs to groundwater. Following source removal, MNA may be applicable as a secondary remedy to address residual groundwater impacts. The applicability of MNA for the Site COCs, arsenic, cobalt, lithium, and radium 226 and 228 (combined), was evaluated based on Site-specific hydrogeologic conditions and the known geochemical behavior of these constituents.

Arsenic attenuation in groundwater systems is typically governed by adsorption to iron and manganese oxides and, to a lesser extent, by precipitation under favorable geochemical conditions. At sites with iron-rich sediments and appropriate redox conditions, arsenic can exhibit moderate attenuation over time. Cobalt is similarly attenuated primarily through adsorption to mineral surfaces and co-precipitation with iron and manganese oxides. Radium 226 and 228 can be attenuated through precipitation reactions, particularly the formation of low-solubility sulfate minerals (e.g., radium sulfate), as well as adsorption processes. These mechanisms indicate that arsenic, cobalt, and radium 226 and 228 may be amenable to attenuation under favorable geochemical conditions, particularly where groundwater interacts with reactive mineral phases in the aquifer matrix.

In contrast, lithium is generally considered highly mobile in groundwater systems and exhibits minimal sorption to most aquifer materials. Lithium does not readily undergo precipitation under typical groundwater conditions and is not subject to degradation. As a result, natural attenuation mechanisms for lithium are largely limited to dilution and dispersion, which are typically insufficient to achieve groundwater protection standards within a practicable timeframe depending on residual concentrations after source removal.

Therefore, lithium represents the least amenable COC to attenuation-based remedies and may be the controlling constituent with respect to long-term groundwater quality.

Site-specific hydrogeologic conditions further influence the applicability of MNA. Groundwater within the Columbia Aquifer is unconfined and exhibits radial flow from beneath the LAP and UAP toward adjacent discharge boundaries, primarily the James River and associated tidal systems. These flow conditions promote advective transport of dissolved constituents and provide limited residence time for attenuation processes to occur prior to discharge. Additionally, tidal influences result in periodic fluctuations in groundwater gradients and localized mixing at the groundwater–surface water interface, which may enhance dispersion but do not necessarily promote consistent geochemical conditions favorable for attenuation.

MNA, paired with source removal as discussed in **Section 6.2**, is considered a viable corrective measure for achieving GWPS/GPS for Site COCs. Although lithium's characteristics result in limited reactivity in groundwater systems, attenuation mechanisms such as dilution and dispersion, in conjunction with reduction in source loading following CCR removal, may be sufficient to achieve compliance at receptor locations. In addition, arsenic, cobalt, and radium 226 and 228 are subject to attenuation through adsorption, co-precipitation, and precipitation processes, which further support the effectiveness of MNA. Under this approach, natural attenuation processes, coupled with hydraulic gradients directing groundwater toward discharge boundaries and associated mixing within surface water systems, are expected to contribute to gradual reductions in contaminant concentrations over time. Surface water sample data, as discussed in **Section 4**, supports this interpretation, as COCs were either not detected, detected at low and estimated concentrations, or detected at concentrations below the applicable VASWQS or GPS when no applicable VASWQS was available. This indicates that COC plumes are stable and are not migrating off-Site at a rate to appreciably influence surface water quality. Continued performance monitoring would be implemented to verify plume stability, confirm declining trends, and promote long-term protectiveness of human health and the environment.

6.3.2 Hydraulic Containment and Ex-Situ Treatment

Hydraulic containment, commonly referred to as “pump-and-treat”, is a corrective action technology that involves the extraction of groundwater to intercept and capture impacted plumes before they migrate downgradient of the source. This method is applicable for CCR and other sites due to its ability to address inorganics in groundwater across a range of geologic settings. Extraction can be achieved through vertical or horizontal wells, or through engineered trenches, with the captured groundwater treated ex-situ prior to discharge, reinjection, reuse, or evaporation.

Hydraulic containment involves the installation and operation of groundwater extraction wells designed to alter hydraulic gradients and capture impacted groundwater within a defined area. At the Site, the unconfined Columbia Aquifer and the radial flow conditions beneath the LAP and UAP present a hydrogeologic setting where groundwater flows outward toward adjacent surface water bodies. Under these conditions, hydraulic containment can be effectively implemented to intercept groundwater prior to discharge to downgradient receptors. By inducing localized inward gradients, extraction systems can limit further plume expansion and control off-Site transport of COCs. This approach is particularly effective in managing the migration of mobile constituents such as lithium, which does not readily attenuate via natural processes and is transported primarily via advection.

Extracted groundwater is treated using ex-situ processes that are designed based on the chemical characteristics of the COCs. Arsenic and cobalt can be effectively removed using established technologies such as adsorption (e.g., iron-based media), coagulation/filtration, or precipitation reactions. Radium 226 and 228 can be removed through precipitation and filtration processes, including sulfate-based or barium-enhanced co-precipitation mechanisms that form low-solubility sulfate minerals. Lithium, while more difficult to remove due to its high solubility and low sorption affinity, can be addressed using specialized treatment technologies such as ion exchange or membrane-based processes, which may be incorporated into a multi-stage treatment train. The ability to combine multiple treatment technologies provides flexibility to address the full suite of Site COCs within a single system.

Hydraulic containment and ex-situ treatment provide a high level of reliability and controllability because system performance can be actively managed through adjustment of pumping rates, optimization of well placement, and modification of treatment processes. This approach does not rely on in situ geochemical conditions and is therefore not subject to the variability associated with natural attenuation processes. Instead, contaminant removal is achieved through engineered systems that can be designed to meet specific treatment goals and discharge criteria.

While hydraulic containment effectively limits plume migration, it does not directly eliminate contaminant mass within the aquifer unless operated in conjunction with long-term extraction and treatment. As such, implementation of this approach typically requires extended operation and maintenance, including routine monitoring of groundwater elevations, capture zone verification, treatment system performance, and maintenance associated with iron fouling, which has been observed at other remedial systems at the Station. Over time, continued extraction may also reduce contaminant mass within the aquifer; however, the rate of mass removal will depend on hydrogeologic conditions, contaminant distribution, and system efficiency.

The existing closure system at the LAP utilizes hydraulic containment and ex-situ treatment strategies to effectively manage groundwater in the LAP footprint. A low-permeability cutoff barrier wall, consisting of a combination of TRD wall sections and sheet piling, has been installed around the majority of the LAP perimeter that limits groundwater influx into the LAP footprint, but also restricts groundwater from migrating away. This barrier is coupled with an active dewatering system consisting of extraction wells and excavation sumps within the contained area. Operation of the dewatering system induces an inward hydraulic gradient toward the excavation, thereby minimizing groundwater inflow to the work area and preventing outward migration of impacted groundwater. The dewatered fluids are sent to the Centralized Source Wastewater Treatment Plant, prior to permitted discharge to an internal outfall. The combined effect of the cutoff wall and active dewatering functions as an integrated hydraulic containment system, with the barrier providing passive control of groundwater flow and the extraction system providing active hydraulic control. Although this system is currently implemented to facilitate closure-by-removal activities, it functions in a limited capacity as a hydraulic containment and ex-situ treatment system. Refer to **Section 2.1.1** for more information on the cutoff barrier wall.

In the context of Site conditions, hydraulic containment enhancements paired with ex-situ treatment represents an effective remedial strategy capable of addressing all identified COCs, including lithium. This approach is particularly well-suited for controlling plume migration toward adjacent surface water bodies and for actively reducing contaminant concentrations in groundwater. However, successful implementation would require additional Site characterization, hydraulic evaluation, and capture zone analysis to optimize system design and confirm effective containment of impacted groundwater given the Site's hydrogeologic

conditions. Implementation of this corrective measure would be supported by a comprehensive monitoring program to evaluate capture effectiveness, confirm treatment performance, and promote continued protection of human health and the environment.

In summary, a hydraulic containment and ex-situ treatment system is currently being implemented at the LAP to support closure-by-removal activities and provides partial groundwater control during construction; however, additional evaluation would be needed to determine whether expansion or long-term operation would be appropriate as a final groundwater corrective measure. This strategy provides immediate containment of impacted groundwater, reliable removal of multiple constituents with differing geochemical behaviors, and a controllable framework for achieving and maintaining compliance with GWPS/GPS over time.

6.3.3 In-Situ Flushing/Infiltration

In-situ flushing and infiltration were evaluated as a potential corrective measure for addressing groundwater impacts associated with the Site COCs, including arsenic, cobalt, lithium, and combined radium 226 and 228. In-situ flushing involves the introduction of water or amended fluids into the subsurface to mobilize contaminants and enhance their transport toward recovery points or natural discharge areas, while infiltration may be used to influence groundwater gradients and dilute contaminant concentrations. This approach is generally applied to increase the rate of contaminant migration and facilitate removal or attenuation; however, its effectiveness is highly dependent on the physical and geochemical characteristics of the aquifer and the behavior of the target constituents.

At the Site, the Columbia Aquifer is unconfined and consists of heterogeneous sediments with variable hydraulic conductivity. Groundwater flow is generally radial from beneath the LAP and UAP toward surrounding discharge boundaries. Under these conditions, in-situ flushing or infiltration could theoretically enhance groundwater flow and promote the movement of dissolved constituents toward collection systems or discharge zones. However, due to the existing hydraulic gradients and relatively high natural groundwater velocities in portions of the aquifer, additional flushing may provide limited incremental benefit beyond natural advective transport.

The applicability of in-situ flushing is further influenced by the geochemical behavior of the Site COCs. Arsenic, cobalt, and radium 226 and 228 are subject to attenuation through adsorption and precipitation processes, which may be altered by introduction of large volumes of flushing water. Introduction of large volumes of infiltration water could alter geochemical conditions (e.g., pH, ionic strength, redox conditions) and potentially mobilize these constituents by reducing sorption or dissolving mineral phases that currently limit their mobility. As a result, in-situ flushing could temporarily increase dissolved concentrations of these constituents or expand the extent of impacted groundwater if not carefully controlled.

Lithium, which is highly mobile and does not significantly attenuate through sorption or precipitation, would be readily mobilized by flushing. While this could enhance its transport toward recovery systems, it would not reduce total contaminant mass unless paired with active extraction and treatment. Without a corresponding capture mechanism, flushing of lithium could increase plume migration and potentially increase the risk of impacts to downgradient receptors.

In addition, implementation of infiltration-based approaches at the Site may be constrained by operational and hydrogeologic considerations. The proximity of the LAP and UAP to surface water bodies and the presence of tidal influences on groundwater levels introduce variability in hydraulic gradients that could complicate control of injected fluids. This close proximity to surface water may also hinder opportunities to install



downgradient recovery stems or controls to capture flushed groundwater. Furthermore, ongoing closure-by-removal activities, dewatering operations, and hydraulic containment systems at the LAP are designed to limit groundwater movement and control inflow to excavation areas; large-scale infiltration could interfere with these systems by increasing groundwater flux and reducing the effectiveness of containment measures.

Due to these factors, in-situ flushing or infiltration are not considered an effective standalone corrective measure for the Site. While the approach could theoretically enhance contaminant transport, it does not provide a mechanism for active contaminant removal and may introduce risks associated with increased mobility of certain constituents. In particular, the potential for mobilization of arsenic, cobalt, and radium 226 and 228, combined with the conservative behavior of lithium, limits the overall effectiveness and predictability of this approach under Site-specific conditions.

In summary, in-situ flushing and infiltration are considered of limited applicability for addressing the Site COCs. The approach provides minimal benefit relative to natural groundwater flow conditions, does not reliably reduce contaminant mass without additional treatment or capture systems, and may increase the potential for unintended plume expansion under Site-specific hydrogeologic conditions. Accordingly, this technology is not considered a preferred corrective measure for the Site but may be conceptually incorporated into other remedies where controlled hydraulic gradients and recovery systems are already in place.

6.3.4 In-Situ Treatment/Permeable Reactive Barrier

In-situ treatment and permeable reactive barrier (PRB) technologies were evaluated as potential corrective measures for addressing groundwater impacts associated with the Site COCs, including arsenic, cobalt, lithium, and radium 226 and 228. In-situ treatment approaches involve the introduction of reactive materials or amendments directly into the subsurface to reduce contaminant mobility or toxicity through geochemical processes such as adsorption, precipitation, or redox transformation. PRBs represent a specific form of in-situ treatment in which a reactive medium is installed within the subsurface to intercept and treat contaminated groundwater as it flows through the barrier under natural hydraulic gradients.

At the Site, groundwater flow within the Columbia Aquifer is generally radial from beneath the LAP and UAP toward adjacent discharge boundaries. These flow conditions provide a conceptual basis for PRB implementation, as treatment systems can be positioned downgradient to intercept identified plume migration. In addition, in-situ amendment injections could be used to enhance attenuation processes within the source area or along preferential flow paths. However, the effectiveness of these approaches is strongly dependent on the geochemical behavior of the Site COCs and the ability to engineer placement of reactive materials by injection or trenching within the heterogeneous aquifer.

Arsenic and cobalt are generally amenable to in-situ treatment through adsorption and co-precipitation processes. Injection of zero-valent iron amendments or other reactive media can promote sorption of arsenic and cobalt to mineral surfaces, reducing dissolved concentrations in groundwater. Similarly, radium 226 and 228 can be effectively immobilized through precipitation and co-precipitation mechanisms, particularly through the formation of low-solubility sulfate minerals (e.g., radium sulfate) or incorporation into barite phases. Addition of zeolite or apatite has been shown to treat radium in groundwater by promoting substitution of radium for sodium in exchangeable sites in zeolite and substitution for calcium in apatite. These processes support the technical feasibility of in-situ treatment and PRB technologies for arsenic, cobalt, and radium 226 and 228 under favorable geochemical conditions.

In contrast, lithium presents a limitation for in-situ treatment and PRB applications. Lithium is highly soluble, exhibits minimal sorption to aquifer materials, and does not readily participate in precipitation reactions under typical groundwater conditions. As a result, lithium is not effectively captured or immobilized by most conventional reactive media used in PRBs or in-situ treatment systems. While specialized hydrotalcite or ion exchange materials may be available, their field-scale application is limited and may be subject to reduced effectiveness in complex groundwater matrices. Consequently, lithium would be expected to be unaffected and may pass through reactive treatment zones with limited attenuation; however, new in-situ technologies continue to be developed and tested that can treat lithium in groundwater. These technologies are currently undergoing field tests, and their ability to be implemented at scale remains uncertain.

In addition to geochemical limitations, implementation of PRBs and in-situ treatment systems at the Site is influenced by hydrogeologic complexity. The Columbia Aquifer is characterized by heterogeneous sediments with variable hydraulic conductivity, which can result in preferential flow paths and uneven distribution of injected amendments. This heterogeneity may reduce contact between contaminated groundwater and reactive media, thereby limiting treatment efficiency. Furthermore, the proximity of the Site to tidally influenced surface water bodies introduces variability in groundwater gradients that could affect the performance and longevity of PRB systems.

PRBs rely on consistent groundwater flow through a defined treatment zone; however, radial flow conditions and tidal fluctuations may complicate placement and design of an effective barrier system. Incomplete interception of the plume or bypass flow around the barrier could result in continued downgradient migration of COCs. Similarly, in-situ amendment injection requires careful design to ensure adequate distribution and sustained reactivity over time, which may be challenging under Site-specific conditions.

Despite these limitations, in-situ treatment and PRB technologies may be applicable as targeted or supplemental remedies. For example, localized treatment zones could be implemented downgradient of the LAP and UAP to reduce concentrations of arsenic, cobalt, and radium prior to groundwater discharge. These approaches may be particularly useful in areas with well-defined flow paths or where enhanced attenuation can provide additional protection to surface water receptors.

In summary, in-situ treatment and PRB technologies are considered partially applicable for the Site COCs. These approaches are expected to be effective for arsenic, cobalt, and radium 226 and 228 through adsorption and precipitation mechanisms; however, their ability to address lithium is limited due to its high mobility and lack of reactivity. Additionally, Site-specific hydrogeologic conditions, including heterogeneous permeability and tidal influences, introduce challenges for consistent implementation and performance. As a result, in-situ treatment and PRBs are not considered a comprehensive standalone corrective measure for achieving GWPS/GPS for all Site COCs but may be incorporated as part of a combined remedial strategy to enhance attenuation of select constituents and provide supplemental treatment along critical flow pathways.

6.3.5 Phytoremediation

Phytoremediation was evaluated as a potential corrective measure for addressing groundwater impacts associated with the Site COCs, including arsenic, cobalt, lithium, and radium 226 and 228. Phytoremediation involves the use of plants to stabilize, remove, or transform contaminants through processes such as uptake, sequestration, and rhizosphere-mediated reactions. This approach is typically most effective in shallow groundwater and/or ponded systems and relies on the interaction between plant root systems and the subsurface environment to influence contaminant fate and transport.

At the Site, the Columbia Aquifer is unconfined and relatively shallow in certain areas, which provides some theoretical basis for phytoremediation applicability. Vegetation established in areas with shallow groundwater conditions may interact with contaminated groundwater through root uptake or by influencing geochemical conditions within the rhizosphere. In addition, evapotranspiration processes can reduce groundwater flux locally and may contribute to limited hydraulic control in near-surface environments. However, the effectiveness of phytoremediation is highly dependent on the depth to groundwater, seasonal variability, root zone extent, and plant species selection.

The applicability of phytoremediation is strongly influenced by the geochemical characteristics of the Site COCs. Arsenic and cobalt can be taken up by certain plant species and may be partially immobilized within plant tissues or associated with root zone processes, although accumulation rates are typically low and may not be sufficient to significantly reduce groundwater concentrations. Radium 226 and 228 may also be taken up in limited quantities by plants, but it is more commonly attenuated through geochemical processes such as precipitation and sorption rather than biological uptake. As a result, phytoremediation is not considered a primary mechanism for radium 226 and 228 removal. Lithium presents a limitation for phytoremediation. While some plant uptake of lithium can occur, lithium is highly soluble and remains predominantly in the dissolved phase in groundwater. Uptake by plants is generally minimal relative to the total contaminant mass, and lithium is not readily sequestered in a manner that significantly reduces groundwater concentrations.

In addition to geochemical limitations, Site-specific hydrogeologic conditions constrain the effectiveness of phytoremediation. Groundwater flow beneath the LAP and UAP is generally radial and directed toward adjacent surface water bodies, with relatively short residence times prior to discharge. These conditions limit the duration of contact between groundwater and plant root systems, reducing the opportunity for meaningful contaminant uptake or transformation. Furthermore, tidal influences on groundwater elevation introduce variability that may affect root zone interaction and limit the consistency of phytoremediation performance over time.

In summary, phytoremediation is considered to have limited applicability for the Site COCs. While it may provide minor benefits for attenuation of arsenic and cobalt in shallow zones and contribute to overall Site stability, it is not effective for addressing lithium and does not provide a reliable mechanism for controlling radium 226 and 228 concentrations. Given these limitations, phytoremediation is not considered a viable standalone corrective measure for the Site but may be considered as a supplemental approach in specific areas where shallow groundwater conditions or a constructed ponded system and vegetation establishment are feasible.

6.4 Summary of Potential Corrective Measures Alternatives Evaluation

Based on the evaluation of potential groundwater corrective measures presented in **Section 6.3**, each alternative was assessed relative to Site-specific hydrogeologic conditions, constituent behavior, and the evaluation criteria outlined in **Section 6.1**, including performance, reliability, ease of implementation, potential impacts, timeframe, and institutional requirements. Overall, the evaluation indicates that a combination of source control (already being implemented through closure-by-removal) and targeted groundwater management strategies will be necessary to achieve compliance with GWPS/GPS over time. The relative applicability of each corrective measure alternative is summarized as follows:



MNA (Option 1)

MNA is considered a viable and conditionally appropriate component of the overall corrective action strategy. Following removal of CCR materials, natural attenuation processes, including dilution, dispersion, adsorption, and precipitation, are expected to reduce concentrations of arsenic, cobalt, and radium under favorable geochemical conditions. However, lithium remains highly mobile and not readily attenuated, representing the primary limitation of this approach. As such, MNA is best suited as a long-term management strategy supported by a robust monitoring program to demonstrate plume stability and decreasing concentration trends.

Hydraulic Containment and Ex-Situ Treatment (Option 2)

Hydraulic containment with ex-situ treatment is a technically feasible and highly reliable remedial alternative capable of addressing Site COCs. This approach provides active control of plume migration and allows for direct removal of contaminants through engineered treatment systems. While effective, it requires significant infrastructure, long-term operation and maintenance, and sustained monitoring. As a result, it is considered a viable contingency or supplemental remedy, particularly if natural attenuation alone is insufficient to meet regulatory objectives.

In-Situ Flushing/Infiltration (Option 3)

In-situ flushing and infiltration were determined to have limited applicability as standalone remedies. The approach provides minimal benefit relative to existing groundwater flow conditions and may increase the mobility of certain constituents, particularly arsenic, cobalt, and radium 226 and 228, by altering geochemical conditions. Additionally, without an integrated capture and treatment system, flushing does not achieve mass removal and may increase the risk of plume migration. Accordingly, this alternative is not recommended as a primary corrective measure but may have limited utility as a supplemental targeted component of other remedies.

In-Situ Treatment/PRB (Option 4)

In-situ treatment technologies, including PRBs, are considered partially effective and potentially beneficial as supplemental remedial measures. These approaches are well-suited for reducing concentrations of arsenic, cobalt, and radium 226 and 228 through adsorption and precipitation mechanisms. However, their effectiveness is limited for lithium due to its conservative transport behavior. Implementation is also constrained by Site heterogeneity, tidal influences, radial flow, and spatial limitations which may affect treatment distribution and performance. Despite these limitations, in-situ treatment may serve as a targeted strategy to enhance attenuation along key flow paths or downgradient discharge zones.

Phytoremediation (Option 5)

Phytoremediation was evaluated as a potential corrective measure for groundwater impacts at the Site; however, its applicability is limited. This approach relies on targeted plant uptake, sequestration, and rhizosphere processes to attenuate contaminants in shallow groundwater or constructed pond systems. While certain constituents such as arsenic and cobalt may be partially immobilized or taken up by vegetation, the overall rates of removal are typically low and insufficient to significantly reduce groundwater concentrations. Additionally, lithium is highly soluble and not readily accumulated by plants, making phytoremediation ineffective for addressing this constituent. Site-specific factors, including groundwater depth, radial flow conditions, and limited contact time between groundwater and plant root systems, further constrain its effectiveness. As such, phytoremediation is not considered a viable standalone corrective measure but may provide minor supplemental benefits in localized shallow areas.



Overall Conclusions

This evaluation demonstrates that no single corrective measure alternative fully addresses all Site conditions and COCs. Instead, a combined remedy approach is most appropriate, consisting of:

- **Source control through CCR removal** (currently in progress);
- **Performance monitoring** as the primary groundwater management strategy; and,
- **Contingency or supplemental measures**, such as MNA, hydraulic containment, or targeted in-situ treatment if GWPS/GPS objectives are not met.

This adaptive framework provides flexibility to respond to evolving Site conditions, particularly with respect to the persistence of lithium in groundwater. Continued monitoring and data evaluation will be essential to confirm the effectiveness of selected remedies, support regulatory compliance, and guide any necessary adjustments to the corrective action strategy.

Alternative	Applicability	Primary limitations	Recommended role
MNA	Moderate to High	Lithium mobility; timeframe uncertainty	Primary candidate, conditional on monitoring/modeling
Hydraulic containment / ex-situ treatment	High	Cost, operation and maintenance, infrastructure, permitting	Contingency or supplemental active remedy
In-situ flushing / infiltration	Low	Plume mobilization risk; requires capture	Not preferred; only with containment
In-situ treatment / PRB	Moderate	Limited lithium treatment; flow heterogeneity	Targeted supplemental remedy
Phytoremediation	Low	Limited mass removal; lithium/radium limitations	Localized polishing/stabilization only

6.5 Additional Data Needs

Additional data and analysis will be required to perform a complete Site-specific evaluation of the potential remedial alternatives recommended for additional evaluation in **Section 6.4**. These data will be used to refine the CSM, assess remedy performance, support design optimization, and demonstrate compliance with GWPS/GPS. Data needs are specific to each corrective measure alternative and are summarized below. In general, the effectiveness of the physical-chemical remedies identified is reliant on pinpointing specific physical and geochemical site conditions and plume pathways and extents and matching a corresponding remedy that will meet remedial objectives, be constructable, and operational. Extensive studies, both field and bench scale, are necessary to select a successful remedial selection.

6.5.1 Monitored Natural Attenuation

Implementation of MNA requires additional data to demonstrate that attenuation processes are occurring at rates sufficient to achieve remedial objectives within a reasonable timeframe. Key data needs include:

- Evaluation of attenuation rates using statistical or modeling approaches to project timeframes to achieve GWPS/GPS;



- Fate and transport of groundwater plumes and specific constituent migration;
- Evaluation of the Potomac and Triassic aquifers to better delineate the vertical and lateral extent of COCs at the Site, and to determine whether the James River Old Channel functions as a downgradient delineation boundary;
- Hydrogeologic data to support estimation of groundwater travel times and residence time available for attenuation; and,
- Review and implementation of the tiered approach to evaluating MNA following the EPA's *Use of Monitored Natural Attenuation for Inorganic Contaminants in Groundwater at Superfund Sites* policy document.

These data will support demonstration that MNA is protective of human health and the environment and that plume migration is controlled.

6.5.2 Hydraulic Containment & Ex-Situ Treatment

Although already implemented at the LAP in a limited fashion, the following data collection activities may be considered to further evaluate expansion of hydraulic containment and ex-situ treatment as a corrective measure alternative:

- Additional geotechnical data to inform the design of horizontal extraction wells;
- Additional geochemical data from the source area and treatment area to inform the design of the ex-situ treatment system;
- Additional slug/pump testing in the area of the extraction wells to calculate hydraulic conductivity;
- Development of a numerical groundwater flow model;
- Bench scale testing using Site-specific media to determine the appropriate ex-situ treatment substrate;
- Evaluation of the Potomac and Triassic aquifers to better delineate the vertical and lateral extent of COCs at the Site, and to determine whether the James River Old Channel functions as a downgradient delineation boundary;
- Pilot testing/pump testing to evaluate the efficiency of horizontal extraction wells and the chosen ex-situ treatment technology;
- Complete capture zone analyses and flow model simulations to optimize the extraction system;
- Aquifer heterogeneity and preferential flow path characterization to optimize well placement and spacing;
- Pumping test data to evaluate aquifer response and system capacity;
- Detailed distribution of COC concentrations to define extraction targets and evaluate mass removal potential;
- Groundwater chemistry data to support selection and design of treatment processes for arsenic, cobalt, lithium, and radium 226 and 228;
- Evaluation of anticipated influent variability to design a robust treatment train; and,
- Discharge requirements and permitting criteria to ensure compliance with applicable regulations.

6.5.3 In-Situ Flushing/Infiltration

Although not recommended for further analysis due to the Surface Impoundments proximity to surface water, the following data collection activities could be considered to further evaluate in-situ flushing/infiltration in conjunction with hydraulic containment and ex-situ treatment as a corrective measure alternative:



- Detailed hydraulic conductivity distribution to evaluate fluid movement and potential preferential pathways;
- Groundwater gradient and flow direction data to assess potential for controlled flushing and recovery;
- Tracer studies or pilot-scale testing to evaluate distribution of injected fluids and flushing efficiency;
- Evaluation of the Potomac and Triassic aquifers to better delineate the vertical and lateral extent of COCs at the Site, and to determine whether the James River Old Channel functions as a downgradient delineation boundary;
- Geochemical data to assess potential for mobilization of sorbed or precipitated constituents under altered conditions;
- Evaluation of infiltration capacity and potential impacts on groundwater mounding and system hydraulics; and,
- Assessment of interaction with existing hydraulic control measures to avoid interference with containment systems.

6.5.4 In-Situ Treatment/Permeable Reactive Barrier

The following data collection activities could be considered to further evaluate in-situ treatment/PRB as a corrective measure alternative:

- Detailed plume geometry and flow paths to identify optimal locations for treatment zones or barrier placement;
- Hydrogeologic characterization to assess groundwater velocity and flow distribution through the treatment zone;
- Evaluation of the Potomac and Triassic aquifers to better delineate the vertical and lateral extent of COCs at the Site, and to determine whether the James River Old Channel functions as a downgradient delineation boundary;
- Geochemical data to support selection of appropriate reactive media (e.g., iron-based media, sulfate amendments);
- Bench-scale or pilot testing to evaluate treatment effectiveness for arsenic, cobalt, radium 226 and 228 (combined), and lithium under Site-specific conditions;
- Evaluation of lithium behavior to assess expected performance limitations and potential bypass through treatment zones;
- Longevity and reactivity data for selected media to assess maintenance and replacement frequency; and,
- Monitoring well network refinement to evaluate treatment performance and potential bypass condition.

6.5.5 Phytoremediation

Evaluation of phytoremediation requires additional data to assess feasibility, plant suitability, and the extent of interaction with impacted groundwater. Key data needs include:

- Soil and sediment characteristics to support plant growth and root development;
- Evaluation of the Potomac and Triassic aquifers to better delineate the vertical and lateral extent of COCs at the Site, and to determine whether the James River Old Channel functions as a downgradient delineation boundary;



- Selection of appropriate plant species based on tolerance to site conditions and potential for uptake or stabilization of COC;
- Evaluation of groundwater flow rates and residence time within the root zone to assess potential for interaction;
- Limited pilot testing or field studies to evaluate plant establishment, growth rates, and uptake potential; and,
- Monitoring data to assess changes in shallow groundwater or soil concentrations over time.



7.0 Next Steps

In accordance with Virginia Code §10.1-1402.03, the Surface Impoundments are required to be closed-by-removal. Source removal is ongoing at the Site. Dewatering in the form of Hydraulic Containment & Ex-Situ Treatment is being implemented at the LAP to support the CCR removal activities. As discussed in **Section 6.5**, additional data are required to further evaluate potential corrective measures at the Station. The screening of alternatives identified MNA as the preferred supplemental remedy based on the criteria outlined in **Section 6.1**. During source removal, groundwater conditions may change that impact COC fate and transport. Groundwater and surface water monitoring should continue to assess changes in COC concentrations and risk for off-Site migration. Should additional corrective action be needed, an increased understanding of contaminant trends, geophysical and geochemical properties, and hydrogeologic conditions at the Site should be considered to fully evaluate and design an appropriate remedy.

Should COC concentrations persist, Dominion will further evaluate a remedy that meets, at a minimum, the performance standards outlined in 40 CFR 257.97(c) and 9VAC20-81-260C(3). The selected remedy will include a schedule for implementation and completion, as required under 40 CFR 257.97(d). The remedy will be designed, implemented, and continuously evaluated to promote compliance with regulatory performance standards. During implementation, modifications may be identified based on new data or field conditions. Remedy adjustments should be made as necessary to support continuous improvement and optimize long-term performance.



8.0 References

- AECOM. 2024. *Surface Impoundment Closure Plan*, Revision 2.0 (originally prepared 2020).
- Cronin, T.M., et al. 2005. *Quaternary Sea Level History and Marine Terraces of the U.S. Atlantic Coastal Plain*. U.S. Geological Survey Open-File Report 2005–1020.
- Dames and Moore. 1984. *Water Quality Impact Evaluation from Proposed Ash Tailing Impoundment at VEPCO's Chesterfield Power Station, Farrar Island, Virginia*. Bethesda, Maryland. July 15.
- Haley & Aldrich, Inc. May 2019. *Assessment of Corrective Measures Report, Lower and Upper Ash Ponds, Chesterfield Power Station, Chester, Virginia*.
- Hibbard, J.P., et al. 2010. *The Appalachian Orogen: A Brief Summary*. Geological Society of America Memoir 206.
- Meng, A.A., and Harsh, J.F. 1988. *Hydrogeologic Framework of the Virginia Coastal Plain*. U.S. Geological Survey Professional Paper 1404–C.
- U.S. Environmental Protection Agency. 2011. *Environmental Cleanup Best Management Practices: Effective Use of the Project Life Cycle Conceptual Site Model*. Office of Solid Waste and Emergency Response (OSWER), EPA 542-F-11-011. Available at: <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P100CA A9.TXT>.
- Virginia Department of Mines, Minerals and Energy, Division of Geology and Mineral Resources. 1993. *Geology of Virginia*.
- Ward, L.W., and Strickland, G.L. 1985. *Outline of Tertiary Stratigraphy and Depositional History of the U.S. Atlantic Coastal Plain*. U.S. Geological Survey Professional Paper 1218.
- WSP USA Inc. September 2017, Revised August 2023. *Groundwater Monitoring Plan, Chesterfield Power Station, Upper Lower Ash Pond*.
- WSP USA Inc. 2026. *CCR Annual Groundwater Monitoring and Corrective Action Report, Chesterfield Power Station, Upper Ash Pond*. January 30.
- WSP USA Inc. 2026. *Virginia Solid Waste Management Regulations Annual Groundwater Monitoring Report, Chesterfield Power Station, Lower Ash Pond*. January 30.

FIGURES



LEGEND

 Site Boundary

NOTES

BASEMAP: Nearmap captured: 3/5/2026

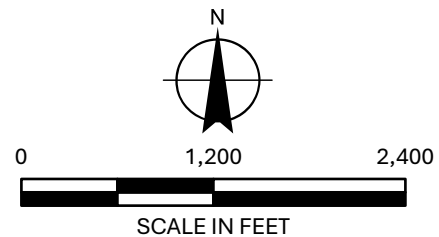


Figure 1
Site Location Map
Dominion Energy
Chester, Virginia





LEGEND

-  CCR Surface Impoundment Area
-  Site Boundary

NOTES

BASEMAP: Nearmap captured: 3/5/2026

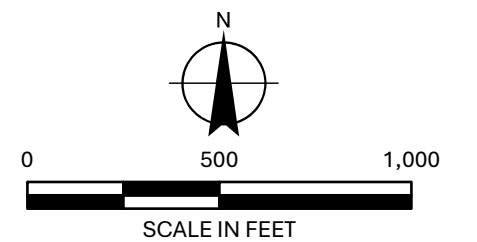


Figure 2
CCR Surface Impoundment Locations
Dominion Energy
Chester, Virginia





LEGEND

- Surface Water Sample Locations
- ▭ CCR Surface Impoundment Area
- ▭ Site Boundary

NOTES

1. Sample locations are approximate.

BASEMAP: Nearmap captured: 3/5/2026

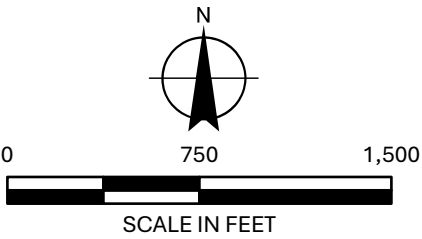


Figure 3
Surface Water Sample Locations
Dominion Energy
Chester, Virginia





LEGEND

- SURFACE WATER SAMPLE LOCATION
- MONITORING WELL
- APPROXIMATE TRENCH REMIXING DEEP (TRD) WALL
- SITE BOUNDARY
- FACILITY BOUNDARY

DATA QUALIFIERS

J - ESTIMATED VALUE
U - NON-DETECT VALUE

0.53 - RESULT IS NON-DETECT AND/OR LESS THAN THE GWPS
16.1 - RESULT IS EQUAL TO OR GREATER THAN THE GWPS
167 - RESULT IS 10x GREATER THAN THE GWPS

NOTES

1. SAMPLE LOCATIONS ARE APPROXIMATE.

2. ALL CONCENTRATIONS REPORTED IN MICROGRAMS PER LITER.

3. THE SWP 619 GROUNDWATER PROTECTION STANDARD (GWPS) FOR ARSENIC IS 10 MICROGRAMS PER LITER. THIS IS THE LOWEST ARSENIC GWPS APPLICABLE TO THE SITE, AND IS USED FOR COMPARISON PURPOSES.

BASEMAP: NEARMAP IMAGERY CAPTURED: 3/5/2026

SCALE IN FEET

Figure 4
Lower Ash Pond Arsenic Results
October 2025 Sampling Event
Dominion Energy Virginia
Chester, Virginia



LEGEND

- SURFACE WATER SAMPLE LOCATION
- MONITORING WELL
- SITE BOUNDARY
- FACILITY BOUNDARY

DATA QUALIFIERS

J - ESTIMATED VALUE

0.53 - RESULT IS NON-DETECT AND/OR LESS THAN THE GWPS

16.1 - RESULT IS EQUAL TO OR GREATER THAN THE GWPS

NOTES

1. SAMPLE LOCATIONS ARE APPROXIMATE.
2. ALL CONCENTRATIONS REPORTED IN MICROGRAMS PER LITER.
3. THE SWP 619 GROUNDWATER PROTECTION STANDARD (GWPS) FOR ARSENIC IS 10 MICROGRAMS PER LITER. THIS IS THE LOWEST ARSENIC GWPS APPLICABLE TO THE SITE, AND IS USED FOR COMPARISON PURPOSES.

BASEMAP: NEARMAP IMAGERY CAPTURED: 3/5/2026

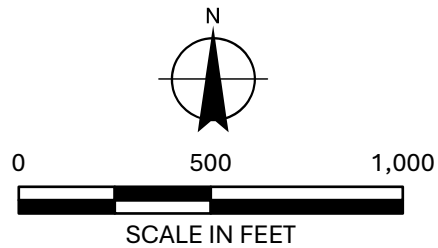
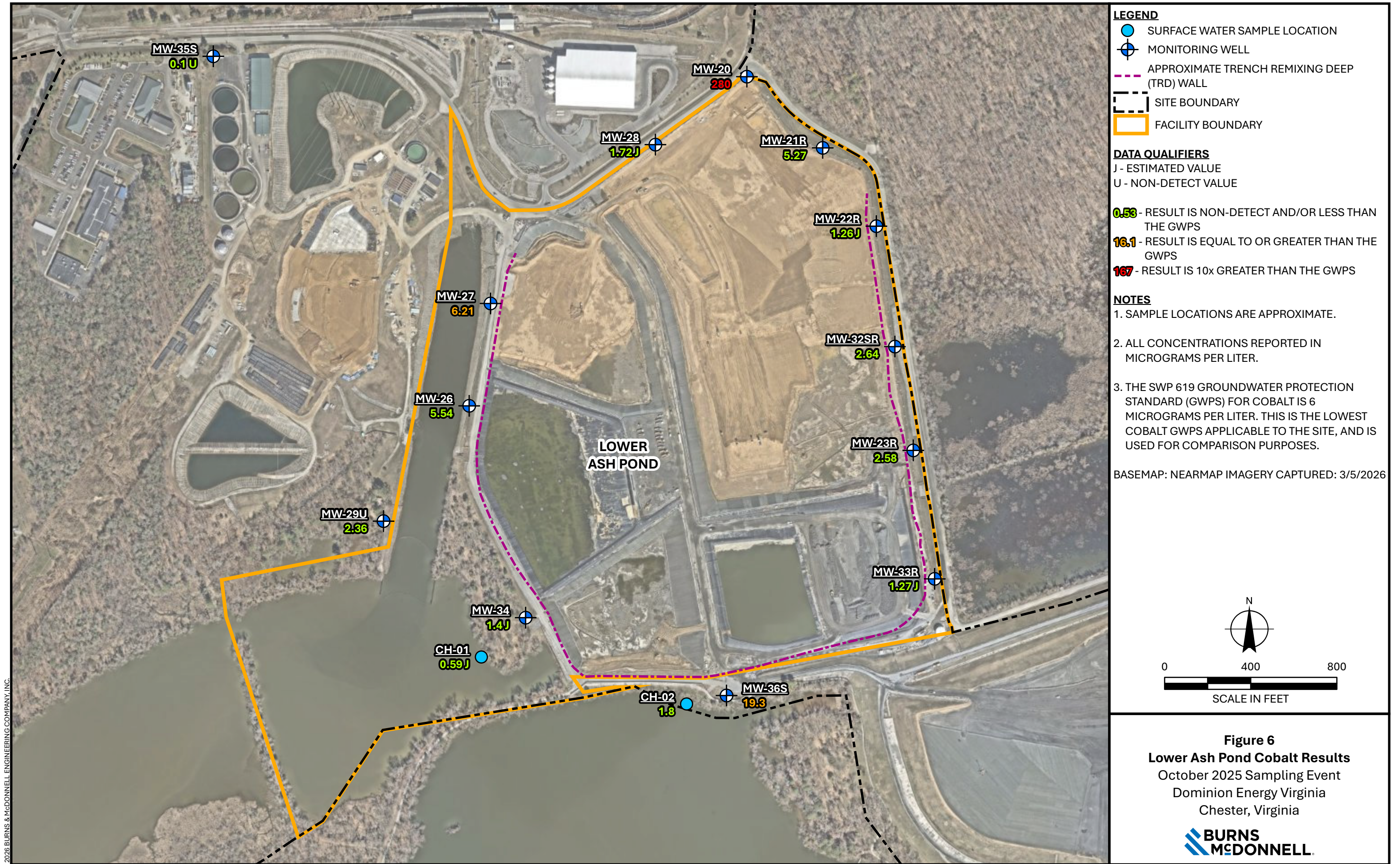


Figure 5
Upper Ash Pond - Columbia Aquifer
Arsenic Results
October 2025 Sampling Event
Dominion Energy Virginia
Chester, Virginia







LEGEND

- SURFACE WATER SAMPLE LOCATION
- MONITORING WELL
- SITE BOUNDARY
- FACILITY BOUNDARY

DATA QUALIFIERS

J - ESTIMATED VALUE

0.53 - RESULT IS NON-DETECT AND/OR LESS THAN THE GWPS

16.1 - RESULT IS EQUAL TO OR GREATER THAN THE GWPS

167 - RESULT IS 10x GREATER THAN THE GWPS

NOTES

1. SAMPLE LOCATIONS ARE APPROXIMATE.

2. ALL CONCENTRATIONS REPORTED IN MICROGRAMS PER LITER.

3. THE SWP 619 GROUNDWATER PROTECTION STANDARD (GWPS) FOR COBALT IS 6 MICROGRAMS PER LITER. THIS IS THE LOWEST COBALT GWPS APPLICABLE TO THE SITE, AND IS USED FOR COMPARISON PURPOSES.

BASEMAP: NEARMAP IMAGERY CAPTURED: 3/5/2026

SCALE IN FEET

Figure 7
Upper Ash Pond - Columbia Aquifer
Cobalt Results
October 2025 Sampling Event
Dominion Energy Virginia
Chester, Virginia



LEGEND

- SURFACE WATER SAMPLE LOCATION
- MONITORING WELL
- SITE BOUNDARY
- FACILITY BOUNDARY

DATA QUALIFIERS

J - ESTIMATED VALUE
U - NON-DETECT VALUE

0.53 - RESULT IS NON-DETECT AND/OR LESS THAN THE GWPS
16.1 - RESULT IS EQUAL TO OR GREATER THAN THE GWPS

NOTES

- SAMPLE LOCATIONS ARE APPROXIMATE.
- ALL CONCENTRATIONS REPORTED IN MICROGRAMS PER LITER.
- THE SWP 619 GROUNDWATER PROTECTION STANDARD (GWPS) FOR COBALT IS 6 MICROGRAMS PER LITER. THIS IS THE LOWEST COBALT GWPS APPLICABLE TO THE SITE, AND IS USED FOR COMPARISON PURPOSES.

BASEMAP: NEARMAP IMAGERY CAPTURED: 3/5/2026

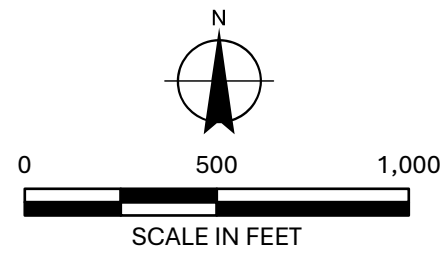


Figure 8
Upper Ash Pond - Potomac Aquifer
Cobalt Results
October 2025 Sampling Event
Dominion Energy Virginia
Chester, Virginia





LEGEND

- SURFACE WATER SAMPLE LOCATION
- MONITORING WELL
- SITE BOUNDARY
- FACILITY BOUNDARY

DATA QUALIFIERS

J - ESTIMATED VALUE
U - NON-DETECT VALUE

0.53 - RESULT IS NON-DETECT AND/OR LESS THAN THE GWPS
16.1 - RESULT IS EQUAL TO OR GREATER THAN THE GWPS

NOTES

- SAMPLE LOCATIONS ARE APPROXIMATE.
- ALL CONCENTRATIONS REPORTED IN MICROGRAMS PER LITER.
- THE GROUNDWATER PROTECTION STANDARD (GWPS) FOR LITHIUM IS 40 MICROGRAMS PER LITER.

BASEMAP: NEARMAP IMAGERY CAPTURED: 3/5/2026

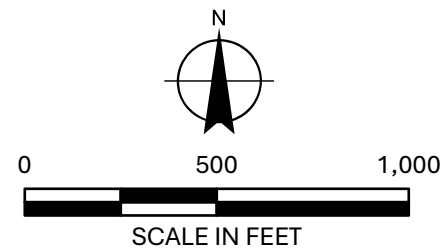


Figure 9
Upper Ash Pond - Columbia Aquifer
Lithium Results
October 2025 Sampling Event
Dominion Energy Virginia
Chester, Virginia





LEGEND

- SURFACE WATER SAMPLE LOCATION
- MONITORING WELL
- SITE BOUNDARY
- FACILITY BOUNDARY

DATA QUALIFIERS

J - ESTIMATED VALUE

0.53 - RESULT IS NON-DETECT AND/OR LESS THAN THE GWPS

16.1 - RESULT IS EQUAL TO OR GREATER THAN THE GWPS

NOTES

- SAMPLE LOCATIONS ARE APPROXIMATE.
- ALL CONCENTRATIONS REPORTED IN MICROGRAMS PER LITER.
- THE GROUNDWATER PROTECTION STANDARD (GWPS) FOR LITHIUM IS 40 MICROGRAMS PER LITER.

BASEMAP: NEARMAP IMAGERY CAPTURED: 3/5/2026

SCALE IN FEET

Figure 10
Upper Ash Pond - Potomac Aquifer
Lithium Results
October 2025 Sampling Event
Dominion Energy Virginia
Chester, Virginia



LEGEND

- SURFACE WATER SAMPLE LOCATION
- MONITORING WELL
- SITE BOUNDARY
- FACILITY BOUNDARY

DATA QUALIFIERS

- J - ESTIMATED VALUE
- J+ - ESTIMATED VALUE, BIASED HIGH
- U - NON-DETECT VALUE

0.53 - RESULT IS NON-DETECT AND/OR LESS THAN THE GWPS

16.1 - RESULT IS EQUAL TO OR GREATER THAN THE GWPS

NOTES

- SAMPLE LOCATIONS ARE APPROXIMATE.
- ALL CONCENTRATIONS REPORTED IN PCIOCURIES PER LITER.
- THE GROUNDWATER PROTECTION STANDARD (GWPS) FOR RADIUM226/228 IS 5 PICOCURIES PER LITER.

BASEMAP: NEARMAP IMAGERY CAPTURED: 3/5/2026

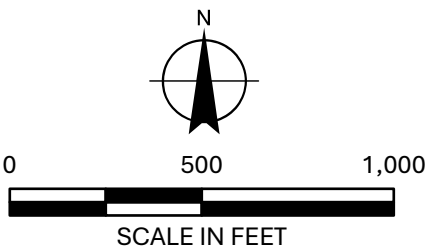


Figure 11
Upper Ash Pond - Columbia Aquifer
Radium 226/228 Results
October 2025 Sampling Event
Dominion Energy Virginia
Chester, Virginia





LEGEND

- SURFACE WATER SAMPLE LOCATION
- MONITORING WELL
- SITE BOUNDARY
- FACILITY BOUNDARY

DATA QUALIFIERS

J - ESTIMATED VALUE
U - NON-DETECT VALUE

0.53 - RESULT IS NON-DETECT AND/OR LESS THAN THE GWPS
16.1 - RESULT IS EQUAL TO OR GREATER THAN THE GWPS

NOTES

1. SAMPLE LOCATIONS ARE APPROXIMATE.

2. ALL CONCENTRATIONS REPORTED IN PICOCURIES PER LITER.

3. THE GROUNDWATER PROTECTION STANDARD (GWPS) FOR RADIUM226/228 IS 5 PICOCURIES PER LITER.

BASEMAP: NEARMAP IMAGERY CAPTURED: 3/5/2026

SCALE IN FEET

Figure 12
Upper Ash Pond - Potomac Aquifer
Radium 226/228 Results
October 2025 Sampling Event
Dominion Energy Virginia
Chester, Virginia

TABLES

Table 1
Lower Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt
GWPS:		10	6
Upgradient Monitoring Wells			
MW-29U	Oct 2016	2.1 J	3.4
	Nov 2016	9.3	3.9
	Jan 2017	3.7 J	2.7
	Feb 2017	7.2	4.1
	Apr 2017	9.1	6.9 J+
	May 2017	13	4.4
	Jun 2017	17.8	3.8
	Jul 2017	14.6	3.6
	Feb 2018	4.29	2.11
	Mar 2018	8.99	2.37 J
	May 2018	21.3 R	3.26 J
	Jul 2018	31.9	2.91 J
	Oct 2018	9.54	2.43 J
	Nov 2018	< 7.6 U	2.30
	Apr 2019	14.2	3.47
	Oct 2019	10.1	2.60
	Nov 2019	14.0	2.61
	May 2020	25.1	2.4
	Nov 2020	7.6	2.3
	Apr 2021	8.4	2.2
	Oct 2021	6.6	2.3
	Apr 2022	6.5	1.8
	Oct 2022	10.1	2.4
	Apr 2023	13.7	2.5 J
	Oct 2023	11.0	3.1
	Apr 2024	22.2	2.2
	Oct 2024	9.7	2.4
	Apr 2025	10.3	3.40
	Oct 2025	8.16	2.36
	Mar 2026	6.10	2.17
MW-35S	Jan 2017	< 5 U	5.4
	Feb 2017	< 5 U	3.8
	Mar 2017	0.41 J	3.6
	Apr 2017	0.51 J	3.0
	May 2017	< 5 U	1.7
	Jun 2017	< 5 U	1.9
	Jul 2017	< 1 U	0.94 J
	Aug 2017	< 1 U	0.82 J
	Feb 2018	< 0.5 U	< 0.5 U
	Mar 2018	< 2.35 U	< 0.5 U
	May 2018	< 6.8 U	< 0.5 U
	Jul 2018	< 2.35 U	< 0.5 U

Table 1
Lower Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt
GWPS:		10	6
MW-35S	Oct 2018	< 2.35 U	< 0.5 U
	Nov 2018	< 7.6 U	< 0.5 U
	Apr 2019	< 0.94 U	< 0.2 U
	Oct 2019	< 0.94 U	< 0.2 U
	Nov 2019	< 0.94 U	0.267 J
	May 2020	0.097 J	0.36
	Nov 2020	< 0.1 U	0.061 J
	Apr 2021	< 0.087 U	0.079 J
	Oct 2021	< 0.087 U	< 0.05 U
	Apr 2022	< 0.087 U	< 0.05 U
	Oct 2022	0.10 J	0.082 J
	Apr 2023	< 0.087 U	0.12 J
	Oct 2023	0.38 J	0.50 J
	Apr 2024	< 0.17 U	< 0.14 U
	Oct 2024	< 0.17 U	< 0.14 U
	Apr 2025	< 0.12 U	< 0.1 U
	Oct 2025	< 0.12 U	< 0.1 U
	Mar 2026	< 0.12 U	< 0.1 U
Downgradient Monitoring Wells			
MW-20	Oct 2016	0.40 J	160
	Nov 2016	0.61 J	240
	Jan 2017	1 J	260
	Feb 2017	0.70 J	200
	Apr 2017	0.84 J	170
	May 2017	0.83 J	240
	Jun 2017	< 1 U	219
	Jul 2017	< 1 U	170
	Feb 2018	< 0.5 U	195
	May 2018	< 6.8 U	146
	Nov 2018	< 7.6 U	171
	Apr 2019	< 0.94 U	73.7
	Nov 2019	< 0.94 U	141
	May 2020	0.66	77.8
	Nov 2020	0.17	47.0
	Apr 2021	0.097 J	30.2
	Oct 2021	0.17 J	35.1
	Apr 2022	0.10 J	27.0
	Oct 2022	1.1	17.8
	Apr 2023	0.21 J	78.7
	Oct 2023	0.26 J	62.2
	Apr 2024	0.23 J	37.1
	Oct 2024	0.84 J	253
	Apr 2025	0.611 J	275

Table 1
Lower Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt
GWPS:		10	6
MW-20	Oct 2025	0.530 J	280
	Mar 2026	0.214 J	109
MW-21R	Jan 2021	0.52	8.8
	Apr 2021	0.78 J	6.0
	Oct 2021	1.3	13.9
	Apr 2022	0.47 J	5.9
	Oct 2022	0.85 J	8.0
	Apr 2023	0.72 J	10.9
	Oct 2023	0.59 J	6.3
	Apr 2024	0.41 J	5.2
	Oct 2024	0.49 J	5.0
	Apr 2025	0.347 J	4.29
	Oct 2025	0.252 J	5.27
	Mar 2026	0.428 J	5.80
	Jan 2021	1.3	12.4
	Apr 2021	1.6	7.9
MW-22R	Oct 2021	3.4	16.7
	Apr 2022	1.5	9.8
	Oct 2022	0.23 J	42.0
	Apr 2023	0.36 J	14.2
	Oct 2023	0.38 J	13.1
	Apr 2024	0.19 J	7.5
	Oct 2024	< 0.17 U	3.5
	Apr 2025	0.206 J	1.14 J
	Oct 2025	0.170 J	1.26 J
	Mar 2026	0.237 J	< 0.78 U
	Jan 2021	15.3	5.7
MW-23R	Apr 2021	6.9	5.4
	Oct 2021	4.5	4.8
	Apr 2022	5.2	2.2
	Oct 2022	5.5	5.8
	Apr 2023	4.8	1.6
	Oct 2023	8.6	1.8
	Apr 2024	9.2	1.8
	Oct 2024	10.5	2.1
	Apr 2025	9.32	1.82 J
	Oct 2025	10.9	2.58
	Mar 2026	24.5	2.78
	Oct 2016	3.5 J	0.52 J
MW-25	Nov 2016	8.2	1.1
	Jan 2017	8.3	0.85 J
	Feb 2017	5.1	0.63 J
	Apr 2017	6.8	0.71 J

Table 1
Lower Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt
GWPS:		10	6
MW-25	May 2017	6.7	0.99 J
	Jun 2017	9.1	1.0
	Jul 2017	19.8	1.1
	Feb 2018	13.1	0.703 J
	May 2018	< 6.8 U	2.42 J
	Nov 2018	< 7.6 U	1.02
	Apr 2019	26.1	1.50 J
	Nov 2019	15.7	0.787 J
	May 2020	9.9	0.70
	Nov 2020	18.3	1.4
	Apr 2021	10.4	0.52 J
	Oct 2021	16.1	0.94 J
	Apr 2022	0.38 J	< 0.05 U
	Oct 2022	13.7	0.83 J
	Apr 2023	8.7	0.66 J
	Oct 2023	18.2	2.4
	Apr 2024	11.1	3.7
	Oct 2024	39.8	2.1
	Apr 2025	25.6	2.35
	Oct 2025	18.7	1.00 J
	Mar 2026	< 0.12 U	0.180 J
MW-26	Oct 2016	0.89 J	4.6
	Nov 2016	0.79 J	3.2
	Jan 2017	0.55 J	2.2
	Feb 2017	0.61 J	3.9
	Apr 2017	0.78 J	4.9
	May 2017	< 5 U	3.9
	Jun 2017	1.4	3.8
	Jul 2017	1.7	4.1
	Feb 2018	0.541 J	2.83
	May 2018	< 6.8 U	3.17 J
	Nov 2018	< 7.6 U	2.96
	Apr 2019	1.95 J	2.68
	Nov 2019	3.85	3.10
	May 2020	5.8	2.6
	Nov 2020	7.3	2.5
	Apr 2021	1.6	2.3
	Oct 2021	4.1	2.1
	Apr 2022	1.1	1.0
	Oct 2022	5.8	2.3
	Apr 2023	1.2	1.2
	Oct 2023	0.62 J	7.9
	Apr 2024	0.53 J	11.1
	Oct 2024	2.9	9.0

Table 1
Lower Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt
GWPS:		10	6
MW-26	Apr 2025	5.29	9.06
	Oct 2025	7.19	5.54
	Mar 2026	1.22 J	2.37
MW-27	Oct 2016	0.77 J	12
	Nov 2016	< 5 U	13
	Jan 2017	< 5 U	12
	Feb 2017	< 5 U	12
	Apr 2017	< 5 U	12
	May 2017	< 5 U	12
	Jun 2017	< 1 U	11.3
	Jul 2017	< 1 U	12.4
	Feb 2018	< 0.5 U	12.0
	May 2018	< 6.8 U	10.9
	Nov 2018	< 7.6 U	10.7
	Apr 2019	< 0.94 U	10.8
	Nov 2019	< 0.94 U	9.76
	May 2020	0.17	9.9
	Nov 2020	0.25	9.9
	Apr 2021	0.26 J	10.3
	Oct 2021	0.17 J	8.9
	Apr 2022	0.13 J	7.9
	Oct 2022	0.24 J	10.9
	Apr 2023	< 0.087 U	8.9
	Oct 2023	0.21 J	3.3
	Apr 2024	< 0.17 U	2.3
	Oct 2024	< 0.17 U	3.4
	Apr 2025	0.163 J	7.56
	Oct 2025	0.158 J	6.21
	Mar 2026	0.518 J	24.2
MW-28	Oct 2016	120	4.1
	Nov 2016	140	0.30 J
	Jan 2017	150	0.220 J
	Feb 2017	150	0.24 J
	Apr 2017	140	0.19 J
	May 2017	130	0.24 J
	Jun 2017	165	0.76 J
	Jul 2017	177	0.11 J
	Feb 2018	179	< 0.5 U
	May 2018	171	0.926 J
	Nov 2018	186	1.78
	Apr 2019	165	3.36
	Nov 2019	250	0.617 J
	May 2020	172	4.4
	Nov 2020	196	4.8

Table 1
Lower Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt
GWPS:		10	6
MW-28	Apr 2021	134	5.3
	Oct 2021	195	3.4
	Apr 2022	136	2.2
	Oct 2022	192	2.9
	Apr 2023	137	5.1
	Oct 2023	202	1.2
	Apr 2024	123	3.4
	Oct 2024	85.2	8.6
	Apr 2025	175	2.05
	Oct 2025	167	1.72 J
	Mar 2026	164	< 1.68 U
MW-32SR	Jan 2021	3.7	4.3
	Apr 2021	7.9	4.4
	Oct 2021	6.6	3.5
	Apr 2022	6.9	2.6
	Oct 2022	9.2	4.5
	Apr 2023	8.1	4.9
	Oct 2023	7.7	3.3
	Apr 2024	8.6	2.6
	Oct 2024	7.3	3.3
	Apr 2025	5.73	3.21
	Oct 2025	3.94	2.64
	Mar 2026	4.09	2.78
MW-33R	Jan 2021	10.2	1.5
	Apr 2021	10.2	1.4
	Oct 2021	9.6	1.6
	Apr 2022	8.8	1.3
	Oct 2022	2.4	0.90 J
	Apr 2023	10.5	1.2
	Oct 2023	11.0	1.1
	Apr 2024	11.3	0.98 J
	Oct 2024	11.4	1.3
	Apr 2025	11.8	1.36 J
	Oct 2025	11.4	1.27 J
	Mar 2026	11.2	< 1.2 U
MW-34	Oct 2016	9.6	2.3
	Nov 2016	9.4	2.3
	Jan 2017	8.8	2.4
	Feb 2017	9.6	2.5
	Apr 2017	8.7	2.3
	May 2017	7.8	2.2
	Jun 2017	9.8	2.1
	Jul 2017	17.1	3.9
	Feb 2018	8.99	2.02

Table 1
Lower Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt
GWPS:		10	6
MW-34	May 2018	12.4	2.15 J
	Nov 2018	< 7.6 U	2.03
	Apr 2019	9.07	2.11
	Nov 2019	9.96	1.86 J
	May 2020	9.7	2.4
	Nov 2020	9.9	2.1
	Apr 2021	9.4	2.2
	Oct 2021	9.5	2.1
	Apr 2022	7.8	1.8
	Oct 2022	10.3	2.2
	Apr 2023	9.2	2.3
	Oct 2023	10.1	2.5
	Apr 2024	9.3	2.1
	Oct 2024	9.3	1.8
	Apr 2025	9.20	2.14
	Oct 2025	8.60	1.40 J
	Mar 2026	8.96	< 1.77 U
MW-36S	Oct 2022	11.6	10.5
	Nov 2022	12.3	11.0
	Dec 2022	17.1	13.0 J
	Apr 2023	13.8	13.0
	Oct 2023	17.4	12.7
	Apr 2024	18.7	12.1
	Oct 2024	17.2	12.9
	Apr 2025	15.6	16.4
	Oct 2025	16.1	19.3
	Mar 2026	< 0.12 U	< 0.1 U
MW-B50	Oct 2016	7.9	2.8
	Nov 2016	7.0	2.5
	Jan 2017	5.9	2.3
	Feb 2017	6.6	2.4
	Apr 2017	5.3	2.2
	May 2017	5.7	2.4
	Jun 2017	5.8	1.8
	Jul 2017	4.6	1.9
	Feb 2018	2.63	1.04
	May 2018	7.95 J	2.93 J
	Nov 2018	< 7.6 U	1.81
	Apr 2019	2.14	1.34 J
	Nov 2019	1.48 J	1.08 J
	May 2020	1.6	1.3
	Nov 2020	1.9	2.0
	Apr 2021	1.2	3.0
	Oct 2021	2.0	1.7

Table 1
Lower Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt
GWPS:		10	6
MW-B50	Apr 2022	0.59 J	0.82 J
	Oct 2022	2.2	0.96 J
	Apr 2023	0.76 J	0.99 J
	Oct 2023	0.88 J	0.87 J
	Apr 2024	0.54 J	0.55 J
	Oct 2024	0.26 J	0.73 J
	Apr 2025	0.398 J	0.696 J
	Oct 2025	0.408 J	0.655 J
	Mar 2026	0.368 J	< 0.74 U

Notes:

Arsenic and cobalt reported in micrograms per liter

Highlighted value indicates exceedance of the Groundwater Protection Standard

Groundwater Protection Standard not established until September 2018

GWPS = Groundwater Protection Standard

-- = Analyte not analyzed during sampling event

< and U = Analyte was not detected above the laboratory reporting limit

J = Estimated value

J+ = Estimated value, high bias

R = Value is rejected

Table 2
Upper Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt	Lithium	Radium-226/228
GWPS:		10	6	40	5
Upgradient Monitoring Wells					
MW-29U	Oct 2016	2.1 J	3.4	< 2.7 U	0.909
	Nov 2016	9.3	3.9	< 2.7 U	1.00
	Jan 2017	3.7 J	2.7	0.48	0.709
	Feb 2017	7.2	4.1	0.51 J	1.24
	Apr 2017	9.1	6.9 J+	1.0 J+	0.476
	May 2017	13	4.4	< 8 U	0.693
	Jun 2017	17.8	3.8	0.41 J	< 0.542 U
	Jul 2017	14.6	3.6	< 25 U	1.53
	Feb 2018	4.29	2.11	< 2.6 U	--
	Mar 2018	8.99	2.37 J	< 4.1 U	--
	May 2018	21.3 R	3.26 J	< 4.1 U	--
	Jul 2018	31.9	2.91 J	4.96 J	--
	Oct 2018	9.54	2.43 J	< 4.1 U	--
	Nov 2018	< 7.6 U	2.30	< 4.1 U	--
	Apr 2019	14.2	3.47	< 4.1 U	--
	Oct 2019	10.1	2.60	2.31 J	--
	Nov 2019	14.0	2.61	< 2.24 U	--
	May 2020	25.1	2.4	0.68	--
	Nov 2020	7.6	2.3	0.88	--
	Apr 2021	8.4	2.2	1.5	1.58 J
	Oct 2021	6.6	2.3	0.70	< 0.177 U
	Apr 2022	6.5	1.8	0.56	0.815 J
	Oct 2022	10.1	2.4	< 0.5 U	0.526 J
	Apr 2023	13.7	2.5 J	< 2.5 U	1.91 J
	Oct 2023	11.0	3.1	0.62 J	< 0.933 U
	Apr 2024	22.2	2.2	0.45 J	0.387 J
	Oct 2024	9.7	2.4	0.48 J	2.82
	Apr 2025	10.3	3.40	0.921 J	2.25 J+
	Oct 2025	8.16	2.36	4.73 J	< 1.21 U
	Mar 2026	6.10	2.17	< 4.22 U	0.679 J
MW-30U	Oct 2016	0.62 J	0.24 J	9.7 J	0.627
	Nov 2016	0.67 J	0.20 J	11 J	0.924
	Jan 2017	< 5 U	< 1 U	10	0.582
	Feb 2017	0.77	0.13	11	< 0.463 U
	Apr 2017	0.84 J	0.33 J+	11	0.688
	May 2017	< 5 U	< 1 U	9.9	1.31
	Jun 2017	0.22	0.040 J	10.7	< 1.26 U
	Jul 2017	< 1 U	< 1 U	8.8 J	< 0.603 U
	Mar 2018	< 2.35 U	< 0.5 U	12.4 J	--
	Jul 2018	< 2.35 U	< 0.5 U	13.5 J	--
	Oct 2018	< 2.35 U	< 0.5 U	9.95 J	--
	Apr 2019	< 0.94 U	< 0.2 U	11.5 J	--
	Oct 2019	< 0.94 U	< 0.2 U	11.9	--

Table 2
Upper Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt	Lithium	Radium-226/228
GWPS:		10	6	40	5
MW-30U	May 2020	< 0.5 U	< 0.5 U	11.1	--
	Nov 2020	0.24	< 0.1 U	9.8	--
	Apr 2021	0.26 J	< 0.36 U	10.6	1.50 J
	Oct 2021	0.26 J	< 0.05 U	10.6 J+	2.26
	Apr 2022	0.16 J	< 0.05 U	10.8	1.12 J
	Oct 2022	0.14 J	< 0.05 U	9.4	0.650 J
	Apr 2023	< 0.087 U	0.065 J	10.1	1.74 J
	Oct 2023	0.23 J	< 0.05 U	11.0	< 0.55 U
	Apr 2024	2.0	< 0.14 U	8.8	0.927 J
	Oct 2024	5.0	< 0.14 U	6.7	< 0.308 U
	Apr 2025	5.17	< 0.1 U	5.49	< 0.31 U
	Oct 2025	0.418 J	< 0.1 U	8.44 J	0.957 J
	Mar 2026	0.387 J	< 0.1 U	< 4.22 U	0.937 J
MW-35D	Jan 2017	0.63 J	0.36 J	13	0.911
	Feb 2017	0.37 J	0.14 J	12	< 0.245 U
	Mar 2017	0.58 J	0.41	12	0.367
	Apr 2017	< 5 U	0.14 J	12	0.709
	May 2017	< 5 U	0.37 J+	12	0.638
	Jun 2017	< 5 U	0.64 J	13	< 0.505 U
	Jul 2017	< 1 U	0.10 J	12.4 J	1.51
	Aug 2017	< 1 U	< 1 U	12.3 J	< 0.659 U
	Mar 2018	< 2.35 U	< 0.5 U	13.1 J	--
	Jul 2018	< 2.35 U	< 0.5 U	14.8 J	--
	Oct 2018	< 2.35 U	< 0.5 U	13.2 J	--
	Apr 2019	< 0.94 U	< 0.2 U	< 4.1 U	--
	Oct 2019	< 0.94 U	< 0.2 U	13.0	--
	May 2020	0.23	0.14 J	12.5	--
	Nov 2020	0.22	0.12	11.7	--
	Apr 2021	0.28 J	< 0.53 U	12.0	1.65
	Oct 2021	0.21 J	0.18 J	12.2 J+	< 1.07 U
	Apr 2022	0.22 J	0.29 J	12.1	< 0.704 U
	Oct 2022	0.26 J	0.16 J	11.2	0.909 J
	Apr 2023	0.090 J	0.11 J	11.3	< 0.375 U
	Oct 2023	0.19 J	< 0.05 U	11.7	< 0.711 U
	Apr 2024	< 0.17 U	< 0.14 U	11.3	< 0.453 U
	Oct 2024	0.20 J	< 0.14 U	11.8	< 0.177 U
	Apr 2025	< 0.182 U	< 0.209 U	10.5	< 0.27 U
	Oct 2025	0.379 J	< 0.1 U	6.89 J	< 0.639 U
	Mar 2026	0.218 J	0.109 J	5.81 J	0.751 J
MW-35S	Jan 2017	< 5 U	5.4	1.5 J	0.841
	Feb 2017	< 5 U	3.8	1.7	0.615
	Mar 2017	0.41 J	3.6	1.6 J	0.658
	Apr 2017	0.51 J	3.0	1.9 J	0.358
	May 2017	< 5 U	1.7	2.1 J	0.554

Table 2
Upper Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt	Lithium	Radium-226/228
GWPS:		10	6	40	5
MW-35S	Jun 2017	< 5 U	1.9	2.4 J	< 0.282 U
	Jul 2017	< 1 U	0.94 J	1.5 J	< 0.908 U
	Aug 2017	< 1 U	0.82 J	2.4 J	< 0.934 U
	Feb 2018	< 0.5 U	< 0.5 U	< 2.6 U	--
	Mar 2018	< 2.35 U	< 0.5 U	< 4.1 U	--
	May 2018	< 6.8 U	< 0.5 U	< 4.1 U	--
	Jul 2018	< 2.35 U	< 0.5 U	< 4.1 U	--
	Oct 2018	< 2.35 U	< 0.5 U	< 4.1 U	--
	Nov 2018	< 7.6 U	< 0.5 U	< 4.1 U	--
	Apr 2019	< 0.94 U	< 0.2 U	< 4.1 U	--
	Oct 2019	< 0.94 U	< 0.2 U	< 2.24 U	--
	Nov 2019	< 0.94 U	0.267 J	< 2.24 U	--
	May 2020	0.097 J	0.36	3.2	--
	Nov 2020	< 0.1 U	0.061 J	4.1	--
	Apr 2021	< 0.087 U	0.079 J	2.7	0.519 J
	Oct 2021	< 0.087 U	< 0.05 U	2.7	< 0.832 U
	Apr 2022	< 0.087 U	< 0.05 U	2.9	0.244 J
	Oct 2022	0.10 J	0.082 J	4.3	0.781 J
	Apr 2023	< 0.087 U	0.12 J	4.1	1.17 J
	Oct 2023	0.38 J	0.50 J	3.6	1.80
	Apr 2024	< 0.17 U	< 0.14 U	3.4	1.02
	Oct 2024	< 0.17 U	< 0.14 U	5.4	1.22 J+
	Apr 2025	< 0.12 U	< 0.1 U	4.83	< 1.14 U
	Oct 2025	< 0.12 U	< 0.1 U	6.07 J	< 0.815 U
	Mar 2026	< 0.12 U	< 0.1 U	< 4.22 U	1.02 J
Downgradient Monitoring Wells					
MW-1	Oct 2016	0.52 J	2.9	3.7	7.30
	Nov 2016	0.80 J	2.5	<50 U	6.66
	Jan 2017	0.87 J	2.5	0.69	9.31
	Feb 2017	2.2 J	3.7	0.92 J	6.79
	Apr 2017	0.84 J	2.0	0.81 J	7.69
	May 2017	< 5 U	1.7	< 8 U	6.19
	Jun 2017	< 1 U	1.4	2.0 J+	7.41
	Jul 2017	< 1 U	1.2	< 25 U	8.27
	Mar 2018	< 2.35 U	2.34 J	< 4.1 U	--
	Jul 2018	< 2.35 U	2.09 J	< 4.1 U	--
	Oct 2018	< 2.35 U	1.47 J	< 4.1 U	--
	Apr 2019	< 0.94 U	1.68 J	< 4.1 U	--
	Oct 2019	< 0.94 U	1.23 J	< 4.1 U	--
	May 2020	0.34	2.9	0.76	--
	Nov 2020	0.25	2.1	0.69	--
	Apr 2021	0.30 J	1.2	1.2 J	7.25
	Oct 2021	0.27 J	1.4	0.85	6.81 J
	Apr 2022	0.30 J	2.0	0.98	7.94 J-

Table 2
Upper Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt	Lithium	Radium-226/228
GWPS:		10	6	40	5
MW-1	Oct 2022	0.62 J	3.2	0.55 J	9.24
	Apr 2023	0.22 J	4.3	< 0.5 U	6.00 J-
	Oct 2023	0.92 J	6.5	0.52 J	8.05 J-
	Apr 2024	0.34 J	5.8	0.47 J	4.76
	Oct 2024	0.39 J	5.0	0.56 J	4.04
	Apr 2025	< 0.264 U	7.72	0.600 J	4.93
	Oct 2025	0.915 J	15.0	< 4.22 U	4.71
	Mar 2026	< 0.6 U	14.2	< 4.22 U	5.11
MW-1D	Oct 2016	0.51 J	7.9	9.2	4.02
	Nov 2016	0.69 J	9.0	6.8 J	4.78
	Jan 2017	0.42 J	14	8.6	10.7
	Feb 2017	2.3 J	16	9.2	9.00
	Apr 2017	0.66 J	14	9.6	7.67
	May 2017	< 5 U	14	8.8	8.47
	Jun 2017	< 1 U	13.6	11.9 J+	7.61
	Jul 2017	< 1 U	12.9	6.3 J	7.12
	Mar 2018	< 2.35 U	2.53 J	5.63 J	--
	Jul 2018	< 2.35 U	11.4	10.8 J	--
	Oct 2018	< 2.35 U	11.8	8.47 J	--
	Apr 2019	< 0.94 U	2.79	< 4.1 U	--
	Oct 2019	< 0.94 U	13.0	9.04 J	--
	May 2020	1.6	14.3	9.7	--
	Nov 2020	0.87	13.4	8.0	--
	Apr 2021	0.40 J	16.4	9.6	11.5
	Oct 2021	1.5	16.9	9.7	10.2
	Apr 2022	0.87 J	15.1	7.5	6.87 J-
	Oct 2022	0.52 J	15.6	8.2	7.98
	Apr 2023	0.46 J	15.8	8.8	9.07 J
	Oct 2023	0.88 J	17.5	9.3	11.5 J
	Apr 2024	0.31 J	13.8	8.4	8.67
	Oct 2024	0.57 J	16.0	8.4	9.32
	Apr 2025	< 0.378 U	14.7	8.53	7.22
	Oct 2025	0.499 J	15.0	11.2 J	10.0
	Mar 2026	0.695 J	16.3	< 4.22 U	10.4
MW-2	Oct 2016	0.42 J	13	5.3	4.65
	Nov 2016	0.62 J	11	< 2.7 U	4.01
	Jan 2017	0.6 J	11	5 J	6.25
	Feb 2017	0.68 J	10	5.4 J	5.22
	Apr 2017	0.64 J	11	4.4 J	4.68
	May 2017	< 5 U	11	4.7 J	4.44
	Jun 2017	< 1 U	11.0	6.2 J+	5.30
	Jul 2017	< 1 U	12.2	5.0 J	5.23 J+
	Mar 2018	< 2.35 U	9.41	8.25 J	--
	Jul 2018	< 2.35 U	9.77	6.95 J	--

Table 2
Upper Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt	Lithium	Radium-226/228
GWPS:		10	6	40	5
MW-2	Oct 2018	< 2.35 U	10.3	7.19 J	--
	Apr 2019	< 0.94 U	12.7	< 4.1 U	--
	Oct 2019	< 0.94 U	10.6	6.07 J	--
	May 2020	< 2 U	11.9	6.6	--
	Nov 2020	0.35	11.6	6.0	--
	Apr 2021	0.53 J	13.4	5.2	8.51
	Oct 2021	0.40 J	13.2	4.9	8.24
	Apr 2022	0.66 J	13.1	4.8	7.53 J
	Oct 2022	1.1	13.5	4.7	8.05 J+
	Apr 2023	0.39 J	13.1	5.2	8.72 J
	Oct 2023	1.2	14.5	5.9	14.7 J-
	Apr 2024	0.64 J	14.2	5.7	8.72 J+
	Oct 2024	0.64 J	13.5	5.8	9.60
	Apr 2025	< 0.663 U	15.9	5.57	9.03
	Oct 2025	0.439 J	13.1	9.64 J	9.73 J+
	Mar 2026	0.670 J	13.6	< 4.22 U	8.72
MW-3	Oct 2016	0.36 J	15	28 J	1.35
	Nov 2016	0.49 J	19	28 J	1.77
	Jan 2017	1.2 J	15	24	1.65
	Feb 2017	0.58 J	14	23	1.09
	Apr 2017	0.43 J	15	26	0.881
	May 2017	< 5 U	15	25	1.08
	Jun 2017	< 1 U	13.9	24.8 J	1.69
	Jul 2017	< 1 U	12.5	23.5 J	< 1.51 U
	Mar 2018	< 2.35 U	9.77	18.8 J	--
	Jul 2018	< 2.35 U	11.0	21.8	--
	Oct 2018	< 2.35 U	9.28	18.9 J	--
	Apr 2019	< 0.94 U	15.4	20.9	--
	Oct 2019	< 0.94 U	10.2	15.7 J	--
	May 2020	< 2 U	8.6	18.9	--
	Nov 2020	0.29	8.9	18.4	--
	Apr 2021	0.27 J	14.4	28.4 J	1.51
	Oct 2021	0.28 J	10.3	24.0	1.25 J
	Apr 2022	0.30 J	8.4	20.7	< 1.39 U
	Oct 2022	0.42 J	6.3	17.2	< 0.154 U
	Apr 2023	0.37 J	7.7	19.2	< 1.68 U
	Oct 2023	0.51 J	8.6	23.3	1.63 J
	Apr 2024	0.35 J	6.7	16.0	0.909 J
	Oct 2024	0.52 J	9.3	18.3	0.757 J
	Apr 2025	< 0.989 U	19.5	20.1	< 1.53 U
	Oct 2025	0.553 J	8.53	23.5	2.90 J+
	Mar 2026	0.396 J	9.12	10.4 J	1.13 J
MW-3D	Oct 2016	13	38	160	< 9.80 U
	Nov 2016	0.89 J	1.8	15 J	1.69

Table 2
Upper Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt	Lithium	Radium-226/228
GWPS:		10	6	40	5
MW-3D	Jan 2017	0.41 J	0.96 J	10	1.59
	Feb 2017	0.46 J	0.52 J	16	0.624
	Apr 2017	0.52 J	0.59 J	20	0.666
	May 2017	1.3 J	1.2	24	0.427
	Jun 2017	0.55 J	0.31 J	22.5 J	< 0.671 U
	Jul 2017	< 1 U	0.19 J	25.0 J	< 0.661 U
	Mar 2018	< 2.35 U	< 0.5 U	30.9	--
	Jul 2018	< 2.35 U	< 0.5 U	32.1	--
	Oct 2018	< 2.35 U	< 0.5 U	31.1	--
	Apr 2019	< 0.94 U	0.227 J	34.8	--
	Oct 2019	< 0.94 U	< 0.2 U	28.4	--
	May 2020	< 3 U	< 3 U	42.0	--
	Nov 2020	0.99	0.19	39.6	--
	Apr 2021	1.0 J	< 0.16 U	40.1	< 1.06 U
	Oct 2021	0.92 J	0.082 J	46.1	< 0.293 U
	Apr 2022	0.86 J	< 0.05 U	38.6	< 1.05 U
	Oct 2022	0.92 J	0.15 J	30.1	< 0.196 UJ
	Apr 2023	0.68 J	0.059 J	30.5	< 0.238 UJ
	Oct 2023	0.76 J	0.080 J	33.9	1.30 J
	Apr 2024	0.34 J	< 0.14 U	28.6	1.72
	Oct 2024	0.73 J	< 0.14 U	31.0	< 0.286 U
	Apr 2025	< 0.652 U	< 0.145 U	28.4	< 0.408 U
	Oct 2025	0.930 J	< 0.1 U	35.2	< 0.792 U
	Mar 2026	0.703 J	< 0.1 U	21.3	< 0.478 U
MW-4	Nov 2015	5.86 J	95.8	< 2.6 U	--
	Oct 2016	0.41 J	71	63	3.13
	Nov 2016	0.59 J	70	61	3.42
	Jan 2017	0.46 J	82	66	3.38
	Feb 2017	0.54 J	61	61	3.04
	Apr 2017	0.63 J	59	58	3.43
	May 2017	< 5 U	59	44	3.85
	Jun 2017	< 1 U	60.1	57.1	2.20
	Jul 2017	0.65 J	135 J+	60.4	3.59 J+
	Mar 2018	< 2.35 U	62.8	62.7	--
	Jul 2018	28.8	57.0	62.8	--
	Oct 2018	< 2.35 U	65.9	62.9	--
	Apr 2019	< 0.94 U	68.2	70.9	--
	Oct 2019	< 0.94 U	55.7	64.5	--
	May 2020	0.47	65.6	72.5	--
	Nov 2020	0.45	74.6	69.0	--
	Apr 2021	0.63 J	52.4	61.4	3.71
	Oct 2021	0.23 J	63.0	69.0	3.99 J
	Apr 2022	0.70 J	73.9	67.5	5.43 J
	Oct 2022	0.91 J	85.0	68.3	3.77 J+

Table 2
Upper Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt	Lithium	Radium-226/228
GWPS:		10	6	40	5
MW-4	Apr 2023	0.34 J	78.6	72.2	1.69 J
	Oct 2023	1.2	92.3	86.3	3.89 J
	Apr 2024	0.48 J	65.4	86.7	2.67
	Oct 2024	0.19 J	60.3	92.3	3.63
	Apr 2025	< 0.711 U	62.9	97.3	3.70 J
	Oct 2025	0.230 J	55.9	120	4.69 J+
	Mar 2026	1.83 J	56.4	107	4.10
MW-5	Nov 2015	0.645 J	9.81	4.72 J	--
	Oct 2016	3.7 J	44	38 J	1.74
	Nov 2016	4.1 J	44	35 J	1.81
	Jan 2017	4.4 J	43	35	3.03
	Feb 2017	4.0 J	39	34	2.55
	Apr 2017	3.4 J	38	33	2.75
	May 2017	2.8 J	31	16	2.53
	Jun 2017	2.8	32.2	34.0	2.53
	Jul 2017	3.3	37.9 J+	43.0 J+	3.00 J+
	Mar 2018	< 2.35 U	30.8	39.4	--
	Jul 2018	10.6	25.4	42.4	--
	Oct 2018	< 2.35 U	19.9	43.6	--
	Apr 2019	1.14 J	21.2	42.3	--
	Oct 2019	< 0.94 U	17.0	37.5	--
	May 2020	< 2 U	20.0	48.6	--
	Nov 2020	0.89	34.7	50.6	--
	Apr 2021	1.3	27.9	57.2	3.08
	Oct 2021	1.1	26.6	61.1	2.95
	Apr 2022	0.68 J	18.1	50.0	5.80 J
	Oct 2022	0.97 J	25.4	44.5	2.72 J+
	Apr 2023	0.53 J	26.1	47.4	< 1.05 U
	Oct 2023	0.89 J	27.7	48.0	4.35
	Apr 2024	0.81 J	30.9	56.5	2.77
	Oct 2024	0.98 J	40.0	58.8	3.77
	Apr 2025	< 1.01 U	35.6	64.4	3.33
	Oct 2025	0.798 J	35.1	78.8	4.14 J
	Mar 2026	1.32 J	38.1	70.1	3.60
MW-6	Nov 2015	< 0.47 U	5.20	< 2.6 U	--
	Oct 2016	0.53 J	0.13 J	46 J	1.24
	Nov 2016	0.97 J	0.28 J	48 J	1.20
	Jan 2017	0.9 J	0.29 J	64	1.56
	Feb 2017	0.72 J	0.25 J	77	1.05
	Apr 2017	0.46 J	< 1 U	85	1.06
	May 2017	< 5 U	< 1 U	71	< 0.487 U
	Jun 2017	< 1 U	< 1 U	86.3 J+	1.62
	Jul 2017	< 1 U	< 1 U	115	1.78
	Mar 2018	< 2.35 U	< 0.5 U	132	--

Table 2
Upper Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt	Lithium	Radium-226/228
GWPS:		10	6	40	5
MW-6	Jul 2018	< 2.35 U	< 0.5 U	135	--
	Oct 2018	< 2.35 U	< 0.5 U	148	--
	Apr 2019	< 0.94 U	< 0.2 U	158	--
	Oct 2019	< 0.94 U	< 0.2 U	177	--
	May 2020	0.14	0.050 J	220	--
	Nov 2020	< 0.1 U	0.060 J	206	--
	Apr 2021	0.12 J	< 0.09 U	206	2.41 J
	Oct 2021	0.089 J	0.19 J	233	2.62
	Apr 2022	0.13 J	0.22 J	220	2.35 J
	Oct 2022	0.089 J	0.35 J	159	1.83 J
	Apr 2023	0.13 J	0.33 J	154	< 1.08 U
	Oct 2023	0.091 J	0.50 J	163	2.16 J
	Apr 2024	< 0.17 U	0.63 J	152	1.17 J
	Oct 2024	< 0.17 U	0.78 J	162	1.91
	Apr 2025	< 0.132 U	< 1.08 U	150	2.48
	Oct 2025	< 0.12 U	1.04 J	183	3.13 J
	Mar 2026	0.140 J	1.38 J	176	2.22 J
MW-6D	Oct 2016	3.4 J	29	110	4.98
	Nov 2016	1.2 J	18	87	3.95
	Jan 2017	0.92 J	21	100	1.03
	Feb 2017	0.42	19	120	0.686
	Apr 2017	0.73 J	72	170	1.52
	May 2017	< 5 U	20	88	0.651
	Jun 2017	< 1 U	23.4	105	< 1.69 U
	Jul 2017	< 1 U	23.0	107	< 1.07 U
	Mar 2018	< 2.35 U	26.1	112	--
	Jul 2018	< 2.35 U	79.1	225	--
	Oct 2018	< 2.35 U	39.8	195	--
	Apr 2019	< 0.94 U	4.64	125	--
	Oct 2019	2.05	80.9	194	--
	May 2020	0.64	32.0	265	--
	Nov 2020	0.15	2.8	280	--
	Apr 2021	0.16 J	8.9	117	< 1.34 U
	Oct 2021	0.32 J	110	277	2.89
	Apr 2022	0.37 J	116	215	2.86 J
	Oct 2022	0.46 J	153	216	3.80 J+
	Apr 2023	0.52 J	70.4	145	< 1.69 U
	Oct 2023	0.51 J	142	199	3.18 J-
	Apr 2024	0.59 J	95.2	185	3.11 J+
	Oct 2024	0.52 J	46.9	125	2.22
	Apr 2025	< 0.352 U	108	198	3.38
	Oct 2025	0.380 J	37.3	140	1.71 J
	Mar 2026	0.515 J	18.2	89.1	< 0.812 U
MW-7	Nov 2016	1.5 J	3.1	6.6 J	1.37

Table 2
Upper Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt	Lithium	Radium-226/228
GWPS:		10	6	40	5
MW-7	Jan 2017	1.7 J	3.3	9	1.02
	Feb 2017	1.2 J	3.1	7.8 J	0.742
	Mar 2017	1.2 J	3.6	7.4 J	0.887
	Apr 2017	1.3 J	3.8 J	8.2	0.778
	May 2017	1.1 J	3.1	8.8	0.791
	Jul 2017	0.90 J	4.2	8.0 J	< 0.704 U
	Aug 2017	1.1	4.3	8.7 J	< 0.875 U
	Mar 2018	< 2.35 U	4.12 J	8.30 J	--
	Jul 2018	< 2.35 U	2.14 J	9.73 J	--
	Oct 2018	< 2.35 U	5.02	9.29 J	--
	Apr 2019	1.02 J	5.04	9.06 J	--
	Oct 2019	1.33 J	5.18	9.45 J	--
	May 2020	1.2	6.9	9.4	--
	Nov 2020	0.82	4.9	8.8	--
	Apr 2021	1.0	5.7	10.4	1.97 J
	Oct 2021	1.1	5.6	8.8	1.63 J
	Apr 2022	0.88 J	5.5	8.6	< 0.689 U
	Oct 2022	0.82 J	6.3	10.1	0.805 J
	Apr 2023	0.70 J	6.0	10.6	1.85 J
	Oct 2023	0.65 J	6.6	11.5	1.62 J
	Apr 2024	0.63 J	10.1	14.9	2.46
	Oct 2024	0.58 J	7.4	11.9	1.39 J
	Apr 2025	< 0.715 U	9.68	15.2	2.15
	Oct 2025	0.589 J	2.06	8.09 J	< 0.581 U
	Mar 2026	0.400 J	7.56	8.34 J	0.747 J
MW-8R	Jan 2017	7.9	11	0.780 J	1.58
	Feb 2017	9.2	9.7	0.47 J	0.953
	Mar 2017	9.6	8.0	< 8 U	0.799
	Apr 2017	11	8.8	< 8 U	1.19
	May 2017	14	8.2	< 8 U	0.747
	Jun 2017	13	7.4	< 8 U	0.942
	Jul 2017	16.2	7.3	< 25 U	< 1.23 U
	Aug 2017	18.3	8.5	< 25 U	1.75
	Mar 2018	19.8	6.37	< 4.1 U	--
	Jul 2018	21.8	5.55	< 4.1 U	--
	Oct 2018	21.4	5.00	< 4.1 U	--
	Apr 2019	16.7	3.64	< 4.1 U	--
	Oct 2019	18.2	3.43	33.4	--
	May 2020	19.4	2.8	0.66	--
	Nov 2020	16.9	2.8	0.58	--
	Apr 2021	18.2	2.3	1.0 J	1.20 J
	Oct 2021	15.6	2.5	0.56	< 0.844 U
	Apr 2022	16.3	2.0	0.55	1.75 J
	Oct 2022	15.0	2.0	< 0.5 U	1.09 J

Table 2
Upper Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt	Lithium	Radium-226/228
GWPS:		10	6	40	5
MW-8R	Apr 2023	16.4	1.4	< 0.5 U	< 0.972 U
	Oct 2023	13.9	1.3	< 0.5 U	1.41 J
	Apr 2024	14.6	0.80 J	0.42 J	2.02
	Oct 2024	13.8	0.96 J	< 0.33 U	1.38
	Apr 2025	13.9	< 0.849 U	< 0.6 U	1.18 J
	Oct 2025	13.0	0.899 J	4.70 J	< 1.89 U
	Mar 2026	13.4	0.833 J	< 4.22 U	< 0.435 U
MW-9R	Jan 2017	0.98 J	20	1.9 J	0.745
	Feb 2017	1.3 J	19	1.2 J	< 0.206 U
	Mar 2017	1.8 J	16	1.3 J	0.448
	Apr 2017	4.6 J	17	0.45 J	0.207
	May 2017	2.3 J	13	< 8 U	0.480
	Jun 2017	2.7 J	11	< 8 U	< 0.421 U
	Jul 2017	2.1	9.7	< 25 U	1.78
	Aug 2017	2.5	9.0	1.5 J	< 0.295 U
	Mar 2018	17.9	9.57	< 4.1 U	--
	Jul 2018	17.3	6.64	4.32 J	--
	Oct 2018	10.9	7.94	< 4.1 U	--
	Apr 2019	5.25	7.25	< 4.1 U	--
	Oct 2019	8.86	7.21	2.91 J	--
	May 2020	13.5	6.1	1.3	--
	Nov 2020	7.0	6.1	1.5	--
	Apr 2021	4.4	7.2	2.1	< 1.04 U
	Oct 2021	3.9	7.2	1.4	< 0.435 U
	Apr 2022	7.1	5.4	1.5 J	1.76 J
	Oct 2022	7.1	5.2	1.1 J	< 0.441 U
	Apr 2023	6.6	4.5	1.1 J	0.938 J
	Oct 2023	5.7	4.7	1.0 J	< 1.16 U
	Apr 2024	8.8	4.4	1.2 J	0.837 J
	Oct 2024	5.4	4.4	1.0 J	< 0.517 U
	Apr 2025	5.31	3.89 J+	1.18 J	0.793 J
	Oct 2025	4.23	3.89	5.09 J	1.74 J
	Mar 2026	5.74	3.59	< 4.22 U	< 0.379 U
MW-10	Oct 2016	6.6	26	13 J	1.09
	Nov 2016	1.7 J	21	< 2.7 U	< 0.459 U
	Jan 2017	0.83 J	18	2.6 J	0.182
	Feb 2017	0.49 J	16	1.8 J	0.503
	Apr 2017	0.39 J	15	2.1 J	-0.00487
	May 2017	< 5 U	15	< 8 U	0.408
	Jun 2017	< 1 U	14.4	0.93	< 0.933 U
	Jul 2017	0.76 J	14.5	2.5 J	< 1.15 U
	Mar 2018	3.57 J	15.1	< 4.1 U	--
	Jul 2018	2.86 J	13.6	4.81 J	--
	Oct 2018	< 2.35 U	15.5	< 4.1 U	--

Table 2
Upper Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt	Lithium	Radium-226/228
GWPS:		10	6	40	5
MW-10	Apr 2019	1.39 J	14.6	< 4.1 U	--
	Oct 2019	3.35	14.9	< 2.24 U	--
	May 2020	4.2	12.4	1.8	--
	Nov 2020	4.2	14.5	1.8	--
	Apr 2021	2.9	15.4	1.9	< 0.747 U
	Oct 2021	6.8	16.2	2.0	< 0.91 U
	Apr 2022	6.4	10.7	1.5	1.05 J
	Oct 2022	6.3	11.4	1.3 J	1.12 J
	Apr 2023	6.1	11.0	1.6 J	< 0.492 U
	Oct 2023	5.8	12.2	1.3 J	0.903 J
	Apr 2024	5.2	13.6	2.1 J	1.73
	Oct 2024	6.6	12.5	1.5 J	< 0.605 U
	Apr 2025	7.45	10.7	1.49 J	< 0.516 U
	Oct 2025	7.80	10.5	< 4.22 U	1.35 J
	Mar 2026	7.01	11.0	< 4.22 U	0.547 J
MW-11	Oct 2016	6.7	6.4	9.0 J	0.687
	Nov 2016	8.3	8.3	< 2.7 U	0.583
	Jan 2017	9.2	7.3	1	0.724
	Feb 2017	9.2	7.7	0.73 J	0.638
	Apr 2017	9.6	7.9	0.56 J	1.05
	May 2017	8.2	7.6	< 8 U	0.367
	Jun 2017	< 1 U	0.11 J	7.9 J	1.86
	Jul 2017	0.97	0.79	< 2.5 U	1.64
	Mar 2018	9.00	7.13	< 4.1 U	--
	Jul 2018	10.6	7.95	4.41 J	--
	Oct 2018	9.07	7.00	< 4.1 U	--
	Apr 2019	9.20	7.01	< 4.1 U	--
	Oct 2019	8.91	6.98	< 2.24 U	--
	May 2020	9.8	6.9	0.84	--
	Nov 2020	8.8	6.4	0.64	--
	Apr 2021	8.5	5.9	< 0.76 U	< 0.642 U
	Oct 2021	9.4	6.8	0.64	2.38 J
	Apr 2022	9.2	6.9	0.78	< 1.07 U
	Oct 2022	9.0	6.8	< 0.5 U	0.815 J
	Apr 2023	9.1	6.7	0.51 J	1.76 J
	Oct 2023	9.1	6.6	< 0.5 U	1.48 J
	Apr 2024	8.9	6.2	0.51 J	1.01 J
	Oct 2024	9.2	6.4	0.39 J	1.16 J
	Apr 2025	9.07	6.47	< 0.6 U	< 0.358 U
	Oct 2025	8.67	6.13	5.71 J	< 1.43 U
	Mar 2026	8.64	6.79	< 4.22 U	< 0.285 U
MW-12	Oct 2016	8.5	22	6.0 J	0.650
	Nov 2016	10	19	< 2.7 U	1.29
	Jan 2017	10	19	1.1	0.613

Table 2
Upper Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt	Lithium	Radium-226/228
GWPS:		10	6	40	5
MW-12	Feb 2017	11	18	0.68 J	0.634
	Apr 2017	12	18	0.81 J	0.477
	May 2017	10	18	< 8 U	< 0.258 U
	Jun 2017	10.8	15.6	2.4 J	1.83
	Jul 2017	11.0	17.3	1.3 J	2.12 J+
	Mar 2018	12.1	17.8	< 4.1 U	--
	Jul 2018	10.9	14.1	5.62 J	--
	Oct 2018	11.0	16.8	< 4.1 U	--
	Apr 2019	9.08	17.0	< 4.1 U	--
	Oct 2019	10.8	18.7	< 2.24 U	--
	May 2020	8.9	16.1	1.8	--
	Nov 2020	9.8	16.8	1.4	--
	Apr 2021	10.7	16.9	2.7	< 0.55 U
	Oct 2021	8.6	15.3	1.1	1.39 J
	Apr 2022	8.7	14.6	1.4	3.00 J
	Oct 2022	7.7	15.1	0.70 J	< 0.243 U
	Apr 2023	8.4	14.3	0.80 J	< 0.408 U
	Oct 2023	8.4	14.3	0.67 J	1.36 J
	Apr 2024	8.6	14.2	0.50 J	1.47 J
	Oct 2024	8.0	14.8	0.44 J	0.800 J
	Apr 2025	7.23	14.5	1.03 J	< 0.762 U
	Oct 2025	8.18	15.2	< 4.22 U	< 0.531 U
	Mar 2026	7.22	14.5	< 4.22 U	< 0.549 U
MW-13	Oct 2016	92	38	97	1.06
	Nov 2016	65	40	72	< 0.361 U
	Jan 2017	55	38	56	1.24
	Feb 2017	110	44	110	< 0.314 U
	Apr 2017	72	47 J+	78	0.461
	May 2017	64	50	59	0.524
	Jun 2017	86.4	47.3	81.3	2.55
	Jul 2017	94.0	51.8 J+	85.5	< 1.00 U
	Mar 2018	129	57.9	66.8	--
	Jul 2018	162	56.4	111	--
	Oct 2018	82.2	67.9	84.7	--
	Apr 2019	89.7	102	103	--
	Oct 2019	85.7	165	107	--
	May 2020	285	320	140	--
	Nov 2020	180	417	215	--
	Apr 2021	153	480	318 J	< 0.87 U
	Oct 2021	85.7	282	273	2.65 J
	Apr 2022	133	349	223	1.40 J
	Oct 2022	126	358	136	< 0.675 U
	Apr 2023	125	380	143 J	1.55 J
	Oct 2023	92.7	420	127	1.46

Table 2
Upper Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt	Lithium	Radium-226/228
GWPS:		10	6	40	5
MW-13	Apr 2024	121	279	137	< 0.69 U
	Oct 2024	144	395	124	< 0.658 U
	Apr 2025	133	258	156	< 1.2 U
	Oct 2025	80.4	225	155	0.842 J
	Mar 2026	68.0	222	161	1.16 J
MW-14	Oct 2016	0.41 J	0.22 J	4.8 J	1.05
	Nov 2016	0.43 J	0.16 J	6.3 J	< 0.133 U
	Jan 2017	0.86 J	0.47 J	13	0.654
	Feb 2017	0.61	0.24	19	0.565
	Apr 2017	< 5 U	0.16 J+	21	0.755
	May 2017	< 5 U	< 1 U	7.8 J	< -0.144 U
	Jun 2017	0.32	0.045 J	8.2	< 0.626 U
	Jul 2017	< 1 U	< 1 U	9.9 J	< 0.765 U
	Mar 2018	< 2.35 U	< 0.5 U	16.2 J	--
	Jul 2018	< 2.35 U	< 0.5 U	13.4 J	--
	Oct 2018	< 2.35 U	< 0.5 U	13.1 J	--
	Apr 2019	< 0.94 U	< 0.2 U	20.5	--
	Oct 2019	< 0.94 U	< 0.2 U	8.22 J	--
	May 2020	0.087 J	0.078 J	12.6	--
	Nov 2020	0.18	0.12	16.4	--
	Apr 2021	0.097 J	< 0.05 U	20.8	< 0.365 U
	Oct 2021	0.16 J	< 0.05 U	7.7	0.844 J
	Apr 2022	0.19 J	0.12 J	17.3	< 0.788 U
	Oct 2022	0.53 J	0.35 J	7.4	< 0.464 U
	Apr 2023	0.14 J	0.47 J	10.9	< 0.652 U
	Oct 2023	0.25 J	0.20 J	7.2	< 0.585 U
	Apr 2024	< 0.17 U	< 0.14 U	19.0	0.789 J
	Oct 2024	< 0.17 U	< 0.14 U	15.8	1.01 J
	Apr 2025	< 0.12 U	< 0.139 U	19.5	< 1.34 U
	Oct 2025	0.182 J	< 0.1 U	9.80 J	< 1.31 U
	Mar 2026	0.154 J	0.338 J	22.6	< 0.704 U
MW-15	Oct 2016	< 5 U	33	16 J	2.33
	Nov 2016	0.37 J	37	19 J	2.33
	Jan 2017	0.52 J	38	17	3.37
	Feb 2017	0.48	36	19	1.99
	Apr 2017	0.51 J	38	21	1.36
	May 2017	< 5 U	36	13	2.42
	Jun 2017	< 1 U	28.8	14.6 J	2.82
	Jul 2017	< 1 U	36.8	20.7 J	3.01
	Mar 2018	< 2.35 U	49.8	22.9	--
	Jul 2018	< 2.35 U	45.4	23.8	--
	Oct 2018	< 2.35 U	45.8	23.6	--
	Apr 2019	< 0.94 U	46.2	22.6	--
	Oct 2019	< 0.94 U	43.3	19.1 J	--

Table 2
Upper Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt	Lithium	Radium-226/228
GWPS:		10	6	40	5
MW-15	May 2020	0.22	69.5	29.0	--
	Nov 2020	0.16	68.6	26.5	--
	Apr 2021	0.21 J	47.3	26.7	2.42
	Oct 2021	0.14 J	45.4	27.6	1.70 J
	Apr 2022	0.18 J	46.3	22.7	3.01 J
	Oct 2022	0.39 J	55.8	21.9	2.14 J+
	Apr 2023	< 0.087 U	40.8	22.6	2.66
	Oct 2023	0.22 J	51.6	23.7	2.84 J
	Apr 2024	< 0.17 U	43.4	22.1	2.54
	Oct 2024	< 0.17 U	44.4	20.3	1.78 J
	Apr 2025	< 0.17 U	39.3	23.0	1.76
	Oct 2025	0.236 J	41.6	28.2	1.83 J
	Mar 2026	0.185 J	31.5	23.8	2.13 J
	Oct 2016	0.36 J	20	78	2.49
MW-16	Nov 2016	0.48 J	19	84	2.75
	Jan 2017	0.89 J	20	90	3.48
	Feb 2017	0.66 J	19	94	2.00
	Apr 2017	0.52 J	20	93	2.02
	May 2017	0.77 J	19	69	3.07
	Jun 2017	< 1 U	15.6	65.2	3.47
	Jul 2017	< 1 U	22.1 J+	99.2 J+	3.09
	Mar 2018	< 2.35 U	24.8	106	--
	Jul 2018	< 2.35 U	20.0	108	--
	Oct 2018	< 2.35 U	20.9	117	--
	Apr 2019	< 0.94 U	24.3	119	--
	Oct 2019	< 0.94 U	21.6	143	--
	May 2020	0.54 J	25.7	196	--
	Nov 2020	0.14	31.6	190	--
	Apr 2021	0.13 J	24.8	189	3.39
	Oct 2021	0.42 J	26.1	230	4.17
	Apr 2022	0.21 J	26.8	229	4.98 J
	Oct 2022	0.54 J	26.4	137	3.84
	Apr 2023	< 0.087 U	26.7	149	3.12 J
	Oct 2023	0.25 J	26.4	151	3.86 J
	Apr 2024	< 0.17 U	25.7	140	4.38 J
	Oct 2024	< 0.17 U	25.9	114	3.63 J+
	Apr 2025	< 0.206 U	25.6	141	3.24 J
	Oct 2025	0.223 J	24.7	179	5.36 J+
	Mar 2026	0.232 J	28.8	148	5.42 J+
MW-16D	Oct 2016	0.91 J	0.46 J	4.6	0.639
	Nov 2016	0.70 J	0.31 J	4.1 J	< 0.369 U
	Jan 2017	0.69 J	0.279 J	5.8 J	0.721
	Feb 2017	0.77	0.40	7.6 J	0.495
	Apr 2017	0.69 J	0.46 J+	8.4	0.277

Table 2
Upper Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt	Lithium	Radium-226/228
GWPS:		10	6	40	5
MW-16D	May 2017	< 5 U	0.35 J	5.6 J	< 0.348 U
	Jun 2017	0.60 J	0.28 J	10.3 J+	< 0.922 U
	Jul 2017	0.91 J	0.59 J+	9.0 J	1.17
	Mar 2018	< 2.35 U	< 0.5 U	12.3 J	--
	Jul 2018	< 2.35 U	< 0.5 U	9.92 J	--
	Oct 2018	< 2.35 U	< 0.5 U	10.4 J	--
	Apr 2019	< 0.94 U	< 0.2 U	< 4.1 U	--
	Oct 2019	< 0.94 U	< 0.2 U	9.10 J	--
	May 2020	0.20	0.27	12.0	--
	Nov 2020	0.15	0.11	9.1	--
	Apr 2021	0.26 J	< 0.86 U	19.3	< 1.78 U
	Oct 2021	0.37 J	1.7	22.2	1.49 J
	Apr 2022	0.12 J	0.38 J	19.3	< 0.792 U
	Oct 2022	0.34 J	2.4	17.2	0.750 J
	Apr 2023	0.15 J	0.43 J	17.2	< 0.766 U
	Oct 2023	0.11 J	0.44 J	17.3	1.63 J-
	Apr 2024	< 0.17 U	0.38 J	14.8	1.44 J
	Oct 2024	< 0.17 U	0.59 J	15.0	< 0.272 U
	Apr 2025	< 0.12 U	< 0.467 U	13.6	< 0.249 U
	Oct 2025	< 0.12 U	0.204 J	21.0	< 0.624 U
	Mar 2026	< 0.12 U	0.189 J	18.0	0.756 J
MW-17S	Oct 2016	13	14	3.9	3.68
	Nov 2016	13	15	< 2.7 U	4.34
	Jan 2017	13	14	< 8 U	4.33
	Feb 2017	13	14	0.19 J	4.10
	Apr 2017	19	15	0.33 J	3.41
	May 2017	11	14	< 8 U	3.49
	Jun 2017	10.2	8.3	< 25 U	5.02
	Jul 2017	31.2	27.8 J+	< 25 U	4.77 J+
	Mar 2018	12.8	15.4	< 4.1 U	--
	Jul 2018	25.9	12.3	< 4.1 U	--
	Oct 2018	15.3	12.4	< 4.1 U	--
	Apr 2019	21.3	13.3	< 4.1 U	--
	Oct 2019	17.4	11.2	< 4.1 U	--
	May 2020	37.7	13.0	0.58	--
	Nov 2020	47.8	12.0	0.52	--
	Apr 2021	17.8	12.5	0.88 J	4.38
	Oct 2021	19.7	11.4	0.66	5.16
	Apr 2022	19.3	11.6	0.88	6.18
	Oct 2022	15.5	10.9	< 0.5 U	6.16
	Apr 2023	16.8	12.8	< 0.5 U	< 1.12 U
	Oct 2023	24.1	11.9	< 0.5 U	5.17 J
	Apr 2024	18.4	13.3	< 0.33 U	7.26
	Oct 2024	26.1	13.2	< 0.33 U	5.66

Table 2
Upper Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt	Lithium	Radium-226/228
GWPS:		10	6	40	5
MW-17S	Apr 2025	27.6	15.7	< 0.6 U	6.61
	Oct 2025	18.9	14.2	15.4	7.54 J+
	Mar 2026	15.0	15.4	< 4.22 U	6.95 J
MW-B31	Oct 2016	< 5 U	1.5	< 2.7 U	< 0.177 U
	Nov 2016	0.52 J	4.6	< 2.7 U	0.560
	Jan 2017	< 5 U	2.1	2.4 J	0.740
	Feb 2017	0.55 J	1.2	1.9 J	< 0.142 U
	Apr 2017	< 5 U	1.2	1.5 J	0.436
	May 2017	< 5 U	0.77 J	< 8 U	< 0.129 U
	Jun 2017	< 1 U	0.67 J	2.4 J	1.30
	Jul 2017	< 1 U	0.72 J	1.7 J	0.994
	Mar 2018	< 2.35 U	0.559 J	< 4.1 U	--
	Jul 2018	< 2.35 U	< 0.5 U	< 4.1 U	--
	Oct 2018	< 2.35 U	< 0.5 U	< 4.1 U	--
	Apr 2019	< 0.94 U	0.573 J	< 4.1 U	--
	Oct 2019	< 0.94 U	0.249 J	< 4.1 U	--
	May 2020	24.3	2.7	1.1	--
	Jul 2020	0.23	--	--	--
	Nov 2020	< 0.1 U	0.40	1.1	--
	Apr 2021	0.094 J	< 0.41 U	1.3	1.34 J
	Oct 2021	< 0.087 U	0.18 J	1.1 J+	< 0.19 U
	Apr 2022	< 0.087 U	0.14 J	1.0	< 0.467 U
	Oct 2022	0.11 J	0.28 J	1.3 J	< 0.311 U
	Apr 2023	< 0.087 U	0.10 J	1.1 J	< 0.399 U
	Oct 2023	0.13 J	0.35 J	1.4 J	1.08 J
	Apr 2024	< 0.17 U	< 0.14 U	1.2 J	< 0.561 U
	Oct 2024	< 0.17 U	0.16 J	1.3 J	< 0.316 U
	Apr 2025	< 0.12 U	< 0.231 U	1.13 J	< 0.886 U
	Oct 2025	0.200 J	0.159 J	< 4.22 U	< 0.434 U
	Mar 2026	< 0.12 U	0.286 J	4.29 J	< 0.0968 UJ
MW-B32	Oct 2016	< 5 U	2.9	11	3.98
	Nov 2016	0.52 J	3.2	9.0 J	3.85
	Jan 2017	0.53 J	3.1	6.1 J	3.67
	Feb 2017	0.61 J	3.4	6.4 J	3.39
	Apr 2017	0.66 J	3.4	6.9 J	3.18
	May 2017	< 5 U	3.0	6.5 J	3.32
	Jun 2017	< 1 U	3.0	5.8 J	4.12
	Jul 2017	< 1 U	3.4	8.6 J	3.20
	Mar 2018	< 2.35 U	3.51 J	7.04 J	--
	Jul 2018	< 2.35 U	3.73 J	10.1 J	--
	Oct 2018	< 2.35 U	3.29 J	9.58 J	--
	Apr 2019	< 0.94 U	5.02	6.12 J	--
	Oct 2019	< 0.94 U	3.46	6.63 J	--
	May 2020	0.22	4.4	8.9	--

Table 2
Upper Ash Pond Groundwater Monitoring Network
Historical COC Concentrations
Chesterfield Power Station

Monitoring Well ID	Date	Arsenic	Cobalt	Lithium	Radium-226/228
GWPS:		10	6	40	5
MW-B32	Nov 2020	0.13	4.4	8.1	--
	Apr 2021	0.24 J	4.9	9.4	3.85
	Oct 2021	0.18 J	4.6	9.6 J+	5.11
	Apr 2022	0.14 J	3.9	9.9	4.88 J
	Oct 2022	0.26 J	4.8	6.7	3.02 J+
	Apr 2023	0.27 J	5.9	6.8	4.48
	Oct 2023	0.47 J	5.7	6.7	4.77 J-
	Apr 2024	0.17 J	4.6	7.2	4.41 J+
	Oct 2024	0.23 J	5.2	6.7	5.52
	Apr 2025	< 0.174 U	6.19	6.34	5.18
	Oct 2025	0.335 J	4.99	< 4.22 U	3.01
	Mar 2026	0.130 J	4.17	8.83 J	5.02 J

Notes:

Arsenic, cobalt, and lithium reported in micrograms per liter

Radium 226/228 reported in picoCuries per liter

Highlighted value indicates exceedance of the Groundwater Protection Standard

Groundwater Protection Standard not established until November 2018

GWPS = Groundwater Protection Standard

-- = Analyte not analyzed during sampling event

< and U = Analyte was not detected above the laboratory reporting limit

J = Estimated value

J+ = Estimated value, high bias

J- = Estimated value, low bias

R = Value is rejected

Table 3
Surface Water Sample Results Summary
Chesterfield Power Station

Sample Location:		CH-01	CH-02	CH-03	CH-04	DUP-1	CH-05	CH-06	CH-07
Analyte	Units								
Antimony	ug/L	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
Arsenic	ug/L	0.75 U	2.3 J	0.75 U	0.98 J	1.1 J	1.3 J	0.75 U	0.81 J
Barium	ug/L	37	57	41	44	49	54	39	37
Beryllium	ug/L	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
Boron	ug/L	29	66	28	110 J	150 J	41	29	26
Cadmium	ug/L	0.077 U	0.077 U	0.077 U	0.084 J	0.077 U	0.077 U	0.077 U	0.077 U
Calcium	ug/L	26,000	31,000	27,000	35,000	40,000	34,000	26,000	26,000
Chromium	ug/L	1.2 U	2.3 J	1.2 U	1.6 J	2.2 J	2.0 J	1.3 J	1.2 U
Cobalt	ug/L	0.59 J	1.8	0.72 J	1.7	2.6	1.4	1.0	0.53 J
Copper	ug/L	1.7 U	3.1	1.7 U	2.3	2.9	2.8	2.3	1.7 U
Lead	ug/L	0.59 J	2.5	0.93 J	1.3	1.8	1.8	1.2	0.45 U
Lithium	ug/L	3.4 U	6.3 J	3.4 U	3.7 J	4.3 J	3.4 U	3.4 U	3.4 U
Magnesium	ug/L	4,600	5,600	4,600	6,300 J	8,000 J	5,100	4,400	4,800
Molybdenum	ug/L	1.3 J	1.4 J	1.1 U	1.3 J	1.5 J	1.1 U	1.1 U	1.1 U
Nickel	ug/L	1.5 J	3.2	1.5 J	2.2	2.6	2.4	2.1	1.5 U
Selenium	ug/L	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U
Silver	ug/L	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
Thallium	ug/L	0.51 U	0.87 J	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Vanadium	ug/L	1.6 J	5.1	2.0 J	3.9 J	5.1	5.0	3.6 J	1.2 J
Zinc	ug/L	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U
Chromium, Trivalent	ug/L	3.2 R	3.2 R	3.2 R	3.2 R	3.2 R	3.2 R	3.2 R	3.2 R
Chromium, Hexavalent	ug/L	6.0 R	6.0 R	6.0 R	6.0 R	6.0 R	6.0 R	6.0 R	6.0 R
Mercury	ug/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Hardness	mg/L	85	100	86	110	130	110	82	85
Total Suspended Solids	mg/L	11	67	25	45	38	60	49	11
Chloride	mg/L	29	36	31	34	36	30	31	26
Fluoride	mg/L	0.11	0.12	0.11	0.11	0.13	0.14	0.13	0.10
Sulfate	mg/L	27	37	26	37 J	47 J	22	26	25
pH (lab)	SU	8.2 J	7.7 J	8.5 J	8.5 J	8.7 J	8.1 J	8.6 J	7.7 J
Radium-226	pCi/L	0.214 U	0.227 U	-0.0155 UJ	0.110 UJ	0.0590 UJ	-0.0477 UJ	0.0998 UJ	0.0661 UJ
Radium-228	pCi/L	0.468 U	0.596 U	0.469 U	0.870 U	0.653 U	2.66 U	-0.0238 U	0.0775 U
Radium-226/228	pCi/L	0.682 U	0.823 U	0.469 UJ	0.979 UJ	0.712 UJ	2.66 UJ	0.0998 UJ	0.144 UJ
Field Measurements									
Temperature	°C	23.1	23.6	22	27.1	--	28.6	23.5	22.4
pH (lab)	SU	8.44	8.13	8.58	8.11	--	8.69	8.2	7.6
Specific Conductivity	uS/cm	290	325.8	290.6	404	--	292.1	295	267.3
Dissolved Oxygen	mg/L	8.02	8.02	10.11	6.27	--	12.02	9.78	7.26
Oxygen Reduction Potential	mV	168.3	172.4	172	175.6	--	139.5	169	-40.5

Notes:

Samples collected on May 5, 2026

No analyte exceeded their respective Virginia Surface Water Quality Standards (9VAC25-260-140).

DUP-1 = CH-04

ug/L = micrograms per liter

mg/L = milligrams per liter

pCi/L = picocuries per liter

°C = degrees Celsius

SU = standard units

uS/cm = microsiemens per centimeter

mV = millivolts

U = not detected

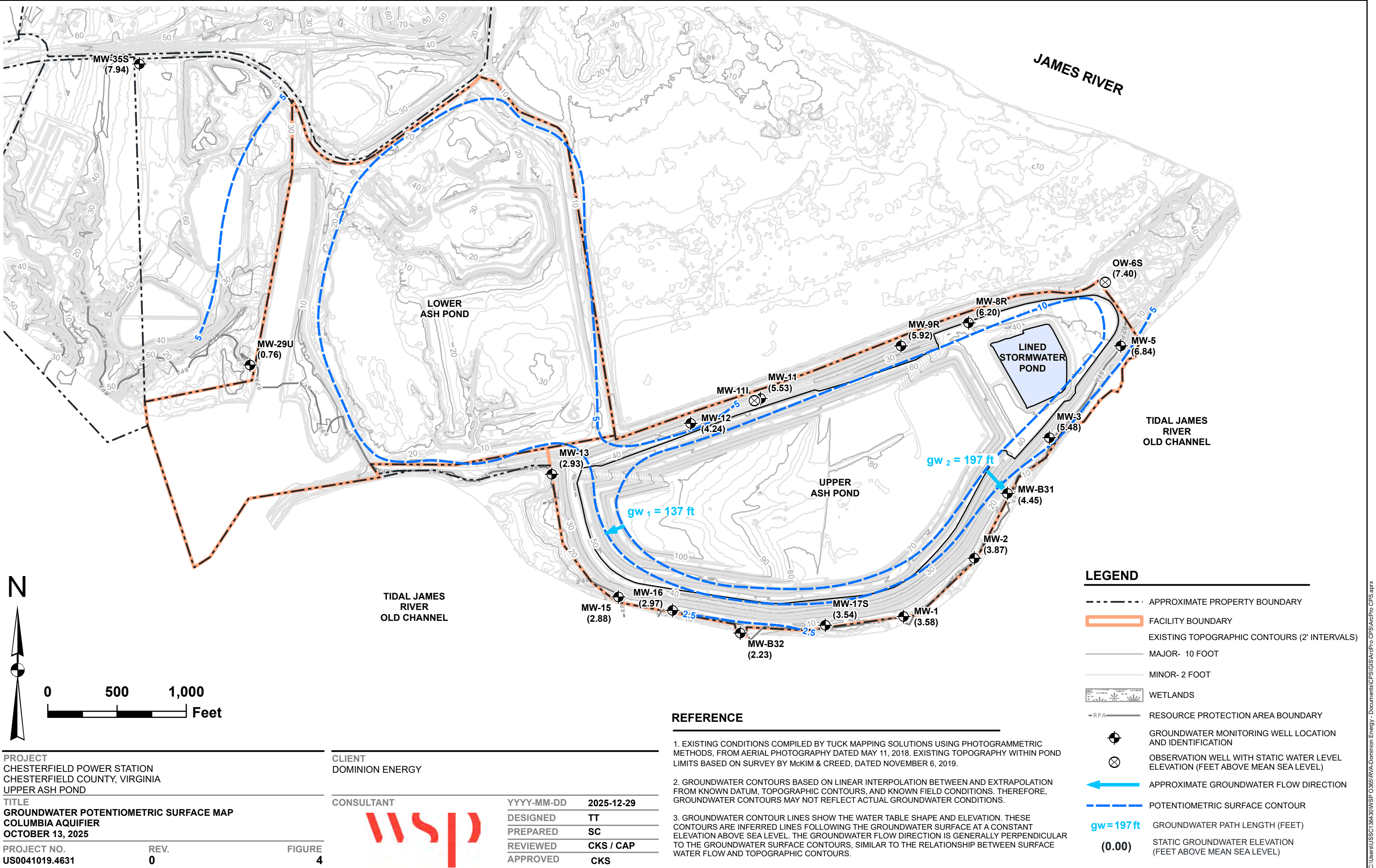
J = estimated value

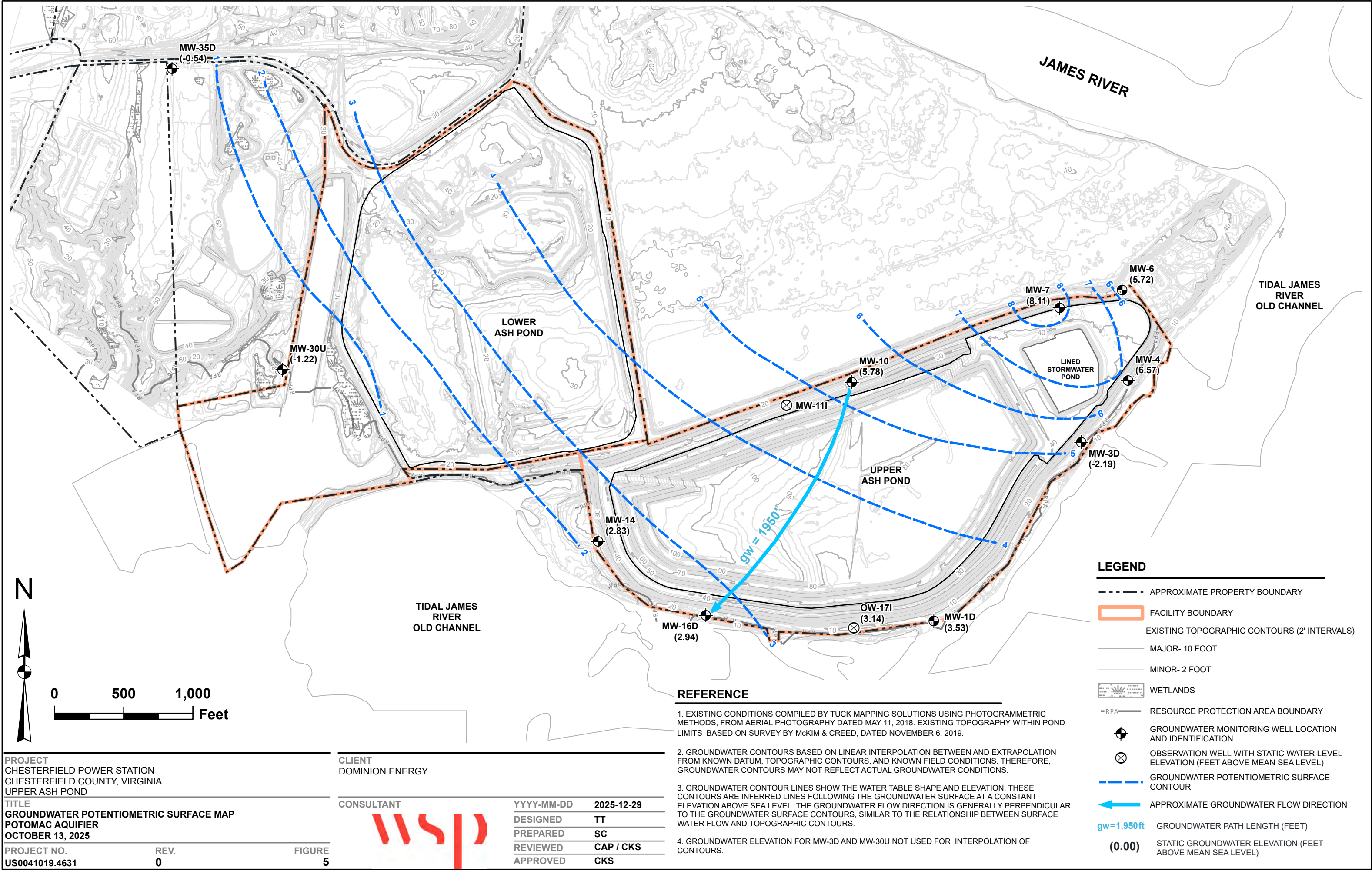
UJ = non-detect with estimated reporting limit

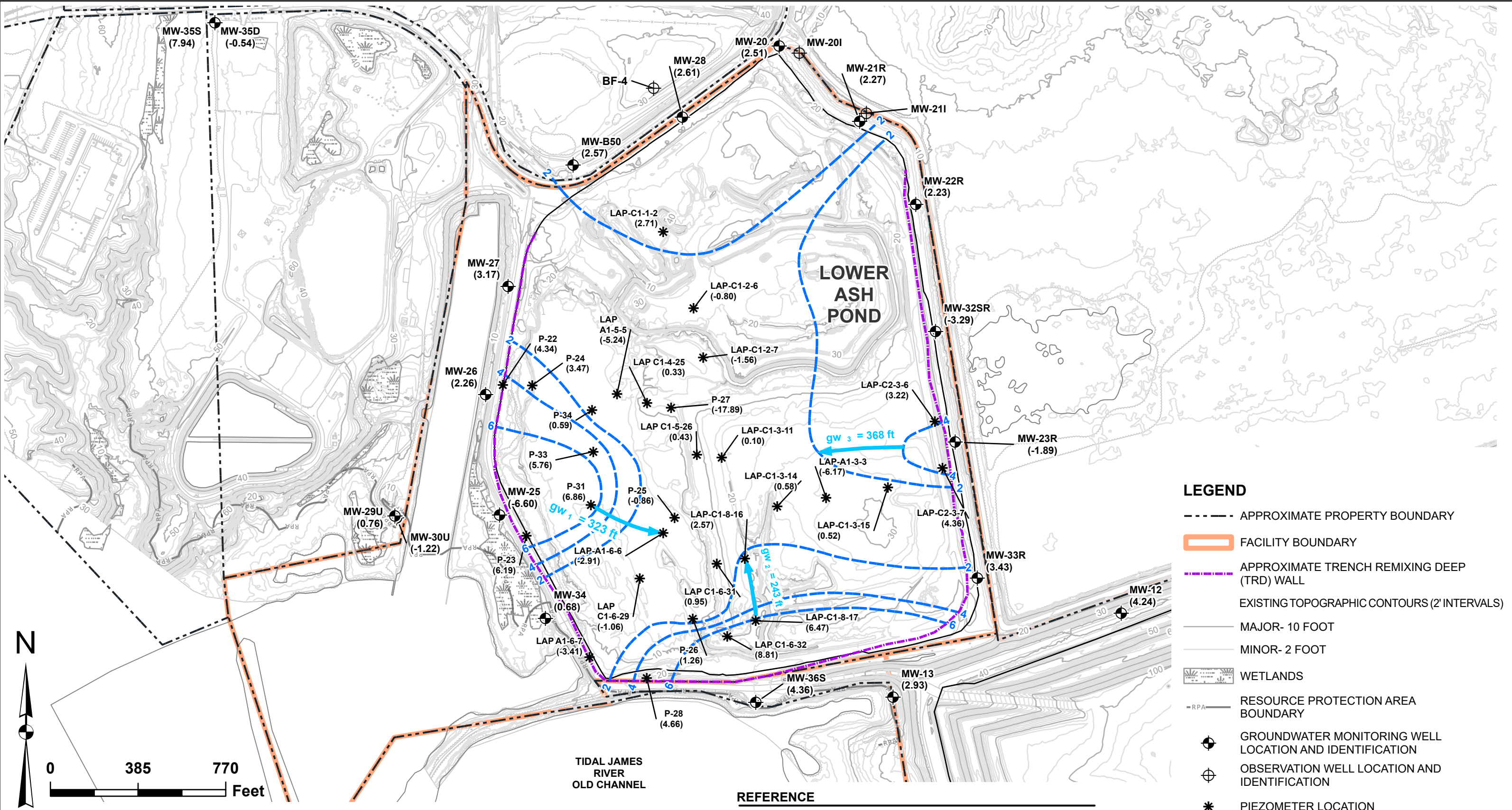
R = rejected data

-- = not applicable

Appendix A – Surface Impoundment GMS







LEGEND

APPROXIMATE PROPERTY BOUNDARY

FACILITY BOUNDARY

APPROXIMATE TRENCH REMIXING DEEP (TRD) WALL

EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)

MAJOR- 10 FOOT

MINOR- 2 FOOT

WETLANDS

RESOURCE PROTECTION AREA BOUNDARY

GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION

OBSERVATION WELL LOCATION AND IDENTIFICATION

PIEZOMETER LOCATION

APPROXIMATE GROUNDWATER FLOW DIRECTION

POTENTIOMETRIC SURFACE CONTOUR

gw = 323 ft

(0.00)

GROUNDWATER PATH LENGTH (FEET)

STATIC GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

PROJECT
CHESTERFIELD POWER STATION
CHESTERFIELD COUNTY, VIRGINIA
LOWER ASH POND

TITLE
GROUNDWATER POTTENTIOMETRIC SURFACE MAP
UPPERMOST AQUIFIER
OCTOBER 13, 2025

PROJECT NO.
US0041019.4631

CLIENT
DOMINION ENERGY

CONSULTANT

YYYY-MM-DD	2025-12-29
DESIGNED	VS
PREPARED	SC
REVIEWED	CKS / CAP
APPROVED	CKS

FIGURE
3

REV.
0

REFERENCE

1. EXISTING CONDITIONS COMPILED BY TUCK MAPPING SOLUTIONS USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED MAY 11, 2018. EXISTING TOPOGRAPHY WITHIN POND LIMITS BASED ON SURVEY PERFORMED BY MCKIM & CREED, DATED NOVEMBER 6, 2019.

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.

C:\Users\USC136430\WSP\0365\RNA-Dominion Energy - Documents\CPS\GIS\ArcPro CPS.aprx

Appendix B – Public Participation



July 18, 2019

Dr. Joseph P. Casey
County Administrator
County of Chesterfield, Virginia
9901 Lori Road
Chesterfield, Virginia 23832

RE: Chesterfield Power Station, Upper Ash Pond: Adjacent Landowner Notification

Dear Dr. Casey:

In accordance with the U.S. EPA's Coal Combustion Residuals Rule, 40 CFR § 257.95(g)(2), Virginia Electric and Power Company d/b/a Dominion Energy Virginia is providing this notification concerning a recent groundwater assessment at the Chesterfield Power Station's Upper Ash Pond. As further described in our recently completed Assessment of Corrective Measures Report ("Assessment"), available at <https://www.dominionenergy.com/company/community/environment/reports-and-performance/ccr-rule-compliance-data-and-information>, existing groundwater monitoring wells located within Dominion Energy's easement on Chesterfield County property were sampled to help define the nature and extent of groundwater impacts at the Upper Ash Pond.

Of the four offsite monitoring wells sampled for the Assessment, all results but one were below established groundwater protection standards. The single result above a standard was for radium-226&228 in monitoring well DM-5, located south of the Upper Ash Pond (see map attached), with an estimated level of 6.73 picocuries per liter (pCi/L). The groundwater protection standard for radium-226&228 is 5.0 pCi/L, which represents the Maximum Contaminant Level (MCL) prescribed by EPA for drinking water. Two other wells in the immediate area of DM-5 were also sampled and were below the MCL. The Assessment notes that there is no human exposure risk to groundwater at the site. In addition, Virginia DEQ will require surface water monitoring as part of its solid waste permit for closure of the ponds to ensure protection of the James River.

As you know, the Virginia General Assembly has mandated that all CCR be removed from the Upper and Lower Ash Ponds at Chesterfield Power Station. The CCR removal will in turn allow for natural recovery of groundwater, as explained in the Assessment. Should you have any questions, please contact me at (804) 273-2792.

Sincerely,

A handwritten signature in blue ink that reads 'Lisa C. Messinger'.

Lisa C. Messinger
Director, Environmental Services

Attachment

cc: William D. Dupler (Chesterfield County)
James K. Beazley (Dominion Energy)
Shane Young (Dominion Energy)

 PROPERTY BOUNDARY

2. AERIAL IMAGERY SOURCE: ESRI



0 700 1,400
SCALE IN FEET



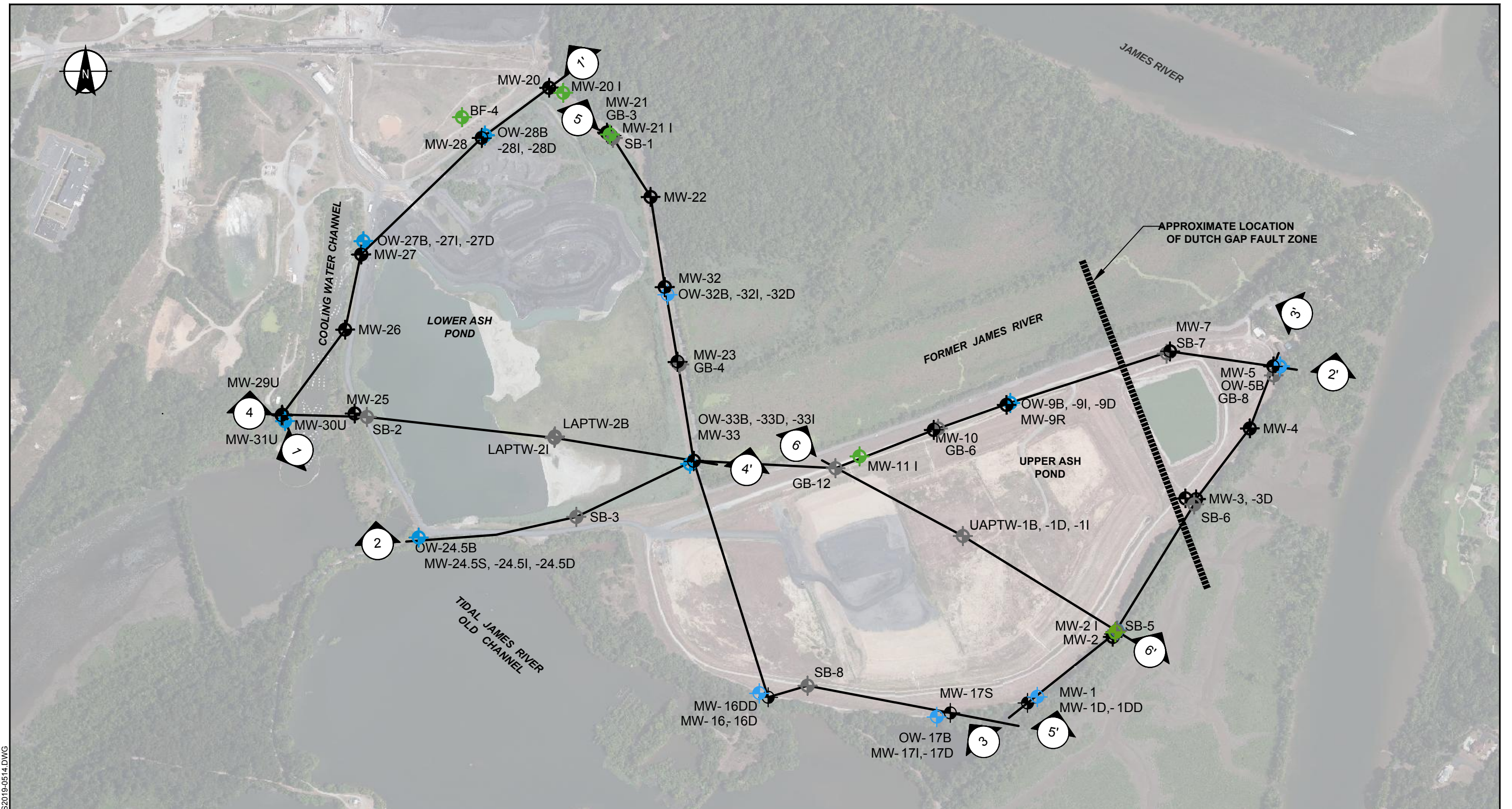
CHESTERFIELD POWER STATION
500 COXENDALE ROAD
CHESTER, VIRGINIA

WELL LOCATION MAP
UPPER ASH POND

MAY 2019

FIGURE 11

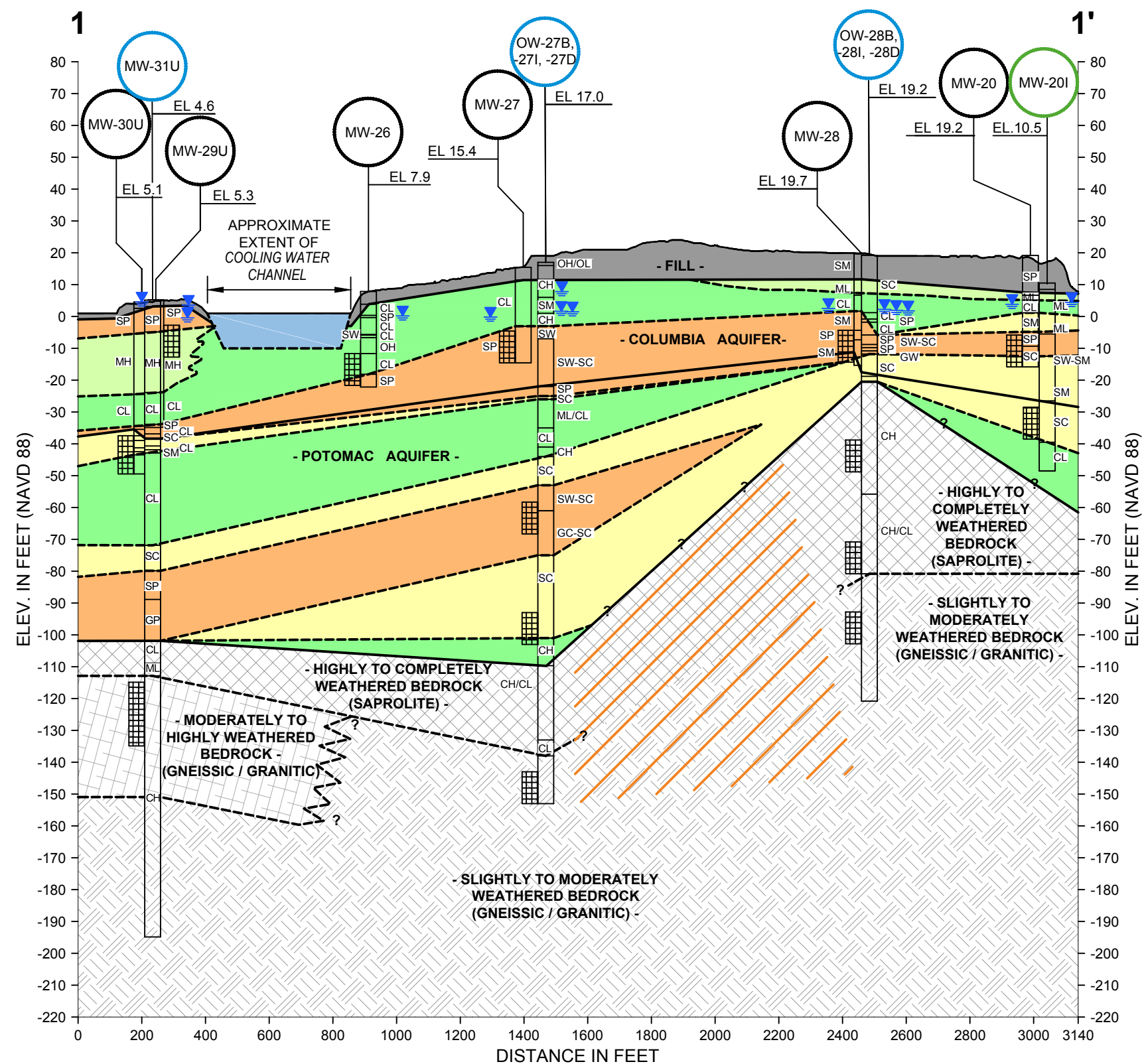
Appendix C – Geologic Cross Sections



LEGEND

	INDICATES COMPLIANCE WELLS
	INDICATES EXISTING OBSERVATION WELLS
	INDICATES OBSERVATION WELL / PIEZOMETER INSTALLED AS PART OF NATURE AND EXTENT INVESTIGATION
	INDICATES FORMER EXPLORATION LOCATION

**HALEY
ALDRICH** CHESTERFIELD POWER STATION
500 COXENDALE ROAD
CHESTER, VIRGINIA

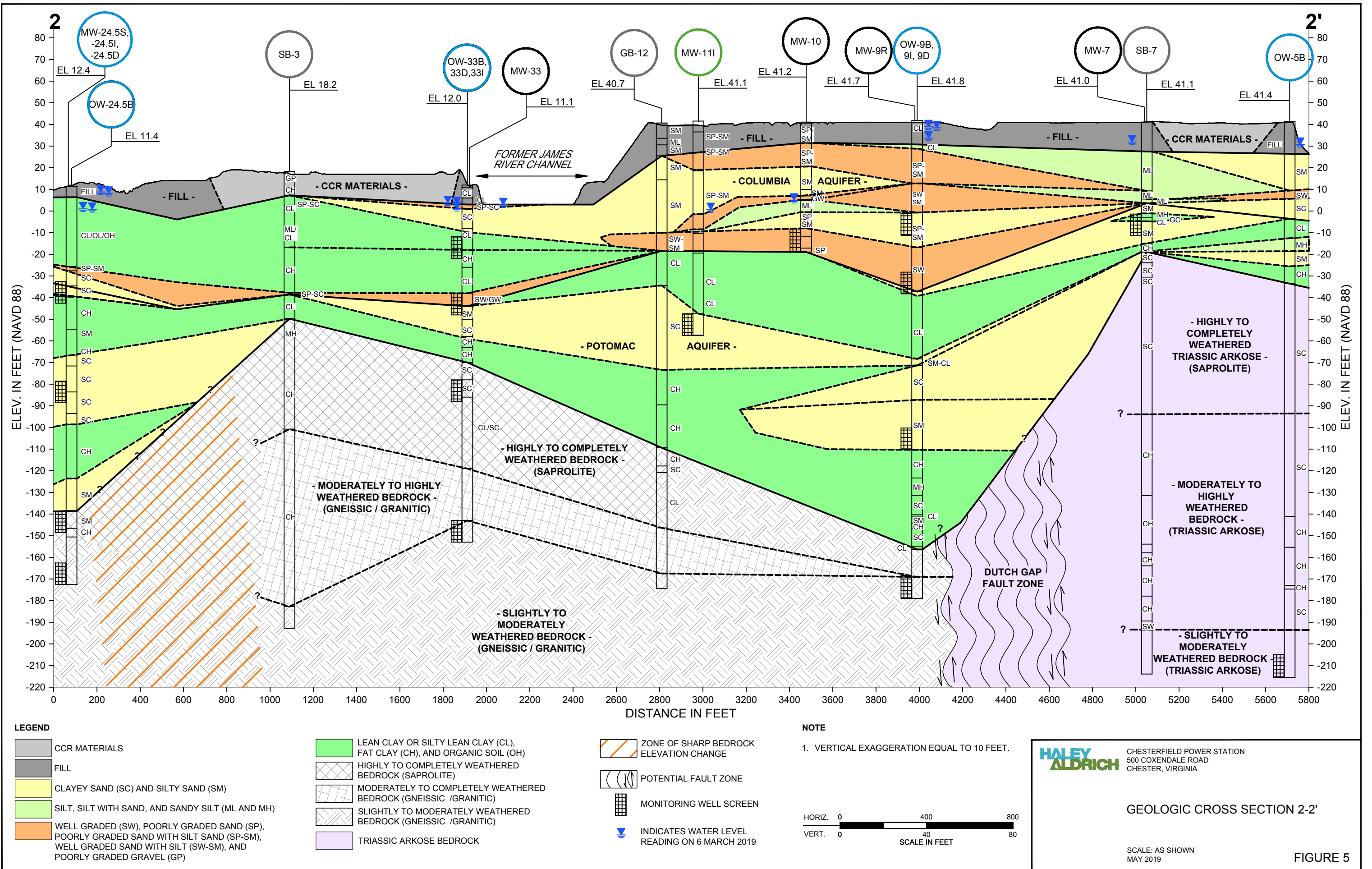


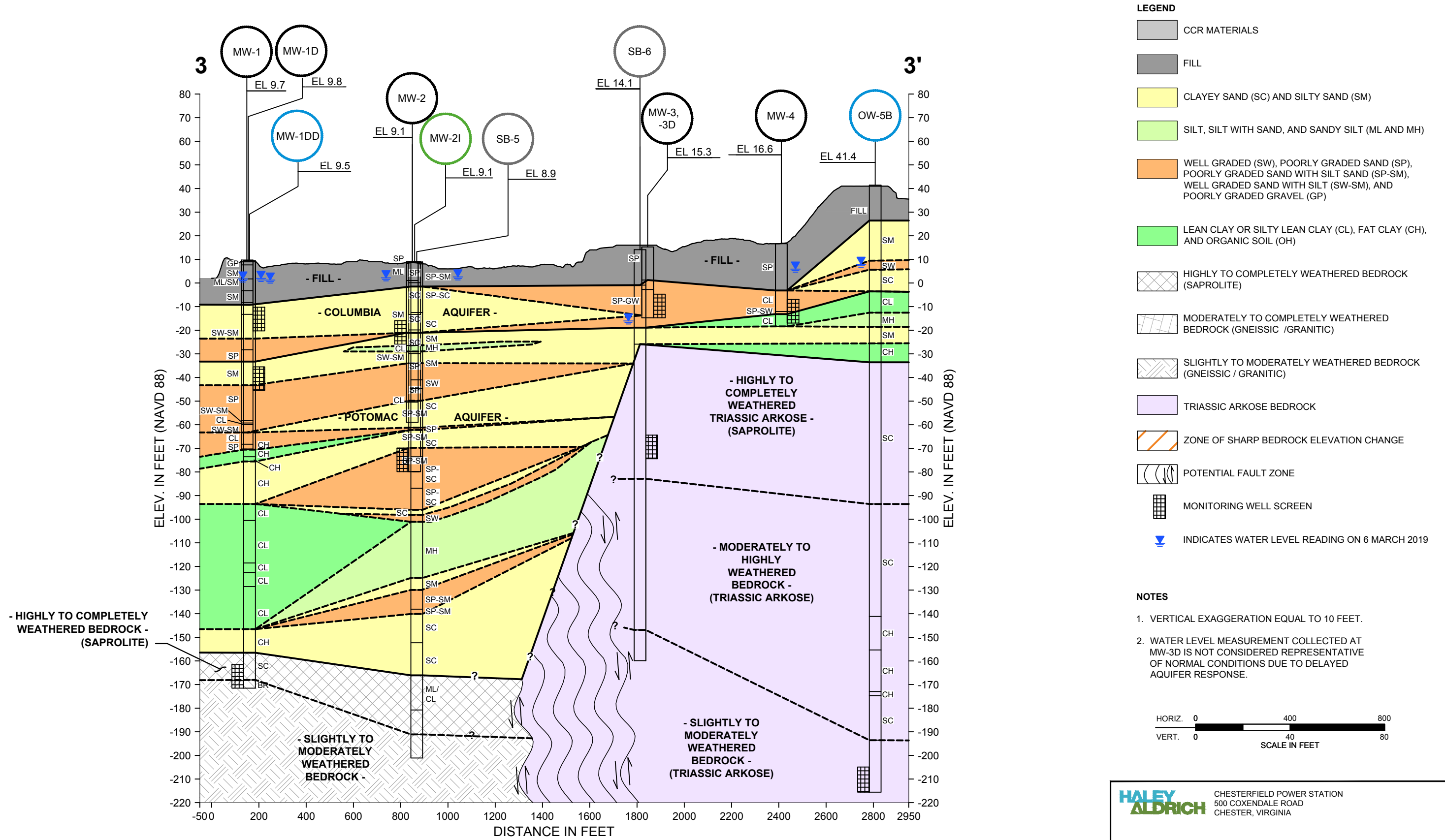
HALEY ALDRICH CHESTERFIELD POWER STATION
500 COXENDALE ROAD
CHESTER, VIRGINIA

GEOLOGIC CROSS SECTION 1-1'

SCALE: AS SHOWN
MAY 2019

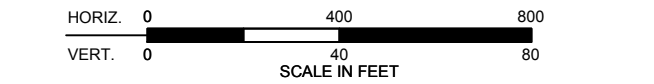
FIGURE 4





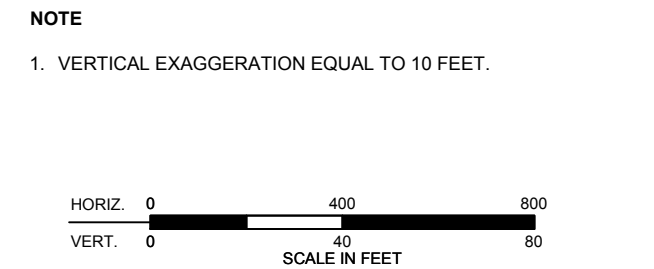
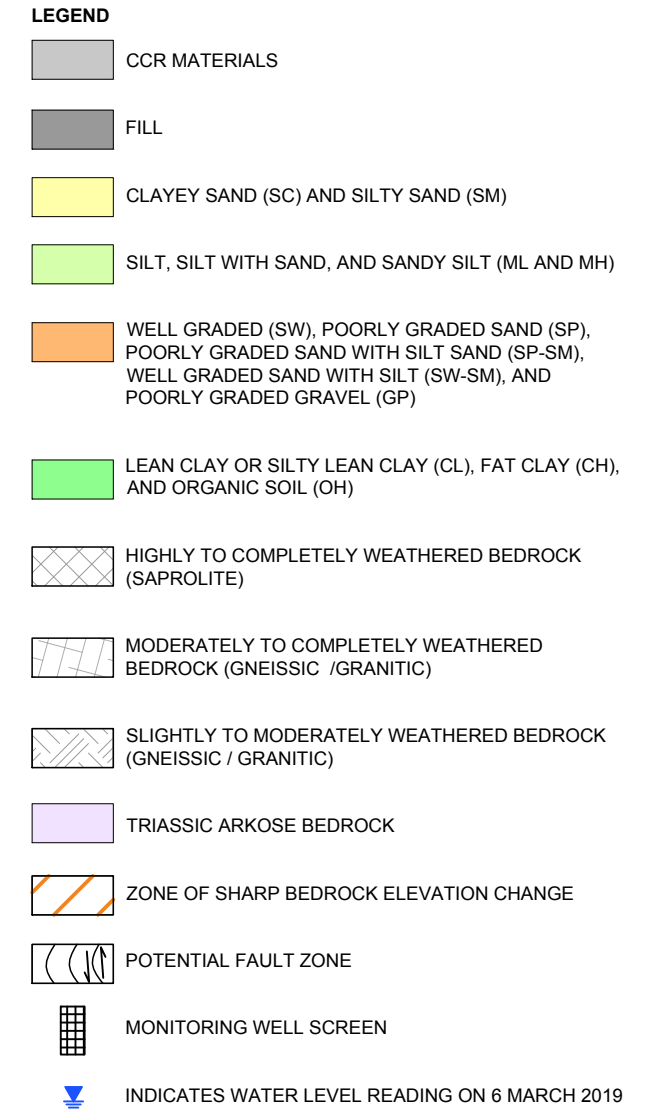
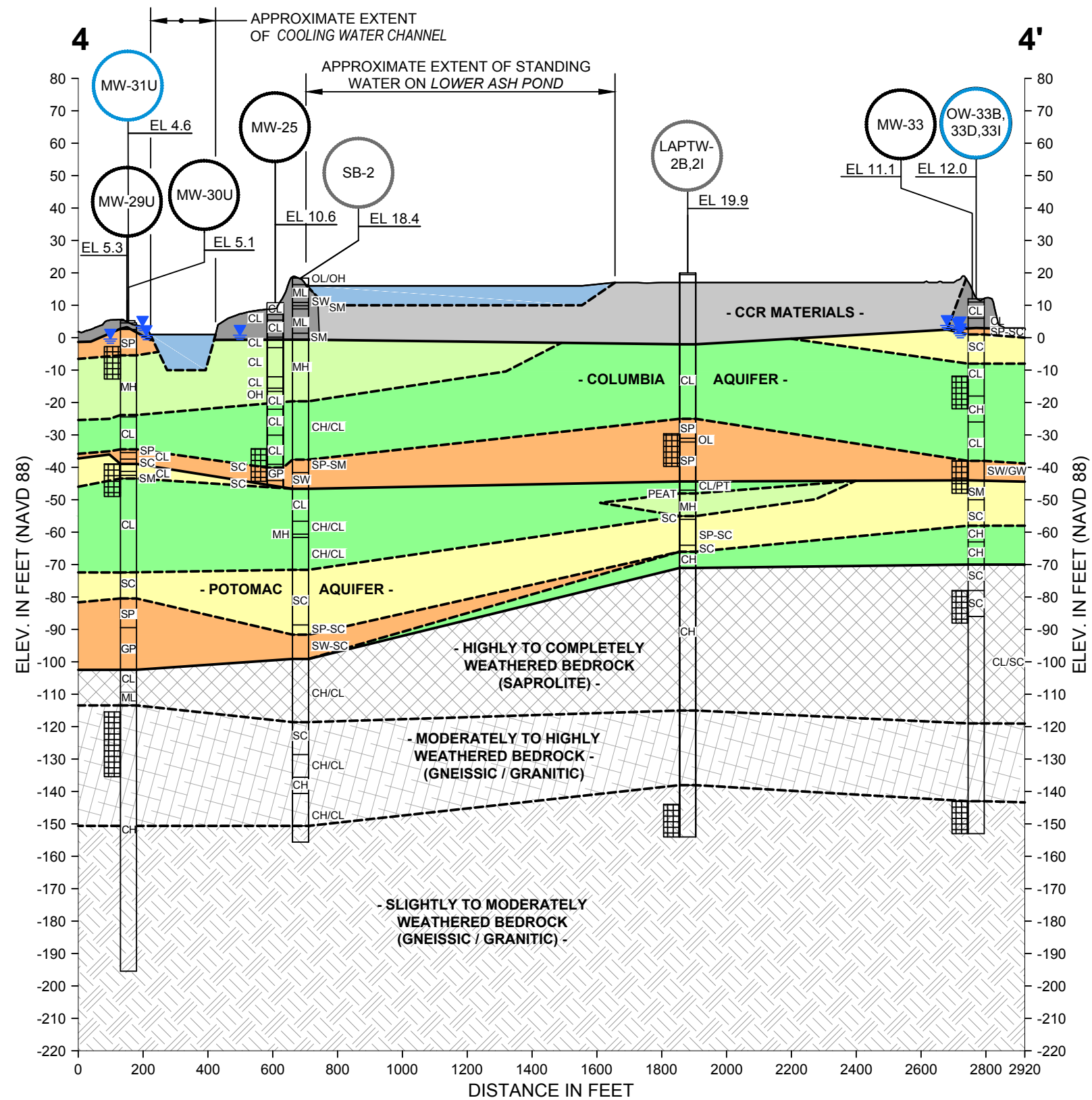
- LEGEND**
- CCR MATERIALS
 - FILL
 - CLAYEY SAND (SC) AND SILTY SAND (SM)
 - SILT, SILT WITH SAND, AND SANDY SILT (ML AND MH)
 - WELL GRADED (SW), POORLY GRADED SAND (SP), POORLY GRADED SAND WITH SILT SAND (SP-SM), WELL GRADED SAND WITH SILT (SW-SM), AND POORLY GRADED GRAVEL (GP)
 - LEAN CLAY OR SILTY LEAN CLAY (CL), FAT CLAY (CH), AND ORGANIC SOIL (OH)
 - HIGHLY TO COMPLETELY WEATHERED BEDROCK (SAPROLITE)
 - MODERATELY TO COMPLETELY WEATHERED BEDROCK (GNEISSIC / GRANITIC)
 - SLIGHTLY TO MODERATELY WEATHERED BEDROCK (GNEISSIC / GRANITIC)
 - TRIASSIC ARKOSE BEDROCK
 - ZONE OF SHARP BEDROCK ELEVATION CHANGE
 - POTENTIAL FAULT ZONE
 - MONITORING WELL SCREEN
 - INDICATES WATER LEVEL READING ON 6 MARCH 2019

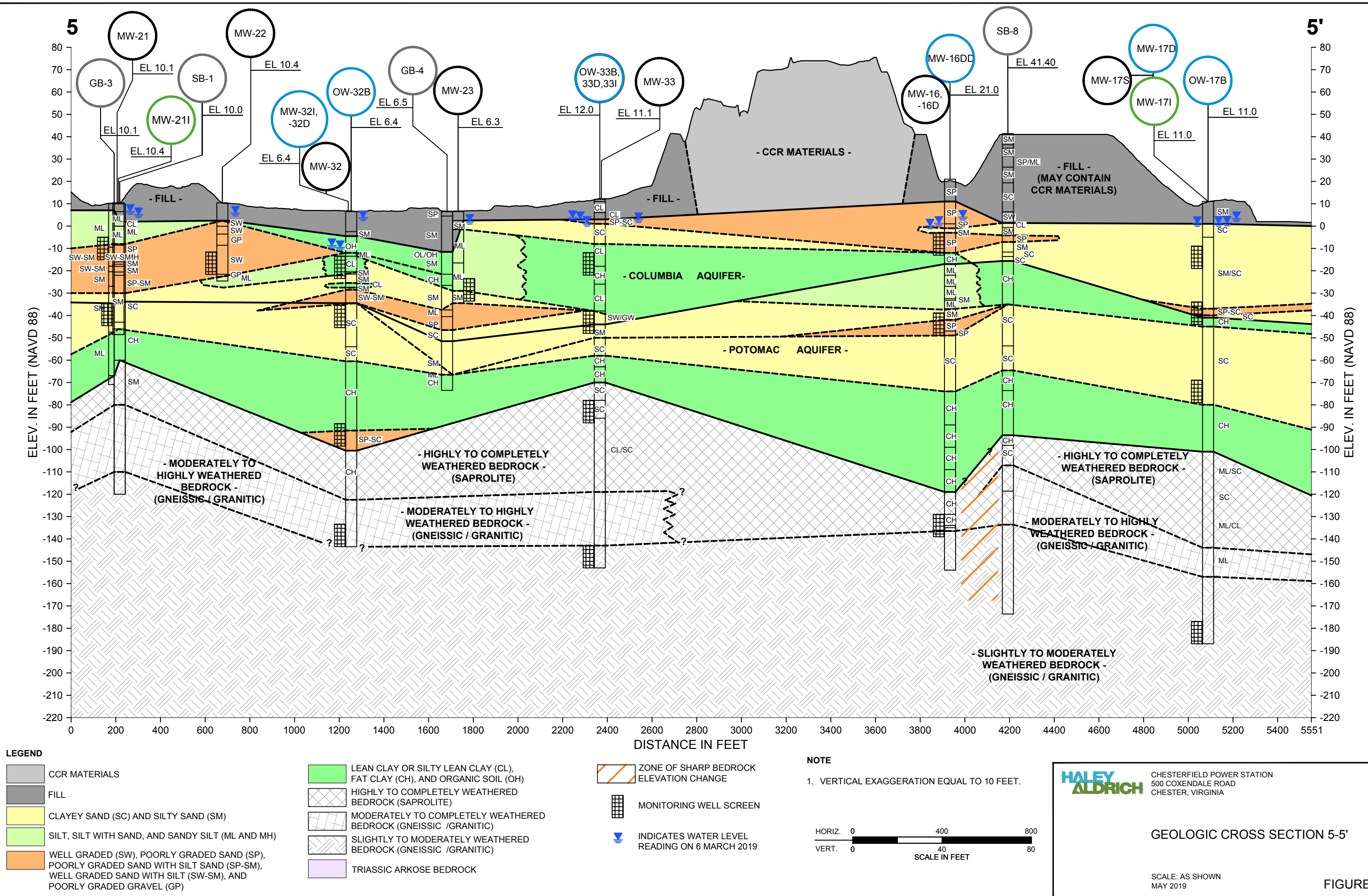
- NOTES**
- VERTICAL EXAGGERATION EQUAL TO 10 FEET.
 - WATER LEVEL MEASUREMENT COLLECTED AT MW-3D IS NOT CONSIDERED REPRESENTATIVE OF NORMAL CONDITIONS DUE TO DELAYED AQUIFER RESPONSE.

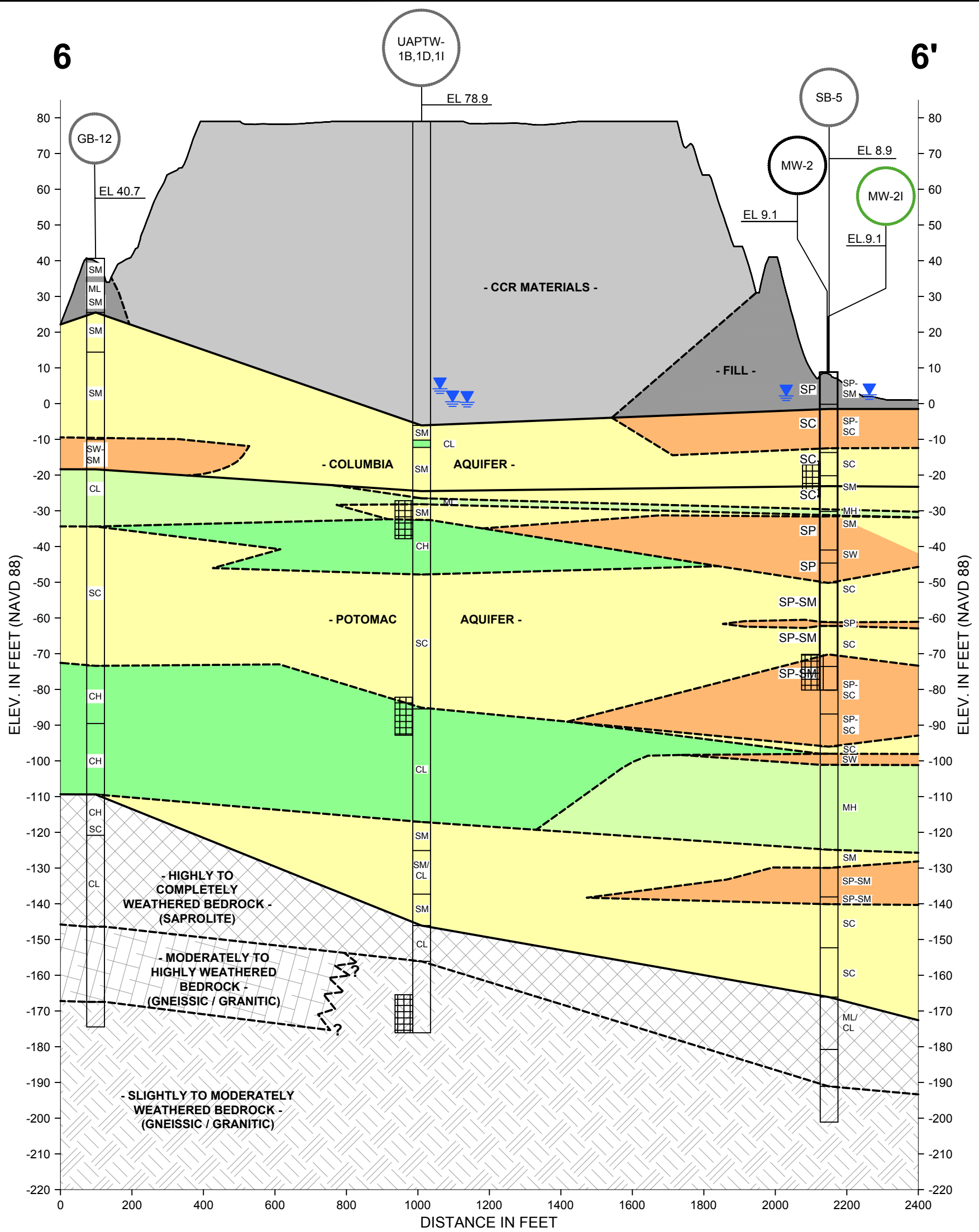


HALEY ALDRICH CHESTERFIELD POWER STATION
500 COXENDALE ROAD
CHESTER, VIRGINIA

GEOLOGIC CROSS SECTION 3-3'





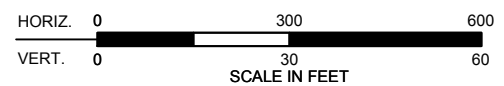


LEGEND

- | | | | |
|---|---|---|---|
|  | CCR MATERIALS |  | MODERATELY TO COMPLETELY WEATHERED BEDROCK (GNEISSIC /GRANITIC) |
|  | FILL |  | SLIGHTLY TO MODERATELY WEATHERED BEDROCK (GNEISSIC / GRANITIC) |
|  | CLAYEY SAND (SC) AND SILTY SAND (SM) |  | TRIASSIC ARKOSE BEDROCK |
|  | SILT, SILT WITH SAND, AND SANDY SILT (ML AND MH) |  | ZONE OF SHARP BEDROCK ELEVATION CHANGE |
|  | WELL GRADED (SW), POORLY GRADED SAND (SP), POORLY GRADED SAND WITH SILT SAND (SP-SM), WELL GRADED SAND WITH SILT (SW-SM), AND POORLY GRADED GRAVEL (GP) |  | POTENTIAL FAULT ZONE |
|  | LEAN CLAY OR SILTY LEAN CLAY (CL), FAT CLAY (CH), AND ORGANIC SOIL (OH) |  | MONITORING WELL SCREEN |
|  | HIGHLY TO COMPLETELY WEATHERED BEDROCK (SAPROLITE) |  | INDICATES WATER LEVEL READING ON 6 MARCH 2019 |

NOTE

1. VERTICAL EXAGGERATION EQUAL TO 10 FEET.



**HALEY
ALDRICH** CHESTERFIELD POWER STATION
500 COXENDALE ROAD
CHESTER, VIRGINIA

GEOLOGIC CROSS SECTION 6-6'

SCALE: AS SHOWN
MAY 2019

FIGURE 9

Appendix D – Field Notes, Laboratory & Data Validation Reports

2 Date: 05/05/2026

Weather: 70° Sunny, light wind

Personnel: C. Jerrett, J. Stout

1025: Arrive and meet G. Velzy to pick up canoe.

1040: Arrive at Canoe. Gather equipment and unpack.

1120: Begin calibration of water quality meter

13:24 Arrive at CH-07 and collect
[CH-07-20260505]

Temp 22.4 °C
DO: 7.26 mg/L
SPC 267.5 µg/L

1339: Finish at CH-07 go to CH-06

1358: Arrive at CH-06 and collect

[CH-06-20260505]

Temp 23.5 °C
DO 9.79
SPC 295

1430: Arrive at CH-05 and collect

[CH-05-20260505]

Temp 28.6 °C
DO 12.02
SPC 292.1

1517: Arrive back at base camp to hydrate and pickup supplies

1539: Launch canoe ~~for~~ again

1551: Arrive at CH-04 and collect

[CH-04-20260505] + [DUP-1]

Temp 27.1 °C
DO 6.27
SPC 404

1609: Finish at CH-04 go to CH-03

1637: Arrive at CH-03 and collect

[CH-03-20260505]

Temp 22 °C
DO 10.11
SPC 290.6

1656: Finish at CH-03 go to CH-02

1702: Arrive at CH-02 and collect

[CH-02-20260505]

Temp 23.6 °C
DO 8.88
SPC 325.8

1723: Arrive back at shore. Unload, head to CH-01

1755: Arrive at CH-01 and collect

[CH-01-20260505]

Temp 23.1 °C
DO 8.02
SPC 290

1920: Finish sampling and leave site

Rite in the Rain

ANALYTICAL REPORT

PREPARED FOR

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

Generated 6/8/2026 4:27:51 PM

JOB DESCRIPTION

Chesterfield VA - Dominion

JOB NUMBER

240-249770-1

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.

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

Authorization

Roxanne Cisneros

Generated
6/8/2026 4:27:51 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(330)497-9396

Table of Contents

Cover Page 1

Table of Contents 3

Definitions/Glossary 4

Case Narrative 5

Method Summary 6

Sample Summary 7

Detection Summary 8

Client Sample Results 13

Tracer Carrier Summary 29

QC Sample Results 30

QC Association Summary 39

Lab Chronicle 43

Certification Summary 47

Chain of Custody 48

Receipt Checklists 57



Definitions/Glossary

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Qualifiers

Metals

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

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

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: Chesterfield VA - Dominion

Job ID: 240-249770-1

Job ID: 240-249770-1

Eurofins Cleveland

Job Narrative 240-249770-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The samples were received on 5/7/2026 10:00 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 1.8°C, 2.2°C and 2.6°C.

Metals

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

General Chemistry

Method EPA 7196A: The following samples were received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: CH-01-20260505 (240-249770-1), CH-02-20260505 (240-249770-2), CH-03-20260505 (240-249770-3), CH-04-20260505 (240-249770-4), CH-05-20260505 (240-249770-5), CH-06-20260505 (240-249770-6), CH-07-20260505 (240-249770-7) and DUP-1 (240-249770-8).

Method EPA 7196A: Samples CH-01-20260505 (240-249770-1), CH-02-20260505 (240-249770-2), CH-03-20260505 (240-249770-3), CH-04-20260505 (240-249770-4), CH-05-20260505 (240-249770-5), CH-06-20260505 (240-249770-6), CH-07-20260505 (240-249770-7) and DUP-1 (240-249770-8) was/were received outside of holding time.

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: Radium 226 Batch 770369: The detection goal was not met for the following sample due to a reduced sample volume used in prep attributed to the presence of matrix interferences. CH-05-20260505 (240-249770-5)

Method 9320: Radium 228 batch 770368: The detection goal was not met for the following samples due to the reduced sample volume used in prep attributed to the presence of matrix interferences: CH-01-20260505 (240-249770-1) and CH-02-20260505 (240-249770-2). Analytical results are reported with the detection limit achieved.

Method 9320: Radium-228 batch 770370: The detection goal was not met for the following samples due to the reduced sample volume used in prep attributed to the presence of matrix interferences: CH-03-20260505 (240-249770-3), CH-04-20260505 (240-249770-4), CH-05-20260505 (240-249770-5), CH-07-20260505 (240-249770-7), DUP-1 (240-249770-8) and (240-249749-S-2-C). Analytical results are reported with the detection limit achieved.

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.

Eurofins Cleveland

Method Summary

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Method	Method Description	Protocol	Laboratory
2340B-2021	Total Hardenss	SM	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2540D-2015	Total Suspended Solids (Dried at 103-105°C)	SM	EET PIT
7196A	Chromium, Trivalent (Colorimetric)	SW846	EET PIT
9040C	pH	SW846	EET CLE
9056A	Anions, Ion Chromatography	SW846	EET CLE
EPA 7196A	Chromium, Hexavalent	SW846	EET PIT
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	Lab SOP	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:

Lab SOP = Laboratory Standard Operating Procedure

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.

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: Chesterfield VA - Dominion

Job ID: 240-249770-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
240-249770-1	CH-01-20260505	Water	05/05/26 17:55	05/07/26 10:00	Virginia
240-249770-2	CH-02-20260505	Water	05/05/26 17:02	05/07/26 10:00	Virginia
240-249770-3	CH-03-20260505	Water	05/05/26 16:37	05/07/26 10:00	Virginia
240-249770-4	CH-04-20260505	Water	05/05/26 15:51	05/07/26 10:00	Virginia
240-249770-5	CH-05-20260505	Water	05/05/26 14:30	05/07/26 10:00	Virginia
240-249770-6	CH-06-20260505	Water	05/05/26 13:58	05/07/26 10:00	Virginia
240-249770-7	CH-07-20260505	Water	05/05/26 13:24	05/07/26 10:00	Virginia
240-249770-8	DUP-1	Water	05/05/26 00:00	05/07/26 10:00	Virginia

Detection Summary

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-01-20260505

Lab Sample ID: 240-249770-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Hardness as calcium carbonate	85		6.6	6.6	mg/L	1		2340B-2021	Total Recoverable
Barium	37		5.0	0.77	ug/L	1		6020B	Total Recoverable
Boron	29		20	16	ug/L	1		6020B	Total Recoverable
Calcium	26000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.59	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	0.59	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Magnesium	4600		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	1.3	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Nickel	1.5	J	2.0	1.5	ug/L	1		6020B	Total Recoverable
Vanadium	1.6	J	5.0	0.82	ug/L	1		6020B	Total Recoverable
Total Suspended Solids	11		1.0	1.0	mg/L	1		2540D-2015	Total/NA
pH	8.2	HF	0.1	0.1	SU	1		9040C	Total/NA
Chloride	29		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	27		1.0	0.35	mg/L	1		9056A	Total/NA

Client Sample ID: CH-02-20260505

Lab Sample ID: 240-249770-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Hardness as calcium carbonate	100		6.6	6.6	mg/L	1		2340B-2021	Total Recoverable
Arsenic	2.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	57		5.0	0.77	ug/L	1		6020B	Total Recoverable
Boron	66		20	16	ug/L	1		6020B	Total Recoverable
Calcium	31000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	2.3	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.8		1.0	0.086	ug/L	1		6020B	Total Recoverable
Copper	3.1		2.0	1.7	ug/L	1		6020B	Total Recoverable
Lead	2.5		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	6.3	J	8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	5600		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	1.4	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Nickel	3.2		2.0	1.5	ug/L	1		6020B	Total Recoverable
Thallium	0.87	J	1.0	0.51	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-02-20260505 (Continued)

Lab Sample ID: 240-249770-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	5.1		5.0	0.82	ug/L	1		6020B	Total Recoverable
Total Suspended Solids	67		1.7	1.7	mg/L	1		2540D-2015	Total/NA
pH	7.7	HF	0.1	0.1	SU	1		9040C	Total/NA
Chloride	36		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.12		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: CH-03-20260505

Lab Sample ID: 240-249770-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Hardness as calcium carbonate	86		6.6	6.6	mg/L	1		2340B-2021	Total Recoverable
Barium	41		5.0	0.77	ug/L	1		6020B	Total Recoverable
Boron	28		20	16	ug/L	1		6020B	Total Recoverable
Calcium	27000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.72	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	0.93	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Magnesium	4600		1000	61	ug/L	1		6020B	Total Recoverable
Nickel	1.5	J	2.0	1.5	ug/L	1		6020B	Total Recoverable
Vanadium	2.0	J	5.0	0.82	ug/L	1		6020B	Total Recoverable
Total Suspended Solids	25		1.0	1.0	mg/L	1		2540D-2015	Total/NA
pH	8.5	HF	0.1	0.1	SU	1		9040C	Total/NA
Chloride	31		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	26		1.0	0.35	mg/L	1		9056A	Total/NA

Client Sample ID: CH-04-20260505

Lab Sample ID: 240-249770-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Hardness as calcium carbonate	110		6.6	6.6	mg/L	1		2340B-2021	Total Recoverable
Arsenic	0.98	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	44		5.0	0.77	ug/L	1		6020B	Total Recoverable
Boron	110		20	16	ug/L	1		6020B	Total Recoverable
Cadmium	0.084	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	35000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.6	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.7		1.0	0.086	ug/L	1		6020B	Total Recoverable
Copper	2.3		2.0	1.7	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-04-20260505 (Continued)

Lab Sample ID: 240-249770-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Lead	1.3		1.0	0.45	ug/L	1			6020B	Total
										Recoverable
Lithium	3.7	J	8.0	3.4	ug/L	1			6020B	Total
										Recoverable
Magnesium	6300		1000	61	ug/L	1			6020B	Total
										Recoverable
Molybdenum	1.3	J	5.0	1.1	ug/L	1			6020B	Total
										Recoverable
Nickel	2.2		2.0	1.5	ug/L	1			6020B	Total
										Recoverable
Vanadium	3.9	J	5.0	0.82	ug/L	1			6020B	Total
										Recoverable
Total Suspended Solids	45		1.0	1.0	mg/L	1			2540D-2015	Total/NA
pH	8.5	HF	0.1	0.1	SU	1			9040C	Total/NA
Chloride	34		1.0	0.13	mg/L	1			9056A	Total/NA
Fluoride	0.11		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: CH-05-20260505

Lab Sample ID: 240-249770-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Hardness as calcium carbonate	110		6.6	6.6	mg/L	1			2340B-2021	Total
										Recoverable
Arsenic	1.3	J	5.0	0.75	ug/L	1			6020B	Total
										Recoverable
Barium	54		5.0	0.77	ug/L	1			6020B	Total
										Recoverable
Boron	41		20	16	ug/L	1			6020B	Total
										Recoverable
Calcium	34000		1000	250	ug/L	1			6020B	Total
										Recoverable
Chromium	2.0	J	5.0	1.2	ug/L	1			6020B	Total
										Recoverable
Cobalt	1.4		1.0	0.086	ug/L	1			6020B	Total
										Recoverable
Copper	2.8		2.0	1.7	ug/L	1			6020B	Total
										Recoverable
Lead	1.8		1.0	0.45	ug/L	1			6020B	Total
										Recoverable
Magnesium	5100		1000	61	ug/L	1			6020B	Total
										Recoverable
Nickel	2.4		2.0	1.5	ug/L	1			6020B	Total
										Recoverable
Vanadium	5.0		5.0	0.82	ug/L	1			6020B	Total
										Recoverable
Total Suspended Solids	60		1.7	1.7	mg/L	1			2540D-2015	Total/NA
pH	8.1	HF	0.1	0.1	SU	1			9040C	Total/NA
Chloride	30		1.0	0.13	mg/L	1			9056A	Total/NA
Fluoride	0.14		0.050	0.024	mg/L	1			9056A	Total/NA
Sulfate	22		1.0	0.35	mg/L	1			9056A	Total/NA

Client Sample ID: CH-06-20260505

Lab Sample ID: 240-249770-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Hardness as calcium carbonate	82		6.6	6.6	mg/L	1			2340B-2021	Total
										Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-06-20260505 (Continued)

Lab Sample ID: 240-249770-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	39		5.0	0.77	ug/L	1			6020B	Total
Boron	29		20	16	ug/L	1			6020B	Total
Calcium	26000		1000	250	ug/L	1			6020B	Total
Chromium	1.3	J	5.0	1.2	ug/L	1			6020B	Total
Cobalt	1.0		1.0	0.086	ug/L	1			6020B	Total
Copper	2.3		2.0	1.7	ug/L	1			6020B	Total
Lead	1.2		1.0	0.45	ug/L	1			6020B	Total
Magnesium	4400		1000	61	ug/L	1			6020B	Total
Nickel	2.1		2.0	1.5	ug/L	1			6020B	Total
Vanadium	3.6	J	5.0	0.82	ug/L	1			6020B	Total
Total Suspended Solids	49		1.0	1.0	mg/L	1			2540D-2015	Total/NA
pH	8.6	HF	0.1	0.1	SU	1			9040C	Total/NA
Chloride	31		1.0	0.13	mg/L	1			9056A	Total/NA
Fluoride	0.13		0.050	0.024	mg/L	1			9056A	Total/NA
Sulfate	26		1.0	0.35	mg/L	1			9056A	Total/NA

Client Sample ID: CH-07-20260505

Lab Sample ID: 240-249770-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Hardness as calcium carbonate	85		6.6	6.6	mg/L	1			2340B-2021	Total
Arsenic	0.81	J	5.0	0.75	ug/L	1			6020B	Total
Barium	37		5.0	0.77	ug/L	1			6020B	Total
Boron	26		20	16	ug/L	1			6020B	Total
Calcium	26000		1000	250	ug/L	1			6020B	Total
Cobalt	0.53	J	1.0	0.086	ug/L	1			6020B	Total
Magnesium	4800		1000	61	ug/L	1			6020B	Total
Vanadium	1.2	J	5.0	0.82	ug/L	1			6020B	Total
Total Suspended Solids	11		0.50	0.50	mg/L	1			2540D-2015	Total/NA
pH	7.7	HF	0.1	0.1	SU	1			9040C	Total/NA
Chloride	26		1.0	0.13	mg/L	1			9056A	Total/NA
Fluoride	0.10		0.050	0.024	mg/L	1			9056A	Total/NA
Sulfate	25		1.0	0.35	mg/L	1			9056A	Total/NA

Client Sample ID: DUP-1

Lab Sample ID: 240-249770-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Hardness as calcium carbonate	130		6.6	6.6	mg/L	1			2340B-2021	Total
										Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: DUP-1 (Continued)

Lab Sample ID: 240-249770-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.1	J	5.0	0.75	ug/L	1		6020B	Total
Barium	49		5.0	0.77	ug/L	1		6020B	Recoverable
Boron	150		20	16	ug/L	1		6020B	Total
Calcium	40000		1000	250	ug/L	1		6020B	Recoverable
Chromium	2.2	J	5.0	1.2	ug/L	1		6020B	Total
Cobalt	2.6		1.0	0.086	ug/L	1		6020B	Recoverable
Copper	2.9		2.0	1.7	ug/L	1		6020B	Total
Lead	1.8		1.0	0.45	ug/L	1		6020B	Recoverable
Lithium	4.3	J	8.0	3.4	ug/L	1		6020B	Total
Magnesium	8000		1000	61	ug/L	1		6020B	Recoverable
Molybdenum	1.5	J	5.0	1.1	ug/L	1		6020B	Total
Nickel	2.6		2.0	1.5	ug/L	1		6020B	Recoverable
Vanadium	5.1		5.0	0.82	ug/L	1		6020B	Total
Total Suspended Solids	38		1.0	1.0	mg/L	1		2540D-2015	Recoverable
pH	8.7	HF	0.1	0.1	SU	1		9040C	Total/NA
Chloride	36		1.0	0.13	mg/L	1		9056A	Total/NA
Fluoride	0.13		0.050	0.024	mg/L	1		9056A	Total/NA
Sulfate	47		1.0	0.35	mg/L	1		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-01-20260505

Lab Sample ID: 240-249770-1

Date Collected: 05/05/26 17:55

Matrix: Water

Date Received: 05/07/26 10:00

Method: SM 2340B-2021 - Total Hardness - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	85		6.6	6.6	mg/L			05/13/26 06:06	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		05/08/26 14:00	05/11/26 12:50	1
Arsenic	<0.75		5.0	0.75	ug/L		05/08/26 14:00	05/11/26 12:50	1
Barium	37		5.0	0.77	ug/L		05/08/26 14:00	05/11/26 12:50	1
Beryllium	<0.27		1.0	0.27	ug/L		05/08/26 14:00	05/11/26 12:50	1
Boron	29		20	16	ug/L		05/08/26 14:00	05/11/26 12:50	1
Cadmium	<0.077		1.0	0.077	ug/L		05/08/26 14:00	05/11/26 12:50	1
Calcium	26000		1000	250	ug/L		05/08/26 14:00	05/11/26 12:50	1
Chromium	<1.2		5.0	1.2	ug/L		05/08/26 14:00	05/11/26 12:50	1
Cobalt	0.59 J		1.0	0.086	ug/L		05/08/26 14:00	05/11/26 12:50	1
Copper	<1.7		2.0	1.7	ug/L		05/08/26 14:00	05/11/26 12:50	1
Lead	0.59 J		1.0	0.45	ug/L		05/08/26 14:00	05/11/26 12:50	1
Lithium	<3.4		8.0	3.4	ug/L		05/08/26 14:00	05/11/26 12:50	1
Magnesium	4600		1000	61	ug/L		05/08/26 14:00	05/11/26 12:50	1
Molybdenum	1.3 J		5.0	1.1	ug/L		05/08/26 14:00	05/11/26 12:50	1
Nickel	1.5 J		2.0	1.5	ug/L		05/08/26 14:00	05/11/26 12:50	1
Selenium	<0.89		5.0	0.89	ug/L		05/08/26 14:00	05/11/26 12:50	1
Silver	<0.053		1.0	0.053	ug/L		05/08/26 14:00	05/11/26 12:50	1
Thallium	<0.51		1.0	0.51	ug/L		05/08/26 14:00	05/11/26 12:50	1
Vanadium	1.6 J		5.0	0.82	ug/L		05/08/26 14:00	05/11/26 12:50	1
Zinc	<15		20	15	ug/L		05/08/26 14:00	05/11/26 12:50	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		05/08/26 14:00	05/11/26 12:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D-2015)	11		1.0	1.0	mg/L			05/11/26 14:59	1
Cr (III) (SW846 7196A)	<3.2		10	3.2	ug/L			05/18/26 20:54	1
pH (SW846 9040C)	8.2 HF		0.1	0.1	SU			05/08/26 11:01	1
Chloride (SW846 9056A)	29		1.0	0.13	mg/L			05/08/26 19:49	1
Fluoride (SW846 9056A)	0.11		0.050	0.024	mg/L			05/08/26 19:49	1
Sulfate (SW846 9056A)	27		1.0	0.35	mg/L			05/08/26 19:49	1
Cr (VI) (SW846 EPA 7196A)	<6.0 H H3		10	6.0	ug/L			05/08/26 13:49	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.214	U	0.196	0.197	1.00	0.293	pCi/L	05/11/26 08:26	06/03/26 07:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.0		30 - 110					05/11/26 08:26	06/03/26 07:19	1

Eurofins Cleveland

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-01-20260505

Lab Sample ID: 240-249770-1

Date Collected: 05/05/26 17:55

Matrix: Water

Date Received: 05/07/26 10:00

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.468	U G	0.718	0.719	1.00	1.21	pCi/L	05/11/26 08:35	06/02/26 14:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.0		30 - 110					05/11/26 08:35	06/02/26 14:07	1
Y Carrier	77.4		30 - 110					05/11/26 08:35	06/02/26 14:07	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.682	U	0.744	0.745	5.00	1.21	pCi/L		06/04/26 14:36	1

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-02-20260505

Lab Sample ID: 240-249770-2

Date Collected: 05/05/26 17:02

Matrix: Water

Date Received: 05/07/26 10:00

Method: SM 2340B-2021 - Total Hardness - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	100		6.6	6.6	mg/L			05/13/26 06:06	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		05/08/26 14:00	05/11/26 13:03	1
Arsenic	2.3	J	5.0	0.75	ug/L		05/08/26 14:00	05/11/26 13:03	1
Barium	57		5.0	0.77	ug/L		05/08/26 14:00	05/11/26 13:03	1
Beryllium	<0.27		1.0	0.27	ug/L		05/08/26 14:00	05/11/26 13:03	1
Boron	66		20	16	ug/L		05/08/26 14:00	05/11/26 13:03	1
Cadmium	<0.077		1.0	0.077	ug/L		05/08/26 14:00	05/11/26 13:03	1
Calcium	31000		1000	250	ug/L		05/08/26 14:00	05/11/26 13:03	1
Chromium	2.3	J	5.0	1.2	ug/L		05/08/26 14:00	05/11/26 13:03	1
Cobalt	1.8		1.0	0.086	ug/L		05/08/26 14:00	05/11/26 13:03	1
Copper	3.1		2.0	1.7	ug/L		05/08/26 14:00	05/11/26 13:03	1
Lead	2.5		1.0	0.45	ug/L		05/08/26 14:00	05/11/26 13:03	1
Lithium	6.3	J	8.0	3.4	ug/L		05/08/26 14:00	05/11/26 13:03	1
Magnesium	5600		1000	61	ug/L		05/08/26 14:00	05/11/26 13:03	1
Molybdenum	1.4	J	5.0	1.1	ug/L		05/08/26 14:00	05/11/26 13:03	1
Nickel	3.2		2.0	1.5	ug/L		05/08/26 14:00	05/11/26 13:03	1
Selenium	<0.89		5.0	0.89	ug/L		05/08/26 14:00	05/11/26 13:03	1
Silver	<0.053		1.0	0.053	ug/L		05/08/26 14:00	05/11/26 13:03	1
Thallium	0.87	J	1.0	0.51	ug/L		05/08/26 14:00	05/11/26 13:03	1
Vanadium	5.1		5.0	0.82	ug/L		05/08/26 14:00	05/11/26 13:03	1
Zinc	<15		20	15	ug/L		05/08/26 14:00	05/11/26 13:03	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		05/08/26 14:00	05/11/26 12:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D-2015)	67		1.7	1.7	mg/L			05/11/26 14:59	1
Cr (III) (SW846 7196A)	<3.2		10	3.2	ug/L			05/18/26 20:54	1
pH (SW846 9040C)	7.7	HF	0.1	0.1	SU			05/08/26 11:15	1
Chloride (SW846 9056A)	36		1.0	0.13	mg/L			05/08/26 19:57	1
Fluoride (SW846 9056A)	0.12		0.050	0.024	mg/L			05/08/26 19:57	1
Sulfate (SW846 9056A)	37		1.0	0.35	mg/L			05/08/26 19:57	1
Cr (VI) (SW846 EPA 7196A)	<6.0	H H3	10	6.0	ug/L			05/08/26 13:52	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.227	U	0.236	0.236	1.00	0.364	pCi/L	05/11/26 08:26	06/03/26 07:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.4		30 - 110					05/11/26 08:26	06/03/26 07:19	1

Eurofins Cleveland

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-02-20260505

Lab Sample ID: 240-249770-2

Date Collected: 05/05/26 17:02

Matrix: Water

Date Received: 05/07/26 10:00

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.596	U G	0.867	0.868	1.00	1.46	pCi/L	05/11/26 08:35	06/02/26 14:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.4		30 - 110					05/11/26 08:35	06/02/26 14:07	1
Y Carrier	84.1		30 - 110					05/11/26 08:35	06/02/26 14:07	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.823	U	0.899	0.900	5.00	1.46	pCi/L		06/04/26 14:36	1

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-03-20260505

Lab Sample ID: 240-249770-3

Date Collected: 05/05/26 16:37

Matrix: Water

Date Received: 05/07/26 10:00

Method: SM 2340B-2021 - Total Hardness - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	86		6.6	6.6	mg/L			05/13/26 06:06	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		05/08/26 14:00	05/11/26 13:07	1
Arsenic	<0.75		5.0	0.75	ug/L		05/08/26 14:00	05/11/26 13:07	1
Barium	41		5.0	0.77	ug/L		05/08/26 14:00	05/11/26 13:07	1
Beryllium	<0.27		1.0	0.27	ug/L		05/08/26 14:00	05/11/26 13:07	1
Boron	28		20	16	ug/L		05/08/26 14:00	05/11/26 13:07	1
Cadmium	<0.077		1.0	0.077	ug/L		05/08/26 14:00	05/11/26 13:07	1
Calcium	27000		1000	250	ug/L		05/08/26 14:00	05/11/26 13:07	1
Chromium	<1.2		5.0	1.2	ug/L		05/08/26 14:00	05/11/26 13:07	1
Cobalt	0.72	J	1.0	0.086	ug/L		05/08/26 14:00	05/11/26 13:07	1
Copper	<1.7		2.0	1.7	ug/L		05/08/26 14:00	05/11/26 13:07	1
Lead	0.93	J	1.0	0.45	ug/L		05/08/26 14:00	05/11/26 13:07	1
Lithium	<3.4		8.0	3.4	ug/L		05/08/26 14:00	05/11/26 13:07	1
Magnesium	4600		1000	61	ug/L		05/08/26 14:00	05/11/26 13:07	1
Molybdenum	<1.1		5.0	1.1	ug/L		05/08/26 14:00	05/11/26 13:07	1
Nickel	1.5	J	2.0	1.5	ug/L		05/08/26 14:00	05/11/26 13:07	1
Selenium	<0.89		5.0	0.89	ug/L		05/08/26 14:00	05/11/26 13:07	1
Silver	<0.053		1.0	0.053	ug/L		05/08/26 14:00	05/11/26 13:07	1
Thallium	<0.51		1.0	0.51	ug/L		05/08/26 14:00	05/11/26 13:07	1
Vanadium	2.0	J	5.0	0.82	ug/L		05/08/26 14:00	05/11/26 13:07	1
Zinc	<15		20	15	ug/L		05/08/26 14:00	05/11/26 13:07	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		05/08/26 14:00	05/11/26 12:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D-2015)	25		1.0	1.0	mg/L			05/11/26 14:59	1
Cr (III) (SW846 7196A)	<3.2		10	3.2	ug/L			05/18/26 20:54	1
pH (SW846 9040C)	8.5	HF	0.1	0.1	SU			05/08/26 11:22	1
Chloride (SW846 9056A)	31		1.0	0.13	mg/L			05/08/26 20:05	1
Fluoride (SW846 9056A)	0.11		0.050	0.024	mg/L			05/08/26 20:05	1
Sulfate (SW846 9056A)	26		1.0	0.35	mg/L			05/08/26 20:05	1
Cr (VI) (SW846 EPA 7196A)	<6.0	H H3	10	6.0	ug/L			05/08/26 13:53	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0155	U	0.172	0.172	1.00	0.385	pCi/L	05/11/26 08:38	06/05/26 16:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.0		30 - 110					05/11/26 08:38	06/05/26 16:23	1

Eurofins Cleveland

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-03-20260505

Lab Sample ID: 240-249770-3

Date Collected: 05/05/26 16:37

Matrix: Water

Date Received: 05/07/26 10:00

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.469	U G	0.704	0.705	1.00	1.19	pCi/L	05/11/26 08:52	06/05/26 11:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.0		30 - 110					05/11/26 08:52	06/05/26 11:49	1
Y Carrier	78.5		30 - 110					05/11/26 08:52	06/05/26 11:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.469	U	0.725	0.726	5.00	1.19	pCi/L		06/08/26 07:48	1

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-04-20260505

Lab Sample ID: 240-249770-4

Date Collected: 05/05/26 15:51

Matrix: Water

Date Received: 05/07/26 10:00

Method: SM 2340B-2021 - Total Hardness - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	110		6.6	6.6	mg/L			05/13/26 06:06	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		05/08/26 14:00	05/11/26 13:10	1
Arsenic	0.98	J	5.0	0.75	ug/L		05/08/26 14:00	05/11/26 13:10	1
Barium	44		5.0	0.77	ug/L		05/08/26 14:00	05/11/26 13:10	1
Beryllium	<0.27		1.0	0.27	ug/L		05/08/26 14:00	05/11/26 13:10	1
Boron	110		20	16	ug/L		05/08/26 14:00	05/11/26 13:10	1
Cadmium	0.084	J	1.0	0.077	ug/L		05/08/26 14:00	05/11/26 13:10	1
Calcium	35000		1000	250	ug/L		05/08/26 14:00	05/11/26 13:10	1
Chromium	1.6	J	5.0	1.2	ug/L		05/08/26 14:00	05/11/26 13:10	1
Cobalt	1.7		1.0	0.086	ug/L		05/08/26 14:00	05/11/26 13:10	1
Copper	2.3		2.0	1.7	ug/L		05/08/26 14:00	05/11/26 13:10	1
Lead	1.3		1.0	0.45	ug/L		05/08/26 14:00	05/11/26 13:10	1
Lithium	3.7	J	8.0	3.4	ug/L		05/08/26 14:00	05/11/26 13:10	1
Magnesium	6300		1000	61	ug/L		05/08/26 14:00	05/11/26 13:10	1
Molybdenum	1.3	J	5.0	1.1	ug/L		05/08/26 14:00	05/11/26 13:10	1
Nickel	2.2		2.0	1.5	ug/L		05/08/26 14:00	05/11/26 13:10	1
Selenium	<0.89		5.0	0.89	ug/L		05/08/26 14:00	05/11/26 13:10	1
Silver	<0.053		1.0	0.053	ug/L		05/08/26 14:00	05/11/26 13:10	1
Thallium	<0.51		1.0	0.51	ug/L		05/08/26 14:00	05/11/26 13:10	1
Vanadium	3.9	J	5.0	0.82	ug/L		05/08/26 14:00	05/11/26 13:10	1
Zinc	<15		20	15	ug/L		05/08/26 14:00	05/11/26 13:10	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		05/08/26 14:00	05/11/26 12:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D-2015)	45		1.0	1.0	mg/L			05/11/26 14:59	1
Cr (III) (SW846 7196A)	<3.2		10	3.2	ug/L			05/18/26 20:54	1
pH (SW846 9040C)	8.5	HF	0.1	0.1	SU			05/08/26 11:29	1
Chloride (SW846 9056A)	34		1.0	0.13	mg/L			05/08/26 20:30	1
Fluoride (SW846 9056A)	0.11		0.050	0.024	mg/L			05/08/26 20:30	1
Sulfate (SW846 9056A)	37		1.0	0.35	mg/L			05/08/26 20:30	1
Cr (VI) (SW846 EPA 7196A)	<6.0	H H3	10	6.0	ug/L			05/08/26 13:54	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.110	U	0.224	0.224	1.00	0.405	pCi/L	05/11/26 08:38	06/05/26 16:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.2		30 - 110					05/11/26 08:38	06/05/26 16:23	1

Eurofins Cleveland

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-04-20260505

Lab Sample ID: 240-249770-4

Date Collected: 05/05/26 15:51

Matrix: Water

Date Received: 05/07/26 10:00

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.870	U G	0.746	0.751	1.00	1.18	pCi/L	05/11/26 08:52	06/05/26 11:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.2		30 - 110					05/11/26 08:52	06/05/26 11:50	1
Y Carrier	74.8		30 - 110					05/11/26 08:52	06/05/26 11:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.979	U	0.779	0.784	5.00	1.18	pCi/L		06/08/26 07:48	1

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-05-20260505

Lab Sample ID: 240-249770-5

Date Collected: 05/05/26 14:30

Matrix: Water

Date Received: 05/07/26 10:00

Method: SM 2340B-2021 - Total Hardness - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	110		6.6	6.6	mg/L			05/13/26 06:06	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		05/08/26 14:00	05/11/26 13:13	1
Arsenic	1.3	J	5.0	0.75	ug/L		05/08/26 14:00	05/11/26 13:13	1
Barium	54		5.0	0.77	ug/L		05/08/26 14:00	05/11/26 13:13	1
Beryllium	<0.27		1.0	0.27	ug/L		05/08/26 14:00	05/11/26 13:13	1
Boron	41		20	16	ug/L		05/08/26 14:00	05/11/26 13:13	1
Cadmium	<0.077		1.0	0.077	ug/L		05/08/26 14:00	05/11/26 13:13	1
Calcium	34000		1000	250	ug/L		05/08/26 14:00	05/11/26 13:13	1
Chromium	2.0	J	5.0	1.2	ug/L		05/08/26 14:00	05/11/26 13:13	1
Cobalt	1.4		1.0	0.086	ug/L		05/08/26 14:00	05/11/26 13:13	1
Copper	2.8		2.0	1.7	ug/L		05/08/26 14:00	05/11/26 13:13	1
Lead	1.8		1.0	0.45	ug/L		05/08/26 14:00	05/11/26 13:13	1
Lithium	<3.4		8.0	3.4	ug/L		05/08/26 14:00	05/11/26 13:13	1
Magnesium	5100		1000	61	ug/L		05/08/26 14:00	05/11/26 13:13	1
Molybdenum	<1.1		5.0	1.1	ug/L		05/08/26 14:00	05/11/26 13:13	1
Nickel	2.4		2.0	1.5	ug/L		05/08/26 14:00	05/11/26 13:13	1
Selenium	<0.89		5.0	0.89	ug/L		05/08/26 14:00	05/11/26 13:13	1
Silver	<0.053		1.0	0.053	ug/L		05/08/26 14:00	05/11/26 13:13	1
Thallium	<0.51		1.0	0.51	ug/L		05/08/26 14:00	05/11/26 13:13	1
Vanadium	5.0		5.0	0.82	ug/L		05/08/26 14:00	05/11/26 13:13	1
Zinc	<15		20	15	ug/L		05/08/26 14:00	05/11/26 13:13	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		05/08/26 14:00	05/11/26 12:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D-2015)	60		1.7	1.7	mg/L			05/11/26 14:59	1
Cr (III) (SW846 7196A)	<3.2		10	3.2	ug/L			05/18/26 20:54	1
pH (SW846 9040C)	8.1	HF	0.1	0.1	SU			05/08/26 11:36	1
Chloride (SW846 9056A)	30		1.0	0.13	mg/L			05/08/26 20:38	1
Fluoride (SW846 9056A)	0.14		0.050	0.024	mg/L			05/08/26 20:38	1
Sulfate (SW846 9056A)	22		1.0	0.35	mg/L			05/08/26 20:38	1
Cr (VI) (SW846 EPA 7196A)	<6.0	H H3	10	6.0	ug/L			05/08/26 13:55	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0477	U G	0.502	0.502	1.00	1.09	pCi/L	05/11/26 08:38	06/05/26 16:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	38.6		30 - 110					05/11/26 08:38	06/05/26 16:23	1

Eurofins Cleveland

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-05-20260505

Lab Sample ID: 240-249770-5

Date Collected: 05/05/26 14:30

Matrix: Water

Date Received: 05/07/26 10:00

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.66	U G	2.00	2.01	1.00	3.10	pCi/L	05/11/26 08:52	06/05/26 11:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	38.6		30 - 110					05/11/26 08:52	06/05/26 11:49	1
Y Carrier	81.5		30 - 110					05/11/26 08:52	06/05/26 11:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	2.66	U	2.06	2.07	5.00	3.10	pCi/L		06/08/26 07:48	1

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-06-20260505

Lab Sample ID: 240-249770-6

Date Collected: 05/05/26 13:58

Matrix: Water

Date Received: 05/07/26 10:00

Method: SM 2340B-2021 - Total Hardness - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	82		6.6	6.6	mg/L			05/13/26 06:06	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		05/08/26 14:00	05/11/26 13:21	1
Arsenic	<0.75		5.0	0.75	ug/L		05/08/26 14:00	05/11/26 13:21	1
Barium	39		5.0	0.77	ug/L		05/08/26 14:00	05/11/26 13:21	1
Beryllium	<0.27		1.0	0.27	ug/L		05/08/26 14:00	05/11/26 13:21	1
Boron	29		20	16	ug/L		05/08/26 14:00	05/11/26 13:21	1
Cadmium	<0.077		1.0	0.077	ug/L		05/08/26 14:00	05/11/26 13:21	1
Calcium	26000		1000	250	ug/L		05/08/26 14:00	05/11/26 13:21	1
Chromium	1.3	J	5.0	1.2	ug/L		05/08/26 14:00	05/11/26 13:21	1
Cobalt	1.0		1.0	0.086	ug/L		05/08/26 14:00	05/11/26 13:21	1
Copper	2.3		2.0	1.7	ug/L		05/08/26 14:00	05/11/26 13:21	1
Lead	1.2		1.0	0.45	ug/L		05/08/26 14:00	05/11/26 13:21	1
Lithium	<3.4		8.0	3.4	ug/L		05/08/26 14:00	05/11/26 13:21	1
Magnesium	4400		1000	61	ug/L		05/08/26 14:00	05/11/26 13:21	1
Molybdenum	<1.1		5.0	1.1	ug/L		05/08/26 14:00	05/11/26 13:21	1
Nickel	2.1		2.0	1.5	ug/L		05/08/26 14:00	05/11/26 13:21	1
Selenium	<0.89		5.0	0.89	ug/L		05/08/26 14:00	05/11/26 13:21	1
Silver	<0.053		1.0	0.053	ug/L		05/08/26 14:00	05/11/26 13:21	1
Thallium	<0.51		1.0	0.51	ug/L		05/08/26 14:00	05/11/26 13:21	1
Vanadium	3.6	J	5.0	0.82	ug/L		05/08/26 14:00	05/11/26 13:21	1
Zinc	<15		20	15	ug/L		05/08/26 14:00	05/11/26 13:21	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		05/08/26 14:00	05/11/26 12:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D-2015)	49		1.0	1.0	mg/L			05/11/26 14:59	1
Cr (III) (SW846 7196A)	<3.2		10	3.2	ug/L			05/18/26 20:54	1
pH (SW846 9040C)	8.6	HF	0.1	0.1	SU			05/08/26 11:43	1
Chloride (SW846 9056A)	31		1.0	0.13	mg/L			05/08/26 20:46	1
Fluoride (SW846 9056A)	0.13		0.050	0.024	mg/L			05/08/26 20:46	1
Sulfate (SW846 9056A)	26		1.0	0.35	mg/L			05/08/26 20:46	1
Cr (VI) (SW846 EPA 7196A)	<6.0	H H3	10	6.0	ug/L			05/08/26 13:56	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0998	U	0.175	0.175	1.00	0.312	pCi/L	05/11/26 08:38	06/05/26 16:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.6		30 - 110					05/11/26 08:38	06/05/26 16:23	1

Eurofins Cleveland

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-06-20260505

Lab Sample ID: 240-249770-6

Date Collected: 05/05/26 13:58

Matrix: Water

Date Received: 05/07/26 10:00

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0238	U	0.520	0.520	1.00	0.963	pCi/L	05/11/26 08:52	06/05/26 11:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.6		30 - 110					05/11/26 08:52	06/05/26 11:49	1
Y Carrier	81.9		30 - 110					05/11/26 08:52	06/05/26 11:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.0998	U	0.549	0.549	5.00	0.963	pCi/L		06/08/26 12:49	1

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-07-20260505

Lab Sample ID: 240-249770-7

Date Collected: 05/05/26 13:24

Matrix: Water

Date Received: 05/07/26 10:00

Method: SM 2340B-2021 - Total Hardness - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	85		6.6	6.6	mg/L			05/13/26 06:06	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		05/08/26 14:00	05/11/26 13:24	1
Arsenic	0.81	J	5.0	0.75	ug/L		05/08/26 14:00	05/11/26 13:24	1
Barium	37		5.0	0.77	ug/L		05/08/26 14:00	05/11/26 13:24	1
Beryllium	<0.27		1.0	0.27	ug/L		05/08/26 14:00	05/11/26 13:24	1
Boron	26		20	16	ug/L		05/08/26 14:00	05/11/26 13:24	1
Cadmium	<0.077		1.0	0.077	ug/L		05/08/26 14:00	05/11/26 13:24	1
Calcium	26000		1000	250	ug/L		05/08/26 14:00	05/11/26 13:24	1
Chromium	<1.2		5.0	1.2	ug/L		05/08/26 14:00	05/11/26 13:24	1
Cobalt	0.53	J	1.0	0.086	ug/L		05/08/26 14:00	05/11/26 13:24	1
Copper	<1.7		2.0	1.7	ug/L		05/08/26 14:00	05/11/26 13:24	1
Lead	<0.45		1.0	0.45	ug/L		05/08/26 14:00	05/11/26 13:24	1
Lithium	<3.4		8.0	3.4	ug/L		05/08/26 14:00	05/11/26 13:24	1
Magnesium	4800		1000	61	ug/L		05/08/26 14:00	05/11/26 13:24	1
Molybdenum	<1.1		5.0	1.1	ug/L		05/08/26 14:00	05/11/26 13:24	1
Nickel	<1.5		2.0	1.5	ug/L		05/08/26 14:00	05/11/26 13:24	1
Selenium	<0.89		5.0	0.89	ug/L		05/08/26 14:00	05/11/26 13:24	1
Silver	<0.053		1.0	0.053	ug/L		05/08/26 14:00	05/11/26 13:24	1
Thallium	<0.51		1.0	0.51	ug/L		05/08/26 14:00	05/11/26 13:24	1
Vanadium	1.2	J	5.0	0.82	ug/L		05/08/26 14:00	05/11/26 13:24	1
Zinc	<15		20	15	ug/L		05/08/26 14:00	05/11/26 13:24	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		05/08/26 14:00	05/11/26 12:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D-2015)	11		0.50	0.50	mg/L			05/11/26 14:59	1
Cr (III) (SW846 7196A)	<3.2		10	3.2	ug/L			05/18/26 20:54	1
pH (SW846 9040C)	7.7	HF	0.1	0.1	SU			05/08/26 11:50	1
Chloride (SW846 9056A)	26		1.0	0.13	mg/L			05/08/26 21:11	1
Fluoride (SW846 9056A)	0.10		0.050	0.024	mg/L			05/08/26 21:11	1
Sulfate (SW846 9056A)	25		1.0	0.35	mg/L			05/08/26 21:11	1
Cr (VI) (SW846 EPA 7196A)	<6.0	H H3	10	6.0	ug/L			05/08/26 13:57	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0661	U	0.189	0.189	1.00	0.361	pCi/L	05/11/26 08:38	06/05/26 16:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.9		30 - 110					05/11/26 08:38	06/05/26 16:24	1

Eurofins Cleveland

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-07-20260505

Lab Sample ID: 240-249770-7

Date Collected: 05/05/26 13:24

Matrix: Water

Date Received: 05/07/26 10:00

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0775	U G	0.579	0.579	1.00	1.05	pCi/L	05/11/26 08:52	06/05/26 11:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.9		30 - 110					05/11/26 08:52	06/05/26 11:49	1
Y Carrier	80.7		30 - 110					05/11/26 08:52	06/05/26 11:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.144	U	0.609	0.609	5.00	1.05	pCi/L		06/08/26 12:49	1

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: DUP-1

Lab Sample ID: 240-249770-8

Date Collected: 05/05/26 00:00

Matrix: Water

Date Received: 05/07/26 10:00

Method: SM 2340B-2021 - Total Hardness - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	130		6.6	6.6	mg/L			05/13/26 06:06	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		05/08/26 14:00	05/11/26 13:27	1
Arsenic	1.1	J	5.0	0.75	ug/L		05/08/26 14:00	05/11/26 13:27	1
Barium	49		5.0	0.77	ug/L		05/08/26 14:00	05/11/26 13:27	1
Beryllium	<0.27		1.0	0.27	ug/L		05/08/26 14:00	05/11/26 13:27	1
Boron	150		20	16	ug/L		05/08/26 14:00	05/11/26 13:27	1
Cadmium	<0.077		1.0	0.077	ug/L		05/08/26 14:00	05/11/26 13:27	1
Calcium	40000		1000	250	ug/L		05/08/26 14:00	05/11/26 13:27	1
Chromium	2.2	J	5.0	1.2	ug/L		05/08/26 14:00	05/11/26 13:27	1
Cobalt	2.6		1.0	0.086	ug/L		05/08/26 14:00	05/11/26 13:27	1
Copper	2.9		2.0	1.7	ug/L		05/08/26 14:00	05/11/26 13:27	1
Lead	1.8		1.0	0.45	ug/L		05/08/26 14:00	05/11/26 13:27	1
Lithium	4.3	J	8.0	3.4	ug/L		05/08/26 14:00	05/11/26 13:27	1
Magnesium	8000		1000	61	ug/L		05/08/26 14:00	05/11/26 13:27	1
Molybdenum	1.5	J	5.0	1.1	ug/L		05/08/26 14:00	05/11/26 13:27	1
Nickel	2.6		2.0	1.5	ug/L		05/08/26 14:00	05/11/26 13:27	1
Selenium	<0.89		5.0	0.89	ug/L		05/08/26 14:00	05/11/26 13:27	1
Silver	<0.053		1.0	0.053	ug/L		05/08/26 14:00	05/11/26 13:27	1
Thallium	<0.51		1.0	0.51	ug/L		05/08/26 14:00	05/11/26 13:27	1
Vanadium	5.1		5.0	0.82	ug/L		05/08/26 14:00	05/11/26 13:27	1
Zinc	<15		20	15	ug/L		05/08/26 14:00	05/11/26 13:27	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		05/08/26 14:00	05/11/26 12:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D-2015)	38		1.0	1.0	mg/L			05/11/26 14:59	1
Cr (III) (SW846 7196A)	<3.2		10	3.2	ug/L			05/18/26 20:54	1
pH (SW846 9040C)	8.7	HF	0.1	0.1	SU			05/08/26 11:57	1
Chloride (SW846 9056A)	36		1.0	0.13	mg/L			05/08/26 21:19	1
Fluoride (SW846 9056A)	0.13		0.050	0.024	mg/L			05/08/26 21:19	1
Sulfate (SW846 9056A)	47		1.0	0.35	mg/L			05/08/26 21:19	1
Cr (VI) (SW846 EPA 7196A)	<6.0	H H3	10	6.0	ug/L			05/08/26 14:58	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0590	U	0.167	0.167	1.00	0.322	pCi/L	05/11/26 08:38	06/05/26 16:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.7		30 - 110					05/11/26 08:38	06/05/26 16:23	1

Eurofins Cleveland

Client Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: DUP-1

Lab Sample ID: 240-249770-8

Date Collected: 05/05/26 00:00

Matrix: Water

Date Received: 05/07/26 10:00

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.653	U G	0.637	0.639	1.00	1.03	pCi/L	05/11/26 08:52	06/05/26 11:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.7		30 - 110					05/11/26 08:52	06/05/26 11:50	1
Y Carrier	82.6		30 - 110					05/11/26 08:52	06/05/26 11:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.712	U	0.659	0.660	5.00	1.03	pCi/L		06/08/26 12:49	1

Tracer/Carrier Summary

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Method: 9315 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)						
		Ba						
Lab Sample ID	Client Sample ID	(30-110)						
160-62049-A-6-A MSD	Matrix Spike Duplicate	72.6						
160-62049-B-6-B MS	Matrix Spike	94.5						
240-249749-S-2-B MS	Matrix Spike	97.4						
240-249749-T-2-A MSD	Matrix Spike Duplicate	105						
240-249770-1	CH-01-20260505	72.0						
240-249770-2	CH-02-20260505	80.4						
240-249770-3	CH-03-20260505	70.0						
240-249770-4	CH-04-20260505	75.2						
240-249770-5	CH-05-20260505	38.6						
240-249770-6	CH-06-20260505	83.6						
240-249770-7	CH-07-20260505	74.9						
240-249770-8	DUP-1	78.7						
LCS 160-770367/2-A	Lab Control Sample	84.7						
LCS 160-770369/2-A	Lab Control Sample	80.4						
MB 160-770367/1-A	Method Blank	81.3						
MB 160-770369/1-A	Method Blank	87.3						
Tracer/Carrier Legend								
Ba = Ba Carrier								

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)						
		Ba		Y				
Lab Sample ID	Client Sample ID	(30-110)	(30-110)					
160-62049-A-6-B MSD	Matrix Spike Duplicate	72.6	81.5					
160-62049-B-6-D MS	Matrix Spike	94.5	82.6					
240-249749-S-2-D MS	Matrix Spike	97.4	81.1					
240-249749-T-2-B MSD	Matrix Spike Duplicate	105	80.4					
240-249770-1	CH-01-20260505	72.0	77.4					
240-249770-2	CH-02-20260505	80.4	84.1					
240-249770-3	CH-03-20260505	70.0	78.5					
240-249770-4	CH-04-20260505	75.2	74.8					
240-249770-5	CH-05-20260505	38.6	81.5					
240-249770-6	CH-06-20260505	83.6	81.9					
240-249770-7	CH-07-20260505	74.9	80.7					
240-249770-8	DUP-1	78.7	82.6					
LCS 160-770368/2-A	Lab Control Sample	84.7	84.5					
LCS 160-770370/2-A	Lab Control Sample	80.4	83.0					
MB 160-770368/1-A	Method Blank	81.3	83.0					
MB 160-770370/1-A	Method Blank	87.3	84.5					
Tracer/Carrier Legend								
Ba = Ba Carrier								
Y = Y Carrier								

Eurofins Cleveland

QC Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-701089/1-A

Matrix: Water

Analysis Batch: 701415

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 701089

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.57		2.0	0.57	ug/L		05/08/26 14:00	05/11/26 10:30	1
Arsenic	<0.75		5.0	0.75	ug/L		05/08/26 14:00	05/11/26 10:30	1
Barium	<0.77		5.0	0.77	ug/L		05/08/26 14:00	05/11/26 10:30	1
Beryllium	<0.27		1.0	0.27	ug/L		05/08/26 14:00	05/11/26 10:30	1
Boron	<16		20	16	ug/L		05/08/26 14:00	05/11/26 10:30	1
Cadmium	<0.077		1.0	0.077	ug/L		05/08/26 14:00	05/11/26 10:30	1
Calcium	<250		1000	250	ug/L		05/08/26 14:00	05/11/26 10:30	1
Chromium	<1.2		5.0	1.2	ug/L		05/08/26 14:00	05/11/26 10:30	1
Cobalt	<0.086		1.0	0.086	ug/L		05/08/26 14:00	05/11/26 10:30	1
Copper	<1.7		2.0	1.7	ug/L		05/08/26 14:00	05/11/26 10:30	1
Lead	<0.45		1.0	0.45	ug/L		05/08/26 14:00	05/11/26 10:30	1
Lithium	<3.4		8.0	3.4	ug/L		05/08/26 14:00	05/11/26 10:30	1
Magnesium	<61		1000	61	ug/L		05/08/26 14:00	05/11/26 10:30	1
Molybdenum	<1.1		5.0	1.1	ug/L		05/08/26 14:00	05/11/26 10:30	1
Nickel	<1.5		2.0	1.5	ug/L		05/08/26 14:00	05/11/26 10:30	1
Selenium	<0.89		5.0	0.89	ug/L		05/08/26 14:00	05/11/26 10:30	1
Silver	<0.053		1.0	0.053	ug/L		05/08/26 14:00	05/11/26 10:30	1
Thallium	<0.51		1.0	0.51	ug/L		05/08/26 14:00	05/11/26 10:30	1
Vanadium	<0.82		5.0	0.82	ug/L		05/08/26 14:00	05/11/26 10:30	1
Zinc	<15		20	15	ug/L		05/08/26 14:00	05/11/26 10:30	1

Lab Sample ID: LCS 240-701089/2-A

Matrix: Water

Analysis Batch: 701415

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 701089

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	101		ug/L		101	80 - 120
Arsenic	1000	1020		ug/L		102	80 - 120
Barium	1000	978		ug/L		98	80 - 120
Beryllium	500	511		ug/L		102	80 - 120
Boron	100	95.6		ug/L		96	80 - 120
Cadmium	500	484		ug/L		97	80 - 120
Calcium	25000	25400		ug/L		102	80 - 120
Chromium	500	498		ug/L		100	80 - 120
Cobalt	500	512		ug/L		102	80 - 120
Copper	500	492		ug/L		98	80 - 120
Lead	500	492		ug/L		98	80 - 120
Lithium	500	509		ug/L		102	80 - 120
Magnesium	25000	26000		ug/L		104	80 - 120
Molybdenum	500	497		ug/L		99	80 - 120
Nickel	500	491		ug/L		98	80 - 120
Selenium	1000	1040		ug/L		104	80 - 120
Silver	100	99.3		ug/L		99	80 - 120
Thallium	1000	1070		ug/L		107	80 - 120
Vanadium	500	502		ug/L		100	80 - 120
Zinc	500	496		ug/L		99	80 - 120

Eurofins Cleveland

QC Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

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

Lab Sample ID: 240-249770-1 MS

Matrix: Water

Analysis Batch: 701415

Client Sample ID: CH-01-20260505

Prep Type: Total Recoverable

Prep Batch: 701089

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.57		100	96.9		ug/L		97	80 - 120
Arsenic	<0.75		1000	1020		ug/L		102	80 - 120
Barium	37		1000	969		ug/L		93	80 - 120
Beryllium	<0.27		500	490		ug/L		98	80 - 120
Boron	29		100	129		ug/L		100	80 - 120
Cadmium	<0.077		500	466		ug/L		93	80 - 120
Calcium	26000		25000	50300		ug/L		96	80 - 120
Chromium	<1.2		500	473		ug/L		95	80 - 120
Cobalt	0.59	J	500	505		ug/L		101	80 - 120
Copper	<1.7		500	486		ug/L		97	80 - 120
Lead	0.59	J	500	465		ug/L		93	80 - 120
Lithium	<3.4		500	484		ug/L		97	80 - 120
Magnesium	4600		25000	29400		ug/L		99	80 - 120
Molybdenum	1.3	J	500	487		ug/L		97	80 - 120
Nickel	1.5	J	500	484		ug/L		96	80 - 120
Selenium	<0.89		1000	1010		ug/L		101	80 - 120
Silver	<0.053		100	96.3		ug/L		96	80 - 120
Thallium	<0.51		1000	1040		ug/L		104	80 - 120
Vanadium	1.6	J	500	480		ug/L		96	80 - 120
Zinc	<15		500	486		ug/L		97	80 - 120

Lab Sample ID: 240-249770-1 MSD

Matrix: Water

Analysis Batch: 701415

Client Sample ID: CH-01-20260505

Prep Type: Total Recoverable

Prep Batch: 701089

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.57		100	101		ug/L		101	80 - 120	4	20
Arsenic	<0.75		1000	1030		ug/L		103	80 - 120	1	20
Barium	37		1000	991		ug/L		95	80 - 120	2	20
Beryllium	<0.27		500	504		ug/L		101	80 - 120	3	20
Boron	29		100	135		ug/L		106	80 - 120	4	20
Cadmium	<0.077		500	475		ug/L		95	80 - 120	2	20
Calcium	26000		25000	51200		ug/L		99	80 - 120	2	20
Chromium	<1.2		500	480		ug/L		96	80 - 120	1	20
Cobalt	0.59	J	500	514		ug/L		103	80 - 120	2	20
Copper	<1.7		500	493		ug/L		99	80 - 120	1	20
Lead	0.59	J	500	478		ug/L		96	80 - 120	3	20
Lithium	<3.4		500	502		ug/L		100	80 - 120	3	20
Magnesium	4600		25000	29900		ug/L		101	80 - 120	2	20
Molybdenum	1.3	J	500	494		ug/L		98	80 - 120	1	20
Nickel	1.5	J	500	489		ug/L		98	80 - 120	1	20
Selenium	<0.89		1000	1030		ug/L		103	80 - 120	2	20
Silver	<0.053		100	100		ug/L		100	80 - 120	4	20
Thallium	<0.51		1000	1050		ug/L		105	80 - 120	1	20
Vanadium	1.6	J	500	484		ug/L		96	80 - 120	1	20
Zinc	<15		500	508		ug/L		102	80 - 120	4	20

Eurofins Cleveland

QC Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-701092/1-A
Matrix: Water
Analysis Batch: 701362

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 701092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.13		0.20	0.13	ug/L		05/08/26 14:00	05/11/26 12:25	1

Lab Sample ID: LCS 240-701092/2-A
Matrix: Water
Analysis Batch: 701362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 701092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.89		ug/L		98	80 - 120

Lab Sample ID: 240-249770-1 MS
Matrix: Water
Analysis Batch: 701362

Client Sample ID: CH-01-20260505
Prep Type: Total/NA
Prep Batch: 701092

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.13		1.00	0.982		ug/L		98	80 - 120

Lab Sample ID: 240-249770-1 MSD
Matrix: Water
Analysis Batch: 701362

Client Sample ID: CH-01-20260505
Prep Type: Total/NA
Prep Batch: 701092

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.13		1.00	0.964		ug/L		96	80 - 120	2	20

Method: 2540D-2015 - Total Suspended Solids (Dried at 103-105°C)

Lab Sample ID: MB 180-513654/1
Matrix: Water
Analysis Batch: 513654

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<0.50		0.50	0.50	mg/L			05/11/26 14:59	1

Lab Sample ID: LCS 180-513654/2
Matrix: Water
Analysis Batch: 513654

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	68.6	70.0		mg/L		102	85 - 115

Lab Sample ID: 240-249770-1 DU
Matrix: Water
Analysis Batch: 513654

Client Sample ID: CH-01-20260505
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	11		11.8		mg/L		3	10

Eurofins Cleveland

QC Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Method: 9040C - pH

Lab Sample ID: LCS 240-701063/2

Matrix: Water

Analysis Batch: 701063

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	6.30	6.5		SU		103	97 - 103

Lab Sample ID: 240-249770-1 DU

Matrix: Water

Analysis Batch: 701063

Client Sample ID: CH-01-20260505

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	8.2	HF	8.1		SU		0.7	20

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-701106/3

Matrix: Water

Analysis Batch: 701106

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			05/08/26 17:53	1
Fluoride	<0.024		0.050	0.024	mg/L			05/08/26 17:53	1
Sulfate	<0.35		1.0	0.35	mg/L			05/08/26 17:53	1

Lab Sample ID: LCS 240-701106/4

Matrix: Water

Analysis Batch: 701106

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	50.0		mg/L		100	90 - 110
Fluoride	2.50	2.57		mg/L		103	90 - 110
Sulfate	50.0	51.7		mg/L		103	90 - 110

Lab Sample ID: 240-249770-3 MS

Matrix: Water

Analysis Batch: 701106

Client Sample ID: CH-03-20260505

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	31		50.0	75.1		mg/L		88	80 - 120
Fluoride	0.11		2.50	2.49		mg/L		95	80 - 120
Sulfate	26		50.0	70.1		mg/L		87	80 - 120

Lab Sample ID: 240-249770-3 MSD

Matrix: Water

Analysis Batch: 701106

Client Sample ID: CH-03-20260505

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	31		50.0	75.0		mg/L		87	80 - 120	0	15
Fluoride	0.11		2.50	2.48		mg/L		95	80 - 120	0	15
Sulfate	26		50.0	70.2		mg/L		87	80 - 120	0	15

Eurofins Cleveland

QC Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Method: EPA 7196A - Chromium, Hexavalent

Lab Sample ID: MB 180-513550/12

Matrix: Water

Analysis Batch: 513550

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	<6.0		10	6.0	ug/L			05/08/26 13:38	1

Lab Sample ID: LCS 180-513550/13

Matrix: Water

Analysis Batch: 513550

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	500	518		ug/L		104	85 - 115

Lab Sample ID: 240-249770-1 MS

Matrix: Water

Analysis Batch: 513550

Client Sample ID: CH-01-20260505

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	<6.0	H H3	500	543		ug/L		109	85 - 115

Lab Sample ID: 240-249770-1 MSD

Matrix: Water

Analysis Batch: 513550

Client Sample ID: CH-01-20260505

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cr (VI)	<6.0	H H3	500	546		ug/L		109	85 - 115	1	20

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-770367/1-A

Matrix: Water

Analysis Batch: 774261

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 770367

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.009723	U	0.0836	0.0836	1.00	0.192	pCi/L	05/11/26 08:26	06/03/26 07:19	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	81.3		30 - 110	05/11/26 08:26	06/03/26 07:19	1

Lab Sample ID: LCS 160-770367/2-A

Matrix: Water

Analysis Batch: 774261

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 770367

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.57	7.993		1.01	1.00	0.188	pCi/L	84	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	84.7		30 - 110

Eurofins Cleveland

QC Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

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

Lab Sample ID: 160-62049-A-6-A MSD

Matrix: Water

Analysis Batch: 774261

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 770367

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	0.222	U	9.55	7.265		0.970	1.00	0.193	pCi/L	74	60 - 140	0.28	1
Carrier	MSD %Yield	MSD Qualifier	MSD Limits										
Ba Carrier	72.6		30 - 110										

Lab Sample ID: 160-62049-B-6-B MS

Matrix: Water

Analysis Batch: 774261

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 770367

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226	0.222	U	9.53	6.760		0.866	1.00	0.164	pCi/L	69	60 - 140		
Carrier	MS %Yield	MS Qualifier	MS Limits										
Ba Carrier	94.5		30 - 110										

Lab Sample ID: MB 160-770369/1-A

Matrix: Water

Analysis Batch: 774641

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 770369

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.05456	U	0.135	0.135	1.00	0.252	pCi/L	05/11/26 08:38	06/05/26 16:23	1
Carrier	MB %Yield	MB Qualifier	MB Limits							
Ba Carrier	87.3		30 - 110							
								Prepared	Analyzed	Dil Fac
								05/11/26 08:38	06/05/26 16:23	1

Lab Sample ID: LCS 160-770369/2-A

Matrix: Water

Analysis Batch: 774641

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 770369

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226	9.57	7.587		1.05	1.00	0.275	pCi/L	79	75 - 125		
Carrier	LCS %Yield	LCS Qualifier	LCS Limits								
Ba Carrier	80.4		30 - 110								

Lab Sample ID: 240-249749-S-2-B MS

Matrix: Water

Analysis Batch: 774641

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 770369

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226	13.8		12.8	22.32		2.46	1.00	0.269	pCi/L	66	60 - 140		

Eurofins Cleveland

QC Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

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

Lab Sample ID: 240-249749-S-2-B MS
Matrix: Water
Analysis Batch: 774641

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 770369

	MS	MS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	97.4		30 - 110

Lab Sample ID: 240-249749-T-2-A MSD
Matrix: Water
Analysis Batch: 774641

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 770369

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	13.8		12.7	22.34		2.44	1.00	0.286	pCi/L	67	60 - 140	0.01	1
	MSD	MSD											
Carrier	%Yield	Qualifier	Limits										
Ba Carrier	105		30 - 110										

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-770368/1-A
Matrix: Water
Analysis Batch: 774085

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 770368

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2288	U	0.421	0.421	1.00	0.723	pCi/L	05/11/26 08:35	06/02/26 14:07	1
	MB	MB								
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.3		30 - 110					05/11/26 08:35	06/02/26 14:07	1
Y Carrier	83.0		30 - 110					05/11/26 08:35	06/02/26 14:07	1

Lab Sample ID: LCS 160-770368/2-A
Matrix: Water
Analysis Batch: 774085

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 770368

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	9.09	9.924		1.41	1.00	0.677	pCi/L	109	75 - 125
	LCS	LCS							
Carrier	%Yield	Qualifier	Limits						
Ba Carrier	84.7		30 - 110						
Y Carrier	84.5		30 - 110						

Lab Sample ID: 160-62049-A-6-B MSD
Matrix: Water
Analysis Batch: 773943

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 770368

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	0.313	U G	9.07	8.250		1.29	1.00	0.670	pCi/L	87	60 - 140	0.31	1

Eurofins Cleveland

QC Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

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

Lab Sample ID: 160-62049-A-6-B MSD
Matrix: Water
Analysis Batch: 773943

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 770368

	MSD	MSD	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	72.6		30 - 110
Y Carrier	81.5		30 - 110

Lab Sample ID: 160-62049-B-6-D MS
Matrix: Water
Analysis Batch: 773943

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 770368

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	0.313	U G	9.06	9.042		1.25	1.00	0.556	pCi/L	96	60 - 140

	MS	MS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	94.5		30 - 110
Y Carrier	82.6		30 - 110

Lab Sample ID: MB 160-770370/1-A
Matrix: Water
Analysis Batch: 774641

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 770370

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3035	U	0.410	0.411	1.00	0.685	pCi/L	05/11/26 08:52	06/05/26 11:50	1

	MB	MB								
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		30 - 110					05/11/26 08:52	06/05/26 11:50	1
Y Carrier	84.5		30 - 110					05/11/26 08:52	06/05/26 11:50	1

Lab Sample ID: LCS 160-770370/2-A
Matrix: Water
Analysis Batch: 774641

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 770370

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	9.09	11.17		1.54	1.00	0.708	pCi/L	123	75 - 125

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	80.4		30 - 110
Y Carrier	83.0		30 - 110

Lab Sample ID: 240-249749-S-2-D MS
Matrix: Water
Analysis Batch: 774640

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 770370

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	14.4	G	12.1	23.62		2.78	1.00	0.732	pCi/L	76	60 - 140

Eurofins Cleveland

QC Sample Results

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

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

Lab Sample ID: 240-249749-S-2-D MS
Matrix: Water
Analysis Batch: 774640

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 770370

	MS	MS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	97.4		30 - 110
Y Carrier	81.1		30 - 110

Lab Sample ID: 240-249749-T-2-B MSD
Matrix: Water
Analysis Batch: 774640

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 770370

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	14.4	G	12.1	23.64		2.75	1.00	0.754	pCi/L	77	60 - 140	0	1

	MSD	MSD	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	105		30 - 110
Y Carrier	80.4		30 - 110

QC Association Summary

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Metals

Prep Batch: 701089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-249770-1	CH-01-20260505	Total Recoverable	Water	3005A	
240-249770-2	CH-02-20260505	Total Recoverable	Water	3005A	
240-249770-3	CH-03-20260505	Total Recoverable	Water	3005A	
240-249770-4	CH-04-20260505	Total Recoverable	Water	3005A	
240-249770-5	CH-05-20260505	Total Recoverable	Water	3005A	
240-249770-6	CH-06-20260505	Total Recoverable	Water	3005A	
240-249770-7	CH-07-20260505	Total Recoverable	Water	3005A	
240-249770-8	DUP-1	Total Recoverable	Water	3005A	
MB 240-701089/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-701089/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-249770-1 MS	CH-01-20260505	Total Recoverable	Water	3005A	
240-249770-1 MSD	CH-01-20260505	Total Recoverable	Water	3005A	

Prep Batch: 701092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-249770-1	CH-01-20260505	Total/NA	Water	7470A	
240-249770-2	CH-02-20260505	Total/NA	Water	7470A	
240-249770-3	CH-03-20260505	Total/NA	Water	7470A	
240-249770-4	CH-04-20260505	Total/NA	Water	7470A	
240-249770-5	CH-05-20260505	Total/NA	Water	7470A	
240-249770-6	CH-06-20260505	Total/NA	Water	7470A	
240-249770-7	CH-07-20260505	Total/NA	Water	7470A	
240-249770-8	DUP-1	Total/NA	Water	7470A	
MB 240-701092/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-701092/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-249770-1 MS	CH-01-20260505	Total/NA	Water	7470A	
240-249770-1 MSD	CH-01-20260505	Total/NA	Water	7470A	

Analysis Batch: 701362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-249770-1	CH-01-20260505	Total/NA	Water	7470A	701092
240-249770-2	CH-02-20260505	Total/NA	Water	7470A	701092
240-249770-3	CH-03-20260505	Total/NA	Water	7470A	701092
240-249770-4	CH-04-20260505	Total/NA	Water	7470A	701092
240-249770-5	CH-05-20260505	Total/NA	Water	7470A	701092
240-249770-6	CH-06-20260505	Total/NA	Water	7470A	701092
240-249770-7	CH-07-20260505	Total/NA	Water	7470A	701092
240-249770-8	DUP-1	Total/NA	Water	7470A	701092
MB 240-701092/1-A	Method Blank	Total/NA	Water	7470A	701092
LCS 240-701092/2-A	Lab Control Sample	Total/NA	Water	7470A	701092
240-249770-1 MS	CH-01-20260505	Total/NA	Water	7470A	701092
240-249770-1 MSD	CH-01-20260505	Total/NA	Water	7470A	701092

Analysis Batch: 701415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-249770-1	CH-01-20260505	Total Recoverable	Water	6020B	701089
240-249770-2	CH-02-20260505	Total Recoverable	Water	6020B	701089
240-249770-3	CH-03-20260505	Total Recoverable	Water	6020B	701089
240-249770-4	CH-04-20260505	Total Recoverable	Water	6020B	701089
240-249770-5	CH-05-20260505	Total Recoverable	Water	6020B	701089
240-249770-6	CH-06-20260505	Total Recoverable	Water	6020B	701089

Eurofins Cleveland

QC Association Summary

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Metals (Continued)

Analysis Batch: 701415 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-249770-7	CH-07-20260505	Total Recoverable	Water	6020B	701089
240-249770-8	DUP-1	Total Recoverable	Water	6020B	701089
MB 240-701089/1-A	Method Blank	Total Recoverable	Water	6020B	701089
LCS 240-701089/2-A	Lab Control Sample	Total Recoverable	Water	6020B	701089
240-249770-1 MS	CH-01-20260505	Total Recoverable	Water	6020B	701089
240-249770-1 MSD	CH-01-20260505	Total Recoverable	Water	6020B	701089

Analysis Batch: 701612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-249770-1	CH-01-20260505	Total Recoverable	Water	2340B-2021	
240-249770-2	CH-02-20260505	Total Recoverable	Water	2340B-2021	
240-249770-3	CH-03-20260505	Total Recoverable	Water	2340B-2021	
240-249770-4	CH-04-20260505	Total Recoverable	Water	2340B-2021	
240-249770-5	CH-05-20260505	Total Recoverable	Water	2340B-2021	
240-249770-6	CH-06-20260505	Total Recoverable	Water	2340B-2021	
240-249770-7	CH-07-20260505	Total Recoverable	Water	2340B-2021	
240-249770-8	DUP-1	Total Recoverable	Water	2340B-2021	

General Chemistry

Analysis Batch: 513550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-249770-1	CH-01-20260505	Total/NA	Water	EPA 7196A	
240-249770-2	CH-02-20260505	Total/NA	Water	EPA 7196A	
240-249770-3	CH-03-20260505	Total/NA	Water	EPA 7196A	
240-249770-4	CH-04-20260505	Total/NA	Water	EPA 7196A	
240-249770-5	CH-05-20260505	Total/NA	Water	EPA 7196A	
240-249770-6	CH-06-20260505	Total/NA	Water	EPA 7196A	
240-249770-7	CH-07-20260505	Total/NA	Water	EPA 7196A	
240-249770-8	DUP-1	Total/NA	Water	EPA 7196A	
MB 180-513550/12	Method Blank	Total/NA	Water	EPA 7196A	
LCS 180-513550/13	Lab Control Sample	Total/NA	Water	EPA 7196A	
240-249770-1 MS	CH-01-20260505	Total/NA	Water	EPA 7196A	
240-249770-1 MSD	CH-01-20260505	Total/NA	Water	EPA 7196A	

Analysis Batch: 513654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-249770-1	CH-01-20260505	Total/NA	Water	2540D-2015	
240-249770-2	CH-02-20260505	Total/NA	Water	2540D-2015	
240-249770-3	CH-03-20260505	Total/NA	Water	2540D-2015	
240-249770-4	CH-04-20260505	Total/NA	Water	2540D-2015	
240-249770-5	CH-05-20260505	Total/NA	Water	2540D-2015	
240-249770-6	CH-06-20260505	Total/NA	Water	2540D-2015	
240-249770-7	CH-07-20260505	Total/NA	Water	2540D-2015	
240-249770-8	DUP-1	Total/NA	Water	2540D-2015	
MB 180-513654/1	Method Blank	Total/NA	Water	2540D-2015	
LCS 180-513654/2	Lab Control Sample	Total/NA	Water	2540D-2015	
240-249770-1 DU	CH-01-20260505	Total/NA	Water	2540D-2015	

Eurofins Cleveland

QC Association Summary

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

General Chemistry

Analysis Batch: 513952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-249770-1	CH-01-20260505	Total/NA	Water	7196A	
240-249770-2	CH-02-20260505	Total/NA	Water	7196A	
240-249770-3	CH-03-20260505	Total/NA	Water	7196A	
240-249770-4	CH-04-20260505	Total/NA	Water	7196A	
240-249770-5	CH-05-20260505	Total/NA	Water	7196A	
240-249770-6	CH-06-20260505	Total/NA	Water	7196A	
240-249770-7	CH-07-20260505	Total/NA	Water	7196A	
240-249770-8	DUP-1	Total/NA	Water	7196A	

Analysis Batch: 701063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-249770-1	CH-01-20260505	Total/NA	Water	9040C	
240-249770-2	CH-02-20260505	Total/NA	Water	9040C	
240-249770-3	CH-03-20260505	Total/NA	Water	9040C	
240-249770-4	CH-04-20260505	Total/NA	Water	9040C	
240-249770-5	CH-05-20260505	Total/NA	Water	9040C	
240-249770-6	CH-06-20260505	Total/NA	Water	9040C	
240-249770-7	CH-07-20260505	Total/NA	Water	9040C	
240-249770-8	DUP-1	Total/NA	Water	9040C	
LCS 240-701063/2	Lab Control Sample	Total/NA	Water	9040C	
240-249770-1 DU	CH-01-20260505	Total/NA	Water	9040C	

Analysis Batch: 701106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-249770-1	CH-01-20260505	Total/NA	Water	9056A	
240-249770-2	CH-02-20260505	Total/NA	Water	9056A	
240-249770-3	CH-03-20260505	Total/NA	Water	9056A	
240-249770-4	CH-04-20260505	Total/NA	Water	9056A	
240-249770-5	CH-05-20260505	Total/NA	Water	9056A	
240-249770-6	CH-06-20260505	Total/NA	Water	9056A	
240-249770-7	CH-07-20260505	Total/NA	Water	9056A	
240-249770-8	DUP-1	Total/NA	Water	9056A	
MB 240-701106/3	Method Blank	Total/NA	Water	9056A	
LCS 240-701106/4	Lab Control Sample	Total/NA	Water	9056A	
240-249770-3 MS	CH-03-20260505	Total/NA	Water	9056A	
240-249770-3 MSD	CH-03-20260505	Total/NA	Water	9056A	

Rad

Prep Batch: 770367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-249770-1	CH-01-20260505	Total/NA	Water	PrecSep-21	
240-249770-2	CH-02-20260505	Total/NA	Water	PrecSep-21	
MB 160-770367/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-770367/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
160-62049-A-6-A MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
160-62049-B-6-B MS	Matrix Spike	Total/NA	Water	PrecSep-21	

Prep Batch: 770368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-249770-1	CH-01-20260505	Total/NA	Water	PrecSep_0	

Eurofins Cleveland

QC Association Summary

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Rad (Continued)

Prep Batch: 770368 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-249770-2	CH-02-20260505	Total/NA	Water	PrecSep_0	
MB 160-770368/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-770368/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
160-62049-A-6-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	
160-62049-B-6-D MS	Matrix Spike	Total/NA	Water	PrecSep_0	

Prep Batch: 770369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-249770-3	CH-03-20260505	Total/NA	Water	PrecSep-21	
240-249770-4	CH-04-20260505	Total/NA	Water	PrecSep-21	
240-249770-5	CH-05-20260505	Total/NA	Water	PrecSep-21	
240-249770-6	CH-06-20260505	Total/NA	Water	PrecSep-21	
240-249770-7	CH-07-20260505	Total/NA	Water	PrecSep-21	
240-249770-8	DUP-1	Total/NA	Water	PrecSep-21	
MB 160-770369/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-770369/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-249749-S-2-B MS	Matrix Spike	Total/NA	Water	PrecSep-21	
240-249749-T-2-A MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 770370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-249770-3	CH-03-20260505	Total/NA	Water	PrecSep_0	
240-249770-4	CH-04-20260505	Total/NA	Water	PrecSep_0	
240-249770-5	CH-05-20260505	Total/NA	Water	PrecSep_0	
240-249770-6	CH-06-20260505	Total/NA	Water	PrecSep_0	
240-249770-7	CH-07-20260505	Total/NA	Water	PrecSep_0	
240-249770-8	DUP-1	Total/NA	Water	PrecSep_0	
MB 160-770370/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-770370/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-249749-S-2-D MS	Matrix Spike	Total/NA	Water	PrecSep_0	
240-249749-T-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-01-20260505

Lab Sample ID: 240-249770-1

Date Collected: 05/05/26 17:55

Matrix: Water

Date Received: 05/07/26 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Analysis	2340B-2021		1	701612	KLC	EET CLE	05/13/26 06:06
Total Recoverable	Prep	3005A			701089	TQ6W	EET CLE	05/08/26 14:00
Total Recoverable	Analysis	6020B		1	701415	KLC	EET CLE	05/11/26 12:50
Total/NA	Prep	7470A			701092	TQ6W	EET CLE	05/08/26 14:00
Total/NA	Analysis	7470A		1	701362	TQ6W	EET CLE	05/11/26 12:29
Total/NA	Analysis	2540D-2015		1	513654	SNR	EET PIT	05/11/26 14:59
Total/NA	Analysis	7196A		1	513952	RSR	EET PIT	05/18/26 20:54
Total/NA	Analysis	9040C		1	701063	BP	EET CLE	05/08/26 11:01
Total/NA	Analysis	9056A		1	701106	AAP	EET CLE	05/08/26 19:49
Total/NA	Analysis	EPA 7196A		1	513550	SNR	EET PIT	05/08/26 13:49
Total/NA	Prep	PrecSep-21			770367	ASL	EET SL	05/11/26 08:26
Total/NA	Analysis	9315		1	774261	EJS	EET SL	06/03/26 07:19
Total/NA	Prep	PrecSep_0			770368	ASL	EET SL	05/11/26 08:35
Total/NA	Analysis	9320		1	774085	SWS	EET SL	06/02/26 14:07
Total/NA	Analysis	Ra226_Ra228 Pos		1	774492	FLC	EET SL	06/04/26 14:36

Client Sample ID: CH-02-20260505

Lab Sample ID: 240-249770-2

Date Collected: 05/05/26 17:02

Matrix: Water

Date Received: 05/07/26 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Analysis	2340B-2021		1	701612	KLC	EET CLE	05/13/26 06:06
Total Recoverable	Prep	3005A			701089	TQ6W	EET CLE	05/08/26 14:00
Total Recoverable	Analysis	6020B		1	701415	KLC	EET CLE	05/11/26 13:03
Total/NA	Prep	7470A			701092	TQ6W	EET CLE	05/08/26 14:00
Total/NA	Analysis	7470A		1	701362	TQ6W	EET CLE	05/11/26 12:46
Total/NA	Analysis	2540D-2015		1	513654	SNR	EET PIT	05/11/26 14:59
Total/NA	Analysis	7196A		1	513952	RSR	EET PIT	05/18/26 20:54
Total/NA	Analysis	9040C		1	701063	BP	EET CLE	05/08/26 11:15
Total/NA	Analysis	9056A		1	701106	AAP	EET CLE	05/08/26 19:57
Total/NA	Analysis	EPA 7196A		1	513550	SNR	EET PIT	05/08/26 13:52
Total/NA	Prep	PrecSep-21			770367	ASL	EET SL	05/11/26 08:26
Total/NA	Analysis	9315		1	774261	EJS	EET SL	06/03/26 07:19
Total/NA	Prep	PrecSep_0			770368	ASL	EET SL	05/11/26 08:35
Total/NA	Analysis	9320		1	774085	SWS	EET SL	06/02/26 14:07
Total/NA	Analysis	Ra226_Ra228 Pos		1	774492	FLC	EET SL	06/04/26 14:36

Client Sample ID: CH-03-20260505

Lab Sample ID: 240-249770-3

Date Collected: 05/05/26 16:37

Matrix: Water

Date Received: 05/07/26 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Analysis	2340B-2021		1	701612	KLC	EET CLE	05/13/26 06:06

Eurofins Cleveland

Lab Chronicle

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-03-20260505

Lab Sample ID: 240-249770-3

Date Collected: 05/05/26 16:37

Matrix: Water

Date Received: 05/07/26 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			701089	TQ6W	EET CLE	05/08/26 14:00
Total Recoverable	Analysis	6020B		1	701415	KLC	EET CLE	05/11/26 13:07
Total/NA	Prep	7470A			701092	TQ6W	EET CLE	05/08/26 14:00
Total/NA	Analysis	7470A		1	701362	TQ6W	EET CLE	05/11/26 12:48
Total/NA	Analysis	2540D-2015		1	513654	SNR	EET PIT	05/11/26 14:59
Total/NA	Analysis	7196A		1	513952	RSR	EET PIT	05/18/26 20:54
Total/NA	Analysis	9040C		1	701063	BP	EET CLE	05/08/26 11:22
Total/NA	Analysis	9056A		1	701106	AAP	EET CLE	05/08/26 20:05
Total/NA	Analysis	EPA 7196A		1	513550	SNR	EET PIT	05/08/26 13:53
Total/NA	Prep	PrecSep-21			770369	ASL	EET SL	05/11/26 08:38
Total/NA	Analysis	9315		1	774641	SWS	EET SL	06/05/26 16:23
Total/NA	Prep	PrecSep_0			770370	ASL	EET SL	05/11/26 08:52
Total/NA	Analysis	9320		1	774641	SWS	EET SL	06/05/26 11:49
Total/NA	Analysis	Ra226_Ra228 Pos		1	774819	FLC	EET SL	06/08/26 07:48

Client Sample ID: CH-04-20260505

Lab Sample ID: 240-249770-4

Date Collected: 05/05/26 15:51

Matrix: Water

Date Received: 05/07/26 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Analysis	2340B-2021		1	701612	KLC	EET CLE	05/13/26 06:06
Total Recoverable	Prep	3005A			701089	TQ6W	EET CLE	05/08/26 14:00
Total Recoverable	Analysis	6020B		1	701415	KLC	EET CLE	05/11/26 13:10
Total/NA	Prep	7470A			701092	TQ6W	EET CLE	05/08/26 14:00
Total/NA	Analysis	7470A		1	701362	TQ6W	EET CLE	05/11/26 12:49
Total/NA	Analysis	2540D-2015		1	513654	SNR	EET PIT	05/11/26 14:59
Total/NA	Analysis	7196A		1	513952	RSR	EET PIT	05/18/26 20:54
Total/NA	Analysis	9040C		1	701063	BP	EET CLE	05/08/26 11:29
Total/NA	Analysis	9056A		1	701106	AAP	EET CLE	05/08/26 20:30
Total/NA	Analysis	EPA 7196A		1	513550	SNR	EET PIT	05/08/26 13:54
Total/NA	Prep	PrecSep-21			770369	ASL	EET SL	05/11/26 08:38
Total/NA	Analysis	9315		1	774641	SWS	EET SL	06/05/26 16:23
Total/NA	Prep	PrecSep_0			770370	ASL	EET SL	05/11/26 08:52
Total/NA	Analysis	9320		1	774641	SWS	EET SL	06/05/26 11:50
Total/NA	Analysis	Ra226_Ra228 Pos		1	774819	FLC	EET SL	06/08/26 07:48

Client Sample ID: CH-05-20260505

Lab Sample ID: 240-249770-5

Date Collected: 05/05/26 14:30

Matrix: Water

Date Received: 05/07/26 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Analysis	2340B-2021		1	701612	KLC	EET CLE	05/13/26 06:06

Eurofins Cleveland

Lab Chronicle

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-05-20260505

Lab Sample ID: 240-249770-5

Date Collected: 05/05/26 14:30

Matrix: Water

Date Received: 05/07/26 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			701089	TQ6W	EET CLE	05/08/26 14:00
Total Recoverable	Analysis	6020B		1	701415	KLC	EET CLE	05/11/26 13:13
Total/NA	Prep	7470A			701092	TQ6W	EET CLE	05/08/26 14:00
Total/NA	Analysis	7470A		1	701362	TQ6W	EET CLE	05/11/26 12:51
Total/NA	Analysis	2540D-2015		1	513654	SNR	EET PIT	05/11/26 14:59
Total/NA	Analysis	7196A		1	513952	RSR	EET PIT	05/18/26 20:54
Total/NA	Analysis	9040C		1	701063	BP	EET CLE	05/08/26 11:36
Total/NA	Analysis	9056A		1	701106	AAP	EET CLE	05/08/26 20:38
Total/NA	Analysis	EPA 7196A		1	513550	SNR	EET PIT	05/08/26 13:55
Total/NA	Prep	PrecSep-21			770369	ASL	EET SL	05/11/26 08:38
Total/NA	Analysis	9315		1	774641	SWS	EET SL	06/05/26 16:23
Total/NA	Prep	PrecSep_0			770370	ASL	EET SL	05/11/26 08:52
Total/NA	Analysis	9320		1	774641	SWS	EET SL	06/05/26 11:49
Total/NA	Analysis	Ra226_Ra228 Pos		1	774819	FLC	EET SL	06/08/26 07:48

Client Sample ID: CH-06-20260505

Lab Sample ID: 240-249770-6

Date Collected: 05/05/26 13:58

Matrix: Water

Date Received: 05/07/26 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Analysis	2340B-2021		1	701612	KLC	EET CLE	05/13/26 06:06
Total Recoverable	Prep	3005A			701089	TQ6W	EET CLE	05/08/26 14:00
Total Recoverable	Analysis	6020B		1	701415	KLC	EET CLE	05/11/26 13:21
Total/NA	Prep	7470A			701092	TQ6W	EET CLE	05/08/26 14:00
Total/NA	Analysis	7470A		1	701362	TQ6W	EET CLE	05/11/26 12:53
Total/NA	Analysis	2540D-2015		1	513654	SNR	EET PIT	05/11/26 14:59
Total/NA	Analysis	7196A		1	513952	RSR	EET PIT	05/18/26 20:54
Total/NA	Analysis	9040C		1	701063	BP	EET CLE	05/08/26 11:43
Total/NA	Analysis	9056A		1	701106	AAP	EET CLE	05/08/26 20:46
Total/NA	Analysis	EPA 7196A		1	513550	SNR	EET PIT	05/08/26 13:56
Total/NA	Prep	PrecSep-21			770369	ASL	EET SL	05/11/26 08:38
Total/NA	Analysis	9315		1	774641	SWS	EET SL	06/05/26 16:23
Total/NA	Prep	PrecSep_0			770370	ASL	EET SL	05/11/26 08:52
Total/NA	Analysis	9320		1	774641	SWS	EET SL	06/05/26 11:49
Total/NA	Analysis	Ra226_Ra228 Pos		1	774819	FLC	EET SL	06/08/26 12:49

Client Sample ID: CH-07-20260505

Lab Sample ID: 240-249770-7

Date Collected: 05/05/26 13:24

Matrix: Water

Date Received: 05/07/26 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Analysis	2340B-2021		1	701612	KLC	EET CLE	05/13/26 06:06

Eurofins Cleveland

Lab Chronicle

Client: Dominion Energy Services, Inc.
Project/Site: Chesterfield VA - Dominion

Job ID: 240-249770-1

Client Sample ID: CH-07-20260505

Lab Sample ID: 240-249770-7

Date Collected: 05/05/26 13:24

Matrix: Water

Date Received: 05/07/26 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			701089	TQ6W	EET CLE	05/08/26 14:00
Total Recoverable	Analysis	6020B		1	701415	KLC	EET CLE	05/11/26 13:24
Total/NA	Prep	7470A			701092	TQ6W	EET CLE	05/08/26 14:00
Total/NA	Analysis	7470A		1	701362	TQ6W	EET CLE	05/11/26 12:54
Total/NA	Analysis	2540D-2015		1	513654	SNR	EET PIT	05/11/26 14:59
Total/NA	Analysis	7196A		1	513952	RSR	EET PIT	05/18/26 20:54
Total/NA	Analysis	9040C		1	701063	BP	EET CLE	05/08/26 11:50
Total/NA	Analysis	9056A		1	701106	AAP	EET CLE	05/08/26 21:11
Total/NA	Analysis	EPA 7196A		1	513550	SNR	EET PIT	05/08/26 13:57
Total/NA	Prep	PrecSep-21			770369	ASL	EET SL	05/11/26 08:38
Total/NA	Analysis	9315		1	774641	SWS	EET SL	06/05/26 16:24
Total/NA	Prep	PrecSep_0			770370	ASL	EET SL	05/11/26 08:52
Total/NA	Analysis	9320		1	774641	SWS	EET SL	06/05/26 11:49
Total/NA	Analysis	Ra226_Ra228 Pos		1	774819	FLC	EET SL	06/08/26 12:49

Client Sample ID: DUP-1

Lab Sample ID: 240-249770-8

Date Collected: 05/05/26 00:00

Matrix: Water

Date Received: 05/07/26 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Analysis	2340B-2021		1	701612	KLC	EET CLE	05/13/26 06:06
Total Recoverable	Prep	3005A			701089	TQ6W	EET CLE	05/08/26 14:00
Total Recoverable	Analysis	6020B		1	701415	KLC	EET CLE	05/11/26 13:27
Total/NA	Prep	7470A			701092	TQ6W	EET CLE	05/08/26 14:00
Total/NA	Analysis	7470A		1	701362	TQ6W	EET CLE	05/11/26 12:56
Total/NA	Analysis	2540D-2015		1	513654	SNR	EET PIT	05/11/26 14:59
Total/NA	Analysis	7196A		1	513952	RSR	EET PIT	05/18/26 20:54
Total/NA	Analysis	9040C		1	701063	BP	EET CLE	05/08/26 11:57
Total/NA	Analysis	9056A		1	701106	AAP	EET CLE	05/08/26 21:19
Total/NA	Analysis	EPA 7196A		1	513550	SNR	EET PIT	05/08/26 14:58
Total/NA	Prep	PrecSep-21			770369	ASL	EET SL	05/11/26 08:38
Total/NA	Analysis	9315		1	774641	SWS	EET SL	06/05/26 16:23
Total/NA	Prep	PrecSep_0			770370	ASL	EET SL	05/11/26 08:52
Total/NA	Analysis	9320		1	774641	SWS	EET SL	06/05/26 11:50
Total/NA	Analysis	Ra226_Ra228 Pos		1	774819	FLC	EET SL	06/08/26 12:49

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: Chesterfield VA - Dominion

Job ID: 240-249770-1

Laboratory: Eurofins Cleveland

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

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460175	09-30-26

Laboratory: Eurofins Pittsburgh

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

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460189	05-20-26
The following analytes are included in this report, but the laboratory is not certified by Virginia NELAP 460189. This list may include analytes for which the agency does not offer certification:			
Analysis Method	Prep Method	Matrix	Analyte
7196A		Water	Cr (III)

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
Virginia	NELAP	460230	06-14-26
The following analytes are included in this report, but the laboratory is not certified by Virginia NELAP 460230. 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

Environment Testing



Barberton Facility
Client Travis J. McDonald Site Name _____ Cooler unpacked by [Signature]
Cooler Received on 5/17/26 Opened on 5/17/26
FedEx 1st Grd ESP UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____
Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # _____ Foam Box Client Cooler Box Other _____
Packing material used Bubble Wrap Foam Plastic Bag None Other _____
COOLANT Wet Ice Blue Ice Dry Ice Water None _____
1 Cooler temperature upon receipt _____ ☒ See Multiple Cooler Form

IR GUN # 2 (CF -0.1 °C) Observed Cooler Temp _____ °C Corrected Cooler Temp _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 ☒ Yes ☒ No ☒ NA
-Were the seals on the outside of the cooler(s) signed & dated? ☒ Yes ☒ No ☒ NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? ☒ Yes ☒ No ☒ NA
-Were tamper/custody seals intact and uncompromised? ☒ Yes ☒ No ☒ NA

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

3 Shippers' packing slip attached to the cooler(s)? ☒ Yes ☒ No ☒ NA
4 Did custody papers accompany the sample(s)? ☒ Yes ☒ No ☒ NA
5 Were the custody papers relinquished & signed in the appropriate place? ☒ Yes ☒ No ☒ NA
6 Was/were the person(s) who collected the samples clearly identified on the COC? ☒ Yes ☒ No ☒ NA
7 Did all bottles arrive in good condition (Unbroken)? ☒ Yes ☒ No ☒ NA
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC? ☒ Yes ☒ No ☒ NA
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? ☒ Yes ☒ No ☒ NA
10. Were correct bottle(s) used for the test(s) indicated? ☒ Yes ☒ No ☒ NA
11 Sufficient quantity received to perform indicated analyses? ☒ Yes ☒ No ☒ NA
12. Are these work share samples and all listed on the COC? ☒ Yes ☒ No ☒ NA
If yes, Questions 13-17 have been checked at the originating laboratory
13 Were all preserved sample(s) at the correct pH upon receipt? ☒ Yes ☒ No ☒ NA pH Strip Lot# HCS74455
14. Were VOAs on the COC? ☒ Yes ☒ No ☒ NA
15 Were air bubbles >6 mm in any VOA vials? ☒ Yes ☒ No ☒ NA ☒ Larger than this
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes ☒ No ☒ NA
17 Was a LL Hg or Me Hg trip blank present? Yes ☒ No ☒ NA
Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page Labeled by: _____
Labels Verified 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 # _____

6/8/2026

[illegible]

Temperature readings

Client Sample ID	Lab ID	Container Type	Container pH	Temp	Preservation	Added	Preservation Lot Number
CH-01-20260505	240-249770-A-1	Plastic 125 mL oblong - unpreserved					
CH-01-20260505	240-249770-B-1	Plastic 125 mL oblong - unpreserved					
CH-01-20260505	240-249770-C-1	Plastic 250ml - unpreserved					
CH-01-20260505	240-249770-D-1	Plastic 500ml - with Nitric Acid	<2				
CH-01-20260505	240-249770-E-1	Plastic 1 liter - Nitric Acid	<2				
CH-01-20260505	240-249770-F-1	Plastic 1 liter - Nitric Acid	<2				
CH-01-20260505	240-249770-G-1	Plastic 1 liter - unpreserved					
CH-02-20260505	240-249770-A-2	Plastic 125 mL oblong - unpreserved					
CH-02-20260505	240-249770-B-2	Plastic 125 mL oblong - unpreserved					
CH-02-20260505	240-249770-C-2	Plastic 250ml - unpreserved					
CH-02-20260505	240-249770-D-2	Plastic 500ml - with Nitric Acid	<2				
CH-02-20260505	240-249770-E-2	Plastic 1 liter - Nitric Acid	<2				
CH-02-20260505	240-249770-F-2	Plastic 1 liter - Nitric Acid	<2				
CH-02-20260505	240-249770-G-2	Plastic 1 liter - unpreserved					
CH-03-20260505	240-249770-A-3	Plastic 125 mL oblong - unpreserved					
CH-03-20260505	240-249770-B-3	Plastic 125 mL oblong - unpreserved					
CH-03-20260505	240-249770-C-3	Plastic 250ml - unpreserved					
CH-03-20260505	240-249770-D-3	Plastic 500ml - with Nitric Acid	<2				
CH-03-20260505	240-249770-E-3	Plastic 1 liter - Nitric Acid	<2				
CH-03-20260505	240-249770-F-3	Plastic 1 liter - Nitric Acid	<2				
CH-03-20260505	240-249770-G-3	Plastic 1 liter - unpreserved					
CH-04-20260505	240-249770-A-4	Plastic 125 mL oblong - unpreserved					
CH-04-20260505	240-249770-B-4	Plastic 125 mL oblong - unpreserved					
CH-04-20260505	240-249770-C-4	Plastic 250ml - unpreserved					
CH-04-20260505	240-249770-D-4	Plastic 500ml - with Nitric Acid	<2				
CH-04-20260505	240-249770-E-4	Plastic 1 liter - Nitric Acid	<2				
CH-04-20260505	240-249770-F-4	Plastic 1 liter - Nitric Acid	<2				
CH-04-20260505	240-249770-G-4	Plastic 1 liter - unpreserved					
CH-05-20260505	240-249770-A-5	Plastic 125 mL oblong - unpreserved					
CH-05-20260505	240-249770-B-5	Plastic 125 mL oblong - unpreserved					
CH-05-20260505	240-249770-C-5	Plastic 250ml - unpreserved					
CH-05-20260505	240-249770-D-5	Plastic 500ml - with Nitric Acid	<2				
CH-05-20260505	240-249770-E-5	Plastic 1 liter - Nitric Acid	<2				
CH-05-20260505	240-249770-F-5	Plastic 1 liter - Nitric Acid	<2				
CH-05-20260505	240-249770-G-5	Plastic 1 liter - unpreserved					

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservation Temp</u>	<u>Preservation Added</u>	<u>Preservation Lot Number</u>
CH-06-20260505	240-249770-A-6	Plastic 125 mL oblong - unpreserved				
CH-06-20260505	240-249770-B-6	Plastic 125 mL oblong - unpreserved				
CH-06-20260505	240-249770-C-6	Plastic 250ml - unpreserved				
CH-06-20260505	240-249770-D-6	Plastic 500ml - with Nitric Acid	<2			
CH-06-20260505	240-249770-E-6	Plastic 1 liter - Nitric Acid	<2			
CH-06-20260505	240-249770-F-6	Plastic 1 liter - Nitric Acid	<2			
CH-06-20260505	240-249770-G-6	Plastic 1 liter - unpreserved				
CH-07-20260505	240-249770-A-7	Plastic 125 mL oblong - unpreserved				
CH-07-20260505	240-249770-B-7	Plastic 125 mL oblong - unpreserved				
CH-07-20260505	240-249770-C-7	Plastic 250ml - unpreserved				
CH-07-20260505	240-249770-D-7	Plastic 500ml - with Nitric Acid	<2			
CH-07-20260505	240-249770-E-7	Plastic 1 liter - Nitric Acid	<2			
CH-07-20260505	240-249770-F-7	Plastic 1 liter - Nitric Acid	<2			
CH-07-20260505	240-249770-G-7	Plastic 1 liter - unpreserved				
DUP-1	240-249770-A-8	Plastic 125 mL oblong - unpreserved				
DUP-1	240-249770-B-8	Plastic 125 mL oblong - unpreserved				
DUP-1	240-249770-C-8	Plastic 250ml - unpreserved				
DUP-1	240-249770-D-8	Plastic 500ml - with Nitric Acid	<2			
DUP-1	240-249770-E-8	Plastic 1 liter - Nitric Acid	<2			
DUP-1	240-249770-F-8	Plastic 1 liter - Nitric Acid	<2			
DUP-1	240-249770-G-8	Plastic 1 liter - unpreserved				

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



FedEx

Do not lift using this tool



Environment Testing
TestAmerica

Part # 170-434-RRDB2 EXP 10/26

SHIP DATE: 28/4/28
ACTUAL: 10.00 LB RON
CNO: 0732204/1473854

ORIGIN: CHARTER
BURNS & MCDONNELL
25 FEND
SUITE 400
CITY, NC 27511
UNITED STATES

TO SHIPPING
EUROFINS CLEVELAND
180 S WYOMING AVE
CUREN

BERNARD OH 44203



THU - 07 MAY AA
PRIORITY OVERNIGHT

TRK# 4896 1536 7117
0721

NS CAKA

144203
OH-US
CLE



Environment Testing
TestAmerica

Part # 159470-43d RRD2 EXP 10/26

ORIGIN ID: CACA (708: 534-5200)
SAMPLE RECEIVING
TESTAMERICA CHICAGO
2417 BOND STREET

SHIP DATE: 07MAY26
ACTWGT: 10.00 LB M&M
CAD: 0792304/CAFE3954

UNIVERSITY PARK, IL 60484-101
UNITED STATES US

BILL SENDER

TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING NORTHE
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

(412) 960-7050
PO: YES

REF: S240-136772

2452/TC02/20985



240-249770 Waybill

Thermometer ID

54 20

CF-47

Initials NR

PT-WI-SR-001 effective 7/26/13

Uncorrected temp

°C

FedEx
Express



TRK# 4896 1537 3524

FRI - 03 MAY 10:30A
PRIORITY OVERNIGHT

65 AGCA

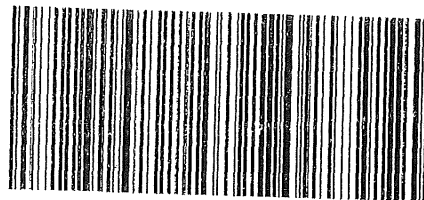
15238

PA-US PIT

414963
FRI 05/08 07:37
EUROFINS ENVIRONMENT TESTING NORTHE
301 ALPHA DR
RIDC PARK
PITTSBURGH PA
15238-2907-01

PRIORITY OVERNIGHT
198-1061FL

ETP: 30 SP:PD:100:Y
1001891781060001523800489615373624



Chain of Custody Record

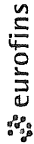


Client Information (Sub Contract Lab)		Sampler: N/A		Lab PM: Cisneros, Roxanne		Carrier Tracking No(s): N/A		COC No: 240-218389.1	
Client Contact: Shipping/Receiving		Phone: N/A		E-Mail: roxanne.cisneros@et.eurofins.com		State of Origin: Virginia		Page: 1 of 1	
Company: TestAmerica Laboratories, Inc.		Address: 13715 Rider Trail North,		Accreditations Required (See note): NELAP - Virginia		Job #: 240-249770-1		Preservation Codes:	
City: Earth City		State: MO		Zip: 63045		PO #: N/A		Due Date Requested: 5/13/2026	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		Email: N/A		Project #: 24038225		SSOW#: N/A		TAT Requested (days): N/A	
Project Name: Chesterfield VA		Site: N/A		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)		Preservation Code		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		9315_Ra226/PreSep_21Radium 226	
9320_Ra226/PreSep_21Radium 226		Ra226_228GFP_Combined Radium-226 and		Radium-228		Total Number of Containers		Special Instructions/Note:	
Sample Identification - Client ID (Lab ID)		CH-01-20260505 (240-249770-1)		5/5/26		17:55 Eastern		G Water	
CH-02-20260505 (240-249770-2)		5/5/26		17:02 Eastern		G Water		X X X	
CH-03-20260505 (240-249770-3)		5/5/26		16:37 Eastern		G Water		X X X	
CH-04-20260505 (240-249770-4)		5/5/26		15:51 Eastern		G Water		X X X	
CH-05-20260505 (240-249770-5)		5/5/26		14:30 Eastern		G Water		X X X	
CH-06-20260505 (240-249770-6)		5/5/26		13:58 Eastern		G Water		X X X	
CH-07-20260505 (240-249770-7)		5/5/26		13:24 Eastern		G Water		X X X	
DUP-1 (240-249770-8)		5/5/26		Eastern		G Water		X X X	
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.		Possible Hazard Identification		Unconfirmed		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Primary Deliverable Rank: 2		Special Instructions/QC Requirements:		Method of Shipment:		Date/Time: MAY 10 2026	
Empty Kit Relinquished by:		Date: 5/12/26		Time: 4:00		Company: FC		Received by: [Signature]	
Relinquished by: CHRIS ROAN		Date/Time: 5/12/26		Company: Company		Received by: Cheyenne Forrest		Date/Time: 5/13/26	
Relinquished by:		Date/Time:		Company: Company		Received by:		Date/Time:	
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Company: Company		Date/Time: 5/13/26	

TSS 1AA

18CC

Chain of Custody Record



Environment Testing



Client Information (Sub Contract Lab)		Sampler	Lab PM		Carrier Tracking No(s)		COC No
Client Contact		N/A	Cisneros, Roxanne		N/A		240-218387 1
Shipping/Receiving		Phone	E-Mail		State of Origin		Page
		N/A	roxanne.cisneros@et.eurofins.com		Virginia		Page 1 of 1
Company		Accreditations Required (See note)					
Eurofins Environment Testing Northeast L		NELAP - Virginia					
Address		Due Date Requested:					
301 Alpha Drive, RIDC Park,		5/13/2026					
City		TAT Requested (days):					
Pittsburgh		N/A					
State, Zip		PO #	Sample		Matrix		Analysis Requested
PA, 15238		N/A	Type		(W=water, S=solid, O=oil, B=biomass, A=air)		
Phone		412-963-7058(Tel) 412-963-2468(Fax)	G=grab		Preservation Code:		
Email		N/A	Sample Time		Field Filtered Sample (Yes or No)		
N/A		N/A	Sample Date		Perform MS/MSD (Yes or No)		
Project Name		Project #	Sample Time		7196A Hexavalent Chromium		2540DTS
Cheslerfield VA		24038225	17 55 Eastern		7196A CR3 Trivalent Chromium		
Site		SSOW#	17 02 Eastern		X		
N/A		N/A	16 37 Eastern		X		
			15 51 Eastern		X		
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type	Matrix	Total Number of Containers	
CH-01-20260505 (240-249770-1)	5/5/26	17 55 Eastern	G	Water		X	
CH-02-20260505 (240-249770-2)	5/5/26	17 02 Eastern	G	Water		2	
CH-03-20260505 (240-249770-3)	5/5/26	16 37 Eastern	G	Water		2	
CH-04-20260505 (240-249770-4)	5/5/26	15 51 Eastern	G	Water		2	
CH-05-20260505 (240-249770-5)	5/5/26	14 30 Eastern	G	Water		2	
CH-06-20260505 (240-249770-6)	5/5/26	13 58 Eastern	G	Water		2	
CH-07-20260505 (240-249770-7)	5/5/26	13 24 Eastern	G	Water		2	
DUP-1 (240-249770-8)	5/5/26	Eastern	G	Water		2	
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC							
Possible Hazard Identification							
Unconfirmed							
Deliverable Requested: I, II, III, IV, Other (specify)							
Primary Deliverable Rank: 2							
Empty Kit Relinquished by:							
Relinquished by: CHRIS ROAN							
Relinquished by:							
Relinquished by:							
Custody Seals Intact: Custody Seal No							
Δ Yes Δ No							

Login Sample Receipt Checklist

Client: Dominion Energy Services, Inc.

Job Number: 240-249770-1

Login Number: 249770

List Number: 2

Creator: Rucker, Keenyn J

List Source: Eurofins Pittsburgh

List Creation: 05/08/26 11:46 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	False	
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 $<6\text{mm}$ (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: 240-249770-1

Login Number: 249770

List Number: 3

Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis

List Creation: 05/08/26 01:15 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	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 $<6\text{mm}$ (1/4").	N/A	
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:

Chesterfield Power Station Groundwater Sampling
Samples Collected: 5/5/2026

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 dba Onterris (Onterris) 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:

2402497701

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
CH-01-20260505	CH-01	N	CHROM_III_CAL	Chromium, Trivalent	T		R	H	3.2	10		ug/L
CH-01-20260505	CH-01	N	SW-846 6020B	Cobalt	T	0.59	J	RL	0.086	1.0		ug/L
CH-01-20260505	CH-01	N	SW-846 6020B	Lead	T	0.59	J	RL	0.45	1.0		ug/L
CH-01-20260505	CH-01	N	SW-846 6020B	Molybdenum	T	1.3	J	RL	1.1	5.0		ug/L
CH-01-20260505	CH-01	N	SW-846 6020B	Nickel	T	1.5	J	RL	1.5	2.0		ug/L
CH-01-20260505	CH-01	N	SW-846 6020B	Vanadium	T	1.6	J	RL	0.82	5.0		ug/L
CH-01-20260505	CH-01	N	SW-846 7196A	Chromium, Hexavalent	T		R	H	6.0	10		ug/L
CH-01-20260505	CH-01	N	SW-846 9040C	pH	N	8.2	J	H	0.1	0.1		pH
CH-02-20260505	CH-02	N	CHROM_III_CAL	Chromium, Trivalent	T		R	H	3.2	10		ug/L
CH-02-20260505	CH-02	N	SW-846 6020B	Arsenic	T	2.3	J	RL	0.75	5.0		ug/L
CH-02-20260505	CH-02	N	SW-846 6020B	Chromium	T	2.3	J	RL	1.2	5.0		ug/L
CH-02-20260505	CH-02	N	SW-846 6020B	Lithium	T	6.3	J	RL	3.4	8.0		ug/L
CH-02-20260505	CH-02	N	SW-846 6020B	Molybdenum	T	1.4	J	RL	1.1	5.0		ug/L
CH-02-20260505	CH-02	N	SW-846 6020B	Thallium	T	0.87	J	RL	0.51	1.0		ug/L
CH-02-20260505	CH-02	N	SW-846 7196A	Chromium, Hexavalent	T		R	H	6.0	10		ug/L
CH-02-20260505	CH-02	N	SW-846 9040C	pH	N	7.7	J	H	0.1	0.1		pH
CH-03-20260505	CH-03	N	CALC	Radium-226/228	N	0.469	UJ	L,S			0.726	pCi/L
CH-03-20260505	CH-03	N	CHROM_III_CAL	Chromium, Trivalent	T		R	H	3.2	10		ug/L
CH-03-20260505	CH-03	N	SW-846 6020B	Cobalt	T	0.72	J	RL	0.086	1.0		ug/L
CH-03-20260505	CH-03	N	SW-846 6020B	Lead	T	0.93	J	RL	0.45	1.0		ug/L
CH-03-20260505	CH-03	N	SW-846 6020B	Nickel	T	1.5	J	RL	1.5	2.0		ug/L
CH-03-20260505	CH-03	N	SW-846 6020B	Vanadium	T	2.0	J	RL	0.82	5.0		ug/L
CH-03-20260505	CH-03	N	SW-846 7196A	Chromium, Hexavalent	T		R	H	6.0	10		ug/L
CH-03-20260505	CH-03	N	SW-846 9040C	pH	N	8.5	J	H	0.1	0.1		pH
CH-03-20260505	CH-03	N	SW-846 9315	Radium-226	N	-0.0155	UJ	L	0.385	1.00	0.172	pCi/L
CH-04-20260505	CH-04	N	CALC	Radium-226/228	N	0.979	UJ	L			0.784	pCi/L
CH-04-20260505	CH-04	N	CHROM_III_CAL	Chromium, Trivalent	T		R	H	3.2	10		ug/L
CH-04-20260505	CH-04	N	SW-846 6020B	Arsenic	T	0.98	J	RL	0.75	5.0		ug/L
CH-04-20260505	CH-04	N	SW-846 6020B	Boron	T	110	J	FD	16	20		ug/L
CH-04-20260505	CH-04	N	SW-846 6020B	Cadmium	T	0.084	J	RL	0.077	1.0		ug/L
CH-04-20260505	CH-04	N	SW-846 6020B	Chromium	T	1.6	J	RL	1.2	5.0		ug/L

Sample	Location	Sample Type	Method	Analyte	T/D	Result	Qual	Reason Code(s)	MDL	QL	Uncertainty	Unit
CH-04-20260505	CH-04	N	SW-846 6020B	Lithium	T	3.7	J	RL	3.4	8.0		ug/L
CH-04-20260505	CH-04	N	SW-846 6020B	Magnesium	T	6300	J	FD	61	1000		ug/L
CH-04-20260505	CH-04	N	SW-846 6020B	Molybdenum	T	1.3	J	RL	1.1	5.0		ug/L
CH-04-20260505	CH-04	N	SW-846 6020B	Vanadium	T	3.9	J	RL	0.82	5.0		ug/L
CH-04-20260505	CH-04	N	SW-846 7196A	Chromium, Hexavalent	T		R	H	6.0	10		ug/L
CH-04-20260505	CH-04	N	SW-846 9040C	pH	N	8.5	J	H	0.1	0.1		pH
CH-04-20260505	CH-04	N	SW-846 9056A	Sulfate	N	37	J	FD	0.35	1.0		mg/L
CH-04-20260505	CH-04	N	SW-846 9315	Radium-226	N	0.110	UJ	L	0.405	1.00	0.224	pCi/L
CH-05-20260505	CH-05	N	CALC	Radium-226/228	N	2.66	UJ	L,S			2.07	pCi/L
CH-05-20260505	CH-05	N	CHROM_III_CAL	Chromium, Trivalent	T		R	H	3.2	10		ug/L
CH-05-20260505	CH-05	N	SW-846 6020B	Arsenic	T	1.3	J	RL	0.75	5.0		ug/L
CH-05-20260505	CH-05	N	SW-846 6020B	Chromium	T	2.0	J	RL	1.2	5.0		ug/L
CH-05-20260505	CH-05	N	SW-846 7196A	Chromium, Hexavalent	T		R	H	6.0	10		ug/L
CH-05-20260505	CH-05	N	SW-846 9040C	pH	N	8.1	J	H	0.1	0.1		pH
CH-05-20260505	CH-05	N	SW-846 9315	Radium-226	N	-0.0477	UJ	L	1.09	1.09	0.502	pCi/L
CH-06-20260505	CH-06	N	CALC	Radium-226/228	N	0.0998	UJ	L,S			0.549	pCi/L
CH-06-20260505	CH-06	N	CHROM_III_CAL	Chromium, Trivalent	T		R	H	3.2	10		ug/L
CH-06-20260505	CH-06	N	SW-846 6020B	Chromium	T	1.3	J	RL	1.2	5.0		ug/L
CH-06-20260505	CH-06	N	SW-846 6020B	Vanadium	T	3.6	J	RL	0.82	5.0		ug/L
CH-06-20260505	CH-06	N	SW-846 7196A	Chromium, Hexavalent	T		R	H	6.0	10		ug/L
CH-06-20260505	CH-06	N	SW-846 9040C	pH	N	8.6	J	H	0.1	0.1		pH
CH-06-20260505	CH-06	N	SW-846 9315	Radium-226	N	0.0998	UJ	L	0.312	1.00	0.175	pCi/L
CH-07-20260505	CH-07	N	CALC	Radium-226/228	N	0.144	UJ	L			0.609	pCi/L
CH-07-20260505	CH-07	N	CHROM_III_CAL	Chromium, Trivalent	T		R	H	3.2	10		ug/L
CH-07-20260505	CH-07	N	SW-846 6020B	Arsenic	T	0.81	J	RL	0.75	5.0		ug/L
CH-07-20260505	CH-07	N	SW-846 6020B	Cobalt	T	0.53	J	RL	0.086	1.0		ug/L
CH-07-20260505	CH-07	N	SW-846 6020B	Vanadium	T	1.2	J	RL	0.82	5.0		ug/L
CH-07-20260505	CH-07	N	SW-846 7196A	Chromium, Hexavalent	T		R	H	6.0	10		ug/L
CH-07-20260505	CH-07	N	SW-846 9040C	pH	N	7.7	J	H	0.1	0.1		pH
CH-07-20260505	CH-07	N	SW-846 9315	Radium-226	N	0.0661	UJ	L	0.361	1.00	0.189	pCi/L
DUP-1-20260505	CH-04	FD	CALC	Radium-226/228	N	0.712	UJ	L			0.660	pCi/L
DUP-1-20260505	CH-04	FD	CHROM_III_CAL	Chromium, Trivalent	T		R	H	3.2	10		ug/L
DUP-1-20260505	CH-04	FD	SW-846 6020B	Arsenic	T	1.1	J	RL	0.75	5.0		ug/L
DUP-1-20260505	CH-04	FD	SW-846 6020B	Boron	T	150	J	FD	16	20		ug/L
DUP-1-20260505	CH-04	FD	SW-846 6020B	Chromium	T	2.2	J	RL	1.2	5.0		ug/L
DUP-1-20260505	CH-04	FD	SW-846 6020B	Lithium	T	4.3	J	RL	3.4	8.0		ug/L
DUP-1-20260505	CH-04	FD	SW-846 6020B	Magnesium	T	8000	J	FD	61	1000		ug/L
DUP-1-20260505	CH-04	FD	SW-846 6020B	Molybdenum	T	1.5	J	RL	1.1	5.0		ug/L
DUP-1-20260505	CH-04	FD	SW-846 7196A	Chromium, Hexavalent	T		R	H	6.0	10		ug/L
DUP-1-20260505	CH-04	FD	SW-846 9040C	pH	N	8.7	J	H	0.1	0.1		pH
DUP-1-20260505	CH-04	FD	SW-846 9056A	Sulfate	N	47	J	FD	0.35	1.0		mg/L
DUP-1-20260505	CH-04	FD	SW-846 9315	Radium-226	N	0.0590	UJ	L	0.322	1.00	0.167	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.
<u>Reason Codes and Explanations</u>	
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 < 30%.
Y	Chemical yield outside of acceptance limits
ZZ	Other

Lab Sample ID	240-249770-1
Sys Sample Code	CH-01-20260505
Sample Name	CH-01-20260505
Sample Date	5/5/2026 5:55:00 PM
Location	CPS-CH-01 / CH-01
Sample Type	N
Matrix	SW
Parent Sample	
Percent Moisture	

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	0.682	U		0.745				N	Yes	1	NA
CHROM_III_CALC	Chromium, Trivalent	CHROMIUM,	T	ug/L		R	H		3.2	3.2	10	N	Yes	1	NA
SM 2340B	Hardness, Calcium Carbonate	HARD	N	mg/L	85				6.6	6.6	6.6	Y	Yes	1	NA
SM 2540D	Total Suspended Solids	TSS	N	mg/L	11				1.0	1.0	1.0	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	37				0.77	0.77	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.27	0.27	1.0	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	29				16	16	20	Y	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.077	0.077	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	26000				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	0.59	J	RL		0.086	0.086	1.0	Y	Yes	1	NA
	Copper	7440-50-8	T	ug/L		U			1.7	1.7	2.0	N	Yes	1	NA
	Lead	7439-92-1	T	ug/L	0.59	J	RL		0.45	0.45	1.0	Y	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			3.4	3.4	8.0	N	Yes	1	NA
	Magnesium	7439-95-4	T	ug/L	4600				61	61	1000	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	1.3	J	RL		1.1	1.1	5.0	Y	Yes	1	NA
	Nickel	7440-02-0	T	ug/L	1.5	J	RL		1.5	1.5	2.0	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Silver	7440-22-4	T	ug/L		U			0.053	0.053	1.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.51	0.51	1.0	N	Yes	1	NA
	Vanadium	7440-62-2	T	ug/L	1.6	J	RL		0.82	0.82	5.0	Y	Yes	1	NA
	Zinc	7440-66-6	T	ug/L		U			15	15	20	N	Yes	1	NA
SW-846 7196A	Chromium, Hexavalent	18540-29-9	T	ug/L		R	H		6.0	6.0	10	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 9040C	pH	LAB_PH	N	pH Units	8.2	J	H		0.1	0.1	0.1	Y	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	29				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

Lab Sample ID	240-249770-1
Sys Sample Code	CH-01-20260505
Sample Name	CH-01-20260505
Sample Date	5/5/2026 5:55:00 PM
Location	CPS-CH-01 / CH-01
Sample Type	N
Matrix	SW
Parent Sample	
Percent Moisture	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
SW-846 9056A	Sulfate	14808-79-8	N	mg/L	27				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.214	U		0.197	0.293	0.293	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.468	U		0.719	1.21	1.21	1.21	N	Yes	1	NA

Lab Sample ID	240-249770-2
Sys Sample Code	CH-02-20260505
Sample Name	CH-02-20260505
Sample Date	5/5/2026 5:02:00 PM
Location	CPS-CH-02 / CH-02
Sample Type	N
Matrix	SW
Parent Sample	
Percent Moisture	

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	0.823	U		0.900				N	Yes	1	NA
CHROM_III_CALC	Chromium, Trivalent	CHROMIUM,	T	ug/L		R	H		3.2	3.2	10	N	Yes	1	NA
SM 2340B	Hardness, Calcium Carbonate	HARD	N	mg/L	100				6.6	6.6	6.6	Y	Yes	1	NA
SM 2540D	Total Suspended Solids	TSS	N	mg/L	67				1.7	1.7	1.7	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	2.3	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	57				0.77	0.77	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.27	0.27	1.0	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	66				16	16	20	Y	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.077	0.077	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	2.3	J	RL		1.2	1.2	5.0	Y	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	1.8				0.086	0.086	1.0	Y	Yes	1	NA
	Copper	7440-50-8	T	ug/L	3.1				1.7	1.7	2.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L	2.5				0.45	0.45	1.0	Y	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	6.3	J	RL		3.4	3.4	8.0	Y	Yes	1	NA
	Magnesium	7439-95-4	T	ug/L	5600				61	61	1000	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	1.4	J	RL		1.1	1.1	5.0	Y	Yes	1	NA
	Nickel	7440-02-0	T	ug/L	3.2				1.5	1.5	2.0	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Silver	7440-22-4	T	ug/L		U			0.053	0.053	1.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L	0.87	J	RL		0.51	0.51	1.0	Y	Yes	1	NA
	Vanadium	7440-62-2	T	ug/L	5.1				0.82	0.82	5.0	Y	Yes	1	NA
	Zinc	7440-66-6	T	ug/L		U			15	15	20	N	Yes	1	NA
SW-846 7196A	Chromium, Hexavalent	18540-29-9	T	ug/L		R	H		6.0	6.0	10	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 9040C	pH	LAB_PH	N	pH Units	7.7	J	H		0.1	0.1	0.1	Y	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	36				0.13	0.13	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.12				0.024	0.024	0.050	Y	Yes	1	NA

Lab Sample ID	240-249770-2
Sys Sample Code	CH-02-20260505
Sample Name	CH-02-20260505
Sample Date	5/5/2026 5:02:00 PM
Location	CPS-CH-02 / CH-02
Sample Type	N
Matrix	SW
Parent Sample	
Percent Moisture	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
SW-846 9056A	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	0.227	U		0.236	0.364	0.364	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.596	U		0.868	1.46	1.46	1.46	N	Yes	1	NA

Lab Sample ID	240-249770-3
Sys Sample Code	CH-03-20260505
Sample Name	CH-03-20260505
Sample Date	5/5/2026 4:37:00 PM
Location	CPS-CH-03 / CH-03
Sample Type	N
Matrix	SW
Parent Sample	
Percent Moisture	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226/228	RA226/228	N	pCi/L	0.469	UJ	L,S	0.726				N	Yes	1	NA
CHROM_III_CALC	Chromium, Trivalent	CHROMIUM,	T	ug/L		R	H		3.2	3.2	10	N	Yes	1	NA
SM 2340B	Hardness, Calcium Carbonate	HARD	N	mg/L	86				6.6	6.6	6.6	Y	Yes	1	NA
SM 2540D	Total Suspended Solids	TSS	N	mg/L	25				1.0	1.0	1.0	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	41				0.77	0.77	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.27	0.27	1.0	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	28				16	16	20	Y	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.077	0.077	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	0.72	J	RL		0.086	0.086	1.0	Y	Yes	1	NA
	Copper	7440-50-8	T	ug/L		U			1.7	1.7	2.0	N	Yes	1	NA
	Lead	7439-92-1	T	ug/L	0.93	J	RL		0.45	0.45	1.0	Y	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			3.4	3.4	8.0	N	Yes	1	NA
	Magnesium	7439-95-4	T	ug/L	4600				61	61	1000	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Nickel	7440-02-0	T	ug/L	1.5	J	RL		1.5	1.5	2.0	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Silver	7440-22-4	T	ug/L		U			0.053	0.053	1.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.51	0.51	1.0	N	Yes	1	NA
	Vanadium	7440-62-2	T	ug/L	2.0	J	RL		0.82	0.82	5.0	Y	Yes	1	NA
	Zinc	7440-66-6	T	ug/L		U			15	15	20	N	Yes	1	NA
SW-846 7196A	Chromium, Hexavalent	18540-29-9	T	ug/L		R	H		6.0	6.0	10	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 9040C	pH	LAB_PH	N	pH Units	8.5	J	H		0.1	0.1	0.1	Y	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	31				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

Lab Sample ID	240-249770-3
Sys Sample Code	CH-03-20260505
Sample Name	CH-03-20260505
Sample Date	5/5/2026 4:37:00 PM
Location	CPS-CH-03 / CH-03
Sample Type	N
Matrix	SW
Parent Sample	
Percent Moisture	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
SW-846 9056A	Sulfate	14808-79-8	N	mg/L	26				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	-0.0155	UJ	L	0.172	0.385	0.385	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.469	U		0.705	1.19	1.19	1.19	N	Yes	1	NA

Lab Sample ID	240-249770-4
Sys Sample Code	CH-04-20260505
Sample Name	CH-04-20260505
Sample Date	5/5/2026 3:51:00 PM
Location	CPS-CH-04 / CH-04
Sample Type	N
Matrix	SW
Parent Sample	
Percent Moisture	

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	0.979	UJ	L	0.784				N	Yes	1	NA
CHROM_III_CALC	Chromium, Trivalent	CHROMIUM,	T	ug/L		R	H		3.2	3.2	10	N	Yes	1	NA
SM 2340B	Hardness, Calcium Carbonate	HARD	N	mg/L	110				6.6	6.6	6.6	Y	Yes	1	NA
SM 2540D	Total Suspended Solids	TSS	N	mg/L	45				1.0	1.0	1.0	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	0.98	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	44				0.77	0.77	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.27	0.27	1.0	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	110	J	FD		16	16	20	Y	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L	0.084	J	RL		0.077	0.077	1.0	Y	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	35000				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	1.7				0.086	0.086	1.0	Y	Yes	1	NA
	Copper	7440-50-8	T	ug/L	2.3				1.7	1.7	2.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L	1.3				0.45	0.45	1.0	Y	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	3.7	J	RL		3.4	3.4	8.0	Y	Yes	1	NA
	Magnesium	7439-95-4	T	ug/L	6300	J	FD		61	61	1000	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	1.3	J	RL		1.1	1.1	5.0	Y	Yes	1	NA
	Nickel	7440-02-0	T	ug/L	2.2				1.5	1.5	2.0	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Silver	7440-22-4	T	ug/L		U			0.053	0.053	1.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.51	0.51	1.0	N	Yes	1	NA
	Vanadium	7440-62-2	T	ug/L	3.9	J	RL		0.82	0.82	5.0	Y	Yes	1	NA
	Zinc	7440-66-6	T	ug/L		U			15	15	20	N	Yes	1	NA
SW-846 7196A	Chromium, Hexavalent	18540-29-9	T	ug/L		R	H		6.0	6.0	10	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 9040C	pH	LAB_PH	N	pH Units	8.5	J	H		0.1	0.1	0.1	Y	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	34				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

Lab Sample ID	240-249770-4
Sys Sample Code	CH-04-20260505
Sample Name	CH-04-20260505
Sample Date	5/5/2026 3:51:00 PM
Location	CPS-CH-04 / CH-04
Sample Type	N
Matrix	SW
Parent Sample	
Percent Moisture	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
SW-846 9056A	Sulfate	14808-79-8	N	mg/L	37	J	FD		0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.110	UJ	L	0.224	0.405	0.405	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.870	U		0.751	1.18	1.18	1.18	N	Yes	1	NA

Lab Sample ID	240-249770-5
Sys Sample Code	CH-05-20260505
Sample Name	CH-05-20260505
Sample Date	5/5/2026 2:30:00 PM
Location	CPS-CH-05 / CH-05
Sample Type	N
Matrix	SW
Parent Sample	
Percent Moisture	

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	2.66	UJ	L,S	2.07				N	Yes	1	NA
CHROM_III_CALC	Chromium, Trivalent	CHROMIUM,	T	ug/L		R	H		3.2	3.2	10	N	Yes	1	NA
SM 2340B	Hardness, Calcium Carbonate	HARD	N	mg/L	110				6.6	6.6	6.6	Y	Yes	1	NA
SM 2540D	Total Suspended Solids	TSS	N	mg/L	60				1.7	1.7	1.7	Y	Yes	1	NA
SW-846 6020B	Antimony	7440-36-0	T	ug/L		U			0.57	0.57	2.0	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	1.3	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	54				0.77	0.77	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.27	0.27	1.0	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	41				16	16	20	Y	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.077	0.077	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	34000				250	250	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L	2.0	J	RL		1.2	1.2	5.0	Y	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	1.4				0.086	0.086	1.0	Y	Yes	1	NA
	Copper	7440-50-8	T	ug/L	2.8				1.7	1.7	2.0	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			3.4	3.4	8.0	N	Yes	1	NA
	Magnesium	7439-95-4	T	ug/L	5100				61	61	1000	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Nickel	7440-02-0	T	ug/L	2.4				1.5	1.5	2.0	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Silver	7440-22-4	T	ug/L		U			0.053	0.053	1.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.51	0.51	1.0	N	Yes	1	NA
	Vanadium	7440-62-2	T	ug/L	5.0				0.82	0.82	5.0	Y	Yes	1	NA
	Zinc	7440-66-6	T	ug/L		U			15	15	20	N	Yes	1	NA
SW-846 7196A	Chromium, Hexavalent	18540-29-9	T	ug/L		R	H		6.0	6.0	10	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 9040C	pH	LAB_PH	N	pH Units	8.1	J	H		0.1	0.1	0.1	Y	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	30				0.13	0.13	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.14				0.024	0.024	0.050	Y	Yes	1	NA

Lab Sample ID	240-249770-5
Sys Sample Code	CH-05-20260505
Sample Name	CH-05-20260505
Sample Date	5/5/2026 2:30:00 PM
Location	CPS-CH-05 / CH-05
Sample Type	N
Matrix	SW
Parent Sample	
Percent Moisture	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
SW-846 9056A	Sulfate	14808-79-8	N	mg/L	22				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	-0.0477	UJ	L	0.502	1.09	1.09	1.09	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	2.66	U		2.01	3.10	3.10	3.10	N	Yes	1	NA

Lab Sample ID	240-249770-6
Sys Sample Code	CH-06-20260505
Sample Name	CH-06-20260505
Sample Date	5/5/2026 1:58:00 PM
Location	CPS-CH-06 / CH-06
Sample Type	N
Matrix	SW
Parent Sample	
Percent Moisture	

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	0.0998	UJ	L,S	0.549				N	Yes	1	NA
CHROM_III_CALC	Chromium, Trivalent	CHROMIUM,	T	ug/L		R	H		3.2	3.2	10	N	Yes	1	NA
SM 2340B	Hardness, Calcium Carbonate	HARD	N	mg/L	82				6.6	6.6	6.6	Y	Yes	1	NA
SM 2540D	Total Suspended Solids	TSS	N	mg/L	49				1.0	1.0	1.0	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	39				0.77	0.77	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.27	0.27	1.0	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	29				16	16	20	Y	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.077	0.077	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	26000				250	250	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L	1.3	J	RL		1.2	1.2	5.0	Y	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	1.0				0.086	0.086	1.0	Y	Yes	1	NA
	Copper	7440-50-8	T	ug/L	2.3				1.7	1.7	2.0	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L	1.2				0.45	0.45	1.0	Y	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			3.4	3.4	8.0	N	Yes	1	NA
	Magnesium	7439-95-4	T	ug/L	4400				61	61	1000	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Nickel	7440-02-0	T	ug/L	2.1				1.5	1.5	2.0	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Silver	7440-22-4	T	ug/L		U			0.053	0.053	1.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.51	0.51	1.0	N	Yes	1	NA
	Vanadium	7440-62-2	T	ug/L	3.6	J	RL		0.82	0.82	5.0	Y	Yes	1	NA
	Zinc	7440-66-6	T	ug/L		U			15	15	20	N	Yes	1	NA
SW-846 7196A	Chromium, Hexavalent	18540-29-9	T	ug/L		R	H		6.0	6.0	10	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 9040C	pH	LAB_PH	N	pH Units	8.6	J	H		0.1	0.1	0.1	Y	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	31				0.13	0.13	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.13				0.024	0.024	0.050	Y	Yes	1	NA

Lab Sample ID	240-249770-6
Sys Sample Code	CH-06-20260505
Sample Name	CH-06-20260505
Sample Date	5/5/2026 1:58:00 PM
Location	CPS-CH-06 / CH-06
Sample Type	N
Matrix	SW
Parent Sample	
Percent Moisture	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
SW-846 9056A	Sulfate	14808-79-8	N	mg/L	26				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.0998	UJ	L	0.175	0.312	0.312	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	-0.0238	U		0.520	0.963	0.963	1.00	N	Yes	1	NA

Lab Sample ID	240-249770-7
Sys Sample Code	CH-07-20260505
Sample Name	CH-07-20260505
Sample Date	5/5/2026 1:24:00 PM
Location	CPS-CH-07 / CH-07
Sample Type	N
Matrix	SW
Parent Sample	
Percent Moisture	

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	0.144	UJ	L	0.609				N	Yes	1	NA
CHROM_III_CALC	Chromium, Trivalent	CHROMIUM,	T	ug/L		R	H		3.2	3.2	10	N	Yes	1	NA
SM 2340B	Hardness, Calcium Carbonate	HARD	N	mg/L	85				6.6	6.6	6.6	Y	Yes	1	NA
SM 2540D	Total Suspended Solids	TSS	N	mg/L	11				0.50	0.50	0.50	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	0.81	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	37				0.77	0.77	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.27	0.27	1.0	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	26				16	16	20	Y	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.077	0.077	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	26000				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	0.53	J	RL		0.086	0.086	1.0	Y	Yes	1	NA
	Copper	7440-50-8	T	ug/L		U			1.7	1.7	2.0	N	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.45	0.45	1.0	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			3.4	3.4	8.0	N	Yes	1	NA
	Magnesium	7439-95-4	T	ug/L	4800				61	61	1000	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			1.1	1.1	5.0	N	Yes	1	NA
	Nickel	7440-02-0	T	ug/L		U			1.5	1.5	2.0	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Silver	7440-22-4	T	ug/L		U			0.053	0.053	1.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.51	0.51	1.0	N	Yes	1	NA
	Vanadium	7440-62-2	T	ug/L	1.2	J	RL		0.82	0.82	5.0	Y	Yes	1	NA
	Zinc	7440-66-6	T	ug/L		U			15	15	20	N	Yes	1	NA
SW-846 7196A	Chromium, Hexavalent	18540-29-9	T	ug/L		R	H		6.0	6.0	10	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 9040C	pH	LAB_PH	N	pH Units	7.7	J	H		0.1	0.1	0.1	Y	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	0.10				0.024	0.024	0.050	Y	Yes	1	NA

Lab Sample ID	240-249770-7
Sys Sample Code	CH-07-20260505
Sample Name	CH-07-20260505
Sample Date	5/5/2026 1:24:00 PM
Location	CPS-CH-07 / CH-07
Sample Type	N
Matrix	SW
Parent Sample	
Percent Moisture	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
SW-846 9056A	Sulfate	14808-79-8	N	mg/L	25				0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.0661	UJ	L	0.189	0.361	0.361	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.0775	U		0.579	1.05	1.05	1.05	N	Yes	1	NA

Lab Sample ID	240-249770-8
Sys Sample Code	DUP-1-20260505
Sample Name	DUP-1
Sample Date	5/5/2026 12:00:00 AM
Location	CPS-CH-04 / CH-04
Sample Type	FD
Matrix	SW
Parent Sample	CH-04-20260505
Percent Moisture	

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	0.712	UJ	L	0.660				N	Yes	1	NA
CHROM_III_CALC	Chromium, Trivalent	CHROMIUM,	T	ug/L		R	H		3.2	3.2	10	N	Yes	1	NA
SM 2340B	Hardness, Calcium Carbonate	HARD	N	mg/L	130				6.6	6.6	6.6	Y	Yes	1	NA
SM 2540D	Total Suspended Solids	TSS	N	mg/L	38				1.0	1.0	1.0	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	1.1	J	RL		0.75	0.75	5.0	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	49				0.77	0.77	5.0	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.27	0.27	1.0	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	150	J	FD		16	16	20	Y	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.077	0.077	1.0	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	40000				250	250	1000	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L	2.2	J	RL		1.2	1.2	5.0	Y	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	2.6				0.086	0.086	1.0	Y	Yes	1	NA
	Copper	7440-50-8	T	ug/L	2.9				1.7	1.7	2.0	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	4.3	J	RL		3.4	3.4	8.0	Y	Yes	1	NA
	Magnesium	7439-95-4	T	ug/L	8000	J	FD		61	61	1000	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	1.5	J	RL		1.1	1.1	5.0	Y	Yes	1	NA
	Nickel	7440-02-0	T	ug/L	2.6				1.5	1.5	2.0	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			0.89	0.89	5.0	N	Yes	1	NA
	Silver	7440-22-4	T	ug/L		U			0.053	0.053	1.0	N	Yes	1	NA
	Thallium	7440-28-0	T	ug/L		U			0.51	0.51	1.0	N	Yes	1	NA
	Vanadium	7440-62-2	T	ug/L	5.1				0.82	0.82	5.0	Y	Yes	1	NA
	Zinc	7440-66-6	T	ug/L		U			15	15	20	N	Yes	1	NA
SW-846 7196A	Chromium, Hexavalent	18540-29-9	T	ug/L		R	H		6.0	6.0	10	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 9040C	pH	LAB_PH	N	pH Units	8.7	J	H		0.1	0.1	0.1	Y	Yes	1	NA
SW-846 9056A	Chloride	16887-00-6	N	mg/L	36				0.13	0.13	1.0	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.13				0.024	0.024	0.050	Y	Yes	1	NA

Lab Sample ID	240-249770-8
Sys Sample Code	DUP-1-20260505
Sample Name	DUP-1
Sample Date	5/5/2026 12:00:00 AM
Location	CPS-CH-04 / CH-04
Sample Type	FD
Matrix	SW
Parent Sample	CH-04-20260505
Percent Moisture	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
SW-846 9056A	Sulfate	14808-79-8	N	mg/L	47	J	FD		0.35	0.35	1.0	Y	Yes	1	NA
SW-846 9315	Radium-226	13982-63-3	N	pCi/L	0.0590	UJ	L	0.167	0.322	0.322	1.00	N	Yes	1	NA
SW-846 9320	Radium-228	15262-20-1	N	pCi/L	0.653	U		0.639	1.03	1.03	1.03	N	Yes	1	NA

