Commonwealth of Virginia

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May 13, 2026

Mr. Matt Alberts
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VIA ELECTRONIC MAIL

Re: Draft Final SWMU 49 Monitored Natural Attenuation Sampling Year Ten Report
Radford Army Ammunitions Plant
Route 114, Radford, Virginia 24141
EPA ID#: VA1210020730

Dear Mr. Alberts:

This letter acknowledges the receipt and review of the Draft Final SWMU 49 Monitored Natural Attenuation Sampling Year Ten Report submitted to the Virginia Department of Environmental Quality (DEQ), Office of Remediation Programs by BAE Systems Inc. (BAE) on behalf of Radford Army Ammunitions Plant (RFAAP). The Report is required by the Facility's Hazardous Waste Management Corrective Action Permit effective May 1, 2016.

DEQ concludes that the requirements of the facility's permit have been met and therefore accepts the 2025 Annual Report. DEQ concurs with the facility's recommendation to continue monitoring groundwater at SWMU 49 in accordance with the Monitored Natural Attenuation and Groundwater Monitoring Program.

Please note that the conclusions presented in this letter are based solely on information supplied by the Permittee or their environmental representative. This letter does not make or imply a final determination of compliance, nor does it constitute a final case decision regarding any of the groundwater actions undertaken at the above-listed facility.

If you have any questions regarding this correspondence, you may contact me at the email address or phone number listed below.

Sincerely,

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Year Ten Report

SWMU 49 Monitored Natural Attenuation

Radford Army Ammunition Plant, Radford, Virginia

Contract Number: W912DR-19-D-0004
Task Order Number: W912DR-24-F-0222

Prepared for:

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April 2026

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Acronyms and Abbreviations

°C ..... degree(s) Celsius
µg/L ..... microgram(s) per liter
µS/cm ..... microsiemen(s) per centimeter
amsl ..... above mean sea level
bgs ..... below ground surface
btoc ..... below top of casing
CAPE ..... Cape Environmental Management Inc
CB&I ..... CB&I Federal Services LLC
CCV ..... continuing calibration verification
CMO ..... corrective measures objective
COC ..... contaminant of concern
CT ..... carbon tetrachloride
DO ..... dissolved oxygen
DoD ..... U.S. Department of Defense
DTW ..... depth to water
ELAP ..... Environmental Laboratory Accreditation Program
FD ..... field duplicate
ft ..... foot/feet
GMWP ..... Groundwater Monitoring Work Plan
GW ..... groundwater
HHRA ..... Human Health Risk Assessment
ICV ..... initial calibration verification
IDW ..... investigation-derived waste
IT ..... IT Corporation
Lab Q ..... laboratory data qualifiers
LCS ..... laboratory control sample
LCSD ..... laboratory control sample duplicate
LOD ..... limit of detection
LOQ ..... limit of quantitation
LTM ..... long-term monitoring
MCL ..... maximum contaminant level
MDL ..... method detection limit
mg/L ..... milligram(s) per liter
MK ..... Mann-Kendall
MNA ..... monitored natural attenuation
MRL ..... method reporting limit
MS ..... matrix spike
MSD ..... matrix spike duplicate
mV ..... millivolt(s)
MWP ..... Master Work Plan
NTU ..... nephelometric turbidity unit(s)
ORP ..... oxidation-reduction potential
Parsons ..... Parsons Engineering Science, Inc.

PID ..... photoionization detector
ppm..... part(s) per million
QC ..... quality control
RCRA ..... Resource Conservation and Recovery Act
RFAAP ..... Radford Army Ammunition Plant
RFI ..... RCRA Facility Investigation
RG ..... remedial goal
RPD ..... relative percent difference
SU..... standard unit(s)
SWMU..... Solid Waste Management Unit
TCE ..... trichloroethene
TCL ..... target compound list
TOC ..... total organic carbon
U.S. ..... United States
UFP-QAPP ..... Uniform Federal Policy – Quality Assurance Project Plan
URS ..... URS Corporation
USEPA ..... U.S. Environmental Protection Agency
Val Q ..... validation data qualifier
VDEQ..... Virginia Department of Environmental Quality
VOC..... volatile organic compound
Weston ..... Weston Solutions, Inc.
WQP..... water quality parameter
YSI ..... Yellow Springs Instrument

1.0 Introduction

Cape Environmental Management Inc (CAPE) with subcontractor Weston Solutions, Inc. (Weston) has been contracted by the United States (U.S.) Army Corps of Engineers, Baltimore District, to perform long-term monitoring (LTM) and monitored natural attenuation (MNA) of groundwater at Solid Waste Management Unit (SWMU) 49 (RAAP-013), Propellant Burning Ash Disposal Area, at Radford Army Ammunition Plant (RFAAP), Radford, VA. This report describes the 2025 (Year 10) semiannual sampling events conducted in May and October, presents analytical results, and includes an MNA evaluation.

This work was performed under Contract Number W912DR-19-D-0004, Delivery Order Number W912DR-24-F-0222, in accordance with the *Master Work Plan, Quality Assurance Plan, Health and Safety Plan* (RFAAP MWP; URS Corporation [URS], 2003) and with Part II (D)(11-21) Interim Measures of the RFAAP Resource Conservation and Recovery Act (RCRA) Corrective Action Permit (U.S. Environmental Protection Agency [USEPA], 2000). The Year 10 monitoring program was developed and conducted in accordance with the USEPA- and Virginia Department of Environmental Quality (VDEQ)-approved *SWMU 48/49 RCRA Facility Investigation* [RFI] *Report* (hereafter referred to as "the RFI Report") (CB&I Federal Services LLC [CB&I], 2014a) and the SWMU 49 MNA Groundwater Monitoring Work Plan (GMWP; CB&I, 2014b). Although the RFI Report addressed both SWMUs 48 and 49, this report only addresses LTM and MNA at SWMU 49.

In October 2021, VDEQ concurred with RFAAP's Class 1 Modification request to the RCRA permit, which removed references to the SWMU 49 monitoring well sampling frequency. Based on the consistency of 6 full years of quarterly results (2016 to 2021), groundwater monitoring at SWMU 49 was reduced to a semiannual basis starting in 2022.

1.1 Purpose and Scope

The purpose of this report is to provide LTM groundwater sampling results and document current progress toward achieving the corrective measures objectives (CMOs) and remedial goals (RGs) presented in the RFI Report (CB&I, 2014a). The RFI Report concluded that volatile organic compounds (VOCs) in groundwater are a potential risk to future industrial and residential receptors at SWMU 49 and identified carbon tetrachloride (CT) and trichloroethene (TCE) as the contaminants of concern (COCs). The SWMU 49 MNA GMWP (CB&I, 2014b) was subsequently developed to guide the implementation of LTM groundwater sampling and MNA evaluation at the site. The GMWP established the objectives of the monitoring program:

- To measure and track the reduction of CT and TCE to levels below the RGs as defined in Table 1
- To monitor and evaluate the daughter [degradation] products of the COCs to determine the progress (effectiveness and timeliness) of the degradation process

The SWMU 49 MNA Sampling Baseline Report (CB&I, 2015) concluded that MNA processes at the site such as dilution, dispersion, and reductive dechlorination would degrade VOCs and reduce concentrations of COCs in groundwater.

The site-specific CMO established by the RFI Report for SWMU 49 is to continue LTM and MNA until concentrations of CT and TCE in groundwater are reduced to below the RGs and, to the extent

practicable, restore site groundwater for future beneficial use. The RGs, which are the national primary drinking water maximum contaminant levels (MCLs), are provided in Table 1.

The LTM scope includes groundwater sampling at 15 monitoring wells, analysis for VOCs, and evaluation groundwater flow direction at the site. The MNA evaluation includes comparison of COCs concentrations to the RGs, time-concentration and statistical analysis of sample results, and interpretation of groundwater geochemical parameters to monitor degradation and reduction of COCs and document progress toward the CMO.

1.2 Site Description and Background

RFAAP is a government-owned/contractor-operated facility operated by BAE Systems. The primary mission of RFAAP has been the manufacturing of propellants since 1941 and the manufacturing of trinitrotoluene (TNT) on an intermittent basis since 1968. There are approximately 2,500 buildings within a 2-mile radius, including RFAAP manufacturing and residential buildings. Land usage surrounding RFAAP is primarily agricultural with some residential and industrial use. Land usage in and near RFAAP is not projected to change (URS, 2003).

Environmental restoration activities are being performed at RFAAP under RCRA; the Comprehensive Environmental Restoration, Compensation and Liability Act as amended by the Superfund Amendments and Reauthorization Act; and the National Oil and Hazardous Substances Contingency Plan requirements with regulatory coordination with VDEQ and USEPA Region 3. RFAAP was issued and operates under the Hazardous Waste Management Permit for Corrective Action approved on 1 April 2016 and effective on 1 May 2016. SWMU 49 is listed in the permit as a Corrective Action Unit and is subject to the requirements of RCRA.

SWMU 49 is located in the southeastern portion of the RFAAP Horseshoe Area (Figure 1). The Horseshoe Area is defined by an eastern meander of the New River that also separates it from the Main Manufacturing Area to the south; the two areas are connected by a bridge. SWMU 49 is located on a bluff approximately 120 feet (ft) above the New River, overlooking SWMU 13 on the river's northern bank. SWMU 49 is approximately 75 ft long by 83 ft wide and is adjacent to SWMUs 48, 50, and 59. Previously, SWMU 49 was investigated and reported on jointly with SWMU 48 and may have been combined with it and the other two SWMUs. The groundwater well monitoring network extends beyond the SWMU 49 boundary and is hereafter referred to as the SWMU 49 monitoring area or the monitoring area.

SWMU 49 reportedly received 10 tons of red water ash during its active period (CB&I, 2014a and 2014b). However, historical sampling results indicate that the red water ash was likely disposed of in the disposal trenches associated with neighboring SWMU 48, and the oily wastewater associated with SWMU 48 was disposed of in the SWMU 49 area (Bering Sea, 2018). The current land use is industrial for the areas surrounding SWMU 49 and is expected to remain as such for the foreseeable future.

2.0 Physical Characteristics

2.1 Topography and Surface Water

The land surface at SWMU 49 slopes gently from 1,830 ft above mean sea level (amsl) on its north edge to approximately 1,816 ft amsl on its southeast edge. The SWMU 49 monitoring area extends beyond the SWMU 49 boundary in all directions with a notable abrupt topographic decrease of approximately 120 ft to the south due to erosion of the bluff on which SWMU 49 is located. SWMU 13 (also known as the burning grounds) is located at the toe of the bluff immediately north of the New River. In general, the topography is uneven and hummocky with several small draws and topographic highs. Based on topography, surface water runoff is expected to flow approximately 700 ft south to the New River. The site's topography and surface water characteristics are illustrated in Figure 2 (orthoimagery and plan view of geologic cross-section lines), Figure 3 (cross-section A-A' with topographic profile), and Figure 4 (cross-section B-B' with topographic profile).

2.2 Geology

2.2.1 Regional Geology

SWMU 49 is located in the New River Valley, which crosses the Valley and Ridge Province approximately perpendicular to the regional strike of bedrock, which is primarily Cambrian and Ordovician limestone or dolostone. Deep clay-rich residuum is prevalent in areas underlain by carbonate bedrock. The valley is covered by river floodplain and terrace deposits; karst topography is dominant throughout the area. A more detailed description of the regional geology is presented in the RFAAP MWP (URS, 2003).

2.2.2 Site-Specific Geology

The subsurface geology at the site includes alluvial and residual deposits overlying bedrock, sometimes with a saprolitic (weathered bedrock) layer up to 10 ft thick in between. The alluvial/residual deposits consist primarily of silty sand atop channel deposits of fine- to coarse-grained sand and gravel (river jack). Bedrock consists of highly fractured interbedded siltstone, limestone, and dolostone of the Elkbrook Formation. Top of bedrock elevations range from approximately 1,745 to 1,776 ft amsl, with surfaces sloping to the north. Highly weathered exposures of the Elkbrook Formation outcrop along the slope leading to the New River. Portions of the disposal areas may contain fill material to depths of 9 to 10 ft below ground surface (bgs). A more detailed discussion of the geology and soil at RFAAP is presented in Sections 3.4 through 3.7 of the RFAAP MWP (URS, 2003) and in the *Facility-Wide Background Study* (IT Corporation [IT], 2001).

Subsurface lithologic data at SWMU 49 was collected from historical investigative borings and during monitoring well installation; the cross-sectional traces that are shown in Figure 2 correspond to the geologic cross-sections in Figures 3 and 4; these cross-sections were originally presented in the SWMU 49 MNA Sampling Baseline Report (CB&I, 2015) and are excerpted for use herein. The depth to bedrock encountered during monitoring well installation ranged from approximately 41 ft bgs to 72 ft bgs.

2.3 Hydrogeology

2.3.1 Regional Hydrogeology

The regional hydrogeology is primarily controlled by bedrock consisting of indurated sedimentary rocks of Paleozoic age and topography composed of linear, approximately north-south oriented ridges and valleys with karst features where limestone is present (Virginia Department of Mines, Minerals, and Energy, Division of Mineral Resources, 2009). RFAAP is located west of the Eastern Continental Divide and is part of the Mississippi River Basin. Surface water from RFAAP drains into the New River.

Groundwater supplies in the Valley and Ridge Province are generally good quality compared to surface water supplies (Parsons Engineering Science, Inc. [Parsons], 1996). Because of extended contact with minerals, many groundwater supplies contain higher levels of dissolved solids than the streams into which they discharge. Because of sinkholes and underground caverns in karst aquifers, there is a high potential for groundwater to be impacted by direct infiltration of contaminated surface water.

2.3.2 Site-Specific Hydrogeology

The SWMU 49 monitoring area is underlain by an unconfined aquifer that intersects surface water at the New River. SWMU 49 monitoring wells were screened in both the surficial unconsolidated deposits and the underlying bedrock. Water table elevations can be greater than 100 ft bgs moving away from the New River on the bluff (Figures 3 and 4). Both historical and recent depth to water measurements indicate that the horizontal groundwater flow direction is primarily south toward the New River. The historical measurements date back to January 2015 and are reported in the SWMU 49 MNA Sampling Baseline Report (CB&I, 2015). SWMU 49 monitoring well locations are presented in Figure 5 along with water level measurements collected during the May 2025 sampling event. These data suggest that the flow direction does not change seasonally or from year to year. Year 10 groundwater elevation measurements and contour maps are discussed further in Sections 4.1.1 and 4.2.1.

3.0 Previous Investigations

Multiple historical investigations have been conducted at SWMU 49. In 1987, an RCRA Facility Assessment evaluated potentially hazardous waste and hazardous constituent releases (U.S. Army Toxic and Hazardous Materials Agency, 1987). In 1992, Dames and Moore performed a Verification Investigation, which included surface and subsurface soil sampling and a soil gas survey to characterize the nature and extent of contamination (Dames and Moore, 1992). Two subsequent RFIs refined delineation of contamination (Parsons, 1996; ICF Kaiser Engineers, 1999). Additional RFI sampling was conducted by IT/Shaw Environmental, Inc. in 2002, 2006, 2007, and 2013, which contributed to the Human Health Risk Assessment (HHRA) and the Ecological Risk Assessment in the RFI Report (CB&I, 2014a).

In 2014, USEPA and VDEQ approved the RFI Report (CB&I, 2014a) that determined the nature and extent of contamination and concluded that groundwater at the SWMU 49 was impacted by VOCs. The HHRA identified two VOCs, CT and TCE, as the COCs in groundwater contributing to exposure risk for potential future industrial and residential land use scenarios for the following populations: industrial workers, maintenance workers, excavation workers, and child/adult residents. To reduce potential future exposure risk, the RFI Report established RGs for CT and TCE in groundwater with the CMO of achieving RGs and restoring beneficial use of groundwater to the extent practicable. Following the RFI Report, development of the GMWP (CB&I, 2014b), and initial groundwater sampling, the SWMU 49 MNA Sampling Baseline Report (CB&I, 2015) was produced to document baseline concentrations.

Tables 2 through 6 present historical groundwater sample results for CT, TCE, and other VOCs for monitoring wells at SWMU 49. Table 7 presents sample results from the SWMU 49 MNA Sampling Baseline Report (CB&I, 2015). The highest baseline concentrations of CT (118 ug/l) and TCE (12.4 ug/l) were observed in monitoring wells 48MW2 and 48MW3, respectively, and currently 48MW2 and 48MW3 are the only two wells with COCs exceeding RGs.

LTM and MNA at SWMU 49 has been ongoing since January 2016. Sampling event frequencies have fluctuated from quarterly (2016 to 2021; Years 1 to 6), to annually (2022; Year 7), to semiannually (2023 to 2025; Years 8 to 10).

4.0 Field Activities

Field activities during Year 10 of LTM were conducted by Weston and CAPE in accordance with the SWMU 49 MNA GMWP (CB&I, 2014b) and the *Uniform Federal Policy – Quality Assurance Project Plan, Environmental Services at Radford Army Ammunition Plant, Radford, Virginia* (UFP-QAPP; CAPE, 2024).

Year 10 of LTM consisted of the 31st and 32nd sampling events conducted in May 2025 and October 2025, respectively. Consistent with previous events, 15 point-of-compliance monitoring wells were included in the monitoring program; 11 wells were sampled semiannually (in May and October) and the remaining four were sampled annually (only in October) for the same analytical suite. The monitoring well locations are presented in Figures 5 to 8.

The sampling events consisted of a synoptic water level measurement and sampling for laboratory analysis of the target compound list (TCL) VOCs by Method 8260C and the following MNA indicator parameters: dissolved gases (methane, ethane, and ethene) by Method RSK-175, total organic carbon (TOC) by Method 9060A, and the anions chloride, nitrate, and sulfate by Method 9056A. Dissolved ferrous iron (Fe2+) and dissolved manganese are also considered MNA indicator parameters and were measured in the field. Water quality parameters (WQPs) measured during sampling included corrosivity/hydrogen ion concentration (pH), temperature, specific conductivity, dissolved oxygen (DO), oxidation reduction potential (ORP), and turbidity using a daily calibrated Yellow Springs Instrument (YSI) water quality meter. A summary of the analytical program, including the list of monitoring wells, sampling frequencies, and analytical suites is presented in Table 8.

Groundwater samples were collected using a low-flow peristaltic pump for shallow wells and a bladder pump for deeper wells to obtain representative groundwater samples and minimize investigation-derived waste (IDW) purge water. The procedure was implemented as follows:

1. Upon removing the well cap, a photoionization detector (PID) was used to measure the presence of potentially hazardous levels of volatile gases. Additional measurements were taken during water elevation sweeps. All PID readings were within acceptable levels.
2. Depth-to-water (DTW) and approximate total (well) depth were measured to determine the amount of water in the well casing and sand pack. The approximate total depths were consistent with data from previous reports.
3. Peristaltic pumps were connected to a Geocontrol PRO control unit, sample collection tubing, and discharge tubing. The sample collection tubing was lowered to a depth within the screened interval with ample hydraulic head being maintained above it to ensure a sufficient water supply. The discharge tubing was also connected to a pre-calibrated (every morning of sampling) YSI® 556 water quality meter and flow cell. The flow cell was disconnected prior to sampling. When the bladder pump was used, it and connected tubing were lowered to the required sampling interval and connected to a control unit.
4. Monitoring wells were pumped at a rate of approximately 200 milliliters per minute (mL/min). The pumping rate was determined by gauging the time it took to fill a 200-mL vial. WQPs including temperature, pH, DO, ORP, turbidity, and specific conductivity were recorded continuously until stabilization. Turbidity was measured using a Hach 2100Q turbidity meter, whereas concentrations of dissolved Fe2+ and manganese were measured using a Hach DR900

test kit by Methods 8146 and 8149, respectively. The pumping rate was maintained during sample collection.

5. Samples were collected, labeled, and packed on ice until shipment to CT Laboratories in Baraboo, WI. CT Laboratories is a U.S. Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP) accredited laboratory. Chain-of-custody forms were filled out and shipped with the samples.
6. Waste purge water was taken to the ACD area for storage and deposited in a 55-gallon drum. The drum was marked with the SWMU number using a wax crayon and labeled with a non-hazardous waste sticker "pending analysis". RFAAP provided subsequent disposal.

All field documentation is included in Appendix A, which is composed of the Fieldwork Completion Report: SWMU 49 & 54 Environmental Services at Radford Army Ammunition Plant, Radford, Virginia. The Fieldwork Completion Report includes copies of chain-of-custody forms, WQP and sampling forms, PID reading and synoptic water level measurement forms, field inspection reports, waste inventory summary forms, site control logs, tailgate safety meeting records, sample shipping receipts, and field notes that include equipment calibration logs, for both semiannual events organized by date.

4.1 May 2025 Groundwater Sampling

The 31st event of groundwater sampling event was conducted from 19 to 22 May 2025.

4.1.1 Water Level Measurements

Table 9 presents DTW measurements (from the top of the casing) and groundwater elevations amsl collected during the May 2025 event. Figure 5 presents a groundwater elevation contour map generated from these data. The May 2025 groundwater elevations are similar to the baseline measurements collected in January 2015 and the flow direction remains south toward the New River.

4.1.2 WQPs and Groundwater Sampling

A total of 13 samples was collected in May 2025 from 11 wells (including two field duplicates [FDs]). Table 10 presents a summary of the final (stabilized) WQPs for each well from the May 2025 event.

DO concentrations at the SWMU 49 monitoring area monitoring wells ranged from 0.48 milligrams per liter (mg/L; 49MW04) to 8.12 mg/L (13MW2), with an average of 4.23 mg/L. Ten of the 11 monitoring wells had DO concentrations greater than 1 mg/L (or 1 part per million [ppm]), indicating aerobic conditions. ORP measurements ranged from 30.6 millivolts (mV; 48MW6) to 95.6 mV (49MW01), indicating oxidizing conditions. Measurements of pH ranged from 7.18 standard units (SU; 50MW2) to 7.93 SU (49MW01), which is within the range most conducive to microbial activity (i.e., between 6.06 SU and 7.59 SU [USEPA, 1998]). Measurements of specific conductivity ranged from 377.6 µS/cm (13MW4) to 827.0 µS/cm (48MW6).

Groundwater sampling field documentation is provided in Appendix A.

4.1.3 Quality Control and Waste Characterization Samples

Two FDs, three trip blanks, three equipment blanks, and one matrix spike/matrix spike duplicate (MS/MSD) were collected as quality control (QC) samples. The FDs (48TW6 and 49TW04) were analyzed for the same suite of compounds as the primary samples (collected from monitoring wells 48MW6 and 49MW04, respectively). The MS/MSD (collected from 13MW4) and equipment blanks were also analyzed for the same full suite of compounds. The trip blanks were analyzed for VOCs only.

One IDW purge water sample (49IDW) was collected as a waste characterization sample and analyzed for pH, chemical oxygen demand, and total Target Analyte List metals.

The analytical laboratory reports are provided in Appendix B.

4.2 October 2025 Semiannual Groundwater Sampling

The 32nd groundwater sampling event was conducted from 20 to 24 October 2025.

4.2.1 Water Level Measurements

Table 11 presents DTW measurements (from the top of the casing) and groundwater elevations amsl collected during the October 2025 event. Figure 6 presents a groundwater elevation contour map generated from these data, where water level elevations are similar to the baseline measurements collected in January 2015, and flow remains directed toward the New River.

4.2.2 WQPs and Groundwater Sampling

A total of 17 samples were collected in May 2025 from 15 wells (including 2 FDs). Table 12 presents a summary of the final (stabilized) WQPs for each well from the October 2025 event.

DO concentrations at the SWMU 49 monitoring area monitoring wells ranged from 0.27 mg/L (13MW4) to 8.86 mg/L (49MW03). Twelve of the 15 monitoring wells had DO concentrations greater than 1 mg/L, indicating aerobic conditions. ORP measurements ranged from 10.3 mV (48MW6) to 183.6 mV (48MW3), indicating oxidizing conditions. Measurements of pH ranged from 6.74 SU (50MW2) to 8.05 SU (48MW7), generally within the range conducive to microbial activity. Measurements of specific conductivity ranged from 63.8 µS/cm (48MW3) to 773.0 µS/cm (48MW6).

During the sampling event, a cooler containing the following samples collected and shipped on 21 October was delayed in transit: TB-1, 48MW7, 48MW7-EQB, 13MW5, 13MW4, and 13MW3. Due to the possibility of a loss, the field team began resampling efforts on 24 October. They were only able to recollect a sample from 48MW7 and ship it to the laboratory for analysis. The delayed cooler was eventually delivered to the laboratory with instructions to analyze all samples except the sample from 48MW7, because the 24 October sample from 48MW7 had already been received by the laboratory and was undergoing analysis. More details on holding time exceedances for samples from the delayed 21 October cooler are provided in Section 6.

4.2.3 Quality Control and Waste Characterization Samples

Two FDs, four trip blanks, four equipment blanks, and two MS/MSDs were collected as QC samples. The duplicates (48TW1 and 49TW04) were analyzed for the same suite of compounds as the primary samples (collected from monitoring wells 48MW1 and 49MW04, respectively). The MS/MSDs (collected from 13MW5 and 48MW3) and equipment blanks were also analyzed for the same full suite of compounds. The trip blanks were analyzed for VOCs only.

One IDW purge water sample (49IDW) was collected as a waste characterization sample and analyzed for pH, chemical oxygen demand, and total Target Analyte List metals. Waste purge water was taken to the ACD area for storage and deposited in a 55-gallon drum. The drum was marked with the SWMU number using a wax crayon and labeled with a non-hazardous waste sticker "pending analysis". RFAAP provided subsequent disposal.

The analytical laboratory reports are provided in Appendix B.

5.0 Chemical Analytical Results

Table 13 presents chemical analytical results for all samples collected in May and October 2025. Table 14 summarizes the total number of detected analytes and RG exceedances from both events, as well as the minimum and maximum concentration of each detected analyte and the location of the maximum concentration across the two events.

5.1 TCL VOCs

May 2025 Event

The May 2025 event yielded 27 total VOC detections from 11 samples. The VOCs include: 1,1 dichloroethane (1,1-DCA), CT, chloroform, cis-1,2-DCE, tetrachloroethene (PCE), and TCE. The samples include nine primary samples and two FDs that are identified by "TW" rather than "MW" in the sample name: 13MW3, 13MW4, 48MW1, 48MW2, 48MW3, 48MW6, 48TW6, 49MW01, 49MW04, 49TW04, and 50MW2.

CT was detected in seven samples (six primary samples and one FD): 13MW3, 48MW2, 48MW3, 49MW01, 49MW04, 49TW04, and 50MW2, and exceeded the RG of 5.0 ug/L in 48MW2 (52.0 ug/L) and 48MW3 (71.0 ug/L). TCE was detected in eight samples (seven primary samples and one FD): 13MW3, 13MW4, 48MW1, 48MW2, 48MW3, 48MW6, 48TW6, and 50MW2, and exceeded the RG of 5.0 ug/L in 48MW2 (5.2 ug/L) and 48MW3 (16.0 ug/L; maximum TCE concentration in 2025).

The approximate extents of the plume where CT and TCE concentrations exceed RGs is presented in Figure 7 for the May 2025 event. The plume footprint is approximately 2 acres.

October 2025 Event

The October 2025 event yielded 29 total VOC detections from 14 samples. The VOCs include: 1,1-DCA, CT, chloroform, cis-1,2-DCE, PCE, TCE, and trichlorofluoromethane. The samples include 11 primary samples and three FDs: 13MW3, 13MW4, 13MW5, 48MW1, 48TW1, 48MW2, 48MW3, 48MW6, 48TW6, 49MW01, 49MW03, 49MW04, 49TW04, and 50MW2.

CT was detected in seven samples (six primary samples and one FD): 13MW5, 48MW2, 48MW3, 49MW01, 49MW04, 49TW04, and 50MW2, and exceeded the RG of 5.0 ug/L in 48MW2 (46.0 ug/L) and 48MW3 (72.0 ug/L; maximum CT concentration in 2025). TCE was detected in eight samples (seven primary samples and one FD): 13MW3, 13MW4, 48MW1, 48TW1, 48MW2, 48MW3, 48MW6, and 50MW2, and exceeded the RG of 5.0 ug/L in 48MW2 (6.1 ug/L) and 48MW3 (15.0 ug/L).

The approximate extents of the plume where CT and TCE concentrations exceed RGs is presented in Figure 7 for the October 2025 event. The plume footprint is approximately 2 acres.

The same analytes (CT and TCE) exceeded RGs at similar concentrations at the same wells (48MW2 and 48MW3) in both semi-annual events in 2025, indicating plume stability within this timeframe.

5.2 MNA Indicator Parameters

The following MNA indicator parameters were detected across the two 2025 sampling events:

- Methane was detected in three samples in May and in two samples in October, with a maximum concentration of 1.70 ug/L at 50MW2 in October.
- Chloride was detected in all 13 samples in May and in all 17 samples in October, with a maximum concentration of 14 mg/L at 48MW6 in October.
- Nitrate was detected in 12 samples in May and in 13 samples in October, with a maximum concentration of 6.5 mg/L at 48MW3 in October.
- Sulfate was detected in all 13 samples in May and in all 17 samples in October, with a maximum estimated concentration of 200 mg/L at 13MW5 in October.

Ethane, ethene, and TOC were not detected in either event.

6.0 Laboratory Analysis, Data Validation, and Reporting

The analytical data and methods were reviewed for consistency with the UFP-QAPP (CAPE, 2024) to ensure that project data quality objectives and usability requirements were met. Validation was performed by Neptune and Company following the National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2014a), National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2014b), the UFP-QAPP, and professional judgment.

The analytical data packages generated for each 2025 event, matrix, and analysis group are presented in Table 15. Specific analytes and methods are presented in Table 16. Flag codes that were used to indicate QC anomalies to usability requirements for precision, accuracy, representativeness, comparability, completeness, and sensitivity are presented in Table 17. Data validation reports are included as Appendix C.

6.1 Preservation, Temperature, and Holding Time

For the May 2025 sampling event, all samples were received in temperature and extracted and analyzed within holding time.

For the October 2025 sampling event, all samples were received in temperature except for the samples from the cooler that was shipped on 21 October. Due to a FedEx shipping delay, the sample cooler shipped on 21 October was received at the lab after 7 days; analysis was still performed on these samples. All results reported from the cooler that exceeded cooler temperature criterion upon receipt are qualified as estimated with a low bias for positive results and estimated at the limit of detection (LOD) for non-detect results. The samples associated with the high cooler temperature are TB-1, 48MW7-EQB, 13MW5, 13MW4, and 13MW3. Sample 48MW7 was resampled and shipped in another cooler.

For the October sampling event, all samples were extracted and analyzed within the preparation and analytical hold times with the following exceptions: Samples 13MW3, 13MW4, 13MW5, and 48MW7-EQB were analyzed past the holding time for dissolved gases by one day. All positive results for dissolved gasses analyzed past the holding time are qualified as estimated with a low bias, and the non-detect results are qualified as estimated at the LOD. Nitrate in samples from 13MW3, 13MW4, 13MW5, and 48MW7-EQB was analyzed beyond twice the 48-hour holding time; nitrate results were non-detect for these samples and were rejected due to the holding time exceedance.

Hold time exceedances are summarized in Table 18.

6.2 Precision

Precision was measured from the relative percent difference (RPD) between the primary samples and FDs, laboratory duplicates, laboratory control sample (LCS), and the MS/MSD pairs. In accordance with the UFP-QAPP (CAPE, 2024), FDs were collected and analyzed at a minimum rate of 10 percent (i.e., one per 10 primary samples) and MS/MSDs at a minimum rate of 5 percent (i.e., one per 20 primary samples). In May 2025, one MS/MSD and two FDs were collected for 11 primary samples collected, and in October 2025, two MS/MSDs and two FDs were collected for 15 primary samples collected.

6.2.1 Relative Percent Difference Analysis

RPD was calculated for the FD and MS/MSD samples as described in the data validation reports in Appendix C. RPD for FDs is used to evaluate the precision of the field sampling technique, and RPD for MS/MSDs is used to evaluate precision of an analytical method within the sample matrix. Low RPD (i.e., less than 30 percent) is associated with higher precision. For MS/MSDs, control limits for RPDs are established for the analytical method.

For FDs from both May and October events, RPD was less than 10% for all detected analytes as shown in Table 19. For MS/MSDs from both May and October events, RPD was within the control limits for all analytes as shown in Table 20. Therefore, the results reflect sufficient analytical and sampling precision and all data are deemed usable.

6.3 Accuracy

Accuracy was measured from laboratory QC sample percent recoveries, including LCS, MS, MSD, and surrogates. Accuracy was also evaluated by determining whether any deviations to method or laboratory requirements for internal standards, initial calibration verification (ICV), and continuing calibration verification (CCV) recoveries were noted in the case narrative(s).

6.3.1 LCS and MS/MSD Recovery

Laboratory control sample/laboratory control sample duplicates (LCS/LCSDs) and MS/MSDs were analyzed as outlined in the lab SOPs.

For the May 2025 sampling event, all LCS/LCSD recoveries were within control limits as shown in Table 21.

For the October 2025 sampling event, all LCS/LCSD recoveries were within control limits except for bromomethane (high recovery) in analytical batches 296248 and 296249. All sample results were non-detect for bromomethane and therefore no qualifiers were applied as shown in Table 22.

MS/MSD analysis was performed at a frequency of at least 5 percent of field samples. For the May 2025 sampling event, all MS/MSD recoveries were within control limits except for sulfate (low recovery) in samples 13MW4 and 48MW1 and nitrate (low recovery) in sample 48MW1. The data was qualified as estimated biased low (J-) as shown in Table 22.

For the October 2025 sampling event, all MS/MSD recoveries were within control limits except for bromomethane (high recovery) in 48MW3 and 13MW5, sulfate (low recovery) in 13MW2 and 13MW5, and chloride (low recovery) in 13MW5. All sample results were non-detect for bromomethane and therefore no qualifiers were applied. The sulfate and chloride results were qualified as estimated with a low bias. The MS/MSD recovery exceedances are shown in Table 22.

6.3.2 Surrogates

All surrogate recoveries were within control limits. There were no surrogates that exceeded acceptance criteria.

6.3.3 Internal Standards

There were no internal standards outside control limits.

6.3.4 Calibration Verification

Some calibration results were outside control limits. Table 23 summarizes calibration control limit exceedances. The data quality and usability was not affected.

6.4 Representativeness

The samples were collected from locations specified in the approved *SWMU 49 Monitored Natural Attenuation Groundwater Monitoring Work Plan* (CB&I, 2014a) and from the recommendations in subsequent monitoring reports. Representativeness of the data is considered acceptable.

6.5 Comparability

Comparability was acceptable. Standard analytical methods were used. Standard preparatory and analytical methods were applied to the samples across sampling events. In all cases, the detection limits and limits of detection attained were below the specified limits of quantitation (LOQs). All target compounds detected below the LOQs flagged (J) by the laboratory are considered estimated concentrations.

6.6 Completeness

Completeness was measured as the number of usable (not rejected) results versus the total number of results. The dataset was 99.8 percent complete with 4 out of 2,301 total analyses rejected, fulfilling the UFP-QAPP completeness goal of greater than or equal to 90 percent (CAPE, 2024).

6.7 Sensitivity

Sensitivity was measured by evaluating whether the LOQ was less than RGs for constituents with RGs and less than the regulatory criteria for those constituents without RGs. All nominal LOQs were below the regulatory criteria.

Additionally, sensitivity was evaluated by determining whether method blank, trip blank, and rinsate blank results were less than the LOQs. Some analytes were detected in some blanks, leading to qualification of sample results as shown in Table 24.

6.7.1 Blanks (Calibration [Instrument], Method, Trip, and Rinsate)

Calibration blanks were analyzed throughout analytical runs. One method blank was analyzed with every batch of 20 samples or fewer for each matrix. One trip blank was included with each cooler for samples to be analyzed for VOCs and dissolved gases (methane, ethane, and ethene). Table 24 presents samples flagged for blank results. Data quality and usability were not affected.

6.7.2 Reporting Limits

Nominal reporting limits, before adjustments for dilutions, were below the regulatory criteria noted in the UFP-QAPP (CAPE, 2024).

6.8 Data Usability Summary

In summary, all non-rejected data were considered usable with the qualifications discussed above. The analytical results that were rejected are summarized in Tables 18 and 21. The completeness goals for the project were met. The data were considered of good quality for the project goals, and no J-flagged results affected the overall conclusions as to whether or not MNA is occurring.

7.0 MNA Evaluation of SWMU 49

MNA is a remedial approach in which physical, chemical, and biological processes occur under favorable conditions, without human interferences to reduce the mass, toxicity, volume, concentration, and/or mobility of contaminants in soil and groundwater. The physical, chemical, and biological processes include biodegradation, dispersion, dilution, sorption, volatilization, and chemical or biological stabilization (USEPA, 1998). The purpose of the MNA evaluation is to determine if natural attenuation is occurring.

Analytical results from historical and 2025 groundwater monitoring events at SWMU 49 were evaluated for indications of natural attenuation. First-order indicators of natural attenuation include a decrease concentrations and occurrence of COCs over time and may include corresponding increases in the degradation products produced by the breakdown of chlorinated VOCs. Second-order MNA indicators include laboratory-measured compounds and field-measured WQPs that represent groundwater geochemical conditions potentially favorable for the degradation of COCs. Reductive dechlorination is the process by which chlorinated VOCs are degraded by bacteria in anaerobic reducing environments. The degradation process occurs by chemical reduction, where microbes replace chlorine atoms with hydrogen (i.e., adding an electron), reducing the chlorinated VOCs and converting into successive “daughter” compounds. The complete reaction produces ethene, which is non-toxic, as the final by product.

7.1 First-Order Indicators: Presence of Contaminants Through Time

The SWMU 49 COCs are CT and TCE. During the process of reductive dechlorination, CT reduces to form chloroform, and TCE reduces to form cis-1,2-DCE. Figures 9 and 10 present COC and degradation product results for each well during the May 2025 and October 2025 events. To aid in visualization of MNA processes, COC and degradation product concentrations vs. time (sampling event) graphs are presented for specific wells in Figures 11 through 14. Historical and 2025 COC results are presented in Table 25.

Sections 7.1.1 and 7.1.2 can be summarized as indicating that the concentrations of COCs and their degradation products measured in 2025 are consistent with historical ranges.

7.1.1 Visual Inspections of Concentration vs. Time

CT, TCE, and chloroform concentrations were highest at 48MW2 and 48MW3 in both the May and October 2025 events (Figures 9 and 10). Cis-1,2-DCE was not detected at 48MW2 or 48MW3 in 2025 but was detected at 48MW06 and 48MW01. Figures 11 and 12 present results for 48MW2 and 48MW3

Figure 11 shows that CT and TCE may covary subtly at 48MW2, and Figure 12 shows a similar subtle covariance at 48MW3. TCE and chloroform positively covary at both wells. Cis-1,2-DCE has only been detected once at 48MW3 (in July 2017) since monitoring began in September 2015; it has never been detected for this period at 48MW2. The clear positive covariance between TCE and chloroform at wells 48MW2 and 48MW3 may indicate common source concentrations, physical transport behavior, or degradation pathways.

The elevated concentrations of CT at 48MW2 and 48MW3 compared to other wells are consistent with historical results dating back to 1995, indicating that the center of the CT plume has not moved (Figure 13). CT concentrations have remained above the RG of 5 micrograms per liter (µg/L) at 48MW2 and 48MW3 since 1995. CT concentrations at 13MW3 have fluctuated above and below the RG, with exceedances in May 2013, April 2016, July 2019, and July 2022 through July 2023. CT concentrations have remained below the RG at 13MW13 since July 2023.

The elevated concentrations of TCE at 48MW3 compared to other wells are consistent with historical results dating back to 1995, indicating that the center of the TCE plume has not moved (Figure 14). TCE concentrations have remained above the RG of 5 µg/L at 48MW3 since 1995. TCE concentrations at 48MW2 have fluctuated above and below the RG since 1995, with exceedances in 1995, 1998, 2007, 2013, January 2016, July 2017, October 2019, May 2025, and October 2025. Concentrations generally decreased from 1995 to 2016, remained relatively static from 2016 to August 2024, and increased from August 2024 to present (last four events). TCE concentrations at 13MW3 were above the RG for the first three sampling events (1995, 1998, 2006) but decreased during each of these events and have remained below the RG since August 2007.

7.1.2 Statistical Trends of COCs

Mann-Kendall (MK) statistical trend analyses were performed on analytical results from selected wells to assess the stability of the CT and TCE groundwater plumes. The MK analyses were performed using ProUCL Version 5.2 software. All available results (historical to 2025) were included in the MK analyses, with non-detects for recent results represented as one-half the reporting limit (limit of detection). The MK results were evaluated at the 95 percent confidence interval. MK trends are summarized as “No Trend,” “Increasing,” or “Decreasing” for well-COC pairs and are presented in Appendix D, along with time-concentration graphs and data inputs and outputs.

An increasing TCE trend was determined for 48MW3. Decreasing TCE trends were determined for 13MW4, 48MW1, 48MW2, and 50MW02. Increasing CT trends were determined for 13MW3 and 48MW3. Decreasing CT trends were determined for 48MW2, 49MW01, and 49MW04. No CT trends were determined for 13MW3 and 50MW02. Increasing TCE and CT trends in 48MW3, paired with decreasing TCE and CT trends at most of the other wells suggests that the area surrounding 48MW3 may be a zone of accumulation for the COCs. The increasing CT trend at 13MW3 is notable because this well is directly downgradient from the area of highest concentrations in the contaminant plumes (48MW2 and 48MW3). Despite the overall decreasing TCE trend at 48MW2, a short-term increase (last six events) in TCE at 48MW2 is present and can be observed visually.

7.2 Second-Order Indicators

The second-order MNA indicators evaluated include the laboratory-measured compounds nitrate, Fe2+, manganese, sulfate, and TOC, and the field-measured WQPs DO, ORP, pH, and specific conductivity. The second order MNA indicators are discussed in order of importance for indicating potential biodegradation. For example, microorganisms preferentially utilize respiratory substrates according to the amount of energy each yields during metabolism. As a result, these substrates are consumed in the following order of decreasing energy efficiency:

$$O_2 > NO_3^- > Fe^{3+} > ClO_4^- > SO_4^{2-} > CO_2$$

Reductive dechlorination is a microbial process by which chlorinated VOCs, such as CT and TCE, are degraded under anaerobic and reducing conditions, where chlorinated compounds serve as electron acceptors. Under aerobic and oxidizing conditions, oxygen is the preferred electron acceptor, and reductive dechlorination is inhibited. Geochemical processes associated with anaerobic conditions that are favorable for reductive dechlorination include nitrate reduction (specifically, denitrification), iron reduction, sulfate reduction, and methanogenesis. The remainder of Section 7.2 utilizes comparison values provided by USEPA in its *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water* (USEPA, 1998). Concentrations of second-order MNA indicators vs. time (sampling event) graphs are presented in Figures 15 through 18.

7.2.1 Dissolved Oxygen

DO is measured to determine whether aerobic or anaerobic conditions are present in groundwater. The preferred terminal electron acceptor during aerobic microbial respiration is oxygen, and average DO values less than 1 mg/L support anaerobic microbial activity. DO values greater than 8 mg/L are considered biased high given their relative magnitude to oxygen solubility at field temperatures. Figure 15 shows that DO levels at 48MW2 and 48MW3, where the most concentrations of COCs have been consistently observed, have remained above 1 mg/L for the entire period that WQPs have been measured beginning in September 2015, indicating aerobic conditions are persistent at these wells.

7.2.2 Oxidation-Reduction Potential

ORP values indicate groundwater's reductive potential and are used to confirm DO measurements. ORP values less than +50 mV typically correspond to mildly reducing anaerobic conditions, whereas ORP values less than -200 mV correspond to highly reducing anaerobic conditions favorable for reductive dechlorination. Figure 15 shows that ORP levels at 48MW2 and 48MW3 have remained above +50 mV mg/L for most of the period that WQPs have been measured, except for September 2015, October 2018, and October 2019 for 48MW3 and July 2018 for both wells. Overall, these data indicate that aerobic conditions are persistent at these wells. ORP values do not appear to covary with DO values, except for the negative covariance from July 2019 to January 2020 when DO levels spiked and ORP levels fell dramatically.

7.2.3 pH

The pH for optimum microbial activity ranges from 6.06 SU to 7.59 SU (USEPA, 1998). Microbial activity may decrease at lower pH values. In 2025, pH values across all sampled wells ranged from 6.42 SU to 7.47 SU, indicating that the pH environment at SWMU 49 is suitable for microbial activity.

7.2.4 Nitrate

Following oxygen, microorganisms preferentially use nitrate as a terminal electron acceptor. Diminished nitrate concentrations may indicate nitrate-reducing conditions that promote the degradation of CT and TCE and the formation of breakdown by-products. Figure 16 shows that nitrate levels at 48MW2 have remained below or equal to 1 mg/L for the entire period that WQPs have been measured, beginning in September 2015, which may indicate favorable conditions for

denitrification. Figure 17 shows that nitrate levels at 48MW3 have remained above 1 mg/L for the same period, except for January 2020 and July 2020.

7.2.5 Ferrous Iron

Ferric iron is reduced to soluble Fe2+ (ferrous iron) by iron-reducing bacteria in groundwater. Therefore, increases in Fe2+ concentrations over time can indicate increased biologically mediated iron-reduction. Fe2+ concentrations above the typical range of 0.5 to 10 mg/L can indicate favorable groundwater geochemical conditions for biological reductive dechlorination. Figure 15 shows dissolved Fe2+ concentrations at 48MW2 and 48MW3 for the entire period that WQPs have been measured beginning in September 2015. The average Fe2+ concentration at 48MW2 during this period is 0.41 mg/L. The average Fe2+ concentration at 48MW3 during this period is 0.10 mg/L. These data indicate that iron reduction is not occurring at these wells.

7.2.6 Sulfate and Chloride

Sulfate-reducing microbes use sulfate as a terminal electron acceptor anaerobic reducing conditions, which produces sulfide. In sulfate-rich environments greater than 20 mg/L, sulfate reducing bacteria may compete with dechlorinating bacteria and therefore inhibit reductive dechlorination (USEPA, 1998). In 2025, sulfate concentrations across all sampled wells ranged from non-detect to 200 mg/L. Figure 16 shows that sulfate levels at 48MW2 have decreased since the beginning of monitoring and fluctuated between 2.9 mg/L and 7.3 mg/L since October 2016. Figure 17 shows that sulfate levels at 48MW3 are consistently greater than 20 mg/L, except for January 2020, July 2020, July 2021, and October 2021. These results indicate elevated sulfate concentrations across the site may not be favorable for reductive dechlorination.

Chloride ions are produced by reductive dechlorination. Since 2016, the concentrations of chloride in 48MW2 and 48MW3 have remained low, less than 5 mg/L in all measurements except April 2022, as shown on Figures 16 and 17. These results indicate that reductive dechlorination of COCs is not likely occurring.

7.2.7 Total Organic Carbon

TOC concentrations greater than 20 mg/L are considered favorable to support microbial reductive dechlorination. Figures 16 and 17 show that TOC concentrations at 48MW2 and 48MW3 have consistently remained below 20 mg/L, except for the first event in September 2015, indicating a persistent unfavorable environment for reductive dechlorination.

7.2.8 Specific Conductivity

In general groundwater geochemical systems, specific conductivity measurements are positively correlated with concentrations of dissolved solids such as chloride, nitrate, sulfate, and iron which are common in reducing environments. Figure 18 shows decreasing concentrations of specific conductivity through time at 48MW2 and 48MW3 which indicates dissolved solids are not being actively generated by reductive dechlorination.

7.2.9 Methane, Ethane, and Ethene

Dissolved gasses such as methane, ethane, and ethene are produced by reductive dechlorination. Figures 16 and 17 also show historical to 2025 methane and ethene concentrations at 48MW2 and 48MW3, respectively. Most results are non-detect, with sporadic methane detections at both wells, indicating limited, or potentially sporadic, reductive dechlorination is occurring.

8.0 Summary and Conclusions

Eleven groundwater monitoring wells were sampled on a semiannual basis (May and October 2025 events), and four more were sampled on an annual basis (October 2025 event) during the Year Ten monitoring at SWMU 49. Consistent with historical results, CT and TCE concentrations only exceeded RGs at 48MW2 and 48MW3, indicating that the COC plume remains stationary, although during both 2025 events, CT and TCE were detected downgradient adjacent to the New River at monitoring wells 13MW3 and 13MW4.

Increasing TCE and CT MK trends in 48MW3, paired with decreasing TCE and CT trends at most of the other selected wells, suggest that the area surrounding 48MW3 may be a zone of accumulation for the COCs. The increasing CT trend at 13MW3 is notable because this well is directly downgradient from the area of highest concentrations in the contaminant plumes (48MW2 and 48MW3) and is close to the New River. First-order MNA indicators provide limited evidence that reductive dechlorination is occurring at SWMU 49. For example, the TCE degradation product cis-1,2-DCE has only been detected once at 48MW3 (in July 2017) since monitoring began in September 2015; it has never been detected for this period at 48MW2.

Second-order MNA indicators suggest that geochemical conditions across the site are generally aerobic and oxidizing which is unfavorable for reductive dechlorination of VOCs, although other MNA processes including sorption, dilution, dispersion, and chemical stabilization may be occurring in groundwater at SWMU 49 (CB&I, 2015). In the plume area at 48MW2 and 48MW3, methane is generally non-detect with occasional detections, indicating methanogenic conditions may occur during discrete periods. These processes are expected to continue because groundwater flow patterns and local environment is expected to remain consistent through time. Due to consistent groundwater flow conditions and persistent exceedances of CT and TCE in the plume, the current monitoring well network and sampling frequency are considered adequate for continued LTM and MNA at SWMU 49. It is recommended that sampling continue on a semiannual basis at the 11 monitoring well locations and on an annual basis for four additional monitoring well locations.

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Tables

Table 1: SWMU 49 Groundwater Remedial Goals

Chemical of Interest	Groundwater RG (µg/L)	Groundwater RG Source [a]
Carbon Tetrachloride	5.0	MCL
Trichloroethene	5.0	MCL

Notes:

[a] RGs developed and presented in the RFI Report (CB&I, 2014a). They are also the MCLs listed in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories Tables (USEPA, 2018).

Table 2: 1996 RFI –Detected COCs in Groundwater

Analyte	Sample ID Sample Date	48MW1 1/20/95		48MW1 7/20/95		48MW2 1/19/95		48MW2 7/19/95		48MW3 1/20/95		48MW3 7/21/95		48MW4 7/27/95	
	RG	Result	Lab Q	Result	Lab Q	Result	Lab Q	Result	Lab Q	Result	Lab Q	Result	Lab Q	Result	Lab Q
VOCs (µg/L)															
Carbon Tetrachloride	5	NT		1	U	NT		**92**		NT		**100**		1	U
Trichloroethene	5	NT		**17**		NT		**11**		NT		**37**		1	U

Notes:
RG exceedances denoted by **bold font**.

Definitions:
NT = analyte not tested
U = Analyte not detected at the method reporting limit.

Table 3: 1998 RFI – Detected COCs in Groundwater

Analyte	Sample ID Sample Date	48MW1-2 4/8/98					48MW2-2 4/2/98					48MW3-2 4/2/98					48MW4-2 4/8/98				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																					
Carbon Tetrachloride	5	5	U	U	5	5	**140**			5	5	**180**			5	5	5	U	U	5	5
Trichloroethene	5	**8 J**			5	5	**18 J**			5	5	**33 J**			5	5	5	U	U	5	5

Notes:
RG exceedances denoted by **bold font**.
Shading in the MDL/MRL columns indicates the MDL/MRL is equal to or exceeds a criterion.
-2 = Sample code signifies the second round of sampling conducted at these four wells. Original samples were collected during the 1999 RFI performed by ICF Kaiser.

Definitions:
J = Value less than MRL and greater than MDL and is considered estimated.
MDL = method detection limit
MRL = method reporting limit
U = Analyte not detected at the method reporting limit.

Table 4: 2006 Groundwater Data Report – Detected COCs in Groundwater

Analyte	Sample ID Sample Date	48MW1 4/13/06					48MW2 4/13/06					48MW3 4/13/06					48MW4 4/11/06				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																					
Carbon Tetrachloride	5	1	U		0.5	1	**29.2**			0.5	1	**51.2**			0.5	1	1	U		0.5	1
Trichloroethene	5	**5.5**			0.5	1	3			0.5	1	**7.4**			0.5	1	1	U		0.5	1

Notes:
RG exceedances denoted by **bold font**.

Definitions:
MRL = method reporting limit
U = Analyte not detected at the method reporting limit.

Table 5: 2007 RFI – Detected COCs in Groundwater

Analyte	Sample ID Sample Date	48MW1 8/29/07					48MW2 8/29/07					48MW3 8/29/07					48MW4 8/29/07					48MW05 8/30/07					48MW6 8/30/07				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																															
Carbon Tetrachloride	5	1	U		0.29	1	**94.6**		0.29	1		**60.3**		0.29	1		1	U		0.29	1	1	U		0.29	1	1	U		0.29	1
Trichloroethene	5	1.6			0.38	1	**11.2**		0.38	1		**10.1**		0.38	1		1	U		0.38	1	1	U		0.38	1	3.7			0.38	1

Analyte	Sample ID Sample Date	48MW7 8/30/07					49MW01 8/29/07					50MW01 8/30/07					50MW2 8/30/07					59MW01 8/29/07				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																										
Carbon Tetrachloride	5	1	U		0.29	1	3.8			0.29	1	1	U		0.29	1	2.7			0.29	1	1	U		0.29	1
Trichloroethene	5	1	U		0.38	1	1	U		0.38	1	1	U		0.38	1	3.4			0.38	1	1	U		0.38	1

Notes:
RG exceedances denoted by **bold font**.

Definitions:
U = Analyte not detected at the method reporting limit.

Table 6: 2013 Supplemental RFI – Detected VOCs in Groundwater

Analyte	Sample ID	13MW2					13MW3					13MW4					13MW5					48MW1					48MW2					48MW3				
	Sample Date	5/6/13					5/6/13					5/6/13					5/6/13					5/8/13					5/9/13					5/9/13				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																																				
1,1,1-Trichloroethane	NA	0.2	U		0.123	0.2	0.2	U		0.123	0.2	0.2	U		0.123	0.2	0.2	U		0.123	0.2	0.432	J	J	0.123	0.2	0.2	U		0.123	0.2	0.2	U		0.123	0.2
1,1-Dichloroethane	NA	0.2	U		0.171	0.2	0.2	U		0.171	0.2	0.2	U		0.171	0.2	0.2	U		0.171	0.2	1.03			0.171	0.2	0.2	U		0.171	0.2	0.2	U		0.171	0.2
1,1-Dichloroethene	NA	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5
Acetone	NA	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1
Carbon Tetrachloride	5	0.5	U		0.248	0.5	**5.63**			0.248	0.5	0.5	U		0.248	0.5	0.5	U		0.248	0.5	0.5	U		0.248	0.5	**82.7**			0.248	0.5	**73.1**			0.248	0.5
Chloroform	NA	0.2	U		0.155	0.2	0.453	J	J	0.155	0.2	0.2	U		0.155	0.2	0.2	U		0.155	0.2	0.2	U		0.155	0.2	5.97			0.155	0.2	7.89			0.155	0.2
cis-1,2-Dichloroethene	NA	0.2	U		0.103	0.2	0.2	U		0.103	0.2	0.2	U		0.103	0.2	0.2	U		0.103	0.2	0.817	J	J	0.103	0.2	0.2	U		0.103	0.2	0.2	U		0.103	0.2
Methylene Chloride	NA	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5
Tetrachloroethene	NA	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5
Toluene	NA	0.2	U		0.122	0.2	0.2	U		0.122	0.2	0.2	U		0.122	0.2	0.2	U		0.122	0.2	2.1			0.122	0.2	1.18			0.122	0.2	0.291	J	J	0.122	0.2
Trichloroethene	5	0.2	U		0.161	0.2	1.08			0.161	0.2	1.08			0.161	0.2	0.2	U		0.161	0.2	1.9			0.161	0.2	**9.75**			0.161	0.2	**10.7**			0.161	0.2

Analyte	Sample ID	48MW6					49MW01					49MW02					49MW03					49MW04					49MW05					50MW2				
	Sample Date	5/7/13					5/8/13					5/9/13					5/7/13					5/6/13					5/6/13					5/8/13				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																																				
1,1,1-Trichloroethane	NA	1.66			0.123	0.2	0.2	U		0.123	0.2	0.2	U		0.123	0.2	0.2	U	UL	0.123	0.2	0.2	U		0.123	0.2	0.2	U		0.123	0.2	0.251	J	J	0.123	0.2
1,1-Dichloroethane	NA	5.86			0.171	0.2	0.2	U		0.171	0.2	0.2	U		0.171	0.2	0.2	U	UL	0.171	0.2	0.2	U		0.171	0.2	0.2	U		0.171	0.2	0.344	J	J	0.171	0.2
1,1-Dichloroethene	NA	0.301	J	J	0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U	UL	0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5
Acetone	NA	1	U		0.193	1	1	U		0.193	1	2.41	J	B	0.193	1	1	U	UL	0.193	1	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1
Carbon Tetrachloride	5	0.5	U		0.248	0.5	4.61			0.248	0.5	5.36			0.248	0.5	0.5	U	UL	0.248	0.5	0.664	J	J	0.248	0.5	0.5	U		0.248	0.5	0.919	J	J	0.248	0.5
Chloroform	NA	0.2	U		0.155	0.2	0.193	J	J	0.155	0.2	7.79			0.155	0.2	0.2	U	UL	0.155	0.2	1.25			0.155	0.2	0.2	U		0.155	0.2	0.2	U		0.155	0.2
cis-1,2-Dichloroethene	NA	9.21			0.103	0.2	0.2	U		0.103	0.2	0.2	U		0.103	0.2	0.2	U	UL	0.103	0.2	0.2	U		0.103	0.2	0.2	U		0.103	0.2	0.373	J	J	0.103	0.2
Methylene Chloride	NA	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	2.3	J	L	0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5
Tetrachloroethene	NA	0.801	J	J	0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U	UL	0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.255	J	J	0.193	0.5
Toluene	NA	0.2	U		0.122	0.2	0.765	J	J	0.122	0.2	1.52			0.122	0.2	0.2	U	UL	0.122	0.2	0.2	U		0.122	0.2	0.2	U		0.122	0.2	0.726	J	J	0.122	0.2
Trichloroethene	5	**6.25**			0.161	0.2	0.2	U		0.161	0.2	0.934	J	J	0.161	0.2	0.2	U	UL	0.161	0.2	0.2	U		0.161	0.2	0.2	U		0.161	0.2	2.31			0.161	0.2

Notes:
RG exceedances denoted by **bold font**.

Definitions:
J = Value less than MRL and greater than MDL and is considered estimated.
L = Estimated concentration bias low.
U = Analyte not detected at the method reporting limit.
UL = Estimated concentration non-detect bias low.

Table 7: Baseline Monitoring – Analytes Detected in Groundwater

Analyte	Sample ID	13MW2					13MW3					13MW4					13MW5					48MW1					48MW2					48MW3					48MW6				
	Sample Date	1/26/15					1/26/15					1/26/15					1/26/15					1/28/15					1/28/15					1/27/15					1/29/15				
	RG	Result	LabQ	ValQ	MDL	MRL	Result	LabQ	ValQ	MDL	MRL	Result	LabQ	ValQ	MDL	MRL	Result	LabQ	ValQ	MDL	MRL	Result	LabQ	ValQ	MDL	MRL	Result	LabQ	ValQ	MDL	MRL	Result	LabQ	ValQ	MDL	MRL	Result	LabQ	ValQ	MDL	MRL
VOCs (µg/L)																																								
1,1,1-Trichloroethane	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.454	J	J	0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.691	DJ	J	0.5	1
1,1-Dichloroethane	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.908	J	J	0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	4.28	D		0.5	1
Acetone	NA	5	U		2.5	5	5	U		2.5	5	5	U		2.5	5	5	U		2.5	5	5	U		2.5	5	5	U		2.5	5	5	XU		2.5	5	27.8	D	B	5	10
Bromoform	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	XU		0.5	1
Bromomethane	NA	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	1	NU		0.5	1	2	U		1	2
Carbon Tetrachloride	5	0.5	U		0.25	0.5	4.62			0.25	0.5	0.592	J	J	0.25	0.5	0.5	U		0.25	0.5	0.5	XU		0.25	0.5	**118**	**X**	**J**	0.25	0.5	**77.4**			0.25	0.5	1	XU		0.5	1
Chloroform	NA	0.5	U		0.25	0.5	0.47	J	J	0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	7.46			0.25	0.5	8.37			0.25	0.5	1	U		0.5	1
cis-1,2-Dichloroethene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.914	J	J	0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	4.86	D		0.5	1
Dibromochloromethane	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	XU		0.25	0.5	1	U		0.5	1
Ethylbenzene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.469	J	J	0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1
m- & p-Xylene	NA	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	0.535	J	J	0.5	1	1.32	J	J	0.5	1	0.736	J	J	0.5	1	2	U		1	2
o-Xylene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.285	J	J	0.25	0.5	0.919	J	J	0.25	0.5	0.495	J	J	0.25	0.5	1	U		0.5	1
Tetrachloroethene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.709	DJ	J	0.5	1
Trichloroethene	5	0.5	U		0.25	0.5	0.883	J	J	0.25	0.5	0.5	U		0.25	0.5	1.42			0.25	0.5	1.91			0.25	0.5	**10.5**			0.25	0.5	**12.4**			0.25	0.5	3.29	D		0.5	1
Miscellaneous (µg/L)																																								
Total Organic Carbon	NA	2500	U		1250	2500	2500	U		1250	2500	2500	U		1250	2500	NT					2500	U		1250	2500	2500	U		1250	2500	2500	U		1250	2500	1640	J	J	1250	2500
Chloride	NA	2750			170	330	3880			170	330	11500			170	330	NT					3100			170	330	2650			170	330	2220			170	330	9360	D		340	660
Nitrate (as N)	NA	71.5	J	J	33	100	1660			33	100	100	U		33	100	NT					1350			33	100	754			33	100	6400			33	100	5880			33	100
Sulfate	NA	45900			330	1000	126000			330	1000	23800			330	1000	NT					58000			330	1000	16800			330	1000	29800			330	1000	275000	D		660	2000
Methane	NA	2	U		1	2	2	U		1	2	2	U		1	2	NT					2	U		1	2	2	U		1	2	2	U		1	2	2	U		1	2
Ethene	NA	2	U		1	2	2	U		1	2	2	U		1	2	NT					2	U		1	2	2	U		1	2	2	U		1	2	2	U		1	2

Table 7: Analytes Detected in Baseline Monitoring (Continued)

Analyte	Sample ID	48MW7					49MW01					49MW02					49MW03					49MW04					49MW05					50MW2				
	Sample Date	1/29/15					1/28/15					1/27/15					1/28/15					1/26/15					1/26/15					1/27/15				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																																			
1,1,1-Trichloroethane	NA	0.5	U		0.25	0.5	0.262	J	J	0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5
1,1-Dichloroethane	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.313	J	J	0.25	0.5
Acetone	NA	5	U		2.5	5	5	U		2.5	5	14	XDJ	B	5	10	5	U		2.5	5	5	U		2.5	5	18.6	DJ	B	5	10	5	XU		2.5	5
Bromoform	NA	0.5	XU		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5
Bromomethane	NA	1	U		0.5	1	1	U		0.5	1	2	U		1	2	1	U		0.5	1	1	U		0.5	1	2	U		1	2	1	U		0.5	1
Carbon Tetrachloride	5	0.5	XU		0.25	0.5	4.97	X	J	0.25	0.5	**5.05**	**D**		0.5	1	0.5	XU		0.25	0.5	0.662	J	J	0.25	0.5	1	U		0.5	1	1.62			0.25	0.5
Chloroform	NA	0.5	U		0.25	0.5	0.404	J	J	0.25	0.5	1.55	DJ	J	0.5	1	0.5	U		0.25	0.5	1.46			0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5
cis-1,2-Dichloroethene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.384	J	J	0.25	0.5
Dibromochloromethane	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	XU		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	XU		0.25	0.5
Ethylbenzene	NA	0.5	U		0.25	0.5	0.262	J	J	0.25	0.5	1.13	DJ	J	0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5
m- & p-Xylene	NA	1	U		0.5	1	0.69	J	J	0.5	1	4.06	D		1	2	1	U		0.5	1	1	U		0.5	1	2	U		1	2	0.804	J	J	0.5	1
o-Xylene	NA	0.5	U		0.25	0.5	0.544	J	J	0.25	0.5	2.91	D		0.5	1	0.296	J	J	0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.542	J	J	0.25	0.5
Tetrachloroethene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.311	J	J	0.25	0.5
Trichloroethene	5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	.0501	DJ	J	0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	2.08			0.25	0.5
Miscellaneous (µg/L)																																			
Total Organic Carbon	NA	NT					2500	U		1250	2500	2500	U		1250	2500	NT					2500	U		1250	2500	NT					2500	U		1250	2500
Chloride	NA	NT					6030			170	330	3450			170	330	NT					5160			170	330	NT					7270			170	330
Nitrate (as N)	NA	NT					303			33	100	47.6	J	J	33	100	NT					249	J	J	33	100	NT					2060			33	100
Sulfate	NA	NT					1000	U		330	1000	26600			330	1000	NT					53600			330	1000	NT					73200			330	1000
Methane	NA	NT					2	U		1	2	1.54	J	J	1	2	NT					2	U		1	2	NT					2	U		1	2
Ethene	NA	NT					2	U		1	2	1.4	J	J	1	2	NT					2	U		1	2	NT					2	U		1	2

Notes:
RG exceedances denoted by **bold font**.

Definitions:
B = Blank contamination. Value detected in sample and associated blank.
D = Sample was run at a dilution.
J = Value less than MRL and greater than MDL and is considered estimated.
L = Estimated concentration bias low.
N = Matrix spike/matrix spike duplicate accuracy and/or precision were outside criteria.
NA = not applicable
NT = Analyte not tested
U = Analyte not detected at the method reporting limit.
UL = Estimated concentration non-detect bias low.
X = The associated ICV/CCV exceeded the upper control limit.

Table 8: 2025 Monitoring Frequencies and Analytical Suite

Well ID	Frequency	TCL VOCs	Dissolved Gases (MEE)	MNA Indicator Parameters	Water Quality Parameters
13MW2	Semiannual	X	X	X	X
13MW3	Semiannual	X	X	X	X
13MW4	Semiannual	X	X	X	X
13MW5	Annual	X	X	X	X
48MW1	Semiannual	X	X	X	X
48MW2	Semiannual	X	X	X	X
48MW3	Semiannual	X	X	X	X
48MW6	Semiannual	X	X	X	X
48MW7	Annual	X	X	X	X
49MW01	Semiannual	X	X	X	X
49MW02	Semiannual	X	X	X	X
49MW03	Annual	X	X	X	X
49MW04	Semiannual	X	X	X	X
49MW05	Annual	X	X	X	X
50MW2	Semiannual	X	X	X	X

Definitions:
X = analyzed

Table 9: 2025 May Groundwater Elevations

Well ID	Screen Interval (ft bgs)	Screen Length (ft)	Total Depth (ft)	Water Level (ft btoc)	Top of Casing (ft amsl)	Water Level (ft amsl)	PID Reading (ppm)
13MW2	19 – 29	10	30.60	20.24	1702.62	1682.38	0.0
13MW3	9 – 19	10	16.10	14.57	1694.47	1679.90	0.1
13MW4	14 – 24	10	25.35	15.80	1696.40	1680.60	0.0
13MW5	14 – 25	11	25.40	15.54	1696.40	1680.86	0.0
48MW1	110 – 140	30	147.32	106.81	1816.42	1709.61	0.1
48MW2	113 – 134	20	136.70	124.55	1816.27	1691.72	0.1
48MW3	100 – 120	20	NA	98.78	1808.56	1709.78	0.0
48MW6	58 – 78	20	80.42	66.63	1822.85	1756.22	0.0
48MW7	62 – 82	20	83.60	49.07	1833.69	1784.62	0.0
49MW01	90 – 121	31	125.14	115.95	1826.42	1710.47	0.3
49MW02	103 – 133	30	NA	NA	1806.29	NA	0.1
49MW03	77 – 117	40	119.73	105.26	1811.82	1706.56	0.0
49MW04	50 – 70	20	72.88	20.41	1703.00	1682.59	0.3
49MW05	16 – 37	21	39.50	18.99	1699.74	1680.75	0.0
50MW2	89 – 119	30	120.80	115.62	1809.63	1694.01	0.1

Notes:
Elevation data collected on the date of sampling.

Definitions:
btoc = below top of casing
NA= Not Available. Lost sounder tip at 48MW3 on 5/22/2025. Unable to collect Total Depth there and subsequent same-day depth readings at 49MW02.

Table 10: 2025 May Water Quality Parameters

Well ID	Temperature (°C)	Specific Conductivity (µS/cm)	DO (mg/L) [a]	pH	ORP (mV)	Turbidity (NTU)
13MW2	15.2	655.0	8.12	7.52	83.7	0.74
13MW3	14.0	556.2	3.53	7.25	75.6	1.95
13MW4	14.8	377.6	4.02	7.23	82.6	1.39
48MW1	12.9	613.6	2.65	7.54	84.6	7.43
48MW2	12.5	495.1	5.20	7.53	87.0	64.16
48MW3	12.2	705.0	3.77	7.32	83.1	0.00
48MW6	14.7	827.0	2.56	7.30	30.6	39.28
49MW01	12.3	415.1	6.44	7.93	95.6	> 1,100
49MW02	13.4	553.8	5.31	7.54	72.4	161.80
49MW04	15.5	653.0	0.48	7.55	75.7	4.48
50MW2	12.6	695.0	4.58	7.18	83.0	9.51

Definitions:
°C = degrees Celsius
µS/cm = microsiemen(s) per centimeter
NTU = nephelometric turbidity unit(s)

Table 11: 2025 October Groundwater Elevations

Well ID	Screen Interval (ft bgs)	Screen Length (ft)	Total Depth (ft)	Water Level (ft btoc)	Top of Casing (ft amsl)	Water Level (ft amsl)	PID Reading (ppm)
13MW2	19 – 29	10	30.49	22.27	1702.62	1680.35	0.0
13MW3	9 – 19	10	22.07	15.84	1694.47	1678.63	0.0
13MW4	14 – 24	10	25.36	17.80	1696.40	1678.60	0.0
13MW5	14 – 25	11	25.35	18.01	1696.40	1678.39	0.0
48MW1	110 – 140	30	142.18	109.92	1816.42	1706.50	0.0
48MW2	113 – 134	21	136.51	125.64	1816.27	1690.63	0.0
48MW3	100 – 120	20	122.31	99.03	1808.56	1709.53	0.0
48MW6	58 – 78	20	79.63	66.68	1822.85	1756.17	0.7
48MW7	62 – 82	20	83.72	50.59	1833.69	1783.10	0.6
49MW01	90 – 121	31	124.28	115.97	1826.42	1710.45	0.0
49MW02	103 – 133	30	134.66	96.04	1806.29	1710.25	0.0
49MW03	77 – 117	40	119.87	105.55	1811.82	1706.27	0.0
49MW04	50 – 70	20	72.84	21.56	1703.00	1681.44	0.3
49MW05	16 – 37	21	39.40	20.37	1699.74	1679.37	0.0
50MW2	89 – 119	30	120.43	117.17	1809.63	1692.46	0.0

Notes:
Elevation data collected on the date of sampling.

Table 12: 2025 October Water Quality Parameters

Well ID	Temperature (°C)	Specific Conductivity (µS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)
13MW2	15.9	651.0	4.62	6.94	120.9	1.07
13MW3	17.5	558.0	3.57	6.82	87.9	1.20
13MW4	16.5	545.0	0.27	7.08	133.9	6.13
13MW5	15.5	787.0	2.21	7.00	138.7	7.64
48MW1	13.7	536.0	3.42	7.27	147.6	9.80
48MW2	12.5	452.7	7.46	7.29	155.8	290.00
48MW3	12.6	63.8	2.19	7.02	183.6	6.19
48MW6	13.9	773.0	0.73	6.94	10.3	89.80
48MW7	13.0	203.0	7.59	8.05	140.4	703.00
49MW01	13.5	388.5	7.64	7.58	113.5	102.00
49MW02	13.4	509.0	4.77	7.23	48.1	174.00
49MW03	13.1	362.8	8.86	7.39	153.9	16.80
49MW04	15.5	602.0	0.42	7.14	75.2	9.78
49MW05	15.9	568.0	1.96	7.04	122.3	8.88
50MW2	13.6	718.0	4.07	6.74	152.8	over range
48MW7 [a]	15.5	194.4	6.86	8.05	99.2	over range

Notes:

[a] Resampled on 10/25/2025 due to missing cooler in transit.

Table 13: SWMU 49 Groundwater Analytical Results
2025 (Year 10)
Radford Army Ammunition Plant, Radford, VA

	Lab Report #		Remedial Goal[1] (ug/L)	195112	199294	195112	199400	195112	199400	199400	195112	199349	199349	195112	199367	195112	199367	195112	199294	195112	199367	195112	199349	195112
	Lab Identification			1586209	1643250	1585590	1645323	1585589	1645322	1645321	1586204	1643988	1643989	1586772	1644156	1586774	1644158	1585587	1643245	1585588	1644160	1585585	1643990	158677
	Sample			13MW2	13MW2	13MW3	13MW3	13MW4	13MW4	13MW5	48MW1	48MW1	48TW1	48MW2	48MW2	48MW3	48MW3	48MW6	48MW6	48TW6	48MW7	49MW01	49MW01	49MW0
	Collection date			5/21/2025	10/22/2025	5/20/2025	10/21/2025	5/20/2025	10/21/2025	10/21/2025	5/21/2025	10/23/2025	10/23/2025	5/22/2025	10/24/2025	5/22/2025	10/24/2025	5/20/2025	10/22/2025	5/20/2025	10/24/2025	5/20/2025	10/23/2025	5/22/202
MEE RSK175	**CAS #**			ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Ethane	74-84-0	--		0.80 U	0.80 U	0.80 U	0.80 UJ	0.80 U	0.80 UJ	0.80 UJ	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80
Ethene	74-85-1	--		1.2 U	1.2 U	1.2 U	1.2 UJ	1.2 U	1.2 UJ	1.2 UJ	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2
Methane	74-82-8	--		0.90 U	0.90 U	**0.52** J	**0.87** J-	0.90 U	0.90 UJ	0.90 UJ	0.90 U	0.90 U	0.90 U	0.90 U	0.90 U	**0.71** J	0.90 U	0.90 U	0.90 U	0.90 U	0.90 U	0.90 U	0.90 U	**0.59**
TCL VOCs 5030B/5035A/8260C				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	71-55-6	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
1,1,2,2-Tetrachloroethane	79-34-5	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
1,1,2-Trichloroethane	79-00-5	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
1,1-Dichloroethane	75-34-3	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	**0.6** J	**0.6** J	**0.7** J	1.0 U	1.0 U	1.0 U	1.0 U	**2.0**	**2.5**	**2.2**	1.0 U	1.0 U	1.0 U	1.0
1,1-Dichloroethene	75-35-4	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
1,2,3-Trichlorobenzene	87-61-6	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
1,2,4-Trichlorobenzene	120-82-1	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
1,2-Dibromo-3-chloropropane	96-12-8	--		1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0
1,2-Dibromoethane	106-93-4	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
1,2-Dichlorobenzene	95-50-1	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
1,2-Dichloroethane	107-06-2	--		2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0
1,2-Dichloropropane	78-87-5	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
1,3-Dichlorobenzene	541-73-1	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
1,4-Dichlorobenzene	106-46-7	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
1,4-Dioxane	123-91-1	--		50 U	50 U	50 U	50 UJ	50 U	50 UJ	50 UJ	50 U	50 U	50 U	50 U	50 UJ	50 U	50 UJ	50 U	50 U	50 U	50 UJ	50 U	50 U	50
112Trichloro122trifluoroethane	76-13-1	--		4.0 U	4.0 U	4.0 U	4.0 UJ	4.0 U	4.0 UJ	4.0 UJ	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0
2-Butanone	78-93-3	--		10 U	10 U	10 U	10 UJ	10 U	10 UJ	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10
2-Hexanone	591-78-6	--		10 UJ	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 U	10 U	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10
4-Methyl-2-pentanone	108-10-1	--		10 U	10 U	10 U	10 UJ	10 U	10 UJ	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10
Acetone	67-64-1	--		10 U	10 U	10 U	10 UJ	10 U	10 UJ	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10
Benzene	71-43-2	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
Bromochloromethane	74-97-5	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
Bromodichloromethane	75-27-4	--		0.25 U	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 UJ	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25
Bromoform	75-25-2	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
Bromomethane	74-83-9	--		1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0
Carbon disulfide	75-15-0	--		2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0
Carbon tetrachloride	56-23-5	5.0		1.0 U	1.0 U	**3.3**	2.6 UJ	1.0 U	1.0 UJ	**0.6** J-	1.0 U	1.0 U	1.0 U	**52.0**	**46.0**	**71.0**	**72.0**	1.0 U	1.0 U	1.0 U	1.0 U	**1.5**	**2.4**	1.0
Chlorobenzene	108-90-7	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
Chloroethane	75-00-3	--		2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0
Chloroform	67-66-3	--		1.0 U	1.0 U	**0.4** J	**0.4** J-	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	**5.0**	**5.8**	**11.0**	**12.0**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.3** J	1.0
Chloromethane	74-87-3	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
cis-1,2-Dichloroethene	156-59-2	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	**1.3**	**1.1** J	**1.1** J	1.0 U	1.0 U	1.0 U	1.0 U	**5.0**	**6.0**	**5.1**	1.0 U	1.0 U	1.0 U	1.0
cis-1,3-Dichloropropene	10061-01-5	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
Cyclohexane	110-82-7	--		2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 UJ	2.0 U	2.0 UJ	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0
Dibromochloromethane	124-48-1	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
Dichlorodifluoromethane	75-71-8	--		2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 UJ	2.0 U	2.0 UJ	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0
Ethylbenzene	100-41-4	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
Isopropylbenzene	98-82-8	--		1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0
m & p-Xylene	179601-23-1	--		2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0
Methyl acetate	79-20-9	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
Methyl tert-butyl ether	1634-04-4	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
Methylcyclohexane	108-87-2	--		2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0
Methylene chloride	75-09-2	--		4.0 U	4.0 UJ	4.0 U	4.0 UJ	4.0 U	4.0 UJ	4.0 UJ	4.0 U	4.0 U	4.0 UJ	4.0 U	4.0 UJ	4.0 U	4.0 UJ	4.0 U	4.0 UJ	4.0 U	4.0 UJ	4.0 U	4.0 UJ	4.0
o-Xylene	95-47-6	--		2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0
Styrene	100-42-5	--		1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0
Tetrachloroethene	127-18-4	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	**0.3** J	**0.3** J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.5** J	**0.6** J	**0.6** J	1.0 U	1.0 U	1.0 U	1.0
Toluene	108-88-3	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
trans-1,2-Dichloroethene	156-60-5	--		1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0
trans-1,3-Dichloropropene	10061-02-6	--		2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0
Trichloroethene	79-01-6	5.0		1.0 U	1.0 U	**0.5** J	**0.3** J-	**0.5** J	**0.8** J-	1.0 UJ	**2.3**	**1.9**	**2.0**	**5.2**	**6.1**	**16.0**	**15.0**	**1.9**	**2.3**	**1.9**	1.0 U	1.0 U	1.0 U	1.0
Trichlorofluoromethane	75-69-4	--		1.0 U	1.0 UJ	1.0 U	**0.5** J-	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0
Vinyl chloride	75-01-4	--		0.25 U	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 UJ	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25
Anions 9056				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chloride	16887-00-6	--		**4.6**	**4.8**	**4.9**	**4.9** J-	**5.6**	**4** J-	**3.9** J-	**12**	**9**	**8.8**	**2.5** J	**2.5** J	**3.2**	**3.1**	**12**	**14**	**12**	**1.7** J	**5.6**	**5.7**	**2.6**
Nitrate Nitrogen	14797-55-8	--		**0.36** J	**0.41**	**1.10**	**1.80** R	**0.31** J	**0.22** R	**0.64** R	**2.10** J-	**2.20**	**2.20**	**0.63**	**0.86**	**6.40**	**6.50**	**2.40**	**2.60**	**2.40**	**1.00**	**0.20** J	**0.43**	**0.19**
Sulfate	14808-79-8	--		**22**	**28**	**84**	**70** J-	**31** J-	**63** J-	**200** J-	**64** J-	**57**	**59**	**5.1**	**4.5**	**31**	**28**	**130**	**120**	**130**	**3**	**1.7** J	**1.8** J	**18**
Organic Carbon 9060A				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Total Organic Carbon	7732-18-5	--		1.5 U	1.5 U	1.5 U	1.5 UJ	1.5 U	1.5 U	1.5 UJ	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5
Field-measured MNA metals				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Dissolved Iron	7439-89-6	--		0.09	0.15	0.13	0.14	0.13	0.14	0.14	0.14	0.16	--	0.16	0.19	0.12	0.12	0.11	0.19	--	0.58	0.81	0.16	0.30
Dissolved Manganese	7439-96-5	--		0.4	0.4	0.7	0.0	0.6	0.3	0.2	0.8	0.4	--	under range	under range	0.5	0.0	0.7	0.6	--	0.9	5.6	0.2	2.1

Notes

[1] Remedial Goals presented in the SWMU 49 Monitored Natural Attenuation Groundwater Monitoring Work Plan (Shaw, 2014).

Bold values indicate compound was detected.

Yellow highlighting indicates concentration exceeds the Remedial Goal.

Red highlighting on R code indicates the data was rejected by the project team after data validation recommended exclusion. See R definition for more details.

Definitions

CAS = Chemical Abstracts Service.

J = The reported result was an estimated value with an unknown bias.

J+ = The result was an estimated quantity, but the result may be biased high.

J- = The result was an estimated quantity, but the result may be biased low.

mg/L = milligrams per liter.

R = The sample results were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided.

U = The analyte was not detected and was reported as less than the LOD. The LOD is presented in this table has been adjusted for any dilution or concentration of the sample.

ug/L = micrograms per liter.

-- = not established (Remedial Goal) or not applicable.

Table 13: SWMU 49 Groundwater Analytical Results
2025 (Year 10)
Radford Army Ammunition Plant, Radford, VA

	Lab Report #	Remedial Goal[1] (ug/L)	2	199367	199349	195112	199349	195112	199349	199294	195112	199349	195112	195112	195112	195207	195152	199400	199294	199349	199367
	Lab Identification		5	1644159	1643985	1586207	1643248	1586208	1643249	1643251	1586206	1643991	1585586	1586205	1586773	1586773	1586205	1645320	1643247	1643987	1644157
	Sample		2	49MW02	49MW03	49MW04	49MW04	49TW04	49TW04	49MW05	50MW2	50MW2	49MW01-EQB	48MW1-EQB	48MW2-EQB	48MW2-EQB	48MW1-EQB	48MW7-EQB	48MW6-EQB	49MW03-EQB	48MW2-EQB
	Collection date		25	10/24/2025	10/23/2025	5/21/2025	10/22/2025	5/21/2025	10/22/2025	10/22/2025	5/21/2025	10/23/2025	5/20/2025	5/21/2025	5/22/2025	5/22/2025	5/21/2025	10/21/2025	10/22/2025	10/23/2025	10/24/2025
MEE RSK175	**CAS #**			**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Ethane	74-84-0	--	U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 UJ	0.80 U	0.80 U	0.80 U
Ethene	74-85-1	--	U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 UJ	1.2 U	1.2 U	1.2 U
Methane	74-82-8	--	J	0.90 U	0.90 U	0.90 U	0.90 U	0.90 U	0.90 U	0.90 U	0.90 U	**1.70**	0.90 U	0.90 U	0.90 U	0.90 U	0.90 U	0.90 UJ	0.90 U	0.90 U	0.90 U
TCL VOCs 5030B/5035A/8260C				**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,1,1-Trichloroethane	71-55-6	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	79-34-5	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	79-00-5	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	75-34-3	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	75-35-4	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	87-61-6	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	120-82-1	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	96-12-8	--	U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
1,2-Dibromoethane	106-93-4	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	95-50-1	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	107-06-2	--	U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U
1,2-Dichloropropane	78-87-5	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	541-73-1	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	106-46-7	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
1,4-Dioxane	123-91-1	--	U	50 UJ	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 U	50 U	50 UJ
112Trichloro122trifluoroethane	76-13-1	--	U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 UJ	4.0 U	4.0 U	4.0 U
2-Butanone	78-93-3	--	U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U
2-Hexanone	591-78-6	--	UJ	10 U	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ	10 UJ	10 UJ	10 U	10 U	10 UJ	10 U	10 U	10 U
4-Methyl-2-pentanone	108-10-1	--	U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U
Acetone	67-64-1	--	U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U
Benzene	71-43-2	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Bromochloromethane	74-97-5	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Bromodichloromethane	75-27-4	--	U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
Bromoform	75-25-2	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Bromomethane	74-83-9	--	U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Carbon disulfide	75-15-0	--	U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U
Carbon tetrachloride	56-23-5	5.0	U	1.0 U	1.0 U	**0.5** J	**1.0** J	**0.4** J	**1.0** J	1.0 U	**1.0** J	**0.8** J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Chlorobenzene	108-90-7	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Chloroethane	75-00-3	--	U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U
Chloroform	67-66-3	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Chloromethane	74-87-3	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	156-59-2	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	10061-01-5	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Cyclohexane	110-82-7	--	U	2.0 UJ	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
Dibromochloromethane	124-48-1	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	75-71-8	--	U	2.0 UJ	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
Ethylbenzene	100-41-4	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Isopropylbenzene	98-82-8	--	U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
m & p-Xylene	179601-23-1	--	U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U
Methyl acetate	79-20-9	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Methyl tert-butyl ether	1634-04-4	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Methylcyclohexane	108-87-2	--	U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U
Methylene chloride	75-09-2	--	U	4.0 UJ	4.0 UJ	4.0 U	4.0 UJ	4.0 U	4.0 UJ	4.0 UJ	4.0 U	4.0 UJ	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 UJ	4.0 UJ	4.0 UJ	4.0 UJ
o-Xylene	95-47-6	--	U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U
Styrene	100-42-5	--	U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Tetrachloroethene	127-18-4	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Toluene	108-88-3	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	156-60-5	--	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	10061-02-6	--	U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U
Trichloroethene	79-01-6	5.0	U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.2**	**1.0** J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	75-69-4	--	U	1.0 UJ	**0.4** J	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Vinyl chloride	75-01-4	--	U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
Anions 9056				**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Chloride	16887-00-6	--	J	**2.5** J	**6.4**	**7.5**	**6.9**	**7.2**	**7.2**	**3.8**	**7.8**	**8.2**	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 UJ	1.5 U	1.5 U	1.5 U
Nitrate Nitrogen	14797-55-8	--	J	**0.30** J	**1.20**	0.20 U	**0.36** J	**0.17** J	**0.36** J	0.20 U	**1.70**	**2.20**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 R	0.20 U	0.20 U	0.20 U
Sulfate	14808-79-8	--		**16**	**4**	**62**	**57**	**62**	**57**	**46**	**66**	**72**	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 UJ	1.5 U	1.5 U	1.5 U
Organic Carbon 9060A				**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Total Organic Carbon	7732-18-5	--	U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 UJ	1.5 U	1.5 U	1.5 U
Field-measured MNA metals				**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Dissolved Iron	7439-89-6	--		0.37	0.11	0.15	0.14	--	--	0.16	under range	0.43	--	--	--	--	--	--	--	--	--
Dissolved Manganese	7439-96-5	--		0.8	0.4	0.4	0.4	--	--	0.4	0.3	1.7	--	--	--	--	--	--	--	--	--

Notes

[1] Remedial Goals presented in the SWMU 49 Monitored Natural Attenua

Bold values indicate compound was detected.

Yellow highlighting indicates concentration exceeds the Remedial Goal.

Red highlighting on R code indicates the data was rejected by the project

Definitions

CAS = Chemical Abstracts Service.

J = The reported result was an estimated value with an unknown bias.

J+ = The result was an estimated quantity, but the result may be biased hi

J- = The result was an estimated quantity, but the result may be biased lo

mg/L = milligrams per liter.

R = The sample results were affected by serious deficiencies in the ability

U = The analyte was not detected and was reported as less than the LOD.

ug/L = micrograms per liter.

-- = not established (Remedial Goal) or not applicable.

Table 14: SWMU 49 Groundwater Analytical Results
2025 (Year 10)
Radford Army Ammunition Plant, Radford, VA

Table 13 - SWMU 49 Analytical Results Summary

Analyte	CAS #	Units	Remedial Goal[1]	May Event			October Event			2025 MNA Total					
				Count Samples	Count Detects	Count Exceedances	Count Samples	Count Detects	Count Exceedances	Count Samples	Count Detects	Count Exceedances	Minimum Concentration	Maximum Concentration	Maximum Location
MEE RSK175															
Methane	74-82-8	ug/L	--	13	3	--	17	2	--	30	5	--	ND	1.7	50MW2
TCL VOCs 5030B/5035A/8260C															
1,1-Dichloroethane	75-34-3	ug/L	--	13	3	--	17	3	--	30	6	--	ND	2.5	48MW6
Carbon tetrachloride	56-23-5	ug/L	5.0	13	7	2	17	7	2	30	14	4	ND	72	48MW3
Chloroform	67-66-3	ug/L	--	13	3	--	17	4	--	30	7	--	ND	12	48MW3
cis-1,2-Dichloroethene	156-59-2	ug/L	--	13	3	--	17	3	--	30	6	--	ND	6	48MW6
Tetrachloroethene	127-18-4	ug/L	--	13	3	--	17	2	--	30	5	--	ND	0.6	48MW6
Trichloroethene	79-01-6	ug/L	5.0	13	8	2	17	8	2	30	16	4	ND	16	48MW3
Trichlorofluoromethane	75-69-4	ug/L	--	13	--	--	17	2	--	30	2	--	ND	0.5	13MW3
Anions 9056															
Chloride	16887-00-6	mg/L	--	13	13	--	17	17	--	30	30	--	1.7	14	48MW6
Nitrate Nitrogen	14797-55-8	mg/L	--	13	12	--	17	13	--	30	25	--	ND	6.5	48MW3
Sulfate	14808-79-8	mg/L	--	13	13	--	17	17	--	30	30	--	1.7	200	13MW5

Notes

[1] Remedial Goals presented in the SWMU 49 Monitored Natural Attenuation Groundwater Monitoring Work Plan (Shaw, 2014).

Definitions

CAS = Chemical Abstracts Service.
mg/L = milligrams per liter.
ND = Non-Detect
ug/L = micrograms per liter.
-- = not established (Remedial Goal) or no data (Count Exceedances).

Table 15: Summary of Samples and Analyses

Sampling Event ID	Data Packages	Matrix	TCL VOCs	Dissolved Gases	Anions	TOC
May 2025	195112	GW	X	X	X	X
October 2025	199294	GW	X	X	X	X

Definitions:
GW = groundwater

Table 16: Analytical Methods

Analysis	Analytes	Method
VOCs	Numerous	USEPA SW-846 Method 8260C
Dissolved Gases	Methane, Ethane, Ethene	RSK-175
Anions	Chloride, Nitrate, Sulfate	USEPA SW-846 Method 9056A
TOC	TOC	USEPA SW-846 Method 9060A

Table 17: Data Validation Data Qualifiers

Qualifier	Definition
U	The analyte was not detected and was reported as less than the LOD. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
R [a]	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Exclusion of the data is recommended.

Notes:
The data qualifiers listed are a subset of those provided by Neptune and Company in the data validation report for analytical results for samples collected during the October 2025 event (Appendix C) and which are applied to all analytical results (May 2025 and October 2025) in Table 13. The qualifiers have been modified from the work plan to reflect the current data validation qualifier practices discussed in DoD General Data Validation Guidelines, Revision 1, November 2019.
[a] Used in place of "X" in Table 13 to indicate data was recommended for exclusion.

Table 18: Holding Time Exceedances

Sampling Event	Analysis [a]	Analytes	Result	Samples	Qualifiers
May 2025	---	---	---	---	---
October 2025	Dissolved Gasses	Methane, Ethane, Ethene	See Table 13	48MW7-EQB, 13MW5, 13MW4, 13MW3	UJ and J-
	Anions	Nitrate	See Table 13	48MW7-EQB, 13MW5 13MW4, 13MW3	R

Table 19: FD Precision Exceedances

Sampling Event	Sample ID	Analyte	Flag	RPD
May 2025	No Exceedances			
October 2025	No Exceedances			

Table 20: MS/MSD RPD Exceedances

Sampling Event	Sample ID	Analyte	Flag	RPD
May 2025	No Exceedances			
October 2025	No Exceedances			

Table 21: LCS Recovery Exceedances

Sampling Event	Samples	Analyte	Flag	Recovery
May 2025	All LCS recovery criteria were met.			
October 2025	Analytical batch 296248 (13MW2, 48MW1, 48MW6, 48MW6-EQB, 48TW1, 48MW01, 48MW03, 48MW03-EQB, 49MW04, 49MW05, 49TW04, 50MW2, TB-2, TB-3) Analytical batch 296249 (13MW3, 13MW4, 13MW5, 48MW2, 48MW2-EQB, 48MW3, 48MW7, 48MW7-EQB 49MW02, TB-1, TB-4) Analytical batch 296248	bromomethane	None (all samples non-detect for bromomethane)	High

Notes:
LCS = laboratory control sample

Table 22: MS/MSD Recovery Exceedances

Sampling Event	Sample ID	Analyte	Recovery	Parent Flag
May 2025	13MW4	Sulfate	Low	J-
	48MW1	Nitrate Sulfate	Low	J-
October 2025	13MW5	Chloride sulfate	Low	J-

Table 23: Calibration Exceedances

Sampling Event	Analysis	Analyte	Result	Samples	Qualifiers
May 2025		2-hexanone	CCV – low recovery	TB-1 Lab standards (applies to all samples)	UJ
October 2025	VOC	Bromomethane 1,4-dioxane 1,2-dibromo-3-chloropropane	CCV – High recovery CCV – High recovery CCV – How recovery	48MW2, 48MW2-EQB, 48MW3, 49MW02, 48MW7, TB-4, TB-1, 13MW3, 13Mw4, 13MW5, 48MW7-EQB	UJ
		Bromomethane 1,2-dibromo-3-chloropropane	CCV – High recovery CCV – Low recovery	48MW6, 48ME6-EQB, 49MW04, 49TW04, 13MW2, TB-2, 49MW05, 49MW03, 49MW03-EQB, 48MW1, 48TW1, 49MW01, 50MW02, and TB-3	UJ
		Dichlorodifluoromethane trichlorofluoromethane methylene chloride cyclohexane (high), styrene isopropylbenzene	ICV – High recovery	Lab standards (applies to all samples)	UJ

Notes:
J = estimated
UJ = non-detected estimated

Table 24: Blank Flags

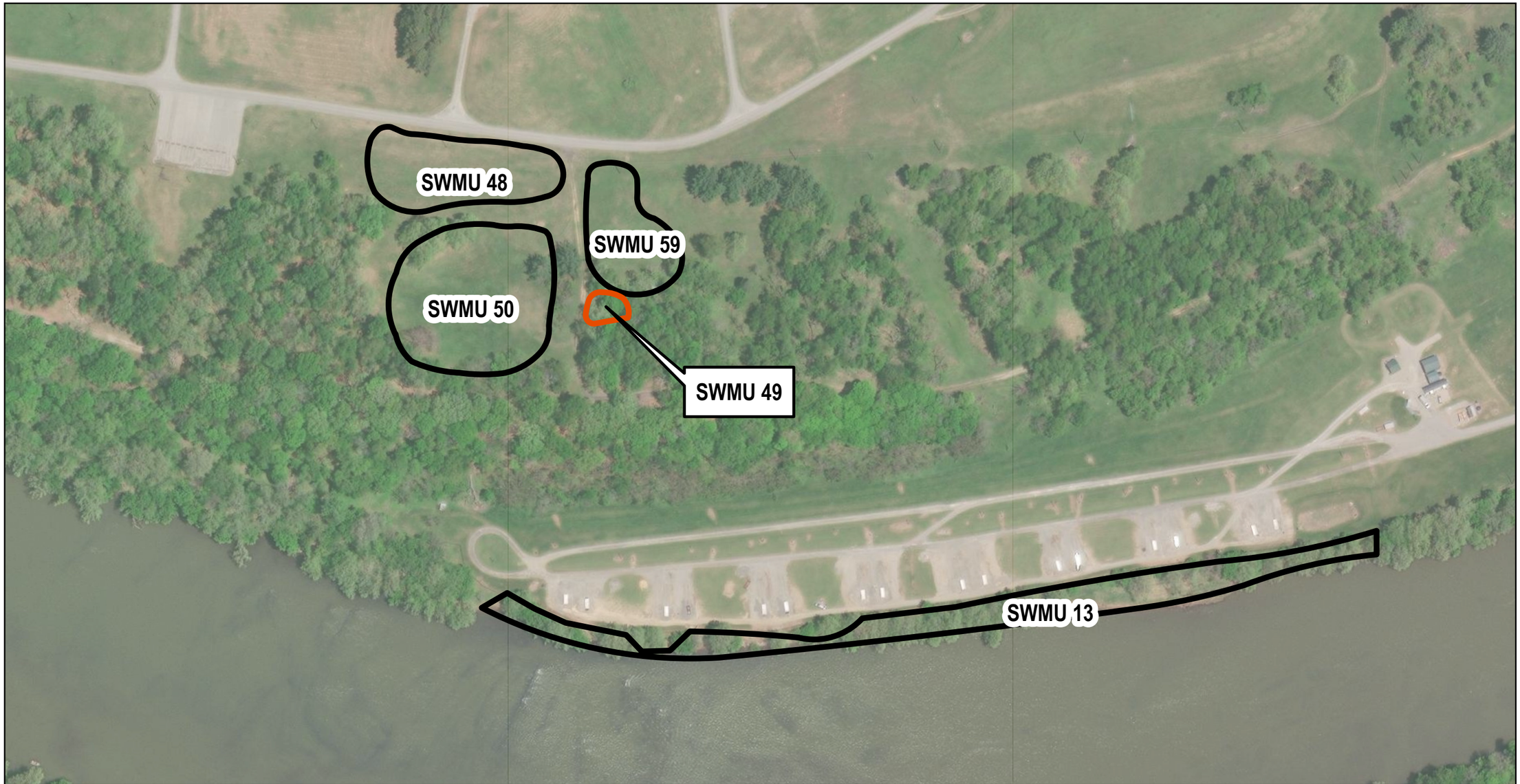
Sampling Event	Type of Blank	Analyte	Sample Qualified	Flag
May 2025	Trip Blank TB-1, TB-2 and TB-3	2-hexanone	none	UJ
October 2025	Trip Blank TB-1	ALL VOC	None	UJ
	Trip Blank TB-2, TB-3, TB-4	Cyclohexane Dichlorodifluoromethane Isopropylbenzene Methylene chloride Styrene Trichlorofluoromethane 1,2-Dibromo-3-chloropropane Bromomethane	None	UJ
	Equipment Blank 48MW7-EQB	ALL VOC	None	UJ
	Equipment Blanks 48MW6-EQB, 49MW03-EQB, 48MW2-EQB	Cyclohexane Dichlorodifluoromethane Isopropylbenzene Methylene chloride Styrene Trichlorofluoromethane 1,2-Dibromo-3-chloropropane Bromomethane	None	UJ

Table 25: SWMU 49 CT and TCE Semiannual Concentrations

Parameter	Units	RG	May 2025 (Event 31)	October 2025 (Event 32)
13MW2				
Carbon Tetrachloride	µg/L	5	ND	ND
Trichloroethene	µg/L	5	ND	ND
13MW3				
Carbon Tetrachloride	µg/L	5	3.3	ND
Trichloroethene	µg/L	5	0.5 J	0.3 J-
13MW4				
Carbon Tetrachloride	µg/L	5	ND	ND
Trichloroethene	µg/L	5	0.5 J	0.8 J-
13MW5				
Carbon Tetrachloride	µg/L	5	A	0.6 J-
Trichloroethene	µg/L	5	A	ND
48MW6				
Carbon Tetrachloride	µg/L	5	ND	ND
Trichloroethene	µg/L	5	1.9	2.3
48MW7				
Carbon Tetrachloride	µg/L	5	A	ND
Trichloroethene	µg/L	5	A	ND
48MW1				
Carbon Tetrachloride	µg/L	5	ND	ND
Trichloroethene	µg/L	5	2.3	1.9
48MW2				
Carbon Tetrachloride	µg/L	5	**52.0**	**46.0**
Trichloroethene	µg/L	5	5.2	6.1
48MW3				
Carbon Tetrachloride	µg/L	5	**71.0**	**72.0**
Trichloroethene	µg/L	5	**16.0**	**15.0**
49MW01				
Carbon Tetrachloride	µg/L	5	1.5	2.4
Trichloroethene	µg/L	5	ND	ND
49MW02				
Carbon Tetrachloride	µg/L	5	ND	ND
Trichloroethene	µg/L	5	ND	ND
49MW03				
Carbon Tetrachloride	µg/L	5	A	ND
Trichloroethene	µg/L	5	A	ND
49MW04				
Carbon Tetrachloride	µg/L	5	0.5 J	1.0 J
Trichloroethene	µg/L	5	ND	ND
49MW05				
Carbon Tetrachloride	µg/L	5	A	ND
Trichloroethene	µg/L	5	A	ND
50MW2				
Carbon Tetrachloride	µg/L	5	1.0 J	0.8 J
Trichloroethene	µg/L	5	1.2	1.0 J

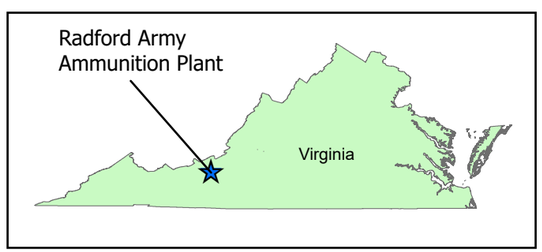
Notes:
bold values = above remedial goals
A = sampled annually
ND = non-detect
RG = remedial goal

Figures



Legend

- SWMU 49 Boundary
- SWMU Boundary



N

0 100 200 Feet

U.S. Army Corps of Engineers
Baltimore District

CAPE

PROJECT NAME

Radford Army Ammunition Plant

DOCUMENT TITLE

2025 Annual MNA Report

SHEET TITLE

SWMU Site 49 Site Location Map

CONTRACT NO:
W912DR-19-D-0004

TASK ORDER:
W912DR-24-F-0222

PREPARED BY:
Elisa Morgan

REVIEWED BY:
Scott Miller

DATE:
March 2026

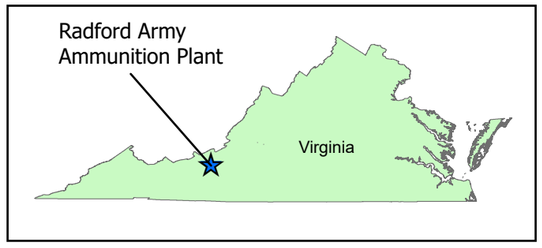
FIGURE: 1

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Legend

- Monitoring Well Sampled Annually
- Monitoring Well Sampled Quarterly
- Well not included in MNA Program
- SWMU 49 Boundary
- Cross Section



N

0 100 200 Feet

U.S. Army Corps of Engineers
Baltimore District

CAPE

PROJECT NAME

Radford Army Ammunition Plant

DOCUMENT TITLE

2025 Annual MNA Report

SHEET TITLE

SWMU 49 Cross Section

CONTRACT NO:
W912DR-19-D-0004

TASK ORDER:
W912DR-24-F-0222

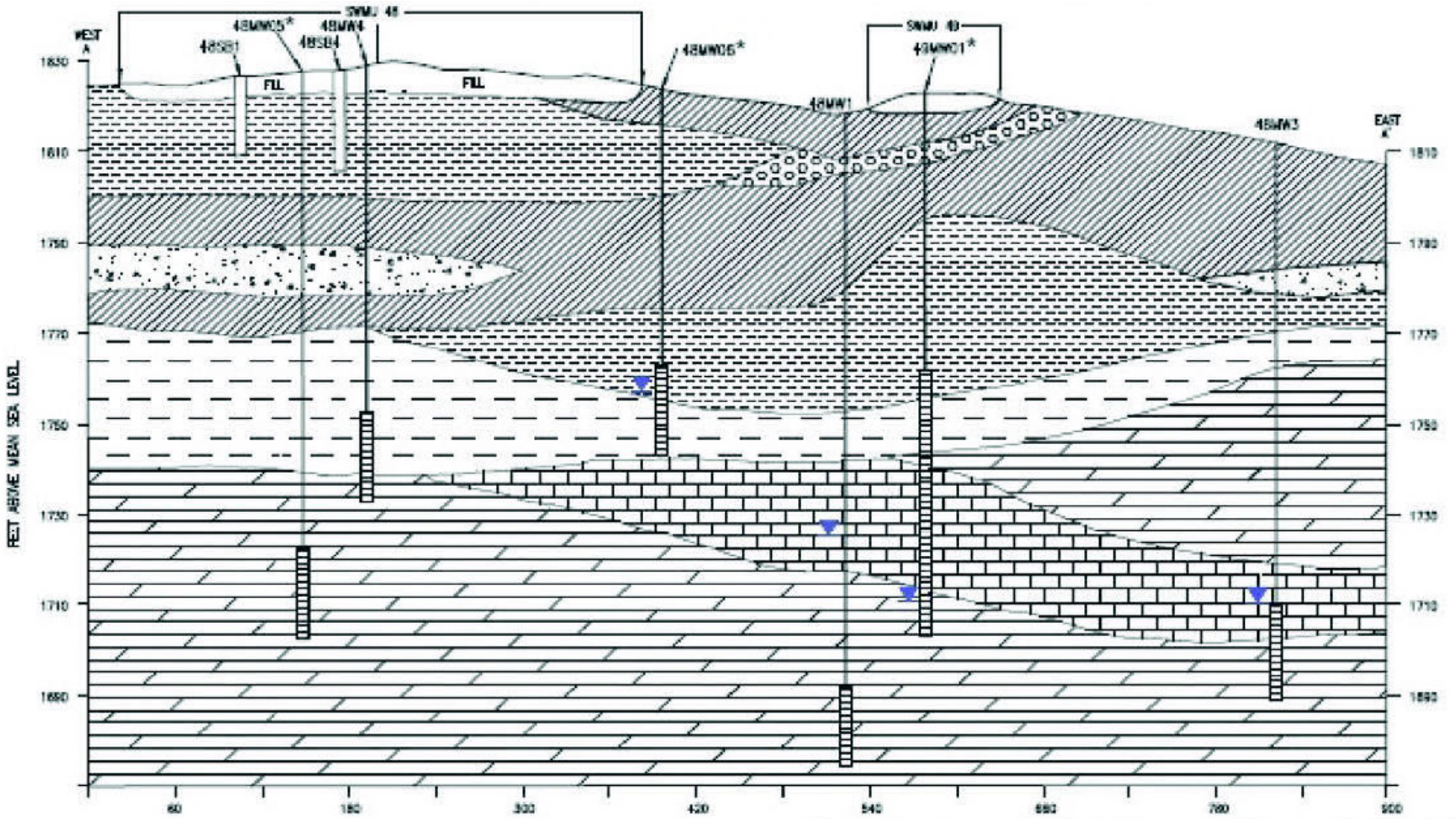
PREPARED BY:
Elisa Morgan

REVIEWED BY:
Scott Miller

DATE:
March 2026

FIGURE: 2

M:\ M:\ArcGIS\10409-0222_Radford\Projects\2025 Annual Report\SWMU 49\Radford_SWMU_49\Radford_SWMU_49.aprx 3/9/2026 (Author: ElisaMorgan) 10:33 AM



LEGEND

- CLAY AND SILT, LITTLE SAND, RED-BROWN (CL)
- SILT, SOME SAND, SOME CLAY ORANGE-BROWN (ML)
- SILT, AND SAND, GRAVEL ORANGE-BROWN (CM/SM)
- SILT, SAND, AND GRAVEL ORANGE-BROWN (GM)
- SILTSTONE,WEATHERED RED, GREEN BROWN, INTERBEDDED DOLOMITE (SLSN)
- DOLOMITE, WEATHERED, CLAY, ARGLLACEOUS (DLMT)
- LIMESTONE, GREY-BROWN, ARGLLACEOUS (LMSM)
- STATIC GROUNDWATER LEVEL (MEASURED MAY 2013)
- PROTECTED LOCATION

SOURCE; PARSONS ENGINEERING SCIENCE, INC.

NOTES

1) SOME DATA POINTS ARE PROJECTED ONTO PROFILE.

2) 48581 AND 48582 LITHOLOGY FROM DAMES AND MOORE.

3) LITHOLOGY PATTERENS DO NOT MATCH DRILL LOG PATTERNS BECAUSE OF DIFFERING GRAPHICS SYSTEMS.

4) CONTACT LINES DASHED WHERE INFERRED.

5) LITHOLOGY IS A COMPLATION FROM SWMUs 48 AND 49.

6) EXCERPED FROM THE SWMU 49 MNA SAMPLING BASELINE REPORT (CB&I, 2015) FOR USE BY CAPE.

U.S. Army Corps of Engineers
Baltimore District

CAPE

PROJECT NAME

Radford Army Ammunition Plant

DOCUMENT TITLE

2025 Annual MNA Report

SHEET TITLE

SWMU 49 Cross Section A - A'

CONTRACT NO:
W912DR-19-D-0004

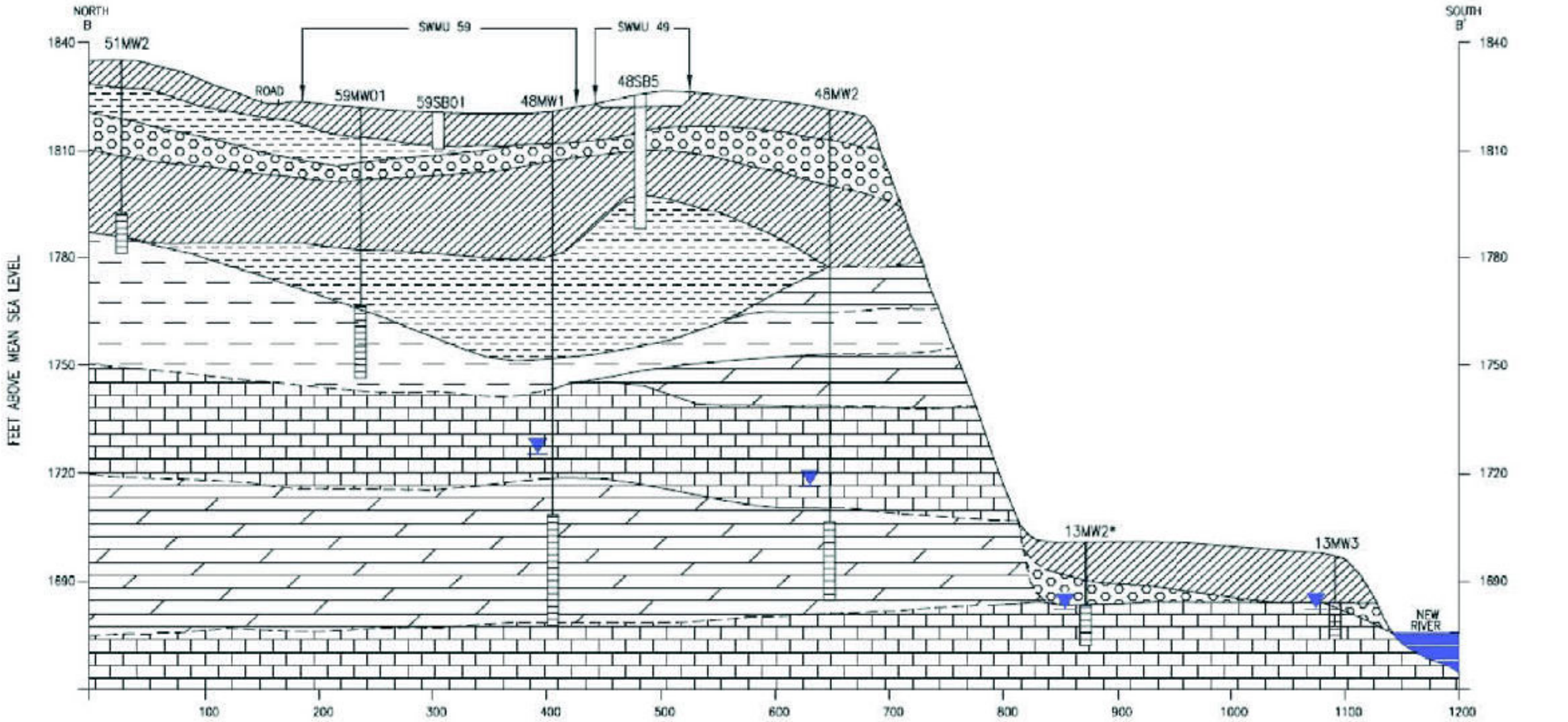
TASK ORDER:
W912DR-24-F-0222

PREPARED BY:
Elisa Morgan

REVIEWED BY:
Scott Miller

DATE:
March 2026

FIGURE: 3



HORIZ. SCALE: 0 100 200 VERT. SCALE: 0 30 60

LEGEND

- CLAY AND SILT, LITTLE SAND, RED-BROWN (CL)
- SILT, SOME SAND, SOME CLAY ORANGE-BROWN (ML)
- SILT, AND SAND, GRAVEL ORANGE-BROWN (CM/SM)
- SILT, SAND, AND GRAVEL ORANGE-BROWN (GM)
- SILTSTONE,WEATHERED RED, GREEN BROWN, INTERBEDDED DOLOMITE (SLSN)
- DOLOMITE, WEATHERED, CLAY, ARGLLACEOUS (DLMT)
- LIMESTONE, GREY-BROWN, ARGLLACEOUS (LMSM)
- STATIC GROUNDWATER LEVEL (MEASURED MAY 2013)

NOTES

1) SOME DATA POINTS ARE PROJECTED ONTO PROFILE.
2) 51MW2 AND 13MW2 LITHOLOGY FROM DAMES AND MOORE.
3) LITHOLOGY PATTERENS DO NOT MATCH DRILL LOG PATTERNS BECAUSE OF DIFFERING GRAPHICS SYSTEMS.
4) CONTACT LINES DASHED WHERE INFERRED.
5) ADDITIONAL WELLS SHOWN TO AID IN CROSS-SECTION ACCURACY.
6) EXCERPED FROM THE SWMU 49 MNA SAMPLING BASELINE REPORT (CB&I, 2015) FOR USE BY CAPE.

SOURCE; PARSONS ENGINEERING SCIENCE, INC.

U.S. Army Corps of Engineers Baltimore District

CAPE

PROJECT NAME

Radford Army Ammunition Plant

DOCUMENT TITLE

2025 Annual MNA Report

SHEET TITLE

SWMU 49 Cross Section B - B'

CONTRACT NO:
W912DR-19-D-0004

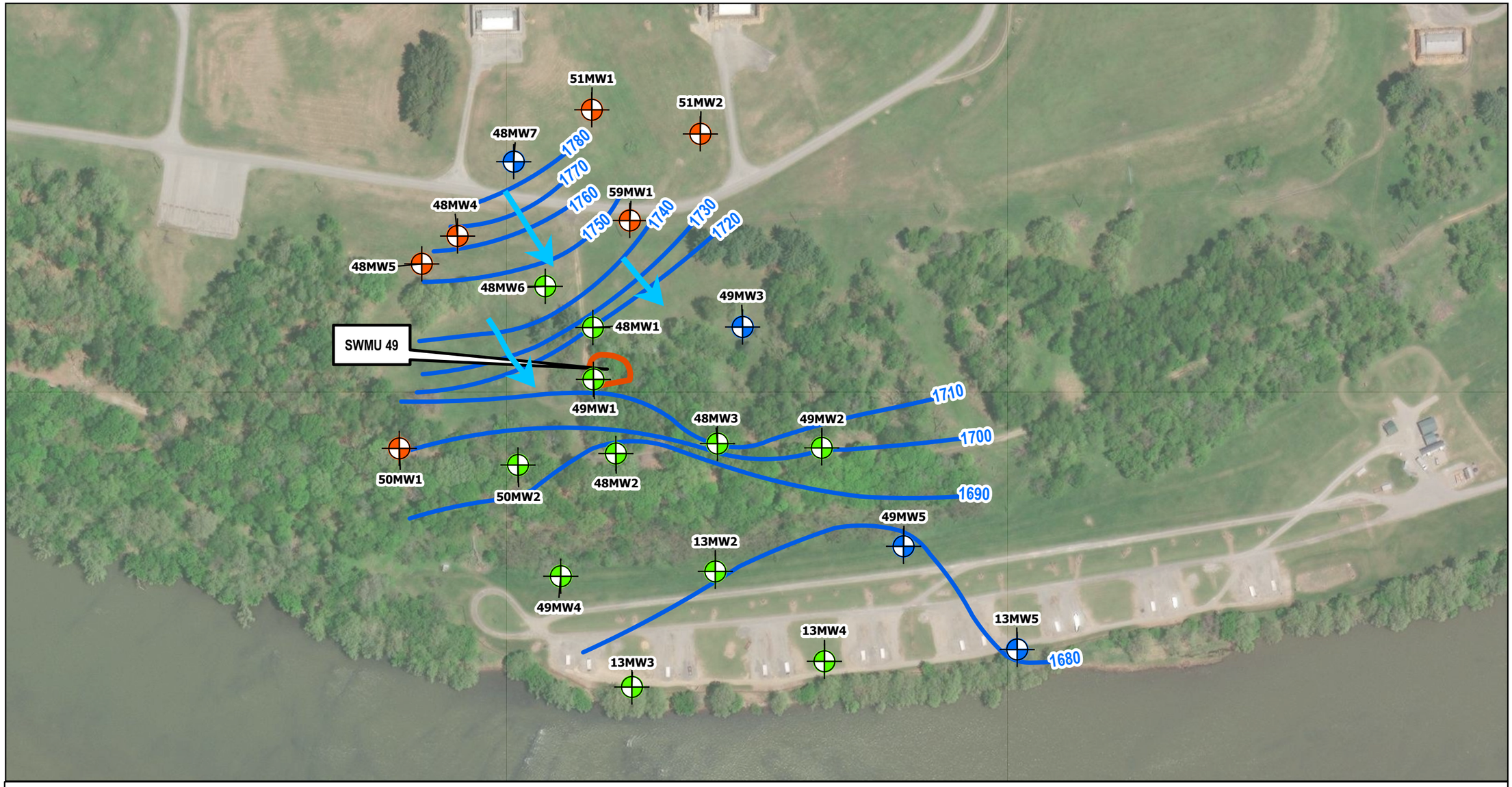
TASK ORDER:
W912DR-24-F-0222

PREPARED BY:
Elisa Morgan

REVIEWED BY:
Scott Miller

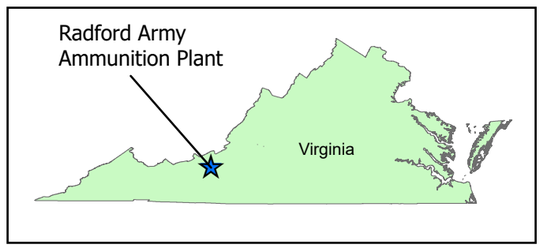
DATE:
March 2026

FIGURE: 4



Legend

- Monitoring Well Sampled Annually
- Monitoring Well Sampled Quarterly
- Well not included in MNA Program
- SWMU 49 Boundary
- Groundwater Contour
- Groundwater Flow Direction



N

0 100 200 Feet

U.S. Army Corps of Engineers
Baltimore District

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PROJECT NAME

Radford Army Ammunition Plant

DOCUMENT TITLE

2025 Annual MNA Report

SHEET TITLE

January 2015 Groundwater Contour Map

CONTRACT NO:
W912DR-19-D-0004

TASK ORDER:
W912DR-24-F-0222

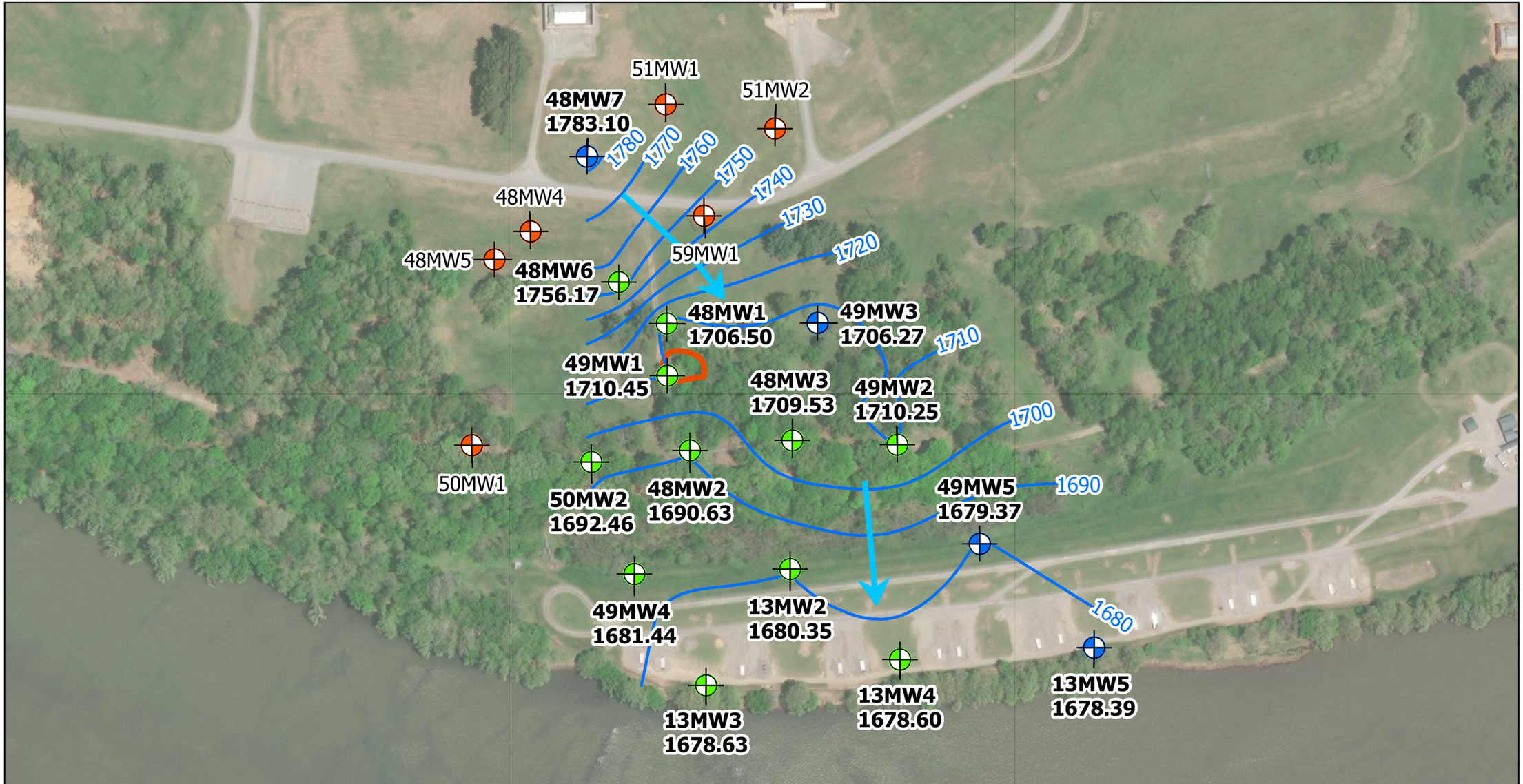
PREPARED BY:
Elisa Morgan

REVIEWED BY:
Scott Miller

DATE:
March 2026

FIGURE: 5

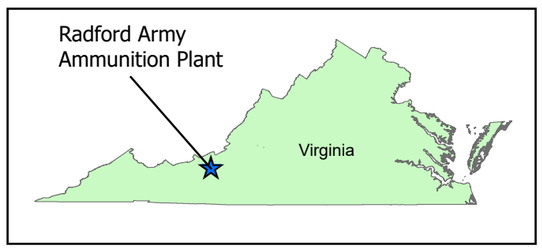
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Legend

- Monitoring Well Sampled Annually
- Monitoring Well Sampled Quarterly
- Well not included in MNA Program
- Groundwater Contour
- Groundwater Flow Direction
- SWMU 49 Boundary

Notes:
Groundwater Elevation in feet above mean sea level.



N

0 100 200 Feet

U.S. Army Corps of Engineers
Baltimore District

CAPE

PROJECT NAME
Radford Army Ammunition Plant

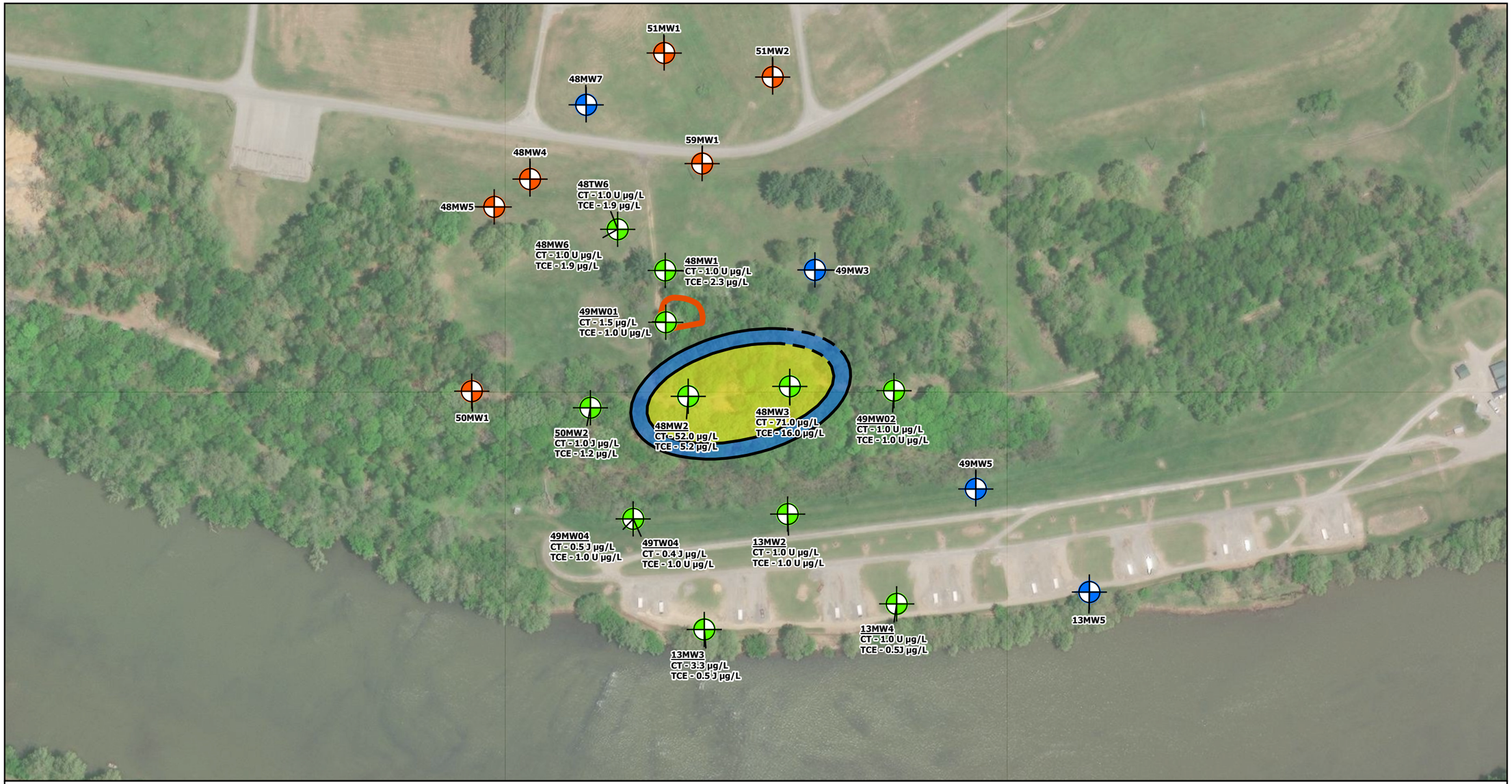
DOCUMENT TITLE
2025 Annual MNA Report

SHEET TITLE
SWMU 49
October 2025
Groundwater
Contour Map

CONTRACT NO:
W912DR-19-D-0004
TASK ORDER:
W912DR-24-F-0222
PREPARED BY:
Elisa Morgan
REVIEWED BY:
Scott Miller
DATE:
March 2026

FIGURE: 6

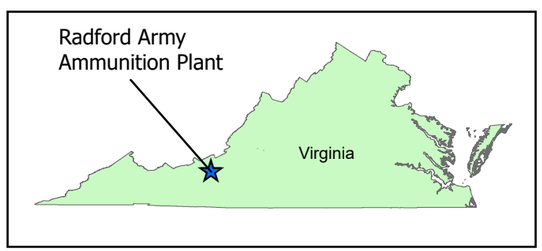
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Legend

- Monitoring Well Sampled Annually
- Monitoring Well Sampled Quarterly
- Well not included in MNA Program
- CT Isopleth
- TCE Isopleth
- SWMU 49 Boundary

Notes:
1. CT = Carbon Tetrachloride
2. TCE = Trichloroethene
3. Remedial Goal for CT = 5 µg/L
4. Remedial Goal for TCE = 5 µg/L
5. Isopleth boundary line inferred where dashed.



N

0 100 200 Feet

U.S. Army Corps of Engineers
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CAPE

PROJECT NAME

Radford Army Ammunition Plant

DOCUMENT TITLE

2025 Annual MNA Report

SHEET TITLE

SWMU 49
May 2025
RG Exceedance Isopleths

CONTRACT NO:
W912DR-19-D-0004

TASK ORDER:
W912DR-24-F-0222

PREPARED BY:
Elisa Morgan

REVIEWED BY:
Scott Miller

DATE:
March 2026

FIGURE: 7

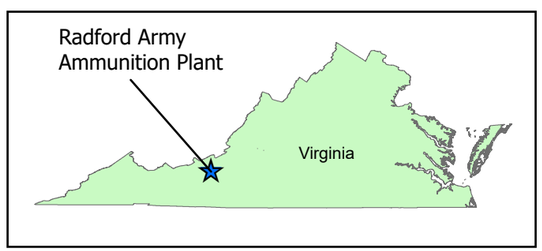
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Legend

- Monitoring Well Sampled Annually
- Monitoring Well Sampled Quarterly
- Well not included in MNA Program
- SWMU 49 Boundary
- CT Isopleth
- TCE Isopleth

Notes:
1. CT = Carbon Tetrachloride
2. TCE = Trichloroethene
3. Remedial Goal for CT = 5 µg/L
4. Remedial Goal for TCE = 5 µg/L
5. Isopleth boundary line inferred where dashed.



N

0 100 200 Feet

U.S. Army Corps of Engineers
Baltimore District

CAPE

PROJECT NAME
Radford Army Ammunition Plant

DOCUMENT TITLE
2025 Annual MNA Report

SHEET TITLE
SWMU 49
October 2025
RG Exceedance Isopleths

CONTRACT NO:
W912DR-19-D-0004

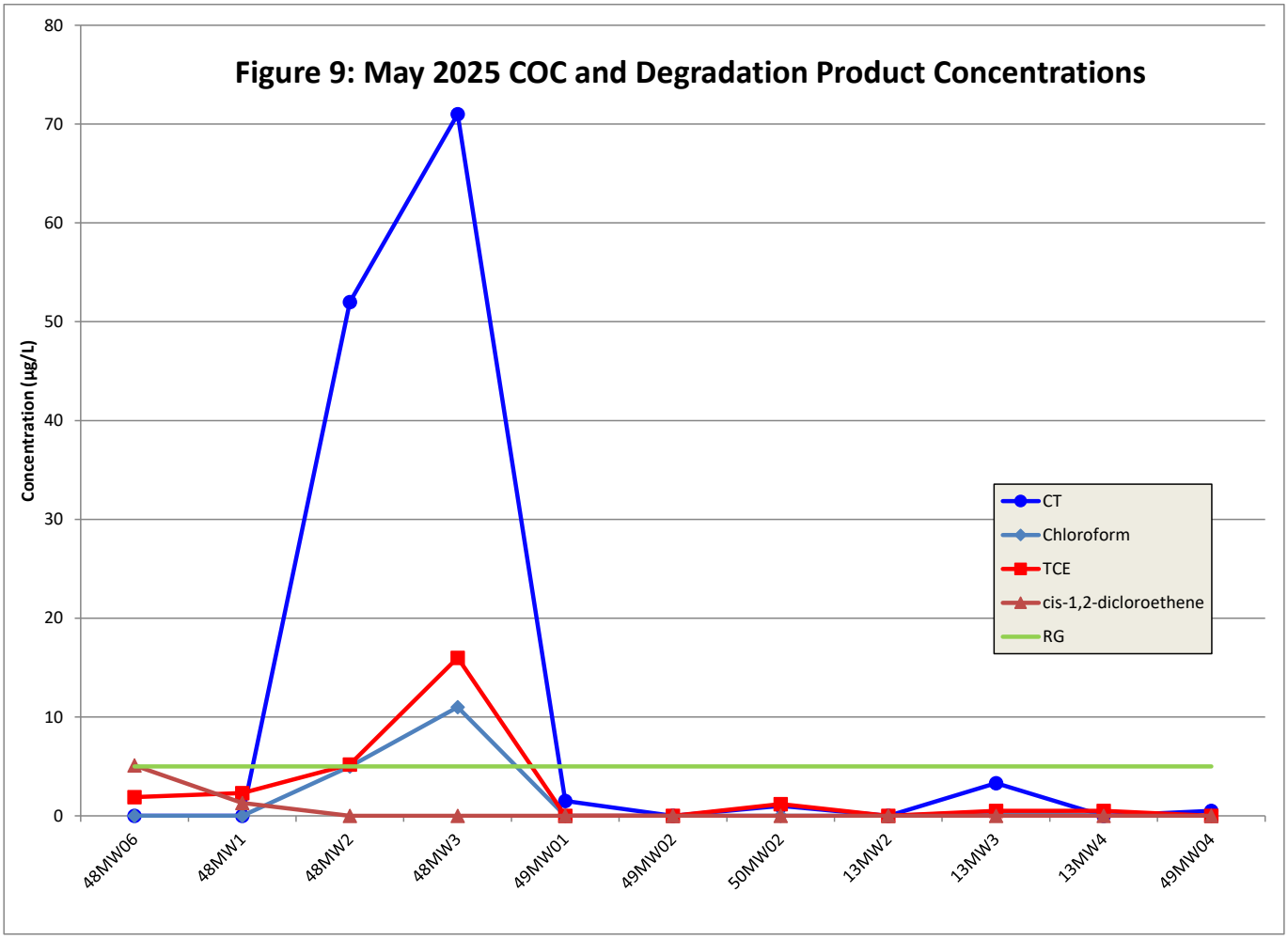
TASK ORDER:
W912DR-24-F-0222

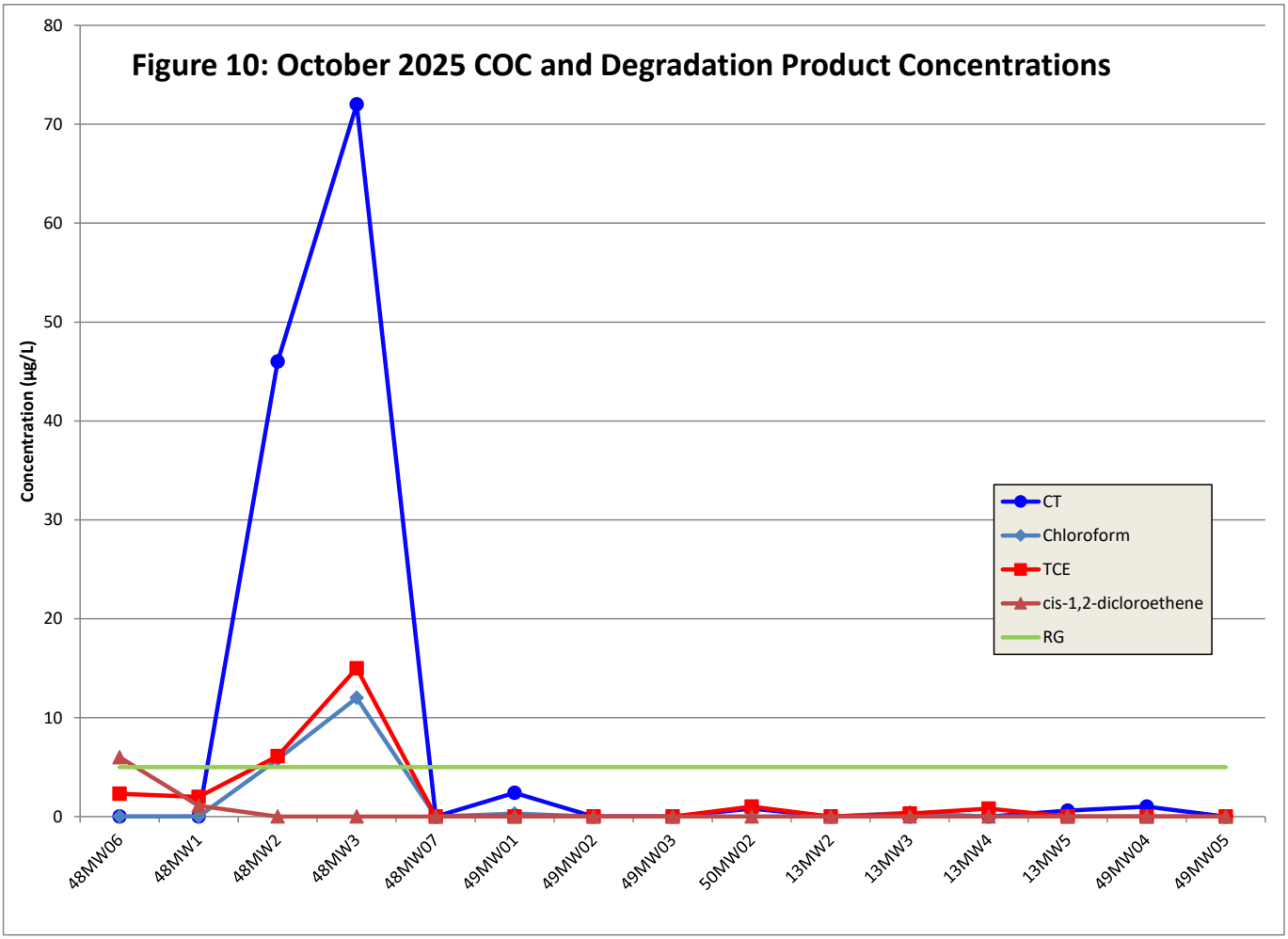
PREPARED BY:
Elisa Morgan

REVIEWED BY:
Scott Miller

DATE:
March 2026

FIGURE: 8


Figure 9: May 2025 COC and Degradation Product Concentrations
Concentration (µg/L)
80
70
60
50
40
30
20
10
0
48MW06
48MW1
48MW2
48MW3
49MW01
49MW02
50MW02
13MW2
13MW3
13MW4
49MW04
CT
Chloroform
TCE
cis-1,2-dicloroethene
RG


Figure 10: October 2025 COC and Degradation Product Concentrations
Concentration (µg/L)
80
70
60
50
40
30
20
10
0
48MW06
48MW1
48MW2
48MW3
48MW07
49MW01
49MW02
49MW03
50MW02
13MW2
13MW3
13MW4
13MW5
49MW04
49MW05
CT
Chloroform
TCE
cis-1,2-dicloroethene
RG

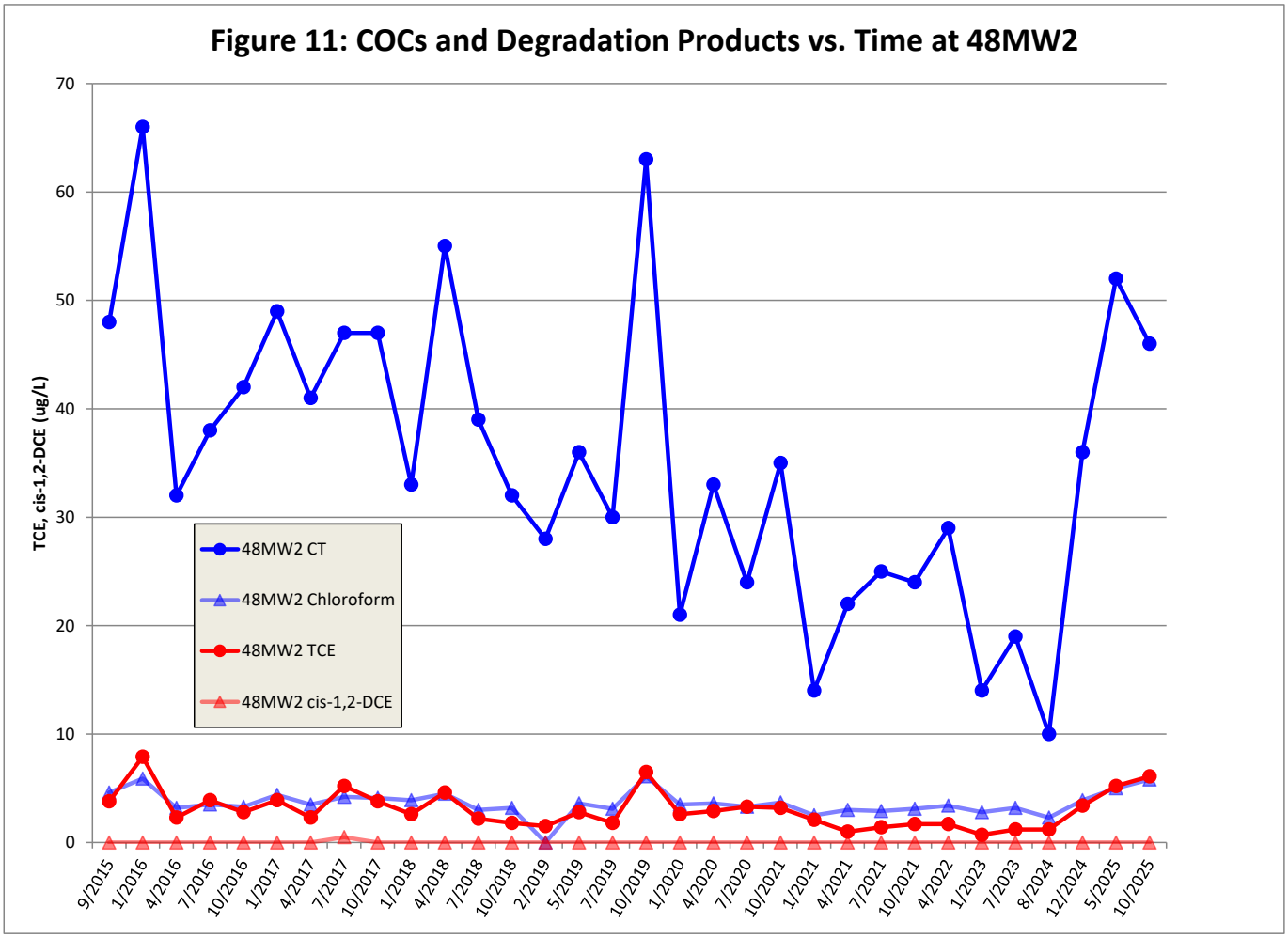
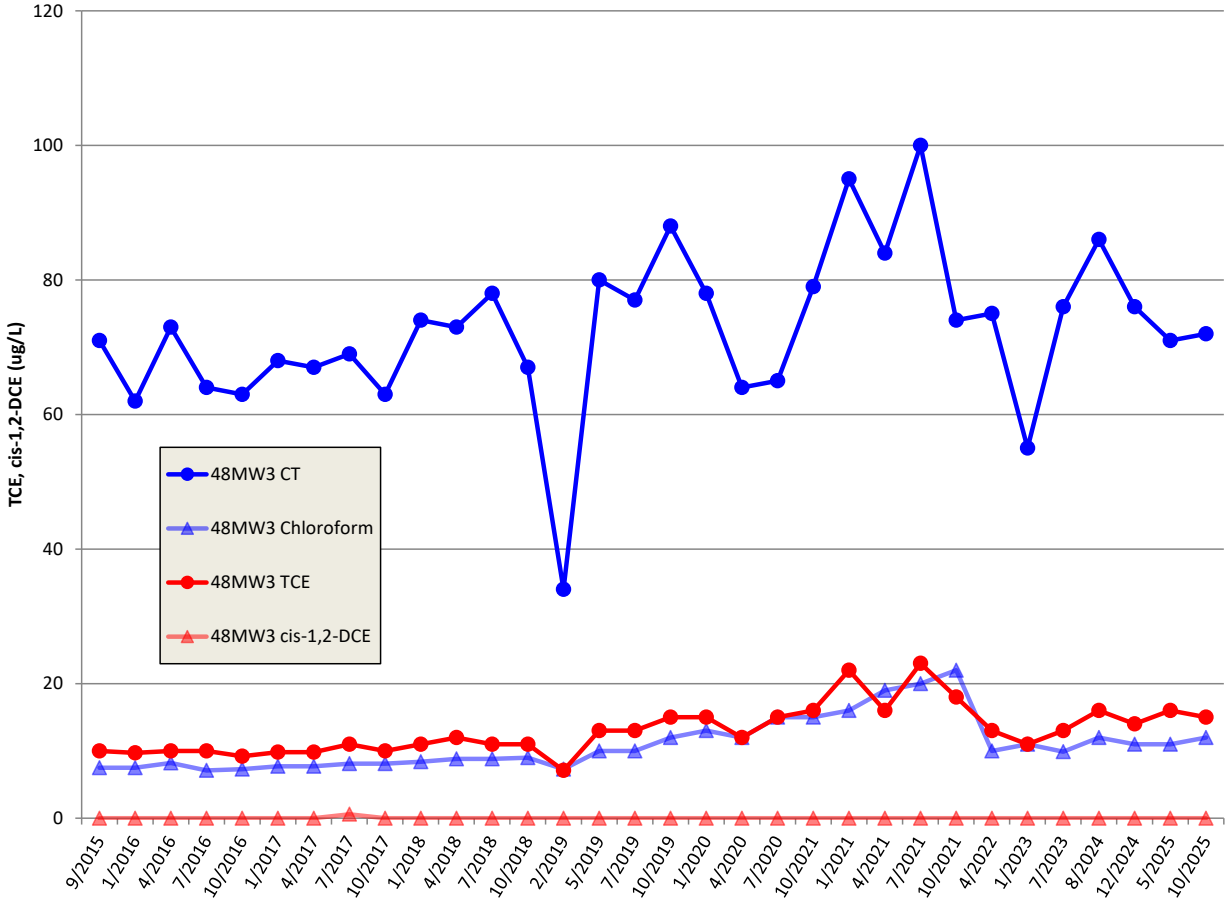
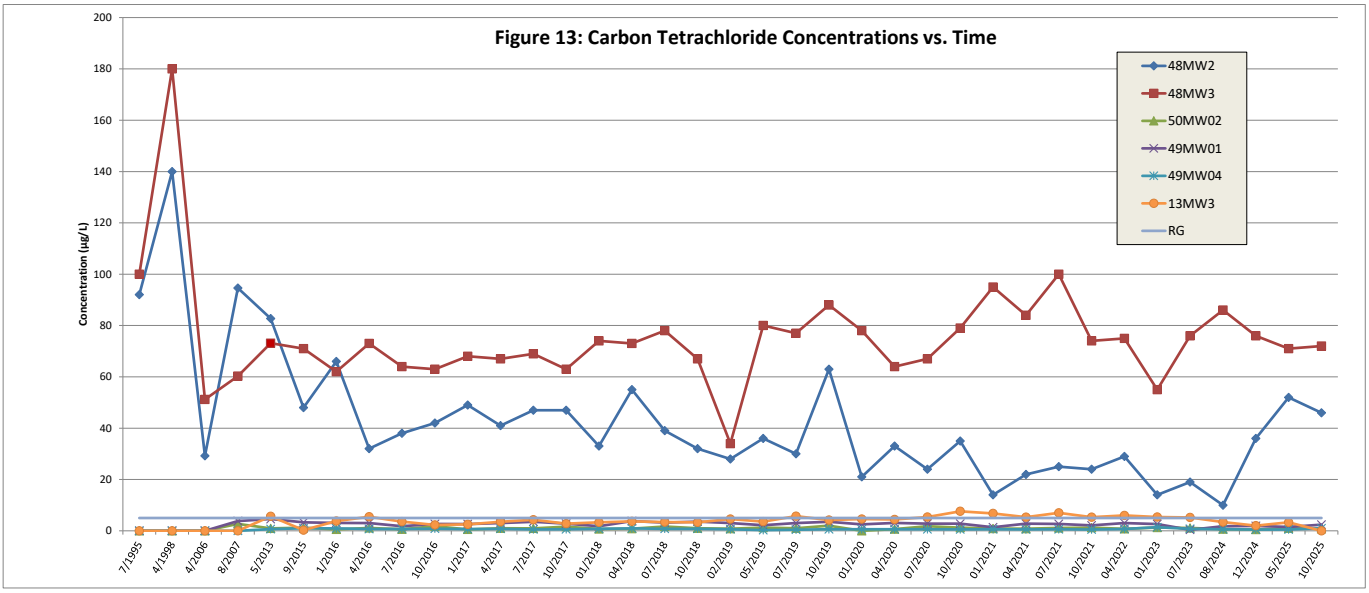
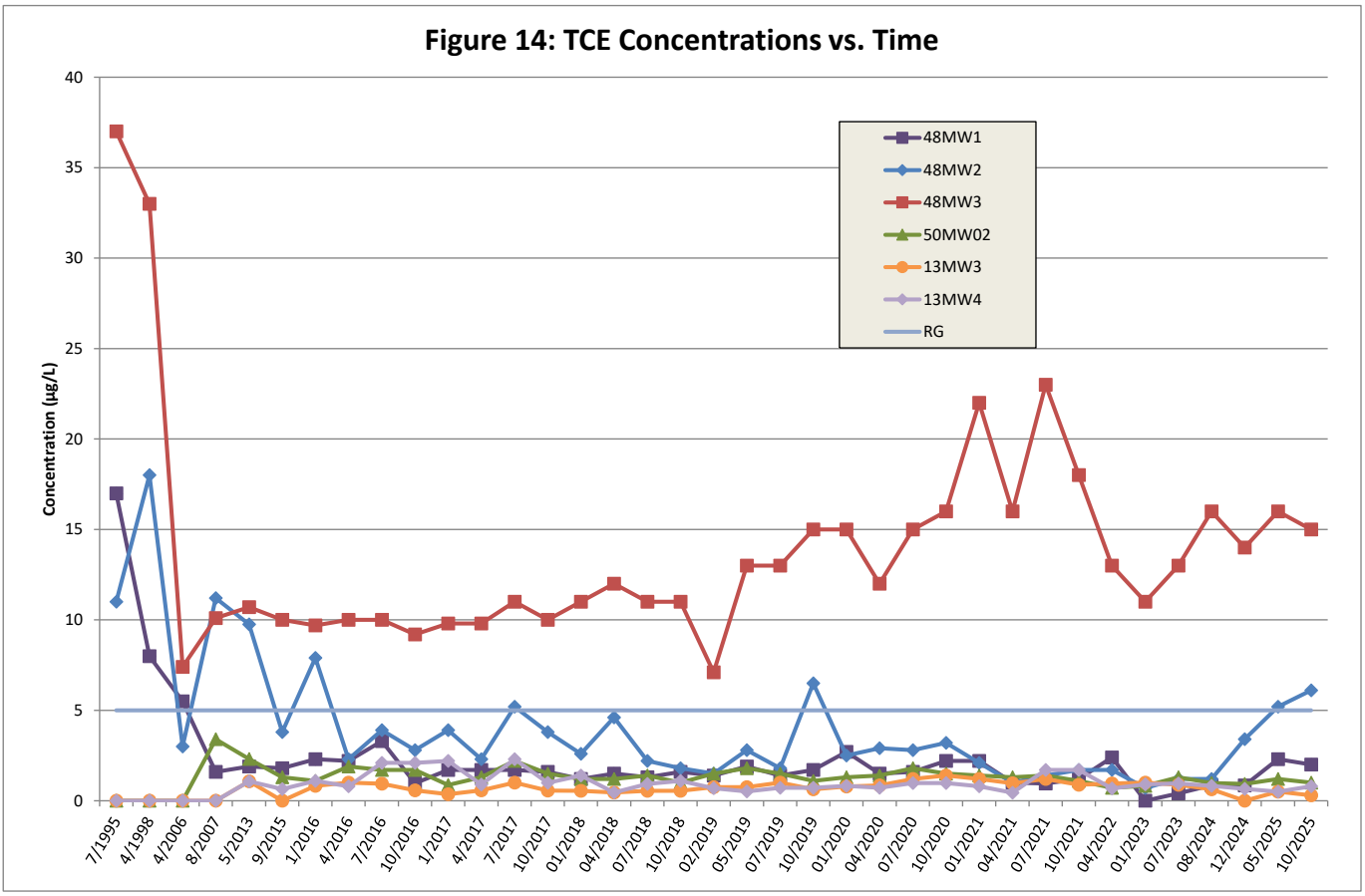
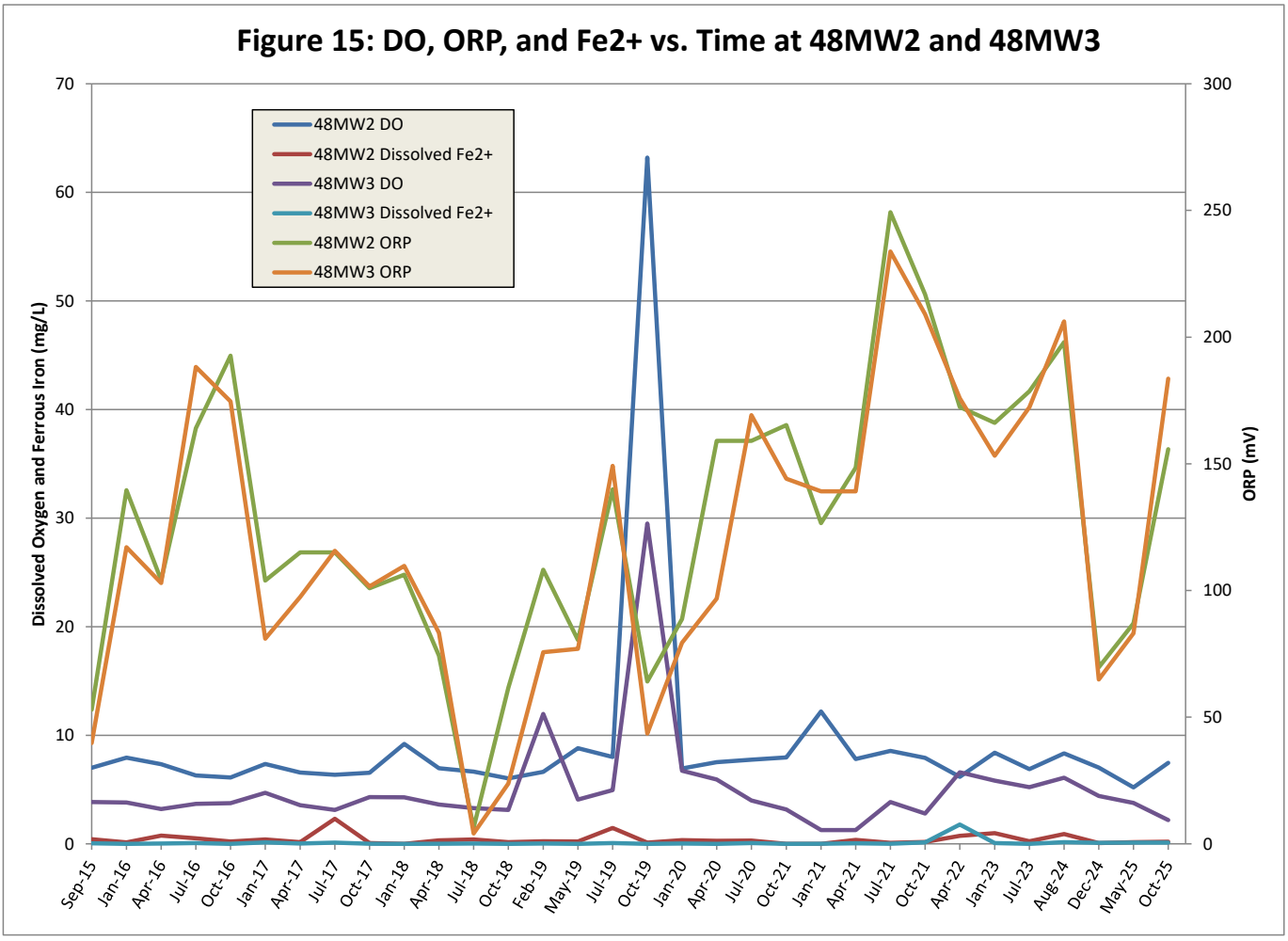

Figure 11: COCs and Degradation Products vs. Time at 48MW2
TCE, cis-1,2-DCE (ug/L)
70
60
50
40
30
20
10
0
48MW2 CT
48MW2 Chloroform
48MW2 TCE
48MW2 cis-1,2-DCE
9/2015
1/2016
4/2016
7/2016
10/2016
1/2017
4/2017
7/2017
10/2017
1/2018
4/2018
7/2018
10/2018
2/2019
5/2019
7/2019
10/2019
1/2020
4/2020
7/2020
10/2021
1/2021
4/2021
7/2021
10/2021
4/2022
1/2023
7/2023
8/2024
12/2024
5/2025
10/2025

Figure 12: COCs and Degradation Products vs. Time at 48MW3




Figure 13: Carbon Tetrachloride Concentrations vs. Time
Concentration (µg/L)
200
180
160
140
120
100
80
60
40
20
0
48MW2
48MW3
50MW02
49MW01
49MW04
13MW3
RG
7/1995
4/1998
4/2006
8/2007
5/2013
9/2015
1/2016
4/2016
7/2016
10/2016
1/2017
4/2017
7/2017
10/2017
01/2018
04/2018
07/2018
10/2018
02/2019
05/2019
07/2019
10/2019
01/2020
04/2020
07/2020
10/2020
01/2021
04/2021
07/2021
10/2021
04/2022
01/2023
07/2023
08/2024
12/2024
05/2025
10/2025


Figure 14: TCE Concentrations vs. Time
Concentration (µg/L)
40
35
30
25
20
15
10
5
0
48MW1
48MW2
48MW3
50MW02
13MW3
13MW4
RG
7/1995
4/1998
4/2006
8/2007
5/2013
9/2015
1/2016
4/2016
7/2016
10/2016
1/2017
4/2017
7/2017
10/2017
01/2018
04/2018
07/2018
10/2018
02/2019
05/2019
07/2019
10/2019
01/2020
04/2020
07/2020
10/2020
01/2021
04/2021
07/2021
10/2021
04/2022
01/2023
07/2023
08/2024
12/2024
05/2025
10/2025


Figure 15: DO, ORP, and Fe2+ vs. Time at 48MW2 and 48MW3
48MW2 DO
48MW2 Dissolved Fe2+
48MW3 DO
48MW3 Dissolved Fe2+
48MW2 ORP
48MW3 ORP
Dissolved Oxygen and Ferrous Iron (mg/L)
ORP (mV)
0
10
20
30
40
50
60
70
0
50
100
150
200
250
300
Sep-15
Jan-16
Apr-16
Jul-16
Oct-16
Jan-17
Apr-17
Jul-17
Oct-17
Jan-18
Apr-18
Jul-18
Oct-18
Feb-19
May-19
Jul-19
Oct-19
Jan-20
Apr-20
Jul-20
Oct-21
Jan-21
Apr-21
Jul-21
Oct-21
Apr-22
Jan-23
Jul-23
Aug-24
Dec-24
May-25
Oct-25

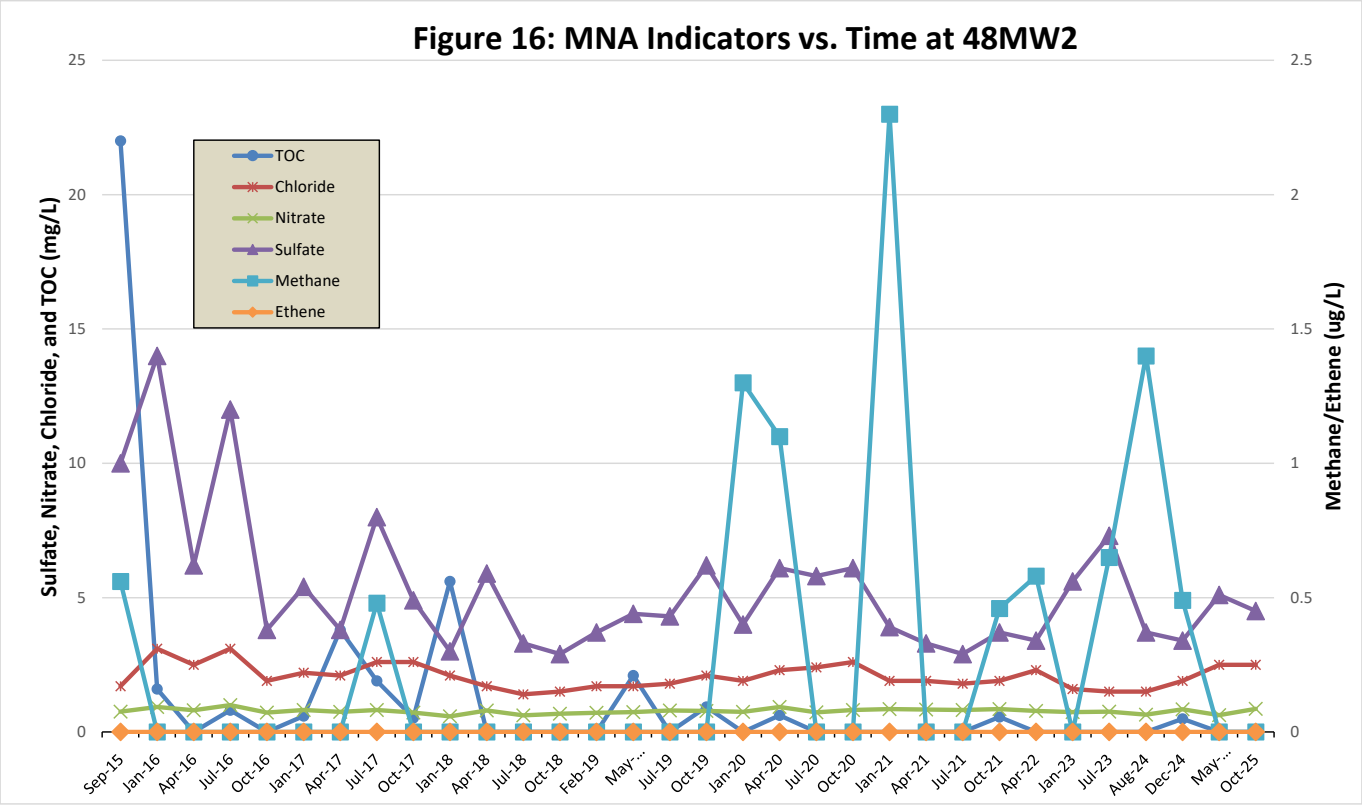
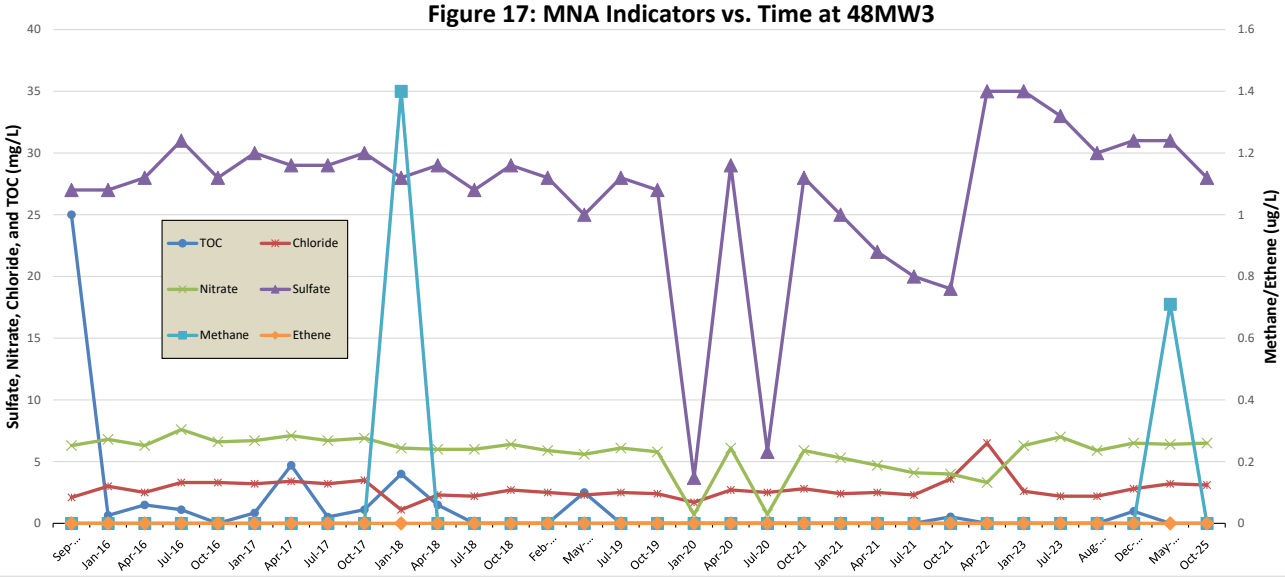
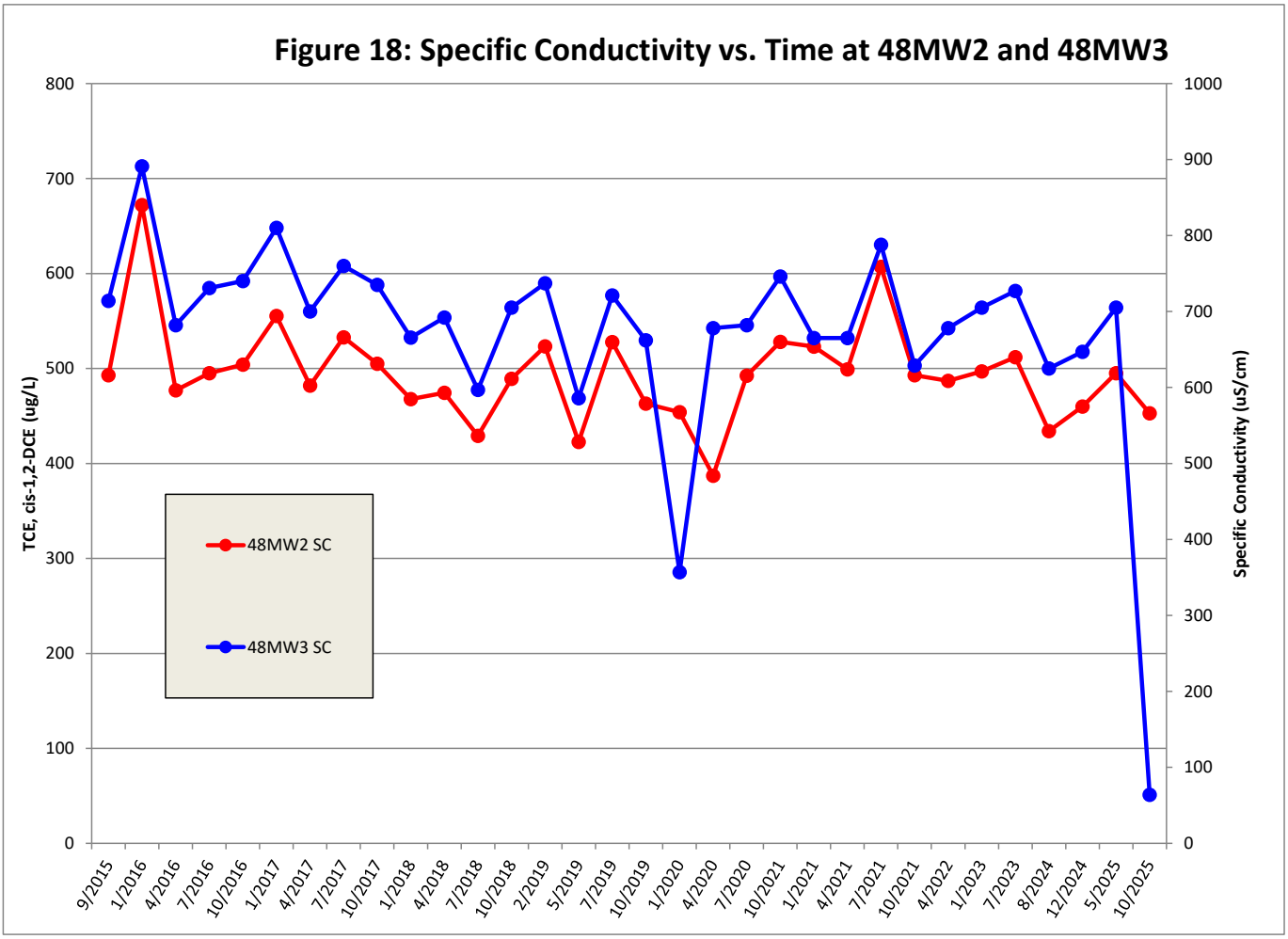

Figure 16: MNA Indicators vs. Time at 48MW2
Sulfate, Nitrate, Chloride, and TOC (mg/L)
Methane/Ethene (ug/L)
TOC
Chloride
Nitrate
Sulfate
Methane
Ethene
25
20
15
10
5
0
2.5
2
1.5
1
0.5
0
Sep-15
Jan-16
Apr-16
Jul-16
Oct-16
Jan-17
Apr-17
Jul-17
Oct-17
Jan-18
Apr-18
Jul-18
Oct-18
Feb-19
May-...
Jul-19
Oct-19
Jan-20
Apr-20
Jul-20
Oct-20
Jan-21
Apr-21
Jul-21
Oct-21
Apr-22
Jan-23
Jul-23
Aug-24
Dec-24
May-...
Oct-25

Figure 17: MNA Indicators vs. Time at 48MW3




Figure 18: Specific Conductivity vs. Time at 48MW2 and 48MW3
TCE, cis-1,2-DCE (ug/L)
Specific Conductivity (uS/cm)
48MW2 SC
48MW3 SC
0
100
200
300
400
500
600
700
800
900
1000
9/2015
1/2016
4/2016
7/2016
10/2016
1/2017
4/2017
7/2017
10/2017
1/2018
4/2018
7/2018
10/2018
2/2019
5/2019
7/2019
10/2019
1/2020
4/2020
7/2020
10/2021
1/2021
4/2021
7/2021
10/2021
4/2022
1/2023
7/2023
8/2024
12/2024
5/2025
10/2025

Appendices

Appendix A: Field Documentation

Fieldwork Completion Report: SMWU 49 & 54

Environmental Services at Radford Army Ammunition Plant

Radford, Virginia

Contract Number: W912DR19D0004
Task Order Number: W912DR24F0222

Prepared for:

U.S. Army Corps of Engineers, Baltimore District
2 Hopkins Plaza
Baltimore, MD 21201

Prepared by:

Cape Environmental Management Inc
500 Pinnacle Court, Suite 100
Norcross, GA 30071

November 2025

14 November 2025

Ms. Sal Van Wert
Contracting Officer's Representative/Project Manager
USACE Baltimore District
Sallie.L.VanWert@usace.army.mil

Subject: Fieldwork Completion Report at SWMU 49 & 54
Environmental Services at Radford Army Ammunition Plant
Radford, VA

Ms. Van Wert:

Cape Environmental Management Inc (CAPE) has prepared this Field Work Completion Report summary for the United States Army Corps of Engineers (USACE), Baltimore District (CENAB) under Contract Number W912DR19D0004, Task Order W912DR24F0222.

The attached files are the field documents populated during the sampling events conducted in May 2025 and October 2025 at SWMU 49 and SWMU 54. These documents include comprehensive data and observations collected during the field activities. The information captured within these files is crucial for our ongoing analysis and assessment of the sites.

If you have any questions regarding the attached data, please contact Matthew Feits at mfeits@cape-inc.com.

Sincerely,

Matthew Feits

Matthew Feits
Project Manager, CAPE

Daily Field Documentation

19 May 2025

SGS North America Inc - Orlando
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: CAPE Environmental
Address: 500 Pinnacle Court #100
City: Norcross State: GA Zip: 30071
Project Contact: Matt Feits Email: mfeits@cape-inc.com & chemistrySVCS@cape-inc.com
Phone #: (724) 622-3625
Sampler(s) Name(s) (Printed) Sampler 1: Y. Miyake Sampler 2: P. Taylor

Project Information

Project Name: Radford AAP SWMU 54
Street
City Radford State VA
Project #
Fax #
Client Purchase Order #

Analytical Information

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE 2025	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION: OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	LLC6850 Perchlorate	LC8330B XLC3NX	Matrix Codes	LAB USE ONLY
	54MW13	5/19	1010	YM/PT	GW	3		X								1	2		
	54TW13	5/19	1010	YM/PT	GW	3		X								1	2		
	54MW10	5/19	1200	YM/PT	GW	3		X								1	2		
	54MW12	5/19	1338	YM/PT	GW	9		X								3	6		MS/MSD
	54MW1	5/19	1526	YM/PT	GW	3		X								1	2		

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid

Turnaround Time (Business days)

- 10 Day (Business) — Approved By: / Date:
- 7 Day
- 5 Day
- 3 Day *RUSH*
- 2 Day *RUSH*
- 1 Day *RUSH*
- Other

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULLT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 YM/PT	5/19/2025 1800	2 Fedex	3		4
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: CAPE Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP
Project #: SWMU 54
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To:
EMAIL: Chemistrysvcs@Cape-inc.com
Company: mfeits@cape-inc.com
Address: CAPE Environmental Mgmt.
500 Pinnacle Ct. #100
Norcross, GA 30071

Invoice To:*
EMAIL:
Company: Same
Address:

**Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions*

Client Special Instructions

IDW Sample

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	ANALYSES REQUESTED: pH 9045	COD 410.4	Total Metals 6010C/7470A	Total # Containers	Designated MS/MSD
5/19	1625	GW	G		54IDW	N	1	1	1	3	

Fill in Spaces with Bottles per Test

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

CT Lab ID #
Lab use only

Relinquished By:	Date/Time	Received By:	Date/Time
	5/19/2025 1800	Fedex	5/19/2025 1800
Received by:	Date/Time	Received for Laboratory by:	Date/Time

Lab Use Only
Ice Present Yes No
Temp _____ IR Gun _____
Cooler # _____

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: CAPE Enviromental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP SWMU 54
Project #:
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
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Lab Use Only
Place Header Sticker Here:

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: Chemistry SVCS@cape-inc.com
EMAIL: mfeits@cape-inc.com
Company: CAPE Environmental Mgmt.
Address: 500 Pinnacle Ct. #100
Norcross, GA 30071

Invoice To:* Same
EMAIL:
Company:
Address:

**Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions*

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
(Normal) RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	ANALYSES REQUESTED: TOC 9060A	Anions 9056A	TIC 9060A	Chlorate	Chlorite	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test							
5/19	1010	GW	G		54MW13	N	1	1	3	1		6		
5/19	1010	GW	G		54TW13	N	1	1	3	1		6		
5/19	1200	GW	G		54MW10	N	1	1	3	1		6		
5/19	1338	GW	G		54MW12	N	3	3	9	3		18	X	
5/19	1526	GW	G		54MW1	N	1	1	3	1		6		

Relinquished By:	Date/Time	Received By:	Date/Time	Lab Use Only
[signature]	5/19/2025 1800	Fedex	5/19/2025 1800	Ice Present Yes No
Received by:	Date/Time	Received for Laboratory by:	Date/Time	Temp _____ IR Gun _____
				Cooler # _____

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date 5/19/25
Well ID 54MW13	Weather 59° Mostly Sunny
Sampling Team P. Taylor, Y. Miyakawa	Sampler's Signature

WELL INSPECTION

Protective Casing (Intact) Damaged	Well ID Tag Condition no label; sharpied on casing
Locked (YES) / NO	Measuring Point Marked YES (NO)
Concrete Base (Intact) Damaged	Comments
Casing Diameter ½ in., ¾ in., 1 in., 1 ¼ in., (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC) 25.34	Well Evacuation Method (peristaltic, bladder pump, other)
Depth to Water (ft. BTOC) 19.76	Screen Interval (ft. BGS) 20 - 25
Begin Well Evacuation (Time) 0925	Evacuation Rate (Lpm) 0.25
Stop Evacuation (Time/Reason)	Restart Time
	Headspace (ppm) 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0930	~~0.~~ 1.25	19.97	12.2	542.1	2.98	7.26	135.3	2.92
0935	2.5	19.93	12.1	504.2	3.55	7.18	126.6	5.22
0940	3.75	19.93	12.1	498.0	3.65	7.14	121.4	4.52
0945	5.0	19.93	12.1	485.0	3.43	7.12	120.4	4.89
0950	6.25	19.93	12.2	464.6	2.93	7.04	119.8	2.~~8~~39
0955	7.5	19.93	12.2	440.0	3.04	7.00	118.7	0.87
1000	8.75	19.93	12.3	428.5	3.09	6.97	117.1	0.37
1005	10.0	19.93	12.2	422.1	4.08	6.97	115.1	0.01
1010	11.25	19.93	12.1	423.2	3.44	6.97	114.1	0.10

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC) 19.93	Drawdown Observed (ft) 0.17
Odor YES / (NO)	Well Pumped Dry YES / (NO)
End Well Evacuation (Time) 1042	Total Volume Purged (L) 11.25

SAMPLE COLLECTION INFORMATION

Sample ID 54MW13	PARAMETERS (Circle all applicable)
Sample Date & Time 5/19/25 1010	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: 54TW13	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L) 0.2	Sample Collection Method: (Low Flow) Other
Ferrous Iron (mg/L) 0.14	Sample Collection Depth (ft. BTOC) 24.84

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 5/19/25
Well ID: 54MW10	Weather: Partly cloudy, 69°F
Sampling Team: P. Taylor, Y. Miyakawa	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact) / Damaged	Well ID Tag Condition: no label; sharpied on casing
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact) / Damaged covered w/ vegetation	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., (4 in.) 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 30.01	Well Evacuation Method: (peristaltic) bladder pump, other):
Depth to Water (ft. BTOC): 14.29	Screen Interval (ft. BGS): 25-30
Begin Well Evacuation (Time): 1125	Evacuation Rate (Lpm): 0.25
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.2

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1130	1.25	14.39	13.1	517.5	5.58	7.01	94.9	0.38
1135	2.5	14.41	13.1	515.6	3.73	6.98	88.1	0.28
1140	3.75	14.44	13.2	513.8	3.34	6.97	84.7	0.00
1145	5.0	14.44	13.0	513.1	3.09	6.98	82.5	0.46
1150	6.25	14.44	13.1	513.5	2.90	6.98	80.8	0.00
1155	7.5	14.44	13.2	513.6	2.77	6.98	78.7	0.16
1200	8.75	14.44	13.5	511.7	2.85	6.99	76.0	0.30

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 14.44	Drawdown Observed (ft): 0.15
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1215	Total Volume Purged (L): 8.75

SAMPLE COLLECTION INFORMATION

Sample ID: 54MW10	PARAMETERS (Circle all applicable):
Sample Date & Time: 5/19/25 1200	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.5	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.11	Sample Collection Depth (ft. BTOC): 29.51

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date 5/19/25
Well ID 54MW12	Weather 73° Partly Cloudy
Sampling Team P. Taylor, Y. Miyakawa	Sampler's Signature

WELL INSPECTION

Protective Casing (Intact) Damaged	Well ID Tag Condition no label; sharpied on casing
Locked (YES) / NO	Measuring Point Marked YES (NO)
Concrete Base (Intact) Damaged	Comments
Casing Diameter ½ in, ¾ in, 1 in, 1 ½ (2 in), 3 in, 4 in, 6 in, 8 in	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft BTOC) 32.92	Well Evacuation Method (peristaltic) bladder pump, other)
Depth to Water (ft. BTOC) 23.34	Screen Interval (ft. BGS) 25-30
Begin Well Evacuation (Time) 1248	Evacuation Rate (Lpm) 0.3
Stop Evacuation (Time/Reason)	Restart Time
	Headspace (ppm) 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1253	1.5	23.37	13.3	610.8	1.96	7.18	75.1	2.20
1258	3.0	23.37	13.2	438.3	3.86	6.94	77.4	5.47
1303	4.5	23.37	13.3	432.9	4.87	7.00	76.7	2.07
1308	6.0	23.37	13.2	433.0	5.05	6.94	53.4	1.73
1313	7.5	23.37	13.5	433.2	5.49	6.95	45.9	1.16
1318	9.0	23.37	13.3	431.4	6.15	6.98	39.9	0.34
1323	10.5	23.37	13.3	434.0	6.12	6.99	33.0	0.00
1328	12.0	23.37	13.5	433.3	6.13	6.95	63.3	0.38
1333	13.5	23.37	13.9	434.5	6.09	6.91	69.0	0.28
1338	15.0	23.37	13.8	433.1	6.11	6.88	70.6	0.65

Red font indicates stabilization criteria to be achieved over three consecutive readings

Final Depth to Water (ft BTOC) 23.37	Drawdown Observed (ft) 0.03
Odor YES (NO)	Well Pumped Dry YES (NO)
End Well Evacuation (Time) ≈ 1433	Total Volume Purged (L) 15.0

SAMPLE COLLECTION INFORMATION

Sample ID 54MW12	PARAMETERS (Circle all applicable)
Sample Date & Time 5/19/25 1338	SWMU 49 VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID —	(SWMU 54) Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC TOC, Ferrous Fe, & Mn
Manganese (mg/L) 0.9	Sample Collection Method (Low Flow) Other
Ferrous Iron (mg/L) 0.12	Sample Collection Depth (ft BTOC) 32.42

COMMENTS

MS/MSDs taken here

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 5/19/25
Well ID: 54MW1	Weather: Mostly Sunny, 75°F
Sampling Team: D. Taylor, Y. Miyakawa	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: no label; sharpied on bottom of lid
Locked: (YES) / NO	Measuring Point Marked: YES / (NO)
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ (2 in.) 3 in., 4 in., 6 in., 8 in	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 57.40	Well Evacuation Method: (peristaltic) bladder pump, other):
Depth to Water (ft. BTOC): 18.88	Screen Interval (ft. BGS): 50-55
Begin Well Evacuation (Time): 1506	Evacuation Rate (Lpm): 0.25
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1511	1.25	19.47	14.1	447.1	0.57	7.55	57.4	0.71
1516	2.5	19.86	14.2	446.3	0.42	7.54	61.0	0.29
1521	3.75	20.20	14.2	447.3	0.35	7.52	62.4	0.52
1526	5.0	20.54	13.9	447.3	0.53	7.47	55.7	0.01

Red font indicates stabilization criteria to be achieved over three consecutive readings

Final Depth to Water (ft. BTOC): 20.54	Drawdown Observed (ft): 1.66
Odor: (YES) NO Slight Sulfur Smell	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1546	Total Volume Purged (L): 5.0

SAMPLE COLLECTION INFORMATION

Sample ID: 54MW1	PARAMETERS (Circle all applicable)
Sample Date & Time: 5/19/25 1526	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.3	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.12	Sample Collection Depth (ft. BTOC): 56.90

COMMENTS

Synoptic Water Level Measurements

Radford Army Ammunition Plant SWMUs 49 & 54

Radford AAP, Virginia

Cont

Well Identification	Date	Time	Headspace Reading (ppm)	Depth to Water (ft BTOC)	Total Well Depth (ft BTOC)	Notes/Field Observations
SWMU 49						
13MW2						
13MW3						
13MW4						
13MW5						
49MW04						
49MW05						
48MW1						
48MW2						
48MW3						
8MW6						
48MW7						
49MW01						
49MW02						
49MW03						
50MW2						
SWMU 54						
54MW1	5/19/25	1503	0.0	18.88	57.40	hard bottom
54MW10	5/19/25	1116	0.2	14.29	30.01	hard bottom
54MW12	5/19/25	1237	0.0	23.34	32.92	hard bottom
54MW13	5/19/25	0842	0.0	19.76	25.34	hard bottom

Key: ppm = parts per million ft = feet TOC = top of casing BTOC = below top of casing

320-10 FIELD INSPECTION REPORT

Contract Number:	W912DR19D0004	**Task Order No:**	W912DR24F0222	
CAPE Project No.:	10409-0222	**Date:**	19-May-25	
Project Location:	Radford Army Ammunition Plant, Radford, VA			
DFW:	SWMU 49 & SWMU 54 LTM Sampling	**Spec Sect.**		
Inspection Performed by:	Yoko Miyakawa			

1. DESCRIPTION OF WORK INSPECTED:

SWMU-54: Gauged and sampled wells 54MW13 (including field duplicate "54TW13"), 54MW10, 54MW12 (including MS/MSD), and 54MW1.
Dumped approximately 11 gallons of IDW water into SWMU-54 designated, labeled, 55-gal drum at ACD/BAE storage facility.
Sample "54IDW" taken for waste characterization analysis at 1625.

2. TYPE OF INSPECTION:

☑ Visual ☐ Dimensional
☐ Non-Destructive Examination (NDE) ☐ Other _____

☐ In Progress ☐ Final

3. REFERENCED DRAWINGS / STANDARDS:

See below aerial view

4. FINDINGS:

Wells inspected/sampled today did not have an ID on the exterior (54MW13, 54MW10, 54MW12, 54MW1).
Well 54MW10 concrete pad is covered in vegetation.

5. SKETCH, IF APPLICABLE:



Inspector: _____

Quality Control Representative: _____

CAPE

320-16 WASTE INVENTORY SUMMARY

Contract Number	W912DR19D0004	DO/TO No:	W912DR24F0222	CAPE Project #	10409-0222-002-003	Project Location	RAAP, Radford, VA

Process Generating Waste	Groundwater produced through purging and sampling the monitoring wells. IDW water from SWMU 48/49 is captured and maintained separately from SWMU 54 IDW water throughout the handling process.

Load Number	Date	Description	Quantity (TNS or GAL)	Waste Classification	Receiving Disposal Facility	Method of Disposal	Date of Disposal or Destruction
1	8/19/24	IDW waste from SWMU 49	7 gal	Pending Analysis	—		
2	8/20/24	IDW + decon water from SWMU 54	8 gal	Pending Analysis	—		
3	8/21/24	IDW + decon water from SWMU 49	4 gal	Pending Analysis	—		
4	8/22/24	IDW + decon water from SWMU 49	6 gal	Pending Analysis	—		
5							
6	12/9/24	IDW from SWMU 49	15 gal	Pending Analysis	—		
7	12/10/24	IDW + decon water SWMU 54	10 gal	Pending Analysis	—		
8	12/11/24	IDW + decon water SWMU 49	5 gal	Pending Analysis	—		
9	12/12/24	IDW + decon water SWMU 49	6 gal	Pending Analysis	—		
10	12/13/24	IDW + decon water SWMU 49	4 gal	Pending Analysis	—		
11							
12	IDW drum	SWMU 49 has ~455 gallons total			(as of 12/13/24)		
13	IDW drum	SWMU 54 has ~20 gallons total			(as of 12/13/24)		
14							
15	5/19/25	IDW + decon water SWMU 54	11 gal	Pending Analysis	—		
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							

TOTAL QUANTITY:

0.00

CAPE

SITE CONTROL LOG

Date / Day: Monday, May 19, 2025
Project Name/Number: RADFORD ARMY AMMUNITION PLANT-SWMU 49 & SWMU 54 SAMPLING / CONTRACT W912DR19D0004, TASK ORDER W912DR24F0222
Project Location: RADFORD ARMY AMMUNITION PLANT, RADFORD, VA

Time		Name (Print)	Signature	DO YOU HAVE AN INJURY TO REPORT? Y/N	Organization
In	Out				
0700	1640	Yoko Miyakawa		N	CAPE
0700	1640	Paul I. Taylor		N	Weston

CAPE[SM] TAILGATE SAFETY MEETING RECORD

DATE/TIME:	Monday, May 19, 2025
PROJECT NAME:	Radford Army Ammunition Plant-SWMU 49 & SWMU 54 Sampling
PROJECT LOCATION:	Radford Army Ammunition Plant, Radford, VA
CAPE PROJECT NUMBER:	CO: W912DR19D0004, TO: W912DR24F0222
PROJECT MANAGER:	Matthew Feits
SITE SUPERINTENDENT:	
SITE HEALTH & SAFETY:	Yoko Miyakawa

SAFETY TOPICS PRESENTED	
biological hazards.	
Protective Clothing/Equipment:	
Modified Level D PPE	Gloves as required
High visibility vests/outerwear as required	
Safety Toe Boots and Safety Glasses required	
Chemical Hazards:	
Potential for contact with the ground water and preservatives	
Physical Hazards:	
Slip, trip, and falls	Inclement weather
Heat stress	Drum handling
Biological hazards	
Emergency Procedures:	
Provide first aid to your level of training. Contact 911 for Emergency if required. Notify your supervisor and the SSHO.	
Emergency Hospital:	Carilion New River Valley Medical Center, 2900 Lamb Cir, Christiansburg, VA 24073
Hospital Telephone Number:	(540) 731-2000
Hospital Direction:	Map in APP
Special Equipment:	
By signing this form, I confirm that I have not been previously injured on this job without informing my supervisor, and that I will immediately report all incidents/injuries to my supervisors in the future.	

SAFETY MEETING ATTENDEES

#	Printed Name	Initial	#	Printed Name	Initial
1.	Yoko Miyakawa	YM	16.		
2.	Paul J. Taylor		17.		
3.			18.		
4.			19.		
5.			20.		
6.			21.		
7.			22.		
8.			23.		
9.			24.		
10.			25.		
11.			26.		
12.			27.		
13.			28.		
14.			29.		
15.			30.		

Meeting Conducted By:

Signature _____

FedEx

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CHRISTIANSBURG
VA 24073
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881316244063 50.00 lb (M)

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May 19, 2025 5:52:29 PM

Radford Army Ammunition Plant 5/19/25
Radford, Virginia

Personnel: Y. Miyakawa (CAPE), P. Taylor (Weston)

Weather: Cloudy, 53°F

Objective: Groundwater Sampling @ SWMU 49+54

0700 P. Taylor + Y. Miyakawa onsite to check-in + get visitor pass; issues w/ vehicle pass.

0750 Met w/ Matt Alberts @ burning grounds to sign permits; M. Alberts to retrieve eq. tote.

0808 arrive to SWMU 54, getting setup at 54MW13

Calibrating equipment

Turbidity meter #WSH10115

1000 NTU → 994.1

10.0 NTU → 9.88

0.02 NTU → ~~1.86~~ 0.01

YSI pro plus #RFW23869

SpC 1413 µS/cm → 1413

pH 4 → 3.97

pH 7 → 6.99

pH 10 → 10.04

ORP 240 mV → 240.1

MiniRae # RFW23813

Isobutylene 100ppm → 100.3ppm

zero gas → 0.0 ppm

Rite in the Rain

5/19/25

0910 M. Alberts arrived to bring us equipment tote + key to access next well in SWMU 54 (54MW10)

0925 Started taking water quality readings at # 54MW13

1010 Sampled 54MW13 + FD taken (54TW13) - see sample form

1110 heading to 54MW10 + starting setup

1200 Sampled 54MW10 - see sample form

1226 heading to 54MW12

1245 setup at 54MW12

1338 Sample 54MW12 taken with MS/MSDS - see sample form

1451 setting up at 54MW1

1526 Sample 54MW1 taken - see sample form

1607 Heading to BAE laydown/storage yard to drop off IDW purge water

1621 dumping ~10 gal IDW purge/decon water into labeled, 55gal drum

1625 IDW sample taken (54IDW)

1640 P. Taylor + Y. Miyakawa offsite

Samples will be shipped to SGS in Orlando, FL and CT Labs in Baraboo, WI

5/19/25

20 May 2025

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CHAIN OF CUSTODY

Page 1 of 1

Company: Cape Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP
Project #: SWMU 48/49
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

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Solid Waste Other _____

PO #

Report To:
EMAIL: Chemistry SVCS@cape-inc.com
Company: mfeits@cape-inc.com
Address: CAPE Environmental Mgt.
500 Pinnacle Court #100
Norcross, GA 30071

Invoice To:*
EMAIL:
Company: Same
Address:

**Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions*

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	ANALYSES REQUESTED: VOC 8260C	MEE RSK-175	TOC 9060A	Anions 9056A	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test						
5/20	0000	GW	G		TB-1	N	2				2		
5/20	0931	GW	G		49MW01	N	3	2	1	1	7		
5/20	1008	GW	G		49MW01-EQB	N	3	2	1	1	7		
5/20	1146	GW	G		48MW6	N	3	2	1	1	7		
5/20	1146	GW	G		48TW6	N	3	2	1	1	7		
5/20	1333	GW	G		13MW4	N	9	6	3	3	21	X	
5/20	1450	GW	G		13MW3	N	3	2	1	1	7		

Trip Blank

Relinquished By:	Date/Time	Received By:	Date/Time
	5/20/2025 1800	FedEx	5/20/2025 1800
Received by:	Date/Time	Received for Laboratory by:	Date/Time

Lab Use Only
Ice Present Yes No
Temp _____ IR Gun _____
Cooler # _____

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date 5/20/25
Well ID 49MW01	Weather 55°F, Mostly Sunny
Sampling Team P. Taylor, Y. Miyakawa	Sampler's Signature

WELL INSPECTION

Protective Casing (Intact) / Damaged	Well ID Tag Condition no label on exterior; label on cap
Locked (YES) / NO	Measuring Point Marked (YES) / NO
Concrete Base (Intact) / Damaged	Comments
Casing Diameter ½ in., ¾ in., 1 in., 1 ¼, (2 in.), 3 in., 4 in., 6 in., 8 in	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft BTOC) 125.14	Well Evacuation Method (peristaltic, (bladder pump), other)
Depth to Water (ft BTOC) 115.95	Screen Interval (ft BGS) 120 – 125
Begin Well Evacuation (Time) 0911	Evacuation Rate (Lpm) 0.08
Stop Evacuation (Time/Reason)	Restart Time
	Headspace (ppm) 0.3

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0916	0.4	116.03	12.4	419.3	6.39	7.80	107.9	> 1100
0921	0.8	116.10	12.4	412.9	6.28	7.90	101.4	> 1100
0926	1.2	116.10	12.3	413.0	6.37	7.92	98.4	> 1100
0931	1.6	116.13	12.3	415.1	6.44	7.93	95.6	> 1100

Red font indicates stabilization criteria to be achieved over three consecutive readings

Final Depth to Water (ft BTOC) 116.13	Drawdown Observed (ft) 0.18
Odor (YES) NO mild sweet smell	Well Pumped Dry YES / (NO)
End Well Evacuation (Time) 0945	Total Volume Purged (L) 1.6

SAMPLE COLLECTION INFORMATION

Sample ID 49MW01	PARAMETERS (Circle all applicable)
Sample Date & Time 5/20/25 0931	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID —	SWMU 54 Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L) 5.6	Sample Collection Method (Low Flow) Other
Ferrous Iron (mg/L) 0.81	Sample Collection Depth (ft BTOC) 123.14

COMMENTS

49MW01 – EQB taken at 1008

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date 5/20/25
Well ID 48MW6	Weather Partly Cloudy 61° F
Sampling Team P. Taylor, Y. Miyakawa	Sampler's Signature

WELL INSPECTION

Protective Casing (Intact) / Damaged	Well ID Tag Condition No ID on exterior; label on cap
Locked (YES) / NO	Measuring Point Marked (YES) / NO
Concrete Base (Intact) / Damaged	Comments
Casing Diameter ⅓ in, ¾ in, 1 in, 1 ½ in, (2 in), 3 in, 4 in, 6 in, 8 in	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft BTOC) 80.42	Well Evacuation Method (peristaltic, (bladder pump) other)
Depth to Water (ft BTOC) 66.63	Screen Interval (ft BGS) 75-80
Begin Well Evacuation (Time) 1046	Evacuation Rate (Lpm) 0.1
Stop Evacuation (Time/Reason)	Restart Time
	Headspace (ppm) 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1051	0.5	66.74	14.9	628	4.63	7.38	67.4	1039
1056	1.0	66.80	14.8	618.9	3.76	7.39	64.5	679.6
1101	1.5	66.82	14.6	622.4	3.53	7.38	61.4	369.8
1106	2.0	66.82	14.7	672	3.44	7.34	57.8	181.4
1111	2.5	66.80	14.4	725	3.48	7.31	52.5	107.4
1116	3.0	66.82	14.4	770	3.35	7.30	46.7	109.4
1121	3.5	66.82	14.7	770	3.10	7.30	40.3	78.93
1126	4.0	66.82	14.9	787	3.12	7.30	35.2	69.50
1131	4.5	66.82	15.0	790	2.88	7.31	31.7	61.77
1136	5.0	66.82	14.5	790	2.73	7.31	30.3	49.16
1141	5.5	66.82	14.7	816	2.61	7.29	29.7	50.93
1146	6.0	66.82	14.7	827	2.56	7.30	30.6	39.28

Red font indicates stabilization criteria to be achieved over three consecutive readings

Final Depth to Water (ft BTOC) 66.82	Drawdown Observed (ft) 0.19
Odor YES / (NO)	Well Pumped Dry YES (NO)
End Well Evacuation (Time) 1206	Total Volume Purged (L) 6.0

SAMPLE COLLECTION INFORMATION

Sample ID 48MW6	PARAMETERS (Circle all applicable)
Sample Date & Time 5/20/25 1146	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID 48TW6	SWMU 54 Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L) 0.7	Sample Collection Method (Low Flow) Other
Ferrous Iron (mg/L) 0.11	Sample Collection Depth (ft BTOC) 78.42

COMMENTS

Specific Conductivity + Turbidity not Stabilizing — taking Sample

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date 5/20/25
Well ID 13MW4	Weather Mostly Cloudy, 71°F
Sampling Team Y. Miyazawa, P. Taylor	Sampler's Signature

WELL INSPECTION

Protective Casing (Intact) Damaged	Well ID Tag Condition good, on lid + posted
Locked (YES) NO	Measuring Point Marked (YES) / NO
Concrete Base (Intact) Damaged	Comments
Casing Diameter ½ in, ¾ in, 1 in, 1 ½, 2 in, 3 in (4 in) 6 in, 8 in	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft BTOC) 25.35	Well Evacuation Method (peristaltic) bladder pump other)
Depth to Water (ft BTOC) 15.80	Screen Interval (ft BGS) 20-25
Begin Well Evacuation (Time) 1313	Evacuation Rate (Lpm) 0.25
Stop Evacuation (Time/Reason)	Restart Time
	Headspace (ppm) 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1318	1.25	15.82	14.9	377.0	4.82	7.26	88.9	2.41
1323	2.5	15.83	15.0	377.9	4.40	7.23	86.0	0.74
1328	3.75	15.83	15.0	377.7	4.17	7.22	84.8	1.45
1333	5.0	15.83	14.8	377.6	4.02	7.23	82.6	1.39

Red font indicates stabilization criteria to be achieved over three consecutive readings

Final Depth to Water (ft BTOC) 15.83	Drawdown Observed (ft) 0.03
Odor YES (NO)	Well Pumped Dry YES / (NO)
End Well Evacuation (Time) 1359	Total Volume Purged (L) 5.0

SAMPLE COLLECTION INFORMATION

Sample ID 13MW4	PARAMETERS (Circle all applicable)
Sample Date & Time 5/20/24 1333	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID —	SWMU 54 Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L) 0.6	Sample Collection Method (Low Flow) Other
Ferrous Iron (mg/L) 0.13	Sample Collection Depth (ft BTOC) 24.85

COMMENTS

MS/MSDs collected here

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date 5/20/25
Well ID 13MW3	Weather Partly cloudy 74°F
Sampling Team P. Taylor, Y. Miyakawa	Sampler's Signature

WELL INSPECTION

Protective Casing (Intact)/Damaged	Well ID Tag Condition Good
Locked (YES) / NO	Measuring Point Marked (YES) / NO
Concrete Base (Intact)/Damaged	Comments
Casing Diameter ½ in, ¾ in, 1 in, 1 ½, 2 in, 3 in, (4 in), 6 in, 8 in	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft BTOC) 16.10	Well Evacuation Method (peristaltic, bladder pump, other)
Depth to Water (ft BTOC) 14.57	Screen Interval (ft BGS) 15-20
Begin Well Evacuation (Time) 1425	Evacuation Rate (Lpm) 0.25
Stop Evacuation (Time/Reason)	Restart Time
	Headspace (ppm) 0.1

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1430	1.25	14.58	13.8	562.3	4.66	7.28	84.3	21.23
1435	2.5	14.60	14.1	562.2	3.93	7.25	81.1	13.79
1440	3.75	14.60	14.1	558.3	3.68	7.23	80.6	9.40
1445	5.0	14.60	14.0	557.5	3.54	7.23	78.8	6.51
1450	6.25	14.60	14.0	556.2	3.53	7.25	75.6	1.95

Red font indicates stabilization criteria to be achieved over three consecutive readings

Final Depth to Water (ft BTOC) 14.60	Drawdown Observed (ft) 0.03
Odor YES (NO)	Well Pumped Dry YES (NO)
End Well Evacuation (Time) 1505	Total Volume Purged (L) 6.25

SAMPLE COLLECTION INFORMATION

Sample ID 13MW3	PARAMETERS (Circle all applicable)
Sample Date & Time 5/20/25 1450	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID —	SWMU 54 Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L) 0.7	Sample Collection Method (Low Flow) Other
Ferrous Iron (mg/L) 0.13	Sample Collection Depth (ft BTOC) 15.60

COMMENTS

roots came up with tubing

Synoptic Water Level Measurements

Radford Army Ammunition Plant SWMUs 49 & 54

Radford AAP, Virginia

Well Identification	Date	Time	Headspace Reading (ppm)	Depth to Water (ft BTOC)	Total Well Depth (ft BTOC)	Notes/Field Observations
SWMU 49						
13MW2	5/20/25	1526	0.0	20.12		
13MW3	5/20/25	1408	0.1	14.57	16.10	roots/vegetation inside well, came up w/ tubing. Soft bottom
13MW4	5/20/25	1300	0.0	15.80	25.35	hard bottom
13MW5	5/20/25	1250	0.0	15.54	25.40	soft bottom
49MW04	5/20/25	1522	0.3	20.27		
49MW05	5/20/25	1531	0.0	18.99	39.50	soft bottom
48MW1	5/20/25	1030	0.0	66.63	80.42	Soft bottom
48MW2						
48MW3	-					
3MW6	5/~~20~~/25					
48MW7	5/20/25	0813	0.0	49.07	83.60	soft bottom
49MW01	5/20/25	0835	0.3	115.95	125.14	Soft bottom
49MW02						
49MW03	5/20/25	0824	0.0	105.26	119.73	soft bottom
50MW2	5/~~20~~/25					
SWMU 54						
54MW1	5/19/25	1503	0.0	18.88	57.40	hard bottom
54MW10	5/19/25	1116	0.2	14.29	30.01	hard bottom
54MW12	5/19/25	1237	0.0	23.34	32.92	hard bottom
54MW13	5/19/25	0842	0.0	19.76	25.34	hard bottom

Key: ppm = parts per million ft = feet TOC = top of casing BTOC = below top of casing

320-10 FIELD INSPECTION REPORT

Contract Number:	W912DR19D0004	**Task Order No:**	W912DR24F0222	
CAPE Project No.:	10409-0222	**Date:**	20-May-25	
Project Location:	Radford Army Ammunition Plant, Radford, VA			
DFW:	SWMU 49 & SWMU 54 LTM Sampling	**Spec Sect.**		
Inspection Performed by:	Yoko Miyakawa			

1. DESCRIPTION OF WORK INSPECTED:

SWMU-49: Gauged wells 49MW03, 48MW7, 13MW5, 49MW04, 13MW2, and 49MW05. Gauged and sampled wells 49MW01, 48MW6 (including field duplicate "48TW6"), 13MW4 (including MS/MSDs), and 13MW3. Equipment blank taken at well 49MW01 at 1008 on deconned bladder pump; sample "49MW01-EQB." Dumped approximately 9 gallons of IDW water into SWMU-49 designated, labeled, 55-gal drum at ACD/BAE storage facility.

2. TYPE OF INSPECTION:

☑ Visual ☐ Dimensional

☐ Non-Destructive Examination (NDE) ☐ Other _____

☐ In Progress ☐ Final

3. REFERENCED DRAWINGS / STANDARDS:

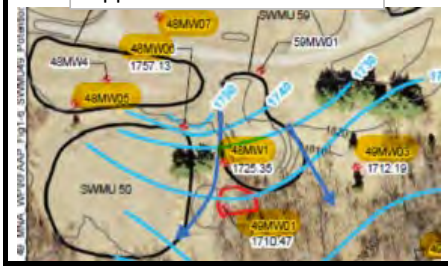
See below aerial view

4. FINDINGS:

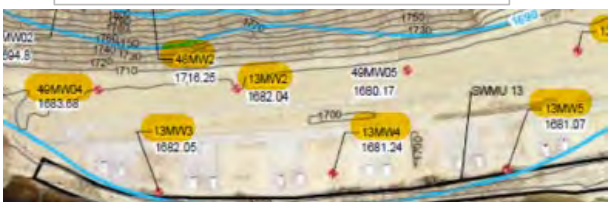
Spectrophotometer was not powering on, but was operational after replacing the batteries.
Wells 49MW01 and 48MW6 were not labeled on the exterior, but were labeled on the cap.
Burning grounds wells accessible to sample in the afternoons after incineration.
Roots/vegetation were observed inside well 13MW3 and came up with the tubing.

5. SKETCH, IF APPLICABLE:

Upper SWMU 49



Lower SWMU 49; Burning Grounds



Inspector: _____

Quality Control Representative: _____

CAPE

320-16 WASTE INVENTORY SUMMARY

Contract Number	W912DR19D0004	DO/TO No:	W912DR24F0222	CAPE Project #	10409-0222-002-003	Project Location	RAAP, Radford VA

Process Generating Waste	Groundwater produced through purging and sampling the monitoring wells. IDW water from SWMU 48/49 is captured and maintained separately from SWMU 54 IDW water throughout the handling process.

Load Number	Date	Description	Quantity (TNS or GAL)	Waste Classification	Receiving Disposal Facility	Method of Disposal	Date of Disposal or Destruction
1	8/19/24	IDW waste from SWMU 49	7 gal	Pending Analysis	—		
2	8/20/24	IDW + decon water from SWMU 54	8 gal	Pending Analysis	—		
3	8/21/24	IDW + decon water from SWMU 49	4 gal	Pending Analysis	—		
4	8/22/24	IDW + decon water from SWMU 49	6 gal	Pending Analysis	—		
5							
6	12/9/24	IDW from SWMU 49	15 gal	Pending Analysis	—		
7	12/10/24	IDW + decon water SWMU 54	10 gal	Pending Analysis	—		
8	12/11/24	IDW + decon water SWMU 49	5 gal	Pending Analysis	—		
9	12/12/24	IDW + decon water SWMU 49	6 gal	Pending Analysis	—		
10	12/13/24	IDW + decon water SWMU 49	4 gal	Pending Analysis	—		
11							
12	IDW drum	~~SWMU 49~~ has ~45 gallons total			(as of 12/13/24)		
13	IDW drum	SWMU 54 has ~20 gallons total			(as of 12/13/24)		
14							
15	5/19/25	IDW + decon water SWMU 54	11 gal	Pending Analysis	—		
16	5/20/25	IDW + decon water SWMU 49	9 gal	Pending Analysis	—		
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							

CAPE

SITE CONTROL LOG

Date / Day: Tuesday, May 20, 2025
Project Name/Number: RADFORD ARMY AMMUNITION PLANT-SWMU 49 & SWMU 54 SAMPLING / CONTRACT W912DR19D0004, TASK ORDER W912DR24F0222
Project Location: RADFORD ARMY AMMUNITION PLANT, RADFORD, VA

Time		Name (Print)	Signature	DO YOU HAVE AN INJURY TO REPORT? Y/N	Organization
In	Out				
0710	1615	Yoko Miyakawa		N	CAPE
0710	1615	Paul I. Taylor		N	Weston

TAILGATE SAFETY MEETING RECORD

DATE/TIME:	Tuesday, May 20, 2025
PROJECT NAME:	Radford Army Ammunition Plant-SWMU 49 & SWMU 54 Sampling
PROJECT LOCATION:	Radford Army Ammunition Plant, Radford, VA
CAPE PROJECT NUMBER:	CO: W912DR19D0004, TO: W912DR24F0222
PROJECT MANAGER:	Matthew Feits
SITE SUPERINTENDENT:	
SITE HEALTH & SAFETY:	Yoko Miyakawa

SAFETY TOPICS PRESENTED	
Heat Stress - dehydration, ~~fatigue~~, cramping, etc.	
Protective Clothing/Equipment:	
Modified Level D PPE	Gloves as required
High visibility vests/outerwear as required	
Safety Toe Boots and Safety Glasses required	
Chemical Hazards:	
Potential for contact with the ground water and preservatives	
Physical Hazards:	
Slip, trip, and falls	Inclement weather
Heat stress	Drum handling
Biological hazards	
Emergency Procedures:	
Provide first aid to your level of training. Contact 911 for Emergency if required. Notify your supervisor and the SSHO.	
Emergency Hospital:	Carilion New River Valley Medical Center, 2900 Lamb Cir, Christiansburg, VA 24073
Hospital Telephone Number:	(540) 731-2000
Hospital Direction:	Map in APP
Special Equipment:	
By signing this form, I confirm that I have not been previously injured on this job without informing my supervisor, and that I will immediately report all incidents/injuries to my supervisors in the future.	

SAFETY MEETING ATTENDEES

#	Printed Name	Initial	#	Printed Name	Initial
1.	Yoko Miyakawa	YM	16.		
2.	Paul E Taylor	PET	17.		
3.			18.		
4.			19.		
5.			20.		
6.			21.		
7.			22.		
8.			23.		
9.			24.		
10.			25.		
11.			26.		
12.			27.		
13.			28.		
14.			29.		
15.			30.		

Meeting Conducted By:

Signature _____



Address: 305 ROANOKE STREET
CHRISTIANSBURG
VA 24073

Location: WALA
Device ID: -BTC01

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Tracking Number:
881316285501 50.00 lb (M)

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May 20, 2025 5:08:51 PM

Radford Army Ammunition Plant 5/20/25 81
Radford, Virginia

Personnel: Y. Miyakawa (CAPE), P. Taylor (Weston)

Weather: Mostly Cloudy, 52°F

Objective: GW sampling at SWMU 49

0710 P. Taylor + Y. Miyakawa onsite checking in at gaurd stands

0728 Heading to trash collection site - was not open yet, need to return later

0736 arrived to upper SWMU 49 area to calibrate + have safety meeting.

Micro Turbidity Meter
- 1000 NTU → 994.4
- 10.6 NTU → 12.86
- 0.02 NTU → 1.09 0.00

YSI pro plus
- Sp C 1413 → 1414
- pH 4 → 3.98
- pH 7 → 6.97
- pH 10 → 10.04
- ORP 240mV → 239.9

MiniRae
100 ppm Isobutylene → 99.4

0813 gauged 48MW7
0824 gauged 49MW03
0835 getting setup + gauged at 49MW01 bladder pump set in well + pump set at 1 cycle per minute
0931 sample taken 49MW01 - see sheet
1008 49MW01 - EQB - equipment blank taken on deconned bladder pump
1030 setup + gauged at well 48MW1
1146 sample taken 48MW6 + field dupe 48TW6 - see sample sheet
1228 coordinated w/ operator at burning grounds - will sample burning ground wells in the afternoon today + tomorrow
1231 Heading to trash location
1239 Dropped off trash
Hrs are 8am - 3pm
Heading back to burning grounds
1249 Arrived to burning grounds.
Setting up to gauge P3MW5
1300 Setting up to gauge/sample 13MW4 dedicated pump pulled for sampling.
1333 Sample taken 13MW4 - see sample sheet
1408 setting up to gauge/sample 13MW3 dedicated pump pulled for sampling

1450 Sample taken 13MW3 - see sample sheet
1520 Heading to gauge 49MW04
1522 Gauged 49MW04; TD will be taken after sampling tomorrow (5/21/25)
1526 Gauged 13MW2; TD will be taken after sampling tomorrow (5/21/25)
1531 Gauged 49MW05
1545 Leaving burning grounds area to AGS/BAE storage to dump IDW water
1606 dumping 9 gal IDW in SWMU49 designated, labeled drum
Touched up drum labels.
Drum SWMU49 is full.
1615 P. Taylor + Y. Miyakawa offsite

Samples will be shipped to CT labs in Baraboo, WI.

5/20/25

21 May 2025

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Cape Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP SWMU 48/49
Project #:
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: chemistrySVCS@cape-inc.com
EMAIL: mfeits@cape-inc.com
Company: Cape Environmental Mgt.
Address: 500 Pinnacle Court #100 Norcross, GA 30071

Invoice To:* Same
EMAIL:
Company:
Address:

**Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions*

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	ANALYSES REQUESTED: VOC 8260C	MEE RSK-175	TOC 9060A	Anions 9056A	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test						
5/21	0000	GW	G		TB-2	N	2				2		
5/21	0931	GW	G		48MW1	N	3	2	1	1	7		
5/21	1001	GW	G		48MW1-EQB	N	3	2	1	1	7		
5/21	1135	GW	G		50MW2	N	3	2	1	1	7		
5/21	1251	GW	G		49MW04	N	3	2	1	1	7		
5/21	1251	GW	G		49TW04	N	3	2	1	1	7		
5/21	1359	GW	G		13MW2	N	3	2	1	1	7		

Trip Blank

Relinquished By:	Date/Time 5/21/2025 1600	Received By: FedEx	Date/Time 5/21/2025 1600
Received by:	Date/Time	Received for Laboratory by:	Date/Time

Lab Use Only
Ice Present Yes No
Temp _____ IR Gun _____
Cooler # _____

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date 5/21/25
Well ID 48MW1	Weather 62°F, Cloudy.
Sampling Team P. Taylor, Y. Miyakawa	Sampler's Signature

WELL INSPECTION

Protective Casing (Intact)/Damaged	Well ID Tag Condition no label on exterior, labeled on cap
Locked YES / NO	Measuring Point Marked (YES) / NO
Concrete Base (Intact)/Damaged	Comments
Casing Diameter ½ in, ¾ in, 1 in, 1 ½, 2 in, 3 in, (4 in), 6 in, 8 in	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft BTOC) 147.32	Well Evacuation Method (peristaltic, (bladder pump), other)
Depth to Water (ft BTOC) 106.81	Screen Interval (ft BGS) 135 - 145
Begin Well Evacuation (Time) 0831	Evacuation Rate (Lpm) ~~0.05~~ 0.05
Stop Evacuation (Time/Reason)	Restart Time
	Headspace (ppm) 0.1

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0836	0.25	106.94	13.3	581.9	3.97	7.52	111.4	90.29
0841	0.5	106.96	13.1	609.4	3.44	7.51	105.0	76.53
0846	0.75	107.14	13.0	610.6	3.03	7.51	100.5	55.64
0851	1.0	107.19	13.0	610.5	2.94	7.51	97.7	46.57
0856	1.25	107.25	13.0	611.1	2.90	7.51	94.8	35.08
0901	1.5	107.31	12.8	612.2	2.82	7.51	93.1	21.08
0906	1.75	107.40	12.8	612.3	2.82	7.51	91.5	15.79
0911	2.0	107.~~84~~48	12.8	614.4	2.72	7.51	89.5	13.43
0916	2.25	107.55	12.8	614.8	2.74	7.53	87.6	11.16
0921	2.5	107.60	12.9	613.4	2.66	7.53	86.7	10.05
0926	2.75	107.64	13.0	613.2	2.70	7.53	85.8	9.32
0931	3.0	107.67	12.9	613.6	2.65	7.54	84.6	7.43

Red font indicates stabilization criteria to be achieved over three consecutive readings

Final Depth to Water (ft BTOC) 107.67	Drawdown Observed (ft) 0.86
Odor YES (NO)	Well Pumped Dry YES (NO)
End Well Evacuation (Time) 0945	Total Volume Purged (L) 3.0

SAMPLE COLLECTION INFORMATION

Sample ID 48MW1	PARAMETERS (Circle all applicable)
Sample Date & Time 5/21/25 0931	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID —	SWMU 54 Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L) 0.8	Sample Collection Method (Low Flow) Other
Ferrous Iron (mg/L) 0.14	Sample Collection Depth (ft BTOC) 145.32

COMMENTS

Turbidity not stabilized — taking sample.
Taking equipment blank here: 48MW1-EQB @ 1001

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 5/21/25
Well ID: 50MW2	Weather: Cloudy, 65°F
Sampling Team: P. Taylor, Y. Miyakawa	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/ Damaged	Well ID Tag Condition: no label on exterior; label on casing
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact)/ Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ in., (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 120.80	Well Evacuation Method (peristaltic, (bladder pump), other)
Depth to Water (ft. BTOC): 115.62	Screen Interval (ft. BGS): 115-120
Begin Well Evacuation (Time): 1035	Evacuation Rate (Lpm): 0.1
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.1

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1040	0.5	115.62	13.2	702	6.49	7.15	88.9	295.2
1045	1.0	115.62	12.9	695	5.55	7.14	86.8	118.6
1050	1.5	115.62	12.8	697	6.01	7.15	85.9	96.79
1055	2.0	115.62	12.7	698	5.04	7.16	85.5	61.19
1100	2.5	115.62	12.6	699	3.79	7.17	84.7	44.70
1105	3.0	115.62	12.7	698	3.59	7.17	84.4	34.34
1110	3.5	115.62	12.7	699	3.47	7.17	83.6	23.86
1115	4.0	115.62	12.7	697	3.98	7.18	83.5	19.88
1120	4.5	115.62	12.7	698	3.83	7.18	85.3	16.04
1125	5.0	115.62	12.6	697	3.80	7.19	82.9	11.81
1130	5.5	115.62	12.6	695	4.10	7.18	82.9	10.86
1135	6.0	115.62	12.6	695	4.58	7.18	83.0	9.51

Red font indicates stabilization criteria to be achieved over three consecutive readings

Final Depth to Water (ft. BTOC): 115.62	Drawdown Observed (ft): 0.0
Odor: YES / (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1149	Total Volume Purged (L): 6.0

SAMPLE COLLECTION INFORMATION

Sample ID: 50MW2	PARAMETERS (Circle all applicable)
Sample Date & Time: 5/21/25 1135	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.3	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): -0.05 *under range*	Sample Collection Depth (ft. BTOC): 113.62

COMMENTS

Turbidity not stabilizing; ~~taking sample~~.
D.O. also just got out of range; taking sample

Spectrophotometer read "under range" for Ferrous Iron HACH

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 5/21/25
Well ID: 49 MW04	Weather: 71°F, Partly Sunny
Sampling Team: P. Taylor, Y. Miyakawa	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact) Damaged	Well ID Tag Condition: no label on exterior; label on casing
Locked: (YES) NO	Measuring Point Marked: (YES) NO
Concrete Base: (Intact) Damaged: covered in vegetation/dirt	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ in., (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 72.88	Well Evacuation Method: (peristaltic) bladder pump, other:
Depth to Water (ft. BTOC): 20.41	Screen Interval (ft. BGS): 65-70
Begin Well Evacuation (Time): 1231	Evacuation Rate (Lpm): 0.2
Stop Evacuation (Time/Reason): ~~1315~~	Restart Time:
	Headspace (ppm): 0.3

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1236	1.0	21.72	15.2	664	0.64	7.53	70.9	17.27
1241	2.0	22.54	15.2	657	0.53	7.54	74.3	5.70
1246	3.0	23.39	15.2	659	0.52	7.55	75.1	5.83
1251	4.0	23.91	15.5	653	0.48	7.55	75.7	4.48

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 23.91	Drawdown Observed (ft): 3.50
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1315	Total Volume Purged (L): 4.0

SAMPLE COLLECTION INFORMATION

Sample ID: 49MW04	PARAMETERS (Circle all applicable)
Sample Date & Time: 5/21/24 1251	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: 49 TW 04	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.4	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.15	Sample Collection Depth (ft. BTOC): 72.38

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date 5/21/25
Well ID 13MW2	Weather 73°F, Partly Cloudy
Sampling Team P. Taylor, Y. Miyakawa	Sampler's Signature

WELL INSPECTION

Protective Casing (Intact)/Damaged	Well ID Tag Condition Good
Locked (YES) / NO	Measuring Point Marked (YES) NO
Concrete Base (Intact)/Damaged	Comments
Casing Diameter ½ in , ¾ in , 1 in , 1 ½, 2 in , 3 in , (4 in), 6 in , 8 in	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft BTOC) 30.60	Well Evacuation Method (peristaltic, bladder pump, other)
Depth to Water (ft BTOC) 20.24	Screen Interval (ft BGS) 25-30
Begin Well Evacuation (Time) 1339	Evacuation Rate (Lpm) 0.25
Stop Evacuation (Time/Reason)	Restart Time
	Headspace (ppm) 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1344	1.25	20.63	15.0	654	7.36	7.54	90.2	1.89
1349	2.5	20.76	14.9	654	8.23	7.55	89.1	0.99
1354	3.75	20.88	15.1	654	8.33	7.53	85.7	0.27
1359	5.0	20.96	15.2	655	8.12	7.52	83.7	0.74

Red font indicates stabilization criteria to be achieved over three consecutive readings

Final Depth to Water (ft BTOC) 20.96	Drawdown Observed (ft) 0.72
Odor YES / (NO)	Well Pumped Dry YES / (NO)
End Well Evacuation (Time) 1409	Total Volume Purged (L) 5.0

SAMPLE COLLECTION INFORMATION

Sample ID 13MW2	PARAMETERS (Circle all applicable)
Sample Date & Time 5/21/25 1359	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID —	SWMU 54 Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L) 0.4	Sample Collection Method (Low Flow) Other
Ferrous Iron (mg/L) 0.09	Sample Collection Depth (ft BTOC) 30.10

COMMENTS

Synoptic Water Level Measurements

Radford Army Ammunition Plant SWMUs 49 & 54

Radford AAP, Virginia

Well Identification	Date	Time	Headspace Reading (ppm)	Depth to Water (ft BTOC)	Total Well Depth (ft BTOC)	Notes/Field Observations
SWMU 49						
13MW2	5/20/25	1526	0.0	20.12	30.60*	Soft bottom
13MW3	5/20/25	1408	0.1	14.57	16.10	roots/vegetation inside well, came up w/ tubing. Soft bottom
13MW4	5/20/25	1300	0.0	15.80	25.35	hard bottom
13MW5	5/20/25	1250	0.0	15.54	25.40	soft bottom
49MW04	5/20/25	1522	0.3	20.27	72.88*	Soft bottom
49MW05	5/20/25	1531	0.0	18.99	39.50	soft bottom
48MW6	5/20/25	1030	0.0	66.63	80.42	Soft bottom
48MW2						
48MW3	-					
48MW1	5/~~20~~21/25	0800	0.1	106.81	147.32	Soft bottom
48MW7	5/20/25	0813	0.0	49.07	83.60	soft bottom
49MW01	5/20/25	0835	0.3	115.95	125.14	Soft bottom
49MW02						
49MW03	5/20/25	0824	0.0	105.26	119.73	soft bottom
50MW2	5/~~20~~21/25	1015	0.1	115.62	120.80	Soft bottom
SWMU 54						
54MW1	5/19/25	1503	0.0	18.88	57.40	hard bottom
54MW10	5/19/25	1116	0.2	14.29	30.01	hard bottom
54MW12	5/19/25	1237	0.0	23.34	32.92	hard bottom
54MW13	5/19/25	0842	0.0	19.76	25.34	hard bottom

Key: ppm = parts per million ft = feet TOC = top of casing BTOC = below top of casing

*TD measured on 5/21/25 after sampling

320-10 FIELD INSPECTION REPORT

Contract Number:	W912DR19D0004	**Task Order No:**	W912DR24F0222	
CAPE Project No.:	10409-0222	**Date:**	21-May-25	
Project Location:	Radford Army Ammunition Plant, Radford, VA			
DFW:	SWMU 49 & SWMU 54 LTM Sampling	**Spec Sect.**		
Inspection Performed by:	Yoko Miyakawa			

1. DESCRIPTION OF WORK INSPECTED:

SWMU-48/49: Gauged and sampled wells 48MW1, 50MW2, 49MW04 (field duplicate also taken "49TW04"), and 13MW2.
Equipment blank taken at well 48MW1 at 1001 on deconned bladder pump; sample "48MW1-EQB."
Dumped approximately 7 gallons of IDW water into a new, second, SWMU-48/49 designated, labeled, 55-gal drum at ACD/BAE storage facility.

2. TYPE OF INSPECTION:

☑ Visual ☐ Dimensional
☐ Non-Destructive Examination (NDE) ☐ Other _____

☐ In Progress ☐ Final

3. REFERENCED DRAWINGS / STANDARDS:

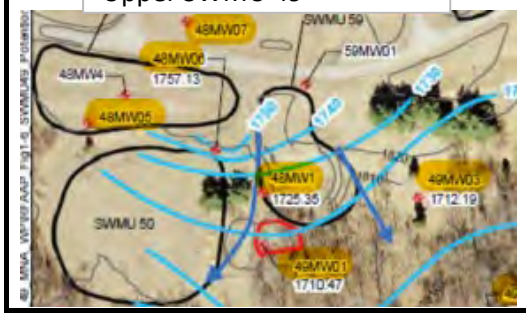
See below aerial view

4. FINDINGS:

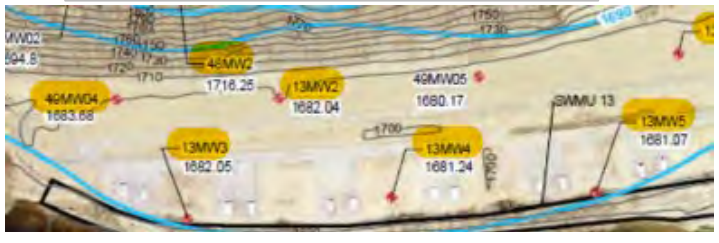
Wells 48MW1, 50MW2, and 49MW04 were not labeled on the exterior, but were labeled on the cap or on the casing.
Well 49MW04 had a concrete pad that was covered in vegetation and dirt.

5. SKETCH, IF APPLICABLE:

Upper SWMU 49



Lower SWMU 49; Burning Grounds



Inspector:

Quality Control Representative:

CAPE

320-16 WASTE INVENTORY SUMMARY

Contract Number	W912DR19D0004	DO/TO No:	W912DR24F0222	CAPE Project #	10409-0222-002-003	Project Location	RAAP, Radford, VA

Process Generating Waste	Groundwater produced through purging and sampling the monitoring wells. IDW water from SWMU 48/49 is captured and maintained separately from SWMU 54 IDW water throughout the handling process.

Load Number	Date	Description	Quantity (TNS or GAL)	Waste Classification	Receiving Disposal Facility	Method of Disposal	Date of Disposal or Destruction
1	8/19/24	IDW waste from SWMU 49	7 gal	Pending Analysis	—		
2	8/20/24	IDW + decon water from SWMU 54	8 gal	Pending Analysis	—		
3	8/21/24	IDW + decon waters from SWMU 49	4 gal	Pending Analysis	—		
4	8/22/24	IDW + decon water from SWMU 49	6 gal	Pending Analysis	—		
5							
6	12/9/24	IDW from SWMU 49	15 gal	Pending Analysis	—		
7	12/10/24	IDW + decon water SWMU 54	10 gal	Pending Analysis	—		
8	12/11/24	IDW + decon water SWMU 49	5 gal	Pending Analysis	—		
9	12/12/24	IDW + decon water SWMU 49	6 gal	Pending Analysis	—		
10	12/13/24	IDW + decon water SWMU 49	4 gal	Pending Analysis	—		
11							
12	IDW drum	SWMU 49 has ~45 gallons total			(as of 12/13/24)		
13	IDW drum	SWMU 54 has ~20 gallons total			(as of 12/13/24)		
14							
15	5/19/25	IDW + decon water SWMU 54	11 gal	Pending Analysis	—		
16	5/20/25	IDW + decon water SWMU 49	9 gal	Pending Analysis	—		
17	5/21/25	IDW + decon water SWMU 49 (Drum #2)	7 gal	Pending Analysis	—		
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							

TOTAL QUANTITY:

0.00

CAPE

SITE CONTROL LOG

Date / Day: Wednesday, May 21, 2025

Project Name/Number: RADFORD ARMY AMMUNITION PLANT-SWMU 49 & SWMU 54 SAMPLING / CONTRACT W912DR19D0004, TASK ORDER W912DR24F0222

Project Location: RADFORD ARMY AMMUNITION PLANT, RADFORD, VA

Time		Name (Print)	Signature	DO YOU HAVE AN INJURY TO REPORT? Y/N	Organization
In	Out				
0715	1456	Yoko Miyakawa		N	CAPE
0715	1456	Paul I. Taylor		N	Weston

TAILGATE SAFETY MEETING RECORD

DATE/TIME:	Wednesday, May 21, 2025
PROJECT NAME:	Radford Army Ammunition Plant-SWMU 49 & SWMU 54 Sampling
PROJECT LOCATION:	Radford Army Ammunition Plant, Radford, VA
CAPE PROJECT NUMBER:	CO: W912DR19D0004, TO: W912DR24F0222
PROJECT MANAGER:	Matthew Feits
SITE SUPERINTENDENT:	
SITE HEALTH & SAFETY:	Yoko Miyakawa

SAFETY TOPICS PRESENTED	
Musculoskeletal hazards ; slips, trips, falls .	
Protective Clothing/Equipment:	
Modified Level D PPE	Gloves as required
High visibility vests/outerwear as required	
Safety Toe Boots and Safety Glasses required	
Chemical Hazards:	
Potential for contact with the ground water and preservatives	
Physical Hazards:	
Slip, trip, and falls	Inclement weather
Heat stress	Drum handling
Biological hazards	
Emergency Procedures:	
Provide first aid to your level of training. Contact 911 for Emergency if required. Notify your supervisor and the SSHO.	
Emergency Hospital:	Carilion New River Valley Medical Center, 2900 Lamb Cir, Christiansburg, VA 24073
Hospital Telephone Number:	(540) 731-2000
Hospital Direction:	Map in APP
Special Equipment:	
By signing this form, I confirm that I have not been previously injured on this job without informing my supervisor, and that I will immediately report all incidents/injuries to my supervisors in the future.	

SAFETY MEETING ATTENDEES

#	Printed Name	Initial	#	Printed Name	Initial
1.	Yoko Miyakawa	YM	16.		
2.	Paul I. Taylor	PT	17.		
3.			18.		
4.			19.		
5.			20.		
6.			21.		
7.			22.		
8.			23.		
9.			24.		
10.			25.		
11.			26.		
12.			27.		
13.			28.		
14.			29.		
15.			30.		

Meeting Conducted By:

Signature _____

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May 21, 2025 3:41:56 PM

Radford Army Ammunition Plant 5/21/25
Radford, Virginia

Personnel: Y. Miyakawa (CAPE), P. Taylor (Weston)

Weather: Cloudy, 60°F

Objective: GW Sampling at SWMU 49

0715 Y. Miyakawa + P. Taylor onsite checking in at guard stands
0727 pulling over at truck pullout to calibrate

Micro Turbidity Meter
- 1000 NTU ⟶ 1016
- 10.0 NTU ⟶ 10.05
- 0.02 NTU ⟶ 0.24

YSI Pro Plus
- SpC 1413 µS/cm ⟶ 1413
- pH 4 ⟶ 3.96
- pH 7 ⟶ 6.98
- pH 10 ⟶ 10.03
- ORP 240 ⟶ 240.1

Mini Rae
- 1S butylene 100 ppm ⟶ 99.9

0800 Setup + gauged well 48MW1
Noticed the gauging sheets + notes from yesterday had 48MW6 + 48MW1 switched, but sample sheets, labels, COC, daily inspection was correct.

0810 Pump set at one cycle per minute
This well is deeper + has some drawback of water returning into the well, but producing water okay. Maybe check valve in bladder pump not working as well?
0931 Sample 48MW1 taken - see sample sheet
1001 48MW1-EQB → equipment blank taken on decanned bladder pump
1015 Setup + gauged well 50MW2
pump set at one cycle per minute
1135 Sample 50MW2 taken - see sample sheet
1210 Heading to burning grounds
1219 Setting up at 49MW04
1251 Sample 49MW04 + field duplicate taken "49TW04" - See sample sheet
1328 Setting up at 13MW2; DTW taken.
dedicated pump pulled for sampling
1359 Sample 13MW2 taken - see sample sheet
1420 Leaving burning grounds to drop off trash and then IDW water
1435 Dropped off trash @ MWF trash location
1443 Dumping ~7 gal IDW into a new, second SMWU 49, designated, labeled, 55-gal bucket.

Kitty in the Rain

1449 New drum reads:

" Non-Hazardous Waste
Pending analysis
SHIPPER: M. FEITS 724-622-3625
Address: RFAAP
CITY, STATE, ZIP: Radford, VA
Contents: Purge Water SWMU49
5/21/25 "

1456 P. Taylor + Y. Miyakawa offsite

Samples will be shipped to
CT Labs in Baraboo, WI.

5/22/25

22 May 2025

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Cape Enviromental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP
Project #: SWMU 48/49
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

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Solid Waste Other _____

PO #

Report To:
EMAIL: ChemistrySVCS@cape-inc.com
Company: mfeits@cape-inc.com
Address: Cape Environmental Mgt.
500 Pinnacle Court #100
Norcross, GA 30071

Invoice To:*
EMAIL:
Company: Same
Address:

**Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions*

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOC 8260C	MEE RSK-175	TOC 9060A	Anions 9056A	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test						
5/22	0000	GW	G		TB-3	N	2				2		
5/22	0920	GW	G		48MW2	N	3	2	1	1	7		
5/22	0954	GW	G		48MW2-EQB	N	3	2	1	1	7		
5/22	1123	GW	G		48MW3	N	3	2	1	1	7		
5/22	1327	GW	G		49MW02	N	3	2	1	1	7		

Trip Blank

Relinquished By:	Date/Time	Received By:	Date/Time
	5/22/2025 1700	FedEx	5/22/2025 1700
Received by:	Date/Time	Received for Laboratory by:	Date/Time

Lab Use Only
Ice Present Yes No
Temp _____ IR Gun _____
Cooler # _____

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Cape Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP SWMU 48/49
Project #:
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: Chemistry SVCS@cape-inc.com
EMAIL: mfeits@cape-inc.com
Company: Cape Environmental Mgt.
Address: 500 Pinnacle Court #100
Norcross, GA 30071

Invoice To:* Same
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

ANALYSES REQUESTED

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	pH 9040	COD 410.4	Total Metals 6010C 7470A	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test					
5/22	1428	GW	~~G~~C		49IDW	N	1	1	1	3		

Relinquished By: _____ Date/Time 5/22/2025 1700
Received By: Fed Ex Date/Time 5/22/2025 1700

Received by: _____ Date/Time _____
Received for Laboratory by: _____ Date/Time _____

Lab Use Only
Ice Present Yes No
Temp _____ IR Gun _____
Cooler # _____

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date 5/22/25
Well ID 48MW2	Weather 56°F, Mostly Sunny + Windy
Sampling Team P. Taylor, Y. Miyakawa	Sampler's Signature

WELL INSPECTION

Protective Casing: Intact/Damaged	Well ID Tag Condition: no label on exterior; label on cap
Locked: YES / NO	Measuring Point Marked: YES / NO
Concrete Base: Intact/Damaged	Comments
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ in., 2 in., 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft BTOC) 136.70	Well Evacuation Method (peristaltic, bladder pump, other)
Depth to Water (ft BTOC) 124.55	Screen Interval (ft BGS) 125-135
Begin Well Evacuation (Time) 0820	Evacuation Rate (Lpm) 0.08
Stop Evacuation (Time/Reason)	Restart Time
	Headspace (ppm) 0.1

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0825	0.4	124.86	12.8	502.9	5.33	7.51	102.9	506.4
0830	0.8	124.90	12.6	503.0	5.10	7.52	99.7	>1100
0835	1.2	124.94	12.6	500.7	5.10	7.52	97.8	473.6
0840	1.6	124.96	12.6	498.5	5.06	7.52	96.3	264.1
0845	2.0	125.03	12.5	497.9	5.16	7.52	94.9	198.6
0850	2.4	125.12	12.5	497.8	5.17	7.52	93.5	147.9
0855	2.8	125.12	12.5	497.2	5.18	7.52	92.3	135.3
0900	3.2	125.15	12.6	497.0	5.28	7.52	90.9	109.6
0905	3.6	125.14	12.6	496.3	5.20	7.52	89.8	92.69
0910	4.0	125.14	12.6	495.1	5.21	7.53	88.6	75.09
0915	4.4	125.16	12.5	495.0	5.17	7.54	87.7	64.49
0920	4.8	125.17	12.5	495.1	5.20	7.53	87.0	64.16

Red font indicates stabilization criteria to be achieved over three consecutive readings

Final Depth to Water (ft BTOC) 125.17	Drawdown Observed (ft) 0.62
Odor: YES / NO	Well Pumped Dry: YES / NO
End Well Evacuation (Time) 0938	Total Volume Purged (L) 4.8

SAMPLE COLLECTION INFORMATION

Sample ID 48MW2	PARAMETERS (Circle all applicable)
Sample Date & Time 5/22/25 0920	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID ———	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L) -6.5 *under range*	Sample Collection Method: Low Flow / Other
Ferrous Iron (mg/L) 0.16	Sample Collection Depth (ft BTOC): ~~136.20~~ 134.70

COMMENTS

Turbidity not stabilizing; taking sample.
Spectrophotometer was dead again; replaced batteries + was operational
Spectrophotometer reading *under range* for Manganese HACH test
Equipment Blank taken on decanned bladder pump → 48MW2-EQB @ 0954

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date 5/22/25
Well ID 48MW3	Weather 60°F, Windy + Mostly Cloudy
Sampling Team P. Taylor, Y Miyakawa	Sampler's Signature

WELL INSPECTION

Protective Casing (Intact) / Damaged	Well ID Tag Condition No label on exterior; label on cap
Locked (YES) / NO	Measuring Point Marked (YES) / NO
Concrete Base (Intact) / Damaged	Comments
Casing Diameter ½ in, ¾ in, 1 in, 1 ½, 2 in, 3 in, (4 in), 6 in, 8 in	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft BTOC) ~~112.15~~ *	Well Evacuation Method (peristaltic, (bladder pump), other)
Depth to Water (ft BTOC) 98.78	Screen Interval (ft BGS) 115 – 125
Begin Well Evacuation (Time) 1048	Evacuation Rate (Lpm) 0.09
Stop Evacuation (Time/Reason)	Restart Time
	Headspace (ppm) 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1053	0.45	98.93	12.5	708	6.67	7.38	84.3	10.58
1058	0.9	99.08	12.2	707	4.96	7.34	84.2	6.21
1103	1.35	99.13	12.2	706	4.50	7.32	84.5	2.66
1108	1.8	99.23	12.1	707	4.06	7.31	84.3	0.43
1113	2.25	99.36	12.1	705	3.70	7.31	83.7	0.00
1118	2.7	99.41	12.2	705	3.59	7.31	83.4	0.91
1123	3.15	99.49	12.2	705	3.77	7.32	83.1	0.00

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft BTOC) 99.49	Drawdown Observed (ft) ~~0.01~~ 0.71
Odor YES (NO)	Well Pumped Dry YES (NO)
End Well Evacuation (Time) 1134	Total Volume Purged (L) 3.15

SAMPLE COLLECTION INFORMATION

Sample ID 48MW3	PARAMETERS (Circle all applicable)
Sample Date & Time 5/22/25 1123	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID ———	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L) 0.5	Sample Collection Method (Low Flow) Other
Ferrous Iron (mg/L) 0.12	Sample Collection Depth (ft BTOC) ~~110.15~~ * 2 feet above bottom

COMMENTS

* ~~Feels like obstruction in well, TD measured at 112.15, pushing down to 114.~~ Sounder tip fell off & did not come up w/ the tape; unable to take TD

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date 5/22/25
Well ID 49MW02	Weather 60°F, Windy + Mostly Sunny
Sampling Team P. Taylor, Y. Miyakawa	Sampler's Signature

WELL INSPECTION

Protective Casing (Intact)/Damaged	Well ID Tag Condition No label on exterior; label on casing
Locked (YES) / NO	Measuring Point Marked (YES) / NO
Concrete Base (Intact)/Damaged	Comments
Casing Diameter ½ in, ¾ in, 1 in, 1 ½, (2 in), 3 in, 4 in, 6 in, 8 in	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft BTOC) *see note	Well Evacuation Method (peristaltic, (bladder pump), other)
Depth to Water (ft BTOC) *see note	Screen Interval (ft BGS) 125-135
Begin Well Evacuation (Time) 1227	Evacuation Rate (Lpm) 0.1
Stop Evacuation (Time/Reason)	Restart Time
	Headspace (ppm) ~~0.0~~ 0.1

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1232	0.5	*see note	15.1	556.9	5.27	7.56	62.7	647.8
1237	1.0		13.9	556.7	5.12	7.58	63.3	559.2
1242	1.5		14.6	555.1	5.10	7.56	63.6	458.2
1247	2.0		14.0	557.1	5.27	7.56	64.6	389.0
1252	2.5		14.0	555.1	5.22	7.55	65.8	285.4
1257	3.0		13.8	554.0	5.18	7.55	66.8	262.2
1302	3.5		13.7	554.3	5.29	7.55	68.0	225.8
1307	4.0		13.7	553.5	5.45	7.55	69.6	200.1
1312	4.5		13.6	553.6	5.48	7.55	70.8	188.9
1317	5.0		13.5	553.7	5.52	7.55	71.4	174.7
1322	5.5		13.5	553.7	5.42	7.54	71.9	166.0
1327	6.0	↓	13.4	553.8	5.31	7.54	72.4	161.8

Red font indicates stabilization criteria to be achieved over three consecutive readings

Final Depth to Water (ft BTOC) *	Drawdown Observed (ft) *
Odor YES (NO)	Well Pumped Dry YES (NO)
End Well Evacuation (Time) 1340	Total Volume Purged (L) 6.0

SAMPLE COLLECTION INFORMATION

Sample ID 49MW02	PARAMETERS (Circle all applicable)
Sample Date & Time 5/22/25 1327	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID ———	SWMU 54 Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L) 2.1	Sample Collection Method ~~Low Flow~~ Other
Ferrous Iron (mg/L) 0.30	Sample Collection Depth (ft BTOC) * 2 feet above bottom

COMMENTS

* Sounder probe fell off + into well 48MW3 after sampling, unable to take readings

Synoptic Water Level Measurements

Radford Army Ammunition Plant SWMUs 49 & 54

Radford AAP, Virginia

Well Identification	Date	Time	Headspace Reading (ppm)	Depth to Water (ft BTOC)	Total Well Depth (ft BTOC)	Notes/Field Observations
SWMU 49						
13MW2	5/20/25	1526	0.0	20.12	30.60*	Soft bottom
13MW3	5/20/25	1408	0.1	14.57	16.10	roots/vegetation inside well, came up w/ tubing - Soft bottom
13MW4	5/20/25	1300	0.0	15.80	25.35	hard bottom
13MW5	5/20/25	1250	0.0	15.54	25.40	soft bottom
49MW04	5/20/25	1522	0.3	20.27	72.88*	Soft bottom
49MW05	5/20/25	1531	0.0	18.99	39.50	soft bottom
48MW6	5/20/25	1030	0.0	66.63	80.42	Soft bottom
48MW2	5/22/25	0752	0.1	124.55	136.70	Soft bottom
48MW3	5/22/25	1006	0.0	98.78 ~~112.15~~		~~Sounder tip broke off, unable to get TD getting stuck on obstruction,~~ Soft bottom
8MW1	5/~~20~~21/25	0800	0.1	106.81	147.32	Soft bottom
48MW7	5/20/25	0813	0.0	49.07	83.60	soft bottom
49MW01	5/20/25	0835	0.3	115.95	125.14	Soft bottom
49MW02	5/22/25	1054	0.1			Sounder tip broke off, unable to get DTW + TD
49MW03	5/20/25	0824	0.0	105.26	119.73	soft bottom
50MW2	5/~~20~~21/25	1015	0.1	115.62	120.80	Soft bottom
SWMU 54						
54MW1	5/19/25	1503	0.0	18.88	57.40	hard bottom
54MW10	5/19/25	1116	0.2	14.29	30.01	hard bottom
54MW12	5/19/25	1237	0.0	23.34	32.92	hard bottom
54MW13	5/19/25	0842	0.0	19.76	25.34	hard bottom

Key: ppm = parts per million ft = feet TOC = top of casing BTOC = below top of casing

*TD measured on 5/21/25 after sampling

320-10 FIELD INSPECTION REPORT

Contract Number:	W912DR19D0004	**Task Order No:**	W912DR24F0222	
CAPE Project No.:	10409-0222	**Date:**	22-May-25	
Project Location:	Radford Army Ammunition Plant, Radford, VA			
DFW:	SWMU 49 & SWMU 54 LTM Sampling	**Spec Sect.**		
Inspection Performed by:	Yoko Miyakawa			

1. DESCRIPTION OF WORK INSPECTED:

SWMU-48/49: Gauged and sampled wells 48MW2, 48MW3, and 49MW02.
Equipment blank taken at well 48MW2 at 0954 on deconned bladder pump; sample "48MW2-EQB."
Dumped approximately 5 gallons of IDW water into the second, SWMU-48/49 designated, labeled, 55-gal drum at ACD/BAE storage facility.
Sample "49IDW" taken, composited from both SWMU-48/49 drums, for waste characterization analysis at 1428.

2. TYPE OF INSPECTION:

☑ Visual ☐ Dimensional
☐ Non-Destructive Examination (NDE) ☐ Other _____

☐ In Progress ☐ Final

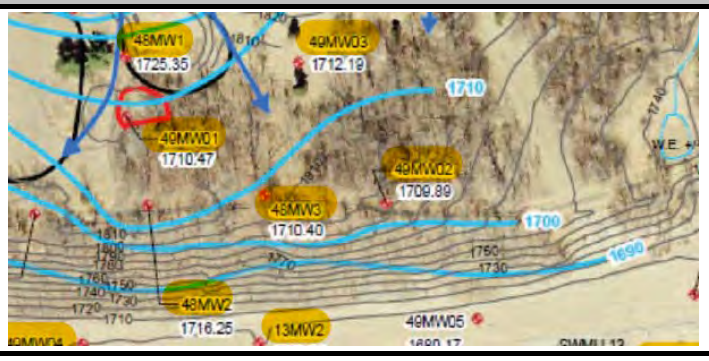
3. REFERENCED DRAWINGS / STANDARDS:

See below aerial view

4. FINDINGS:

Wells 48MW2, 48MW3, and 49MW02 were not labeled on the exterior, but were labeled on the cap or on the casing.
The spectrophotometer was not powering on this morning; it became operational after replacing the batteries.
The probe tip to the sounder/water level meter fell off and into well 48MW3 when the bladder pump was being pulled up after sampling completed; we were unable to take the total depth of the well. We were also unable to take water level readings, depth to water, and total depth at the next and final well (49MW02).

5. SKETCH, IF APPLICABLE:



Inspector: _____

Quality Control Representative: _____

CAPE

320-16 WASTE INVENTORY SUMMARY

Contract Number	W912DR19D0004	DO/TO No:	W912DR24F0222	CAPE Project #	10409-0222-002-003	Project Location	RAAP, Radford, VA

Process Generating Waste	*Groundwater produced through purging and sampling the monitoring wells. IDW water from SWMU 48/49 is captured and maintained separately from SWMU 54 IDW water throughout the handling process.*

Load Number	Date	Description	Quantity (TNS or GAL)	Waste Classification	Receiving Disposal Facility	Method of Disposal	Date of Disposal or Destruction
1	8/19/24	IDW waste from SWMU 49	7 gal	Pending Analysis	—		
2	8/20/24	IDW + decon water from SWMU 54	8 gal	Pending Analysis	—		
3	8/21/24	IDW + decon water from SWMU 49	4 gal	Pending Analysis	—		
4	8/22/24	IDW + decon water from SWMU 49	6 gal	Pending Analysis	—		
5							
6	12/9/24	IDW from SWMU 49	15 gal	Pending Analysis	—		
7	12/10/24	IDW + decon water SWMU 54	10 gal	Pending Analysis	—		
8	12/11/24	IDW + decon water SWMU 49	5 gal	Pending Analysis	—		
9	12/12/24	IDW + decon water SWMU 49	6 gal	Pending Analysis	—		
10	12/13/24	IDW + decon water SWMU 49	4 gal	Pending Analysis	—		
11							
12	IDW drum	SWMU 49 has ~45 gallons total			(as of 12/13/24)		
13	IDW drum	SWMU 54 has ~20 gallons total			(as of 12/13/24)		
14							
15	5/19/25	IDW + decon water SWMU 54	11 gal	Pending Analysis	—		
16	5/20/25	IDW + decon water SWMU 49	9 gal	Pending Analysis	—		
17	5/21/25	IDW + decon water SWMU 49 (Drum #2)	7 gal	Pending Analysis	—		
18	5/22/25	IDW + decon ~~water~~ SWMU 49 (Drum 2)	5 gal	Pending Analysis	—		
19							
20	IDW Drum #1	SWMU 48/49 has ~54 gallons total as of 5/22/25 (FULL)					
21	IDW Drum #2	SWMU 48/49 has ~12 gallons total as of 5/22/25					
22	IDW Drum	SWMU 54 has ~31 gallons total as of 5/22/25					
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							

CAPE

SITE CONTROL LOG

Date / Day: Thursday, May 22, 2025

Project Name/Number: RADFORD ARMY AMMUNITION PLANT-SWMU 49 & SWMU 54 SAMPLING / CONTRACT W912DR19D0004, TASK ORDER W912DR24F0222

Project Location: RADFORD ARMY AMMUNITION PLANT, RADFORD, VA

Time		Name (Print)	Signature	DO YOU HAVE AN INJURY TO REPORT? Y/N	Organization
In	Out				
0715	1516	Yoko Miyakawa		N	CAPE
0715	1516	Paul I. Taylor		N	Weston

TAILGATE SAFETY MEETING RECORD

DATE/TIME:	Thursday, May 22, 2025
PROJECT NAME:	Radford Army Ammunition Plant-SWMU 49 & SWMU 54 Sampling
PROJECT LOCATION:	Radford Army Ammunition Plant, Radford, VA
CAPE PROJECT NUMBER:	CO: W912DR19D0004, TO: W912DR24F0222
PROJECT MANAGER:	Matthew Feits
SITE SUPERINTENDENT:	
SITE HEALTH & SAFETY:	Yoko Miyakawa

SAFETY TOPICS PRESENTED	
Housekeeping hazards; Driving safety – distracted driving, changing conditions, etc.	
Protective Clothing/Equipment:	
Modified Level D PPE	Gloves as required
High visibility vests/outerwear as required	
Safety Toe Boots and Safety Glasses required	
Chemical Hazards:	
Potential for contact with the ground water and preservatives	
Physical Hazards:	
Slip, trip, and falls	Inclement weather
Heat stress	Drum handling
Biological hazards	
Emergency Procedures:	
Provide first aid to your level of training. Contact 911 for Emergency if required. Notify your supervisor and the SSHO.	
Emergency Hospital:	Carilion New River Valley Medical Center, 2900 Lamb Cir, Christiansburg, VA 24073
Hospital Telephone Number:	(540) 731-2000
Hospital Direction:	Map in APP
Special Equipment:	
By signing this form, I confirm that I have not been previously injured on this job without informing my supervisor, and that I will immediately report all incidents/injuries to my supervisors in the future.	

SAFETY MEETING ATTENDEES

#	Printed Name	Initial	#	Printed Name	Initial
1.	Yoko Miyakawa		16.		
2.	Paul I. Taylor		17.		
3.			18.		
4.			19.		
5.			20.		
6.			21.		
7.			22.		
8.			23.		
9.			24.		
10.			25.		
11.			26.		
12.			27.		
13.			28.		
14.			29.		
15.			30.		

Meeting Conducted By:

Signature _____

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May 22, 2025 4:17:59 PM

Radford Army Ammunition Plant
Radford, Virginia

5/22/25

Personnel: Y. Miyakawa (CAPE), P. Taylor (Weston)

Weather: 56°F Sunny, slight wind

Objective: GW sampling at SWMU 48/49

0715 P. Taylor + Y. Miyakawa onsite + checking in at guard stands
0733 Pulled over at truck pull off area to calibrate instruments:

YSI Pro Plus
- SpC 1413 µS/cm → ~~1006~~ 1413
- pH 4 → ~~10.02~~ 3.98
- pH 7 → 7.00
- pH 10 → 10.05
- ORP 240mV → 239.7

Micro Turbidity Meter
- 1000 NTU → 1006
- 10.0 NTU → 10.02
- 0.02 NTU → ~~1.41~~ 0.00

MiniRae
- 100 ppm Isobutylene → 100.1

0751 Setting up at well 48MW2
0814 pump is set at one cycle per minute

Rain on the Rain

0920 Sample 48MW2 was taken - see sample sheet
0938 Spectrophotometer was dead - likely from leaving in vehicle overnight. replaced batteries + was operational
0954 Equipment blank taken here on decon'ed bladder pump → "48MW2-EQ13"
1003 Heading to 48MW3 to setup + gauge.
1020 Setting pump to one cycle per minute
1034 Pump was pulled, was not producing water; ~~contd~~ going to replace tubing
1040 re set pump - pump must have been set too high, right above water column
1042 Starting pump
1123 48MW3 Sample taken - see sample sheet
1158 water level meter tip Fell off + into well 48MW3 after pulling up the bladder pump after sampling; was unable to take TD of well. Will be unable to take water level readings at next well 49MW02. Was directed by M. Feits to proceed.
1211 Setting up at well 49MW02
1220 pump set to one cycle per minute

1327 Sample taken 49MW02 - see sample sheet
1357 Heading to bathroom and then trash/ ACD to drop off IDW water.
1419 dropping off approx ~5 gal into SWMU 48/49 designated, labeled drum (Second drum)
1428 Taking composite sample for both SWMU 48/49 drums: "49IDW" for waste characterization
1440 dropping off trash + taking inventory see next page for inventory list. Going to visitor parking across from 220 to take inventory + meet w/ Matt Alberts to hand off equipment storage tote.
1510 Met w/ M. Alberts to drop off eq. Tote.
1516 P. Taylor + Y. Miyakawa offsite.

Samples will be shipped to CT Labs in Baraboo, WI.

5/22/25

Inventory List

1 and ½ bottles of liquinox
Isobutylene can
1 and ½ boxes of XL gloves
1 box of L gloves
⅓ box of M gloves
1 threaded rod
Spectrophotometer reagent packs (2b each)
1 broomhandle w/ string
1 Fire extinguisher
3/4 full box Kim-wipes
3 buckets w/ lids
2 Rubbermaid tubs - 1.5 & 2.5 Gal
2 Empty spray bottles
4 bladders
~200 ft banded bladder pump tubing
4 eyewash saline bottles EXP 5/27
1 full roll packing tape
Bladder Pump Maintenance Kit
First aid kit
1 full Nylon Rope
Ultra fine sharpies
Ball point pens
Sharpies
25-ft Silicone Tubing
8 Trip Blanks
2 Locks
~15 contractor bags

Lg ziploc bags
YSI calibration fluid (SpC, pH 4, 7, 10, ORP)
4 voa sponge holders
Spare H_2SO_4 preserved poly (9)
HNO_3 preserved poly (1)
~~2~~ Lg Ambers (4)
~~HCl~~ NP voas (8)
3/4 roll paper towel roll
Sm drink cooler

20 October 2025

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: Cape Environmental
Address: 500 Pinnacle Court #100
City: Norcross State: GA Zip: 30071
Project Contact: Matt Feits Email: mfeits@cape-inc.com & chemistry5VCS@cape-inc.com
Phone #: (724) 622-3625
Sampler(s) Name(s) (Printed)
Sampler 1: Y. Miyakawa Sampler 2: P. Taylor

Project Information

Project Name: Radford AAP SWMU 54
Street
City Radford State VA
Project #
Fax #
Client Purchase Order #

Analytical Information

Perchlorate LLC 6850
1,4 Dioxane LC 8330B XLC 3NX

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE 2025	TIME	SAMPLED BY	MATRIX	CONTAINER INFORMATION TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NACH+ZNA	DI WATER	MEOH	Perchlorate LLC 6850	1,4 Dioxane LC 8330B XLC 3NX	LAB USE ONLY
	54MW13	10/20	0940	YM/PT	GW	9		X								3	6	MS/MSD
	54MW10	10/20	1220	YM/PT	GW	3		X								1	2	
	54TW10	10/20	1220	YM/PT	GW	3		X								1	2	
	54MW12	10/20	1413	YM/PT	GW	3		X								1	2	
	54MW1	10/20	1520	YM/PT	GW	3		X								1	2	

Turnaround Time (Business days)

10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	10/20/2025 1800	2 FedEx	3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: CAPE Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP SWMU 54
Project #:
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: ChemistryNCS@cape-inc.com
EMAIL: mfeits@cape-inc.com
Company: Cape Environmental Mgmt.
Address: 500 Pinnacle Ct. #100 Norcross, GA 30071

Invoice To:*
EMAIL:
Company: Same
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

IDW Sample

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	pH 9040	COD 410.4	Total Metals 6010C/7470A	Total # Containers	Designated MS/MSD
10/20/25	1625	GW	G		54 IDW	N	X	X	X	3	

ANALYSES REQUESTED
Fill in Spaces with Bottles per Test

Turnaround Time
(Normal) RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

CT Lab ID #
Lab use only

Relinquished By:	Date/Time	Received By:	Date/Time
	10/20/2025 1800	FedEx	10/20/2025 1800
Received by:	Date/Time	Received for Laboratory by:	Date/Time

Lab Use Only
Ice Present Yes No
Temp _____ IR Gun _____
Cooler # _____

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Cape Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford, VA SWMU 54
Project #:
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To:
EMAIL: ChemistrySVCS@Cape-inc.com
Company: mfeits@cape-inc.com
Address: CAPE Environmental Mgmt. 500 Pinnacle Ct. #100

Invoice To:* Norcross, GA 30071
EMAIL:
Company: Same
Address:

**Client Special Instructions*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions*

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
(Normal) RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	ANALYSES REQUESTED: TOC 9060A	Anions 9056A	IIC 9060A	Chlorate/Chlorite	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
						Fill in Spaces with Bottles per Test							
10/20	0940	GW	G		54MW13	N	3	3	9	3	18	X	
10/20	1220	GW	G		54MW10	N	1	1	3	1	6	X MS	
10/20	1220	GW	G		54TW10	N	1	1	3	1	6		
10/20	1413	GW	G		54MW12	N	1	1	3	1	6		
10/20	1520	GW	G		54MW1	N	1	1	3	1	6		

Relinquished By:	Date/Time	Received By:	Date/Time
	10/20/2025 1800	FedEx	10/20/2025 1800
Received by:	Date/Time	Received for Laboratory by:	Date/Time

Lab Use Only
Ice Present Yes No
Temp _____ IR Gun _____
Cooler # _____

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/20/25
Well ID: 54MW13	Weather: 44°, Sunny
Sampling Team: P. Taylor, Y. Miyakawa	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: labeled on casing
Locked: (YES)/NO	Measuring Point Marked: (YES)/NO
Concrete Base: (Intact)/Damaged Covered in vegetation	Comments: recently mowed
Casing Diameter: ½ in., ¾ in., 1 in., 1 ¼ (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 25.32	Well Evacuation Method (peristaltic), bladder pump, other):
Depth to Water (ft. BTOC): 23.43	Screen Interval (ft. BGS): 20-25
Begin Well Evacuation (Time): 0910	Evacuation Rate (Lpm) 0.125
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0915	0.625	23.77	13.6	651	3.08	6.60	220.1	5.09
0920	1.25	23.75	13.5	637	2.74	6.67	214.3	2.81
0925	1.875	23.75	13.4	620	3.26	6.69	209.2	0.75
0930	2.5	23.76	13.4	611	3.71	6.71	204.3	0.53
0935	3.125	23.75	13.5	608	3.95	6.70	201.6	0.45
0940	3.75	23.75	13.5	607	4.03	6.70	199.8	0.70

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 23.75	Drawdown Observed (ft): 0.32
Odor: YES /(NO)	Well Pumped Dry: YES /(NO)
End Well Evacuation (Time): 11:14	Total Volume Purged (L): 3.75

SAMPLE COLLECTION INFORMATION

Sample ID: 54MW13	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/20/25 0940	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.0	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.14	Sample Collection Depth (ft. BTOC): 24.82

COMMENTS

MS/MSDs collected here

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/20/25
Well ID: 54 MW10	Weather: 54°, Sunny
Sampling Team: P. Taylor, Y. Miyakawa	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: ID written on casing
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: Intact/Damaged covered w/ vegetation	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in. (4 in.), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 30.33	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 17.43	Screen Interval (ft. BGS): 25-30
Begin Well Evacuation (Time): 1140	Evacuation Rate (Lpm): 0.2
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1145	1L	17.57	14.5	822	0.41	6.84	76.1	5.34
1150	2L	17.59	14.5	799	0.26	6.88	46.7	2.59
1155	3L	17.59	14.4	790	0.20	6.90	35.0	1.59
1200	4L	17.61	14.3	787	0.16	6.90	25.1	2.55
1205	5L	17.62	14.3	782	0.15	6.91	14.4	0.71
1210	6L	17.62	14.4	780	0.13	6.91	6.8	0.62
1215	7L	17.62	14.5	779	0.12	6.91	1.1	0.64
1220	8L	17.62	14.5	779	0.11	6.91	-3.2	1.26

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 17.62	Drawdown Observed (ft): 0.19
Odor: (YES) / NO sulfur smell	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1251	Total Volume Purged (L): 8L

SAMPLE COLLECTION INFORMATION

Sample ID: 54MW10	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/20/25 1220	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: 54TW10	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.3	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.23	Sample Collection Depth (ft. BTOC): 16.93

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/20/25
Well ID: 54MW12	Weather: 58° Sunny
Sampling Team: C. Taylor, Y. Miyakawa	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: ID on casing
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 32.98	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 26.85	Screen Interval (ft. BGS): 25-30
Begin Well Evacuation (Time): 1333	Evacuation Rate (Lpm): 0.25
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1338	1.25	26.87	14.1	605	0.77	6.91	122.2	76.1
1343	2.5	26.87	14.1	547	2.05	6.75	120.9	73.8
1348	3.75	26.87	14.2	445.3	4.52	6.54	127.0	30.5
1353	5.0	26.87	14.2	417.5	5.22	6.48	130.7	9.64
1358	6.25	26.87	14.2	398.5	5.39	6.48	133.7	2.89
1403	7.5	26.87	14.2	382.3	5.66	6.42	135.7	1.71
1408	8.75	26.87	14.2	378.9	5.64	6.41	137.7	1.03
1413	10.00	26.87	14.2	377.6	5.79	6.42	138.8	0.75

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 26.87	Drawdown Observed (ft): 0.02
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1436	Total Volume Purged (L): 10 L

SAMPLE COLLECTION INFORMATION

Sample ID: 54MW12	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/20/25 1413	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: ———	(SWMU 54): Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.2	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.16	Sample Collection Depth (ft. BTOC): 32.48

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/20/25
Well ID: 54MW1	Weather: 60°, Sunny
Sampling Team: P. Taylor, Y. Miyakawa	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: ID written on casing cap; Tag on lid
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 57.39	Well Evacuation Method: (peristaltic), bladder pump, other):
Depth to Water (ft. BTOC): 20.95	Screen Interval (ft. BGS): 50-55
Begin Well Evacuation (Time): 1500	Evacuation Rate (Lpm): 0.25
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1505	1.25	21.64	14.5	435.6	0.50	7.13	70.9	1.52
1510	2.5	21.97	14.4	435.4	0.35	7.16	65.2	1.31
1515	3.75	22.41	14.3	435.6	0.28	7.16	64.1	0.77
1520	5.0	22.66	14.2	435.5	0.26	7.18	63.7	0.42
(YM) ~~1525~~	~~6.25~~							

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 22.66	Drawdown Observed (ft): 1.71
Odor: (YES) / NO little sulfur smell	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1551	Total Volume Purged (L): 5 L

SAMPLE COLLECTION INFORMATION

Sample ID: 54MW1	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/20/25 1520	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.2	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.15	Sample Collection Depth (ft. BTOC): 56.89

COMMENTS

Synoptic Water Level Measurements

Radford Army Ammunition Plant SWMUs 49 & 54

Radford AAP, Virginia

Well Identification	Date	Time	Headspace Reading (ppm)	Depth to Water (ft BTOC)	Total Well Depth (ft BTOC)	Notes/Field Observations
SWMU 49						
13MW2	10/17/25	1122	0.0	22.05	30.49	Hard bottom
13MW3	10/17/25	1146	0.0	15.36	22.07	Soft bottom; vegetation in well
13MW4	10/17/25	1159	0.0	17.67	25.36	Hard bottom
13MW5	10/17/25	1211	0.0	18.21	25.35	Soft bottom
49MW04	10/17/25	1108	0.3	21.65	72.84	Hard bottom
49MW05	10/17/25	1137	0.0	20.40	39.40	Soft bottom
48MW1	10/17/25	1317	0.0	109.66	142.18	Soft bottom; muddy bottom
48MW2	10/17/25	1357	0.0	125.55	136.51	Soft bottom; muddy
48MW3	10/17/25	1411	0.0	99.03	122.31	Hard bottom
8MW6	10/17/25	1247	0.7	66.66	79.63	Soft bottom; muddy
48MW7	10/17/25	1235	0.6	50.52	83.72	Soft bottom
49MW01	10/17/25	1333	0.0	115.95	124.28	Soft bottom; muddy
49MW02	10/17/25	1424	0.0	95.85	134.66	Soft bottom
49MW03	10/17/25	1304	0.0	105.53	119.81	Soft bottom; muddy
50MW2	10/17/25	1346	0.0	117.07	120.43	Soft bottom; muddy
SWMU 54						
54MW1	10/20/25	1448	0.0	20.95	57.39	hard bottom
54MW10	10/20/25	1125	0.0	17.43	30.33	soft bottom
54MW12	10/20/25	1318	0.0	26.85	32.98	hard bottom
54MW13	10/20/25	0850	0.0	23.43	25.32	hard bottom

Key: ppm = parts per million ft = feet TOC = top of casing BTOC = below top of casing

320-10 FIELD INSPECTION REPORT

Contract Number:	W912DR19D0004	**Task Order No:**	W912DR24F0222	
CAPE Project No.:	10409-0222	**Date:**	20-Oct-25	
Project Location:	Radford Army Ammunition Plant, Radford, VA			
DFW:	SWMU 49 & SWMU 54 LTM Sampling	**Spec Sect.**		
Inspection Performed by:	Yoko Miyakawa			

1. DESCRIPTION OF WORK INSPECTED:

SWMU-54: Gauged and sampled wells 54MW13 (including MS/MSD), 54MW10 (including field duplicate "54TW10"), 54MW12, and 54MW1.
Dumped approximately 10 gallons of IDW water into SWMU-54 designated, labeled, 55-gal drum at ACD/BAE storage facility.
Sample "54IDW" taken for waste characterization analysis at 1625.

2. TYPE OF INSPECTION:

☑ Visual ☐ Dimensional
☐ Non-Destructive Examination (NDE) ☐ Other _____
☐ In Progress ☐ Final

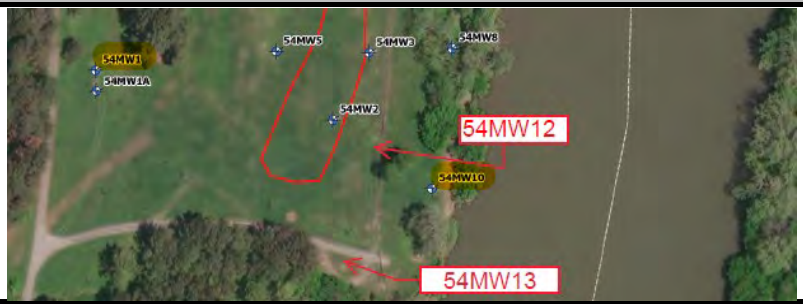
3. REFERENCED DRAWINGS / STANDARDS:

See below aerial view

4. FINDINGS:

Spectrophotometer was dead and required new batteries, likely due to the cold temperatures.
Wells inspected/sampled today did not have an ID on the exterior (54MW13, 54MW10, 54MW12, 54MW1).
Well 54MW10 concrete pad is covered in vegetation.

5. SKETCH, IF APPLICABLE:



Inspector: _____

Quality Control Representative: _____

CAPE

320-16 WASTE INVENTORY SUMMARY

Contract Number	W912DR19D0004	DO/TO No:	W912DR24F0222	CAPE Project #	10409-0222-002-003	Project Location	RAAP, Radford, VA

Process Generating Waste	Groundwater produced through purging and sampling the monitoring wells. IDW water from SWMU 48/49 is captured and maintained separately from SWMU 54 IDW water throughout the handling process.

Load Number	Date	Description	Quantity (TNS or GAL)	Waste Classification	Receiving Disposal Facility	Method of Disposal	Date of Disposal or Destruction
1	8/19/24	IDW waste from SWMU 49	7 gal	Pending Analysis	—		
2	8/20/24	IDW + decon water from SWMU 54	8 gal	Pending Analysis	—		
3	8/21/24	IDW + decon water from SWMU 49	4 gal	Pending Analysis	—		
4	8/22/24	IDW + decon water from SWMU 49	6 gal	Pending Analysis	—		
5							
6	12/9/24	IDW from SWMU 49	15 gal	Pending Analysis	—		
7	12/10/24	IDW + decon water SWMU 54	10 gal	Pending Analysis	—		
8	12/11/24	IDW + decon water SWMU 49	5 gal	Pending Analysis	—		
9	12/12/24	IDW + decon water SWMU 49	6 gal	Pending Analysis	—		
10	12/13/24	IDW + decon water SWMU 49	4 gal	Pending Analysis	—		
11							
12	IDW drum	SWMU 49 has ~45 gallons total		(as of 12/13/24)			
13	IDW drum	SWMU 54 has ~20 gallons total		(as of 12/13/24)			
14							
15	5/19/25	IDW + decon water SWMU 54	11 gal	Pending Analysis	—		
16	5/20/25	IDW + decon water SWMU 49	9 gal	Pending Analysis	—		
17	5/21/25	IDW + decon water SWMU 49 (Drum #2)	7 gal	Pending Analysis	—		
18	5/22/25	IDW + decon water SWMU 49 (Drum 2)	5 gal	Pending Analysis	—		
19							
20	IDW Drum #1	SWMU 48/49 has ~54 gallons total as of 5/22/25 (FULL)					
21	IDW Drum #2	SWMU 48/49 has ~12 gallons total as of 5/22/25					
22	IDW Drum	SWMU 54 has ~31 gallons total as of 5/22/25					
23							
24	10/20/25	IDW + decon water SWMU 54	10 gal	Pending Analysis	—		
25							
26							
27							
28							
29							
30							
31							
32							

TOTAL QUANTITY:

0.00

CAPE

SITE CONTROL LOG

Date / Day: Monday, October 20, 2025

Project Name/Number: RADFORD ARMY AMMUNITION PLANT-SWMU 49 & SWMU 54 SAMPLING / CONTRACT W912DR19D0004, TASK ORDER W912DR24F0222

Project Location: RADFORD ARMY AMMUNITION PLANT, RADFORD, VA

Time		Name (Print)	Signature	DO YOU HAVE AN INJURY TO REPORT? Y/N	Organization
In	Out				
0734	1642	YokoMiyakawa		N	CAPE
0734	1642	Paul I. Taylor		N	Weston

TAILGATE SAFETY MEETING RECORD

DATE/TIME:	Monday, October 20, 2025
PROJECT NAME:	Radford Army Ammunition Plant-SWMU 49 & SWMU 54 Sampling
PROJECT LOCATION:	Radford Army Ammunition Plant, Radford, VA
CAPE PROJECT NUMBER:	CO: W912DR19D0004, TO: W912DR24F0222
PROJECT MANAGER:	Matthew Feits
SITE SUPERINTENDENT:	
SITE HEALTH & SAFETY:	Yoko Miyakawa

SAFETY TOPICS PRESENTED	
Slips, trips, falls; Distractions	
Protective Clothing/Equipment:	
Modified Level D PPE	Gloves as required
High visibility vests/outerwear as required	
Safety Toe Boots and Safety Glasses required	
Chemical Hazards:	
Potential for contact with the ground water and preservatives	
Physical Hazards:	
Slip, trip, and falls	Inclement weather
Heat stress	Drum handling
Biological hazards	
Emergency Procedures:	
Provide first aid to your level of training. Contact 911 for Emergency if required. Notify your supervisor and the SSHO.	
Emergency Hospital:	Carilion New River Valley Medical Center, 2900 Lamb Cir, Christiansburg, VA 24073
Hospital Telephone Number:	(540) 731-2000
Hospital Direction:	Map in APP
Special Equipment:	
By signing this form, I confirm that I have not been previously injured on this job without informing my supervisor, and that I will immediately report all incidents/injuries to my supervisors in the future.	

SAFETY MEETING ATTENDEES

#	Printed Name	Initial	#	Printed Name	Initial
1.	Yoko Miyakawa	YM	16.		
2.	Paul I. Taylor	PIT	17.		
3.			18.		
4.			19.		
5.			20.		
6.			21.		
7.			22.		
8.			23.		
9.			24.		
10.			25.		
11.			26.		
12.			27.		
13.			28.		
14.			29.		
15.			30.		

Meeting Conducted By:

Signature _____

FedEx®

Address: 305 ROANOKE STREET
CHRISTIANSBURG
VA 24073
Location: WALA
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Tracking Number:
461950128328 50.00 lb (M)

FedEx Express Package(s) - Dropped Off
Tracking Number:
461950128340 58.4 lb (M)

FedEx Express Package(s) - Dropped Off
Tracking Number:
885277209879 69.8 lb (M)

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Oct 20, 2025 5:55:29 PM

Radford Army Ammunition Plant
Radford, VA

10/20/25 125

Personnel: Y. Miyakawa (ARS), P. Taylor (Weston)

Weather: 42°F, Clear

Objective: GW Sampling @ SWMU 49+54

0734 P. Taylor + Y. Miyakawa arrive to visitor center to get badging

0748 meeting Laura Dickerson (US Army) for site keys at building 220 - M. Alberts is off today

0758 heading to MW-1 trash site to drop off cardboard

0816 at burning grounds to coordinate w/ SUPS - he says we need to sample after they burn in AM.

0823 arrive @ 54MW13; setting up + completing safety meeting + paperwork

0838 performing calibrations:

YSI Pro DSS: #650730

pH 4 ⟶ 4.00 pH

pH 7 ⟶ 7.06 pH

pH 10 ⟶ 10.16 pH

ORP 240 mV → 241.0

1.413 mS/cm cond → 1.410

PID: RFW2377

100 ppm isobutylene ⟶ 100.1 ppm

Turbidity meter: HACH 2100Q Lot# 232967

10 NTU → 9.89

20 NTU → 20.1

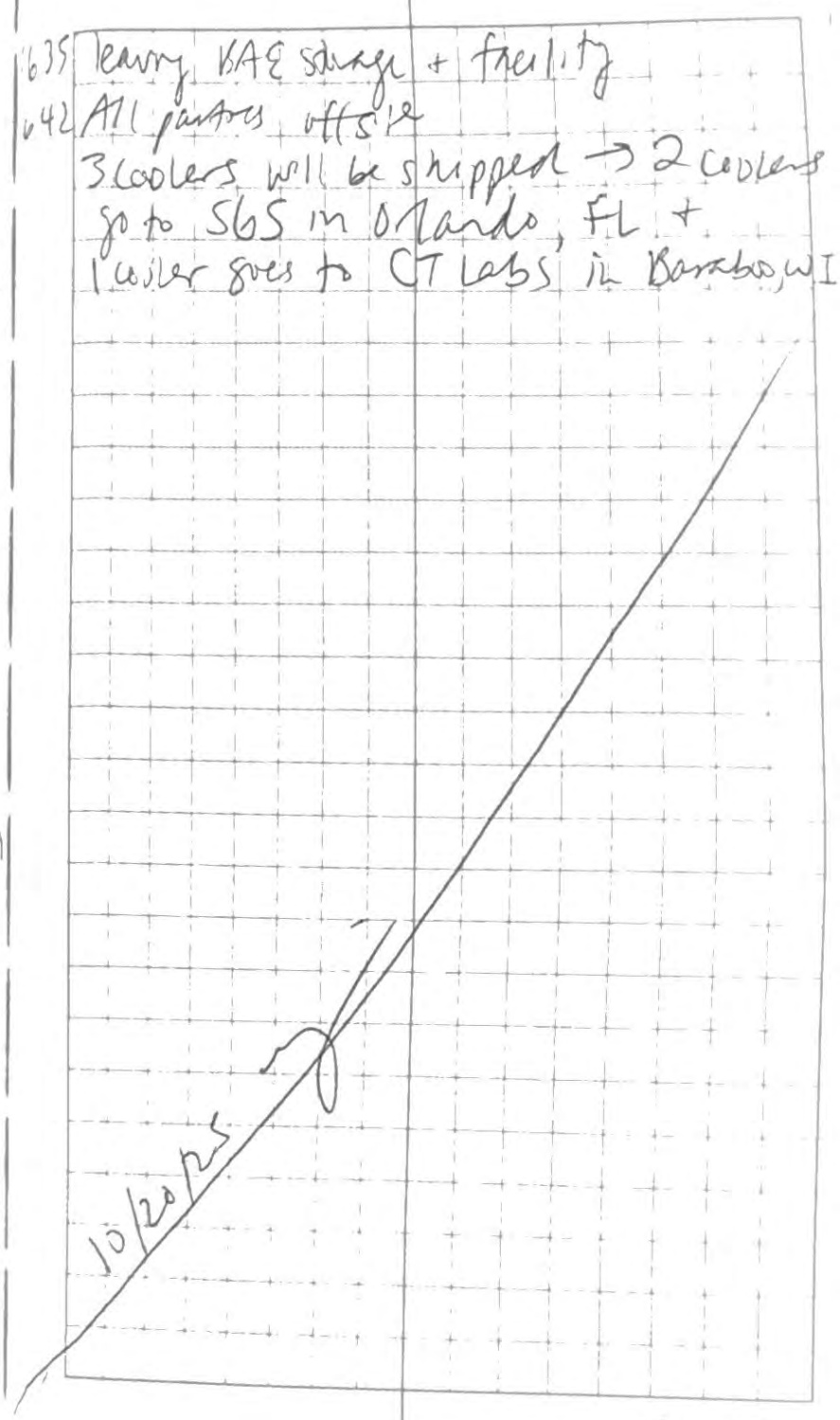
100 NTU → 99.8

800 NTU → 789

Rite in the Rain.

0550 taking headspace reading. + DTW @ 54MW13
DTW: 23.43'
0907 starting purge @ 54MW13
0950 HACH Spectrophotometer (DR12010) was dead + needed new batteries → cold temp related
* P. Taylor was onsite 10/15/25 for vehicle test + to get vendor passes. He also took Synoptic water level readings @ all wells @ SWMU 49 on 10/17/25 + received permits prior to mobilization on 10/20/25
1120 finished sampling; moving to 54MW10
1125 setting up @ 54MW10 + taking readings
1140 purging well 54MW10; finished samples + going to restrooms
1318 setting up at 54MW12
1445 finished sampling + moving to SWMU54 (last well)
1450 setting up @ 54MW1 + taking readings
1600 finished sampling; cleaning up to head to AUD / BAE storage to dump IDW + sample
1623 dumping approx. 10 gal IDW into SWMU54 labeled, 55-gal drum (purge decon water) Drum in good condition - 2/3's full.
1625 taking IDW sample "54IDW"
Drum #1 SWMU 49 is good
Drum # 2 SWMU 49 requires label; added new label

1635 leaving BAE storage + facility
1642 All parties offsite
3 coolers will be shipped → 2 coolers go to S&S in Orlando, FL + 1 cooler goes to CT Labs in Barstow, WI



Rite in the Rain

21 October 2025

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: CAPE Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP
Project #: SWMU 48/49
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: Chemistry SVCS@capeinc.com
EMAIL: mfeits@cape-inc.com
Company: CAPE Environmental Mgmt.
Address: 500 Pinnacle Ct. #100
Norcross, GA 30071

Invoice To:* Same
EMAIL:
Company:
Address:

**Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions*

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOC 8260C	MEE RSK-175	TOC 9060A	Anions 9056A	Total # Containers	Designated MS/MSD
							Fill in Spaces with Bottles per Test					
10/21	0000	GW	G		TB-1	N	2				2	
10/21	0935	GW	G		48MW7	N	3	2	1	1	7	
10/21	1005	GW	G		48MW7-EQB	N	3	2	1	1	7	
10/21	1137	GW	G		13MW5	N	9	6	3	3	21	X
10/21	1325	GW	G		13MW4	N	3	2	1	1	7	
10/21	1458	GW	G		13MW3	N	3	2	1	1	7	

Trip Blank

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

CT Lab ID #
Lab use only

Relinquished By:	Date/Time	Received By:	Date/Time
	10/21/2025 1800	FedEx	10/21/2025 1800
Received by:	Date/Time	Received for Laboratory by:	Date/Time

Lab Use Only
Ice Present Yes No
Temp _____ IR Gun _____
Cooler # _____

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Cape Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP SWMU 54
Project #:
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: Chemistry SVCS@cape-inc.com
EMAIL: mfeits@cape-inc.com
Company: CAPE Environmental Mgmt.
Address: 500 Pinnacle Court #100
Norcross, GA 30071
Invoice To:* EMAIL:
Company: same
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	ANALYSES REQUESTED: MEE RSK-175	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test			
10/21	1230	GW	G		54MW12	N	2	2		
10/21	1245	GW	G		54MW1	N	2	2		

Relinquished By:	Date/Time	Received By:	Date/Time	Lab Use Only
	10/21/2025 1808	FedEx	10/21/2025 1800	Ice Present Yes No
Received by:	Date/Time	Received for Laboratory by:	Date/Time	Temp _____ IR Gun _____
				Cooler # _____

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/21/25
Well ID: 54MW12	Weather:
Sampling Team: V Taylor, Y. Miyakawa	Sampler's Signature:

WELL INSPECTION

Protective Casing: Intact/Damaged	Well ID Tag Condition:
Locked: YES / NO	Measuring Point Marked: YES / NO
Concrete Base: Intact/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC):	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC):	Screen Interval (ft. BGS):
Begin Well Evacuation (Time):	Evacuation Rate (Lpm):
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm):

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
Did not need to stabilize, per M. Greenwald (CABE) - within 24 hrs of collecting sample on 10/20/25								

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC):	Drawdown Observed (ft):
Odor: YES / NO	Well Pumped Dry: YES / NO
End Well Evacuation (Time):	Total Volume Purged (L):

SAMPLE COLLECTION INFORMATION

Sample ID: 54MW12	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/21/25 1230	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: ~~Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn~~ MEE only
Manganese (mg/L): see 10/20/25 sheet	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): see 10/20/25 sheet	Sample Collection Depth (ft. BTOC):

COMMENTS

resample due to missing MEE analysis

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/21/25
Well ID: 54MW1	Weather:
Sampling Team: P. Taylor, M. McGraw	Sampler's Signature:

WELL INSPECTION

Protective Casing: Intact/Damaged	Well ID Tag Condition:
Locked: YES / NO	Measuring Point Marked: YES / NO
Concrete Base: Intact/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC):	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC):	Screen Interval (ft. BGS):
Begin Well Evacuation (Time):	Evacuation Rate (Lpm) :
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm):

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
Did not need to restabilize, per M. Greenwald – within 24 hrs of collecting sample on 10/20/25								

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC):	Drawdown Observed (ft):
Odor: YES / NO	Well Pumped Dry: YES / NO
End Well Evacuation (Time):	Total Volume Purged (L):

SAMPLE COLLECTION INFORMATION

Sample ID: 54MW1	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/21/25 1230 (PM) 1245	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: ~~Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn~~ MEE only
Manganese (mg/L): See 10/20/25 sample sheet	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): See 10/20/25 sheet	Sample Collection Depth (ft. BTOC):

COMMENTS

Resample due to missing MEE analysis

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/21/25
Well ID: 48MW07	Weather: 41° Foggy
Sampling Team: P. Taylor, Y. Miyakawa	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: Labeled on casing
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact)/Damaged	Comments: muddy during purging
Casing Diameter: ½ in., ¾ in., 1 in., 1 ¼, (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 53.12	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 50.59	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 0900	Evacuation Rate (Lpm): 0.1
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0905	0.5	51.30	12.8	203.3	7.85	7.53	200.1	overrange
0910	1.0	51.88	13.0	202.9	7.76	7.88	195.2	overrange
0915	1.5	52.16	13.1	202.7	7.72	7.92	187.4	overrange
0920	2.0	52.46	13.0	202.6	7.70	8.00	127.2	overrange
0925	2.5	52.70	13.0	202.8	7.67	8.00	136.5	886
0930	3.0	52.88	13.1	202.7	7.63	8.03	139.7	823
0935	3.5	53.04	13.0	203.0	7.59	8.05	140.4	703

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 53.04	Drawdown Observed (ft): 2.45
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 0953	Total Volume Purged (L): 3.5

SAMPLE COLLECTION INFORMATION

Sample ID: 48MW7	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/21/25 0935	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.9	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.58	Sample Collection Depth (ft. BTOC): 51.72

COMMENTS

all parameters stable except Turbidity — taking sample

Equipment Blank Taken here: 48MW7-EQB @ 1005

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/21/25
Well ID: 13MW5	Weather: 58°F, Sunny
Sampling Team: P Taylor, Y. McKenna	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: Good
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., (4 in.), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 25.35	Well Evacuation Method: (peristaltic) / bladder pump, other):
Depth to Water (ft. BTOC): 18.01	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1107	Evacuation Rate (Lpm): 0.2
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.6

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1112	1.0	18.04	15.4	789	2.27	6.93	143.1	209
1117	2.0	18.04	15.4	789	2.05	6.97	141.4	71.3
1122	3.0	18.04	15.4	789	2.01	7.00	140.0	48.9
1127	4.0	18.04	15.4	788	2.07	7.01	138.9	21.3
1132	5.0	18.04	15.4	788	2.16	7.01	138.7	12.0
1137	6.0	18.04	15.5	787	2.21	7.00	138.7	7.64
(YM) ~~1142~~	~~7.0~~							
~~1147~~	~~8.0~~							

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 18.04	Drawdown Observed (ft): 0.03
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1210	Total Volume Purged (L): 6.0

SAMPLE COLLECTION INFORMATION

Sample ID: 13MW5	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/21/25 1137	(SWMU 49:) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.2	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.14	Sample Collection Depth (ft. BTOC): 20.05

COMMENTS

MS/MSDs taken here

Everything stabilized except Turbidity, but below 10 NTUs — taking sample

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/21/25
Well ID: 13MW4	Weather: 67°, Sunny
Sampling Team: P. Taylor, A. McKeever	Sampler's Signature:

WELL INSPECTION

Protective Casing: Intact/Damaged	Well ID Tag Condition: well sign bent
Locked: YES / NO	Measuring Point Marked: YES / NO
Concrete Base: Intact/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 25.36	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 17.80	Screen Interval (ft. BGS): 20-25
Begin Well Evacuation (Time): 1310	Evacuation Rate (Lpm): 0.25
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1315	1.25	18.09	16.4	545	0.46	7.02	140.2	8.43
1320	2.5	18.25	16.4	544	0.32	7.06	136.6	7.11
1325	3.75	18.43	16.5	545	0.27	7.08	133.9	6.13

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 18.43	Drawdown Observed (ft): 0.63
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1336	Total Volume Purged (L): 3.75

SAMPLE COLLECTION INFORMATION

Sample ID: 13MW4	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/21/25 ~~0~~ 1325	~~SWMU 49:~~ VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: ———	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.3	Sample Collection Method: ~~Low Flow~~ Other:
Ferrous Iron (mg/L): 0.14	Sample Collection Depth (ft. BTOC): 24.86

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/21/25
Well ID: 13MW3	Weather: 69°, Sunny, Windy
Sampling Team: P. Taylor, Y. Miyakawa	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: Good
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., (4 in.), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 22.07	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 15.84	Screen Interval (ft. BGS): 15-20
Begin Well Evacuation (Time): 1358	Evacuation Rate (Lpm): 0.250
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1403	1.25	15.84	17.4	685	0.47	6.68	-63.5	10.0
1408	2.5	15.84	17.3	668	0.53	6.76	-49.8	6.49
1413	3.75	15.84	17.4	640	0.00	6.82	-19.4	5.76
1418	5.0	15.84	17.4	621	1.59	6.83	+13.2	5.17
1423	6.25	15.84	17.4	610	1.81	6.84	34.1	5.70
1428	7.5	15.84	17.5	592	2.46	6.84	49.7	3.70
1433	8.75	15.84	17.5	577	2.90	6.83	61.0	3.37
1438	10.0	15.84	17.5	569	3.01	6.83	69.6	2.58
1443	11.25	15.84	17.5	565	3.25	6.82	76.4	2.31
1448	12.5	15.84	17.5	561	3.37	6.83	81.1	1.62
1453	13.75	15.84	17.4	560	3.65	6.82	84.7	1.30
1458	15.0	15.84	17.5	558	3.57	6.82	87.9	1.20

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 15.84	Drawdown Observed (ft): 0.0
Odor: (YES) / NO Sulfur	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time):	Total Volume Purged (L): 15

SAMPLE COLLECTION INFORMATION

Sample ID: 13MW3	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/21/25 1458	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: ———	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.0	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.14	Sample Collection Depth (ft. BTOC): 21.57

COMMENTS

320-10 FIELD INSPECTION REPORT

Contract Number:	W912DR19D0004	**Task Order No:**	W912DR24F0222	
CAPE Project No.:	10409-0222	**Date:**	21-Oct-25	
Project Location:	Radford Army Ammunition Plant, Radford, VA			
DFW:	SWMU 49 & SWMU 54 LTM Sampling	**Spec Sect.**		
Inspection Performed by:	Yoko Miyakawa			

1. DESCRIPTION OF WORK INSPECTED:

SWMU-49: Gauged and sampled wells, 48MW7, 13MW5, 13MW4, and 13MW3.
Equipment blank taken at well 48MW7 at 1005 on deconned bladder pump; sample "48MW7-EQB."
SWMU-54: Sampled for dissolved gases at wells 54MW1 and 54MW12.
Dumped approximately 10 gallons of IDW water into SWMU-49 designated, labeled, 55-gal drum and 250mL of IDW water into SWMU-55 designated, labeled, 55-gal drum at ACD/BAE storage facility.

2. TYPE OF INSPECTION:

☑ Visual ☐ Dimensional
☐ Non-Destructive Examination (NDE) ☐ Other _____
☐ In Progress ☐ Final

3. REFERENCED DRAWINGS / STANDARDS:

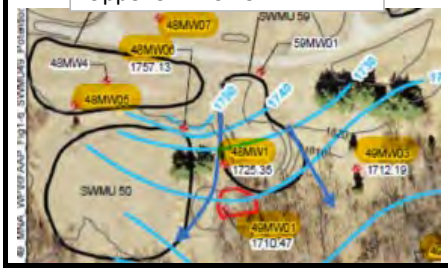
See below aerial view

4. FINDINGS:

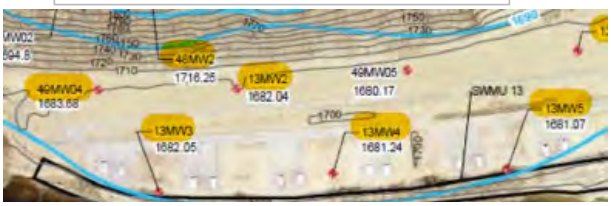
Burning grounds wells accessible to sample in the afternoons after incineration.
Samples for dissolved gases analysis were inadvertently missed for SWMU 54 samples yesterday; by direction of Margaret Greenwald (CAPE) to collect the samples within 24 hours without needing to restabilize the wells, samples were collected at 54MW1 and 54MW12. The remaining wells will be restabilized and sampled for dissolved gases this week.

5. SKETCH, IF APPLICABLE:

Upper SWMU 49



Lower SWMU 49; Burning Grounds



Inspector: _____

Quality Control Representative: _____

CAPE

320-16 WASTE INVENTORY SUMMARY

Contract Number	W912DR19D0004	DO/TO No:	W912DR24F0222	CAPE Project #	10409-0222-002-003	Project Location	RAAP, Radford, VA

Process Generating Waste	Groundwater produced through purging and sampling the monitoring wells. IDW water from SWMU 48/49 is captured and maintained separately from SWMU 54 IDW water throughout the handling process.

Load Number	Date	Description	Quantity (TNS or GAL)	Waste Classification	Receiving Disposal Facility	Method of Disposal	Date of Disposal or Destruction
1	8/19/24	IDW waste from SWMU 49	7 gal	Pending Analysis	—		
2	8/20/24	IDW + decon water from SWMU 54	8 gal	Pending Analysis	—		
3	8/21/24	IDW + decon water from SWMU 49	4 gal	Pending Analysis	—		
4	8/22/24	IDW + decon water from SWMU 49	6 gal	Pending Analysis	—		
5							
6	12/9/24	IDW from SWMU 49	15 gal	Pending Analysis	—		
7	12/10/24	IDW + decon water SWMU 54	10 gal	Pending Analysis	—		
8	12/11/24	IDW + decon water SWMU 49	5 gal	Pending Analysis	—		
9	12/12/24	IDW + decon water SWMU 49	6 gal	Pending Analysis	—		
10	12/13/24	IDW + decon water SWMU 49	4 gal	Pending Analysis	—		
11							
12	IDW drum	SWMU 49 has ~45 gallons total			(as of 12/13/24)		
13	IDW drum	SWMU 54 has ~20 gallons total			(as of 12/13/24)		
14							
15	5/19/25	IDW + decon water SWMU 54	11 gal	Pending Analysis	—		
16	5/20/25	IDW + decon water SWMU 49	9 gal	Pending Analysis	—		
17	5/21/25	IDW + decon water SWMU 49 (Drum #2)	7 gal	Pending Analysis	—		
18	5/22/25	IDW + decon water SWMU 49 (Drum 2)	5 gal	Pending Analysis	—		
19							
20	IDW Drum #1	SWMU 48/49 has ~54 gallons total as of 5/22/25 (FULL)					
21	IDW Drum #2	SWMU 48/49 has ~12 gallons total as of 5/22/25					
22	IDW Drum	SWMU 54 has ~31 gallons total as of 5/22/25					
23							
24	10/20/25	IDW + decon water SWMU 54	10 gal	Pending Analysis	—		
25	10/21/25	IDW + decon water SWMU 49 (drum 2)	10 gal	Pending Analysis	—		
26	10/21/25	IDW + decon SWMU 54	200mL	Pending Analysis	—		
27							
28							
29							
30							
31							
32							

TOTAL QUANTITY:

0.00

CAPE

SITE CONTROL LOG

Date / Day: Tuesday, October 21, 2025

Project Name/Number: RADFORD ARMY AMMUNITION PLANT-SWMU 49 & SWMU 54 SAMPLING / CONTRACT W912DR19D0004, TASK ORDER W912DR24F0222

Project Location: RADFORD ARMY AMMUNITION PLANT, RADFORD, VA

Time		Name (Print)	Signature	DO YOU HAVE AN INJURY TO REPORT? Y/N	Organization
In	Out				
0746	1547	Paul I Taylor		N	Weston
0740	1547	YOKO MIYAKAWA		N	CAPE

TAILGATE SAFETY MEETING RECORD

DATE/TIME:	Tuesday, October 21, 2025
PROJECT NAME:	Radford Army Ammunition Plant-SWMU 49 & SWMU 54 Sampling
PROJECT LOCATION:	Radford Army Ammunition Plant, Radford, VA
CAPE PROJECT NUMBER:	CO: W912DR19D0004, TO: W912DR24F0222
PROJECT MANAGER:	Matthew Feits
SITE SUPERINTENDENT:	
SITE HEALTH & SAFETY:	Yoko Miyakawa

SAFETY TOPICS PRESENTED	
biological hazards	
Protective Clothing/Equipment:	
Modified Level D PPE	Gloves as required
High visibility vests/outerwear as required	
Safety Toe Boots and Safety Glasses required	
Chemical Hazards:	
Potential for contact with the ground water and preservatives	
Physical Hazards:	
Slip, trip, and falls	Inclement weather
Heat stress	Drum handling
Biological hazards	
Emergency Procedures:	
Provide first aid to your level of training. Contact 911 for Emergency if required. Notify your supervisor and the SSHO.	
Emergency Hospital:	Carilion New River Valley Medical Center, 2900 Lamb Cir, Christiansburg, VA 24073
Hospital Telephone Number:	(540) 731-2000
Hospital Direction:	Map in APP
Special Equipment:	
By signing this form, I confirm that I have not been previously injured on this job without informing my supervisor, and that I will immediately report all incidents/injuries to my supervisors in the future.	

SAFETY MEETING ATTENDEES

#	Printed Name	Initial	#	Printed Name	Initial
1.	Paul I Taylor		16.		
2.	Yoko Miyakawa		17.		
3.			18.		
4.			19.		
5.			20.		
6.			21.		
7.			22.		
8.			23.		
9.			24.		
10.			25.		
11.			26.		
12.			27.		
13.			28.		
14.			29.		
15.			30.		

Meeting Conducted By:

Signature _____

FedEx

Address: 305 ROANOKE STREET
CHRISTIANSBURG
VA 24073
Location: WALA
Device ID: -BTC01

FedEx Express Package(s) - Dropped Off
Tracking Number:
885327024275 51.4 lb (M)

Total Pieces: 1

Subject to terms and conditions, including terms that limit FedEx's liability. The estinated shipping charge may be different than the actual charges for your shipment. Differences may occur based on actual weight, dimensions and other factors. Shipment-related terms and conditions and details on how shipping charges are calculated are available upon request or at fedex.com/serviceguide.

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Oct 21, 2025 4:50:42 PM

Radford Army Ammunition Plant
Radford, VA

10/21/25

Personnel: Y. Miyakawa (CAPE), P. Taylor (Wood)

Weather: 38°F, Hazy/Foggy

Objective: GW sampling at SWMU49

0740 P. Taylor + Y. Miyakawa onsite & checked through guard stands at burning grounds to coordinate with SUPS; he is not here currently

Cal. bracketing equipment
YSI Pro DSS:
pH 4 – 4.00 pH
pH 7 – 7.06 pH
pH 10 – 10.09 pH
ORP 240 mV – 239.9 mV
SpC 1.413 mS/cm – 1407 µS/cm
Turbidity meter
10 NTU – 9.90
20 NTU – 20.6
100 NTU – 100.0
800 NTU – 782.

SUPS returned – finish burning by 10am, we will start @ upper level & return @ 10am

0830 Setting up @ 48MW7
0900 purging well 48MW7; bladder pump set to 20-40 cycle & ~100 ft depth throttle.
1005 Equipment Blank collected: "48MW7-EQB"
1100 Setting up @ 13MW5
1137 purging & collecting sample including MS/MSD; spoke w/ S. Miller (CAPE) about missing analyses from SWMU54 samples yesterday. J. Russell & M. Greenwald (CAPE) instructed us to collect samples before 24 hr that will require restabilization
1221 setting up @ 54MW12 for dissolved gases sampling
1250 collecting samples for diss. gases for sample 54MW12
1236 heading to 54MW1
1245 sample collected for diss. gases for sample 54MW1
1259 setting up at 13MW4
1343 done sampling & heading to 13MW3
1517 finished sampling at 13MW3; cleaning up to head to BAE shop & T/TH trash
1548 dumped 10gal IDW into SWMU49 drum & 200mL IDW into SWMU54 drum
1557 All parties off site

samples will ship to CT Labs in Baraboo, WI

10/21/25

22 October 2025

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: CAPE Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP SWMU 54
Project #:
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: Chemistry SVCS@cape-inc.com
EMAIL: mfeits@cape-inc.com
Company: CAPE Environmental Mgmt.
Address: 500 Pinnacle Ct. #100
Invoice To:* Norcross, GA 30071
EMAIL:
Company: Same
Address:

**Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions*

Client Special Instructions

Matrix:
GW – groundwater **SW** - surface water **WW** - wastewater **DW** - drinking water
S - soil/sediment **SL** - sludge **A** - air **M** - misc/waste

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	MEE RSK-175	Total # Containers	Designated MS/MSD
10/22	0902	GW	G		54MW13		6	6	X
10/22	0950	GW	G		54MW10		2	2	
10/22	0950	GW	G		54TW10		2	2	

ANALYSES REQUESTED — Fill in Spaces with Bottles per Test

Turnaround Time
~~Normal~~ RUSH*
~~Date Needed:~~ _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

CT Lab ID #
Lab use only

Relinquished By:	Date/Time	Received By:	Date/Time
	10/22/2025 1700	FedEx	10/22/2025 1700
Received by:	Date/Time	Received for Laboratory by:	Date/Time

Lab Use Only
Ice Present Yes No
Temp _____ IR Gun _____
Cooler # _____

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: CAPE Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP
Project #: SWMU 48/49
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: Chemistry SVCS@Cape-inc.com
EMAIL: mfeits@cape-inc.com
Company: CAPE Environmental Mgmt.
Address: 500 Pinnacle Ct - #100
Norcross, GA 30071

Invoice To:* Same
EMAIL:
Company:
Address:

**Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions*

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
(Normal) RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOC 8260C	TOC 9060A	Anions 9056A	MEE RSK-175	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test						
10/22	0000	GW	G		TB-2	N	2				2		
10/22	1135	GW	G		48MW6	N	3	1	1	2	7		
10/22	1205	GW	G		48MW6-EQB	N	3	1	1	2	7		
10/22	1303	GW	G		49MW04	N	3	1	1	2	7		
10/22	1303	GW	G		49TW04	N	3	1	1	2	7		
10/22	1405	GW	G		13MW2	N	3	1	1	2	7		
10/22	1503	GW	G		49MW05	N	3	1	1	2	7		

Trip Blank

Relinquished By:	Date/Time	Received By:	Date/Time	Lab Use Only
	10/22/2025 1700	FedEx	10/22/2025 1700	Ice Present Yes No
Received by:	Date/Time	Received for Laboratory by:	Date/Time	Temp _____ IR Gun _____
				Cooler # _____

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/22/25
Well ID: 54MW13	Weather: 45° Sunny
Sampling Team: P. Taylor / Y. McKenzie	Sampler's Signature:

WELL INSPECTION

Protective Casing: Intact/Damaged	Well ID Tag Condition: written on casing
Locked: YES / NO	Measuring Point Marked: YES / NO
Concrete Base: Intact/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ in., 2 in., 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 25.32	Well Evacuation Method: (peristaltic, bladder pump, other)
Depth to Water (ft. BTOC): 23.37	Screen Interval (ft. BGS): 20-25
Begin Well Evacuation (Time): 0837	Evacuation Rate (Lpm): 0.15
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0842	0.75	23.89	13.6	608	4.06	6.80	206.2	8.26
0847	1.5	23.89	13.7	603	3.78	6.87	199.3	4.63
0852	2.25	23.84	13.8	596	4.04	6.88	194.9	1.61
0857	3.0	23.80	13.8	~~595~~	4.15	6.90	191.6	0.71
~~0902~~	3.75	23.88	13.9	592	4.27	6.90	188.5	0.55

Red font indicates stabilization criteria to be achieved over three consecutive readings

Final Depth to Water (ft. BTOC): 23.88	Drawdown Observed (ft): 0.51
Odor: YES / NO slight sulfur	Well Pumped Dry: YES / NO
End Well Evacuation (Time): 0910	Total Volume Purged (L): 3.75

SAMPLE COLLECTION INFORMATION

Sample ID: 54MW13	PARAMETERS (Circle all applicable)
Sample Date & Time: 10/22/25 0902	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: ~~Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn~~ MEE only
Manganese (mg/L): see 10/20/25 sheet	Sample Collection Method: Low Flow / Other
Ferrous Iron (mg/L): see 10/20/25 sheet	Sample Collection Depth (ft. BTOC): 24.62

COMMENTS

MS/MSD taken here

resample due to missing MEE analysis

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/22/25
Well ID: 54MW10	Weather: 47°F Sunny
Sampling Team: P. Taylor, Y. Nightower	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: written on casing
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: Intact/Damaged covered w/ vegetation	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in (4 in) 6 in., 8 in	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 30.01	Well Evacuation Method: (peristaltic), bladder pump, other):
Depth to Water (ft. BTOC): 17.73	Screen Interval (ft. BGS): 25-30
Begin Well Evacuation (Time): 0935	Evacuation Rate (Lpm): 0.25
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.2

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0935	1.25	17.86	13.9	780	0.36	7.07	38.0	5.10
0940	2.5	17.87	13.9	770	0.25	7.07	11.3	5.17
0945	3.75	17.87	14.0	763	0.19	7.08	3.8	3.52
0950	5.0	17.88	14.0	761	0.16	7.08	4.2	3.58
(YM) 0955	6.25							

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 17.88	Drawdown Observed (ft): 0.15
Odor: (YES) / NO Sulfur	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 0958	Total Volume Purged (L): 5.0

SAMPLE COLLECTION INFORMATION

Sample ID: 54MW10	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/22/25 0950	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: 54TW10	SWMU 54: ~~Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn~~ MEE only
Manganese (mg/L): see 10/20/25 sheet	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): see 10/20/25 sheet	Sample Collection Depth (ft. BTOC): 29.51

COMMENTS

resample due to missing MEE analysis

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/22/25
Well ID: 48MW6	Weather: 51°, Sunny
Sampling Team: P. Taylor, Y. Miyakawa	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: Written on cap
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 79.63	Well Evacuation Method: (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 66.68	Screen Interval (ft. BGS): 75-80
Begin Well Evacuation (Time): 1035	Evacuation Rate (Lpm): 0.1
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.7

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1040	0.5	66.75	~~18.9~~ 13.7	600	1.93	7.02	104.3	over range
1045	1.0	66.73	13.7	636	1.65	6.99	105.2	678
1050	1.5	66.73	13.5	658	1.40	6.98	104.9	428
1055	2.0	66.73	13.6	674	1.36	6.97	105.3	344
1100	2.5	66.73	13.6	689	1.19	6.97	105.5	294
1105	3.0	66.73	13.6	703	1.11	6.96	105.4	192
1110	3.5	66.73	13.6	717	1.04	6.95	105.3	155
1115	4.0	66.73	13.7	729	1.02	6.95	105.0	137
1120	4.5	66.73	13.8	739	0.88	6.96	104.2	124
1125	5.0	66.73	13.8	742	0.84	6.95	104.3	115
1130	5.5	66.73	13.8	751	0.78	6.95	103.9	109
1135	6.0	66.73	13.9	773	0.73	6.94	103.4	89.8

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 66.73	Drawdown Observed (ft): 0.05
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1151	Total Volume Purged (L): 6.0

SAMPLE COLLECTION INFORMATION

Sample ID: ~~48MW6~~ 48MW6 (YM)	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/22/25 1135	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: ———	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): (YM) ~~1.3 wrong range~~ 0.6	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.19	Sample Collection Depth (ft. BTOC): (YM) ~~79.1~~ 72.63

COMMENTS

Equipment Blank taken of 4L's and bladder pump "48MW6-EQB" @1205

Turbidity & Spec Conductivity not stabilizing → taking sample

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/22/25
Well ID: 49MW04	Weather: 57°, Sunny, Windy
Sampling Team: P. Taylor, Y. Miyakawa	Sampler's Signature

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: written on casing
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: Intact/Damaged covered in vegetation	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 72.84	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 21.56	Screen Interval (ft. BGS): 65 - 70
Begin Well Evacuation (Time): 1238	Evacuation Rate (Lpm): 0.25 ; changed to 0.15 @ 1253
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.3

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1243	1.25	23.57	15.1	605	0.69	7.09	64.7	21.4
1248	2.5	24.78	15.1	604	0.49	7.11	69.6	17.9
1253	3.75	25.71	15.1	602	0.40	7.12	72.2	14.9
1258	4.95	26.05	15.4	604	0.38	7.13	74.0	12.8
1303	4.95	26.40	15.5	602	0.42	7.14	75.2	9.78
1308	5.55							

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 26.40	Drawdown Observed (ft): 4.89
Odor: YES (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1325	Total Volume Purged (L): 4.95

SAMPLE COLLECTION INFORMATION

Sample ID: 49MW04	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/22/25 1303	(SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn)
Duplicate Sample ID: 49TW04	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.4	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.14	Sample Collection Depth (ft. BTOC): 72.34

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/22/25
Well ID: 13MW2	Weather: 59°, Sunny + Windy
Sampling Team: P. Taylor, M. Minnaker	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact) Damaged	Well ID Tag Condition: (Good)
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact) Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., (4 in.), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 30.49	Well Evacuation Method: (peristaltic) bladder pump, other):
Depth to Water (ft. BTOC): 22.27	Screen Interval (ft. BGS): 25-30
Begin Well Evacuation (Time): 1350	Evacuation Rate (Lpm): 0.25
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1355	1.25	22.60	15.8	651	4.72	6.88	121.8	3.08
1400	2.5	22.81	15.8	651	4.59	6.93	120.9	0.88
1405	3.75	23.04	15.9	651	4.62	6.94	120.9	1.07

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 23.04	Drawdown Observed (ft): 0.77
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time):	Total Volume Purged (L): 3.75

SAMPLE COLLECTION INFORMATION

Sample ID: 13MW2	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/22/25 1405	(SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID:	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 1.4	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.15	Sample Collection Depth (ft. BTOC): 29.99

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/22/25
Well ID: 49MW05	Weather: 60° / Sunny + Windy
Sampling Team: P. Taylor, Y. Mikkanen	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: Written on casing
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact)/Damaged Covered w/ vegetation	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 39.40	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 20.37	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1448	Evacuation Rate (Lpm): 0.25
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0 0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1453	1.25	21.36	15.6	567	2.00	7.01	124.4	20.7
1458	2.5	21.60	15.5	567	1.98	7.03	123.3	18.9
1503	3.75	21.78	15.4	568	1.96	7.04	122.3	8.88

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 21.78	Drawdown Observed (ft): 1.41
Odor: YES (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1515	Total Volume Purged (L): 3.75

SAMPLE COLLECTION INFORMATION

Sample ID: 49MW05	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/22/25 1503	(SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: ———	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.4	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.16	Sample Collection Depth (ft. BTOC): 38.90

COMMENTS

320-10 FIELD INSPECTION REPORT

Contract Number:	W912DR19D0004	**Task Order No:**	W912DR24F0222	
CAPE Project No.:	10409-0222	**Date:**	22-Oct-25	
Project Location:	Radford Army Ammunition Plant, Radford, VA			
DFW:	SWMU 49 & SWMU 54 LTM Sampling	**Spec Sect.**		
Inspection Performed by:	Yoko Miyakawa			

1. DESCRIPTION OF WORK INSPECTED:

SWMU-54: Sampled for dissolved gases at wells 54MW13 (including MS/MSDs) and 54MW10 (including field duplicate "54TW10").
SWMU-49: Gauged and sampled wells 48MW6, 49MW04 (including field duplicate "49TW04"), 13MW2, and 49MW05.
Equipment blank taken at well 48MW6 at 1205 on deconned bladder pump; sample "48MW6-EQB."
Dumped approximately 7.5 gallons of IDW water into SWMU-49 designated, labeled, 55-gal drum and 3 gallons of IDW water into SWMU-54 designated, labeled, 55-gal drum at ACD/BAE storage facility.

2. TYPE OF INSPECTION:

☑ Visual ☐ Dimensional
☐ Non-Destructive Examination (NDE) ☐ Other _____
☐ In Progress ☐ Final

3. REFERENCED DRAWINGS / STANDARDS:

See below aerial view

4. FINDINGS:

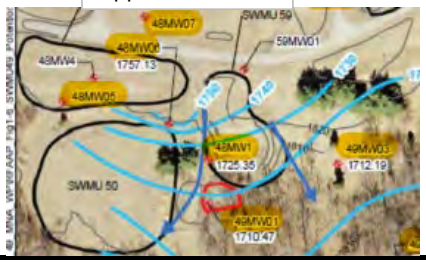
Burning grounds wells accessible to sample in the afternoons after incineration.

5. SKETCH, IF APPLICABLE:

SWMU 54



Upper SWMU 49



Lower SWMU 49; Burning Grounds



Inspector: _____

Quality Control Representative: _____

CAPE

320-16 WASTE INVENTORY SUMMARY

Contract Number	W912DR19D0004	DO/TO No:	W912DR24F0222	CAPE Project #	10409-0222-002-003	Project Location	RAAP, Radford, VA

Process Generating Waste	Groundwater produced through purging and sampling the monitoring wells. IDW water from SWMU 48/49 is captured and maintained separately from SWMU 54 IDW water throughout the handling process.

Load Number	Date	Description	Quantity (TNS or GAL)	Waste Classification	Receiving Disposal Facility	Method of Disposal	Date of Disposal or Destruction
1	8/19/24	IDW waste from SWMU 49	7 gal	Pending Analysis	—		
2	8/20/24	IDW + decon water from SWMU 54	8 gal	Pending Analysis	—		
3	8/21/24	IDW + decon water from SWMU 49	4 gal	Pending Analysis	—		
4	8/22/24	IDW + decon water from SWMU 49	6 gal	Pending Analysis	—		
5							
6	12/9/24	IDW from SWMU 49	15 gal	Pending Analysis	—		
7	12/10/24	IDW + decon water SWMU 54	10 gal	Pending Analysis	—		
8	12/11/24	IDW + decon water SWMU 49	5 gal	Pending Analysis	—		
9	12/12/24	IDW + decon water SWMU 49	6 gal	Pending Analysis	—		
10	12/13/24	IDW + decon water SWMU 49	4 gal	Pending Analysis	—		
11							
12	IDW drum	SWMU 49 has ~45 gallons total		(as of 12/13/24)			
13	IDW drum	SWMU 54 has ~20 gallons total		(as of 12/13/24)			
14							
15	5/19/25	IDW + decon water SWMU 54	11 gal	Pending Analysis	—		
16	5/20/25	IDW + decon water SWMU 49	9 gal	Pending Analysis	—		
17	5/21/25	IDW + decon water SWMU 49 (Drum #2)	7 gal	Pending Analysis	—		
18	5/22/25	IDW + decon water SWMU 49 (Drum 2)	5 gal	Pending Analysis	—		
19							
20	IDW Drum #1	SWMU 48/49 has ~54 gallons total as of 5/22/25 (FULL)					
21	IDW Drum #2	SWMU 48/49 has ~12 gallons total as of 5/22/25					
22	IDW Drum	SWMU 54 has ~31 gallons total as of 5/22/25					
23							
24	10/20/25	IDW + decon water SWMU 54	10 gal	Pending Analysis	—		
25	10/21/25	IDW + decon water SWMU 49 (drm2)	10 gal	Pending Analysis	—		
26	10/21/25	IDW + decon SWMU 54	200 mL	Pending Analysis	—		
27	10/22/25	IDW + decon SWMU 54	3 gal	Pending Analysis	—		
28	10/22/25	IDW + decon SWMU 49 (drm2)	7.5	Pending Analysis	—		
29							
30							
31							
32							

TOTAL QUANTITY:

0.00

CAPE

SITE CONTROL LOG

Date / Day: Wednesday, October 22, 2025
Project Name/Number: RADFORD ARMY AMMUNITION PLANT-SWMU 49 & SWMU 54 SAMPLING / CONTRACT W912DR19D0004, TASK ORDER W912DR24F0222
Project Location: RADFORD ARMY AMMUNITION PLANT, RADFORD, VA

Time		Name (Print)	Signature	DO YOU HAVE AN INJURY TO REPORT? Y/N	Organization
In	Out				
0740	1603	Yuko Miyakawa		N	CAPE
0740	1603	Paul I. Taylor		N	Weston

TAILGATE SAFETY MEETING RECORD

DATE/TIME:	Wednesday, October 22, 2025
PROJECT NAME:	Radford Army Ammunition Plant-SWMU 49 & SWMU 54 Sampling
PROJECT LOCATION:	Radford Army Ammunition Plant, Radford, VA
CAPE PROJECT NUMBER:	CO: W912DR19D0004, TO: W912DR24F0222
PROJECT MANAGER:	Matthew Feits
SITE SUPERINTENDENT:	
SITE HEALTH & SAFETY:	Yoko Miyakawa

SAFETY TOPICS PRESENTED

Complacency ; fatigue + Hydration.

Protective Clothing/Equipment:	
Modified Level D PPE	Gloves as required
High visibility vests/outerwear as required	
Safety Toe Boots and Safety Glasses required	
Chemical Hazards:	
Potential for contact with the ground water and preservatives	
Physical Hazards:	
Slip, trip, and falls	Inclement weather
Heat stress	Drum handling
Biological hazards	
Emergency Procedures:	
Provide first aid to your level of training. Contact 911 for Emergency if required. Notify your supervisor and the SSHO.	
Emergency Hospital:	Carilion New River Valley Medical Center, 2900 Lamb Cir, Christiansburg, VA 24073
Hospital Telephone Number:	(540) 731-2000
Hospital Direction:	Map in APP
Special Equipment:	
By signing this form, I confirm that I have not been previously injured on this job without informing my supervisor, and that I will immediately report all incidents/injuries to my supervisors in the future.	

SAFETY MEETING ATTENDEES

#	Printed Name	Initial	#	Printed Name	Initial
1.	Yoko Miyakawa	YM	16.		
2.	Paul I. Taylor	PIT	17.		
3.			18.		
4.			19.		
5.			20.		
6.			21.		
7.			22.		
8.			23.		
9.			24.		
10.			25.		
11.			26.		
12.			27.		
13.			28.		
14.			29.		
15.			30.		

Meeting Conducted By:

Signature _____

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CHRISTIANSBURG
VA 24073
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Oct 22, 2025 5:06:41 PM

Radford Army Ammunition Plant 10/22/25
Radford, VA

Personnel: Y. Miyakawa (CAPE), P. Taylor (Weston)

Weather: 42°, clear

Objective: GW Sampling at SWMU 49 + 54

0740 P. Taylor + Y. Miyakawa onsite + checked in through guard stands heading to burning grounds to coordinate w/ skips

0755 operator @ burning grounds informed us they will cease burning at 1pm - we will return to sample

0805 setting up at 54MW13 for diss gases sample; calibrating equipment

YSI
pH 4 → 4.00 pH
pH 7 → 7.05 pH
pH 10 → 10.06 pH
240 mV ORP → 239.2
1.413 mS/cm → 1409 µS/cm

Turbidity Meter
20 NTU → 20.2
100 NTU → 99.9
800 NTU → 798
10 NTU → 9.75

0913 finished sampling @ 54MW13, moving onto 54MW10

0927 Setting up @ 54MW10 (FD will be "54TMW10")

0959 finished sampling @ 54MW10

1010 setting up @ 48MW6; bladder pump water table set at 20:40 + 110 depth throttle

1205 equipment blank taken "48MW6-EQB"

1215 @ burning grounds to check w/ skips - operators say there is only a little smoke coming from one facility + wind is blowing away from it right now + if we're okay w/ it we can sample

1226 setting up @ 49MW04

1330 finished sampling 49MW04 (pair FD "49TMW04")

1333 setting up @ BMW2

1340 M. Alberts (US Army) stopped by to check in w/ us + confirm a time for Friday, he will be busy ~10am - 130pm

1430 finished @ BMW2, setting up @ 49MW05

1525 leaving burning grounds to drop off IDW

1550 dumped ~3gal of IDW in SWMU54 drum + ~7.5 gal IDW in SWMU 49 drum #2

1603 All parties offsite

Samples will be shipped to CT Labs in Baraboo, WI.

10/22/25

23 October 2025

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: CAPE Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP
Project #: SWMU 48/49
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: Chemistry SVCS @ capeinc.com
EMAIL: mfeits@capeinc.com
Company:
Address: CAPE Environmental Mgmt. 500 Pinnacle Ct. #100
Invoice To:* Norcross, GA 30071
EMAIL:
Company:
Address: Same

**Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions*

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	ANALYSES REQUESTED: VOC 8260C	MEE RSK-175	TOC 9060A	Anions 9056A	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test						
10/23	0800	GW	G		TB-3	N	2				2		
10/23	1011	GW	G		49MW03	N	3	2	1	1	7		
10/23	1035	GW	G		49MW03-EQB	N	3	2	1	1	7		
10/23	1148	GW	G		48MW1	N	3	2	1	1	7		
10/23	1148	GW	G		48TW1	N	3	2	1	1	7		
10/23	1400	GW	G		49MW01	N	3	2	1	1	7		
10/23	1515	GW	G		50MW2	N	3	2	1	1	7		

Trip Blank

Relinquished By:	Date/Time	Received By:	Date/Time
	10/23/2025 1800	FedEx	10/23/2025 1800
Received by:	Date/Time	Received for Laboratory by:	Date/Time

Lab Use Only
Ice Present Yes No
Temp _____ IR Gun _____
Cooler # _____

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/23/25
Well ID: 49MW03	Weather: 44°, Sunny
Sampling Team: S. Taylor, Y. Miyakawa	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: Faded on casing
Locked: (YES)/NO	Measuring Point Marked: (YES)/NO
Concrete Base: Intact/Damaged (Cleared vegetation	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 119.87	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 105.55	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 0911	Evacuation Rate (Lpm): 0.1
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0916	0.5	105.61	12.4	357.9	9.19	7.33	198.9	395
0921	1.0	105.61	12.5	363.3	8.97	7.34	194.0	155
0926	1.5	105.61	12.6	362.9	8.94	7.37	189.7	83.3
0931	2.0	105.61	12.7	363.0	8.94	7.42	113.0	60.0
0936	2.5	105.61	12.8	363.1	8.89	7.39	140.6	44.5
0941	3.0	105.61	12.8	363.0	8.89	7.39	147.9	39.1
0946	3.5	105.61	12.9	362.7	8.87	7.40	150.8	32.8
0951	4.0	105.61	12.9	362.3	8.89	7.39	152.6	28.4
0956	4.5	105.61	13.0	362.3	8.87	7.40	153.1	24.2
~~1001~~ (EV)	5.0	105.61	13.0	362.5	8.85	7.40	153.5	22.1
1006	5.5	105.61	13.0	362.9	8.85	7.40	153.4	19.1
1011	6.0	105.61	13.1	362.8	8.86	7.39	153.9	16.8

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 105.61	Drawdown Observed (ft): 0.06
Odor: YES/(NO)	Well Pumped Dry: YES/(NO)
End Well Evacuation (Time): 1024	Total Volume Purged (L): 6.0

SAMPLE COLLECTION INFORMATION

Sample ID: 49MW03	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/23/25 1011	(SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.4	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.11	Sample Collection Depth (ft. BTOC): 116.87

COMMENTS

All parameters stable except for Turbidity → taking sample
Equipment Blank taken Here — "49MW03-EQB" @ 1035

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/23/25
Well ID: 48MW1	Weather: 52, Sunny + Windy
Sampling Team: P. Taylor, Y. Miyakawa	Sampler's Signature:

WELL INSPECTION

Protective Casing: ~~Intact~~/Damaged	Well ID Tag Condition: Written on cap
Locked: ~~YES~~ / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact)/Damaged Covered w/ vegetation	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., (4 in.), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 142.18	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 109.92	Screen Interval (ft. BGS): 135-145
Begin Well Evacuation (Time): 1113	Evacuation Rate (Lpm): 0.09
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1118	0.45	110.11	13.5	524	4.43	7.18	161.5	23.9
1123	0.9	110.22	13.5	535	3.89	7.21	158.1	19.1
1128	1.35	110.31	13.5	537	3.67	7.23	155.2	15.4
1133	1.8	110.40	13.6	537	3.60	7.25	152.4	12.2
1138	2.25	110.46	13.6	537	3.54	7.26	150.8	12.4
1143	2.7	110.55	13.7	537	3.47	7.26	149.4	10.7
1148	3.15	110.59	13.7	536	3.42	7.27	147.6	9.80

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 110.59	Drawdown Observed (ft): 0.67
Odor: YES/(NO)	Well Pumped Dry: YES /(NO)
End Well Evacuation (Time): 1222	Total Volume Purged (L): 3.15

SAMPLE COLLECTION INFORMATION

Sample ID: 48MW1	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/23/25 1148	(SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: 48TW1	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.4	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.16	Sample Collection Depth (ft. BTOC): 139.18

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/23/25
Well ID: 49MW01	Weather: 57°, Sunny + Windy
Sampling Team: P. Taylor, A. Mizerkova	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: Written on cap
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 124.28	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 115.97	Screen Interval (ft. BGS): 120–125
Begin Well Evacuation (Time): 1300	Evacuation Rate (Lpm): 0.1
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1305	0.5	116.20	13.9	388.3	7.13	7.43	145.6	over range
1310	1.0	116.25	13.8	388.8	7.04	7.46	143.6	877
1315	1.5	116.27	13.7	385.4	7.19	7.49	142.0	590
1320	2.0	116.27	13.7	389.6	7.39	7.52	140.7	460
1325	2.5	116.29	13.8	389.5	7.55	7.53	140.0	418
1330	3.0	116.30	13.7	389.5	7.64	7.54	139.5	345
1335	3.5	116.32	13.6	389.4	7.69	7.55	138.9	277
1340	4.0	116.33	13.5	389.0	7.71	7.55	138.4	220
1345	4.5	116.33	13.5	388.9	7.70	7.56	137.6	178
1350	5.0	116.33	13.6	388.7	7.69	7.56	136.9	144
1355	5.5	116.33	13.6	388.5	7.66	7.57	105.7	121
1400	6.0	116.33	13.5	388.5	7.64	7.58	113.5	102

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 116.33	Drawdown Observed (ft): 0.36
Odor: YES (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1404	Total Volume Purged (L): 6.0

SAMPLE COLLECTION INFORMATION

Sample ID: 49MW01	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/23/25 1400	(SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.2	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.16	Sample Collection Depth (ft. BTOC): 121.28

COMMENTS

Turbidity + ORP not stabilized, but all other parameters are good - taking sample

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/23/25
Well ID: 50MW2	Weather: 58° Cloudy + Windy
Sampling Team: P. Taylor, Y. Miyakawa	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: written on casing
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 120.43	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 117.17	Screen Interval (ft. BGS): 115 - 120
Begin Well Evacuation (Time): 1500	Evacuation Rate (Lpm): 0.075
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1505	0.375	117.18	13.7	723	4.42	6.76	149.7	overrange
1510	0.75	117.17	13.6	722	4.24	6.76	151.2	overrange
1515	1.125	117.17	13.6	718	4.07	6.74	152.8	overrange
~~1520~~ (YM)	~~1.5~~							
~~1525~~	~~1.875~~							
~~1530~~	~~2.25~~							

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): ~~(YM) 15~~ 117.17	Drawdown Observed (ft): 0
Odor: YES (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1530	Total Volume Purged (L): 1.125

SAMPLE COLLECTION INFORMATION

Sample ID: 50MW2	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/23/25 1515	(SWMU 49:) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: ———	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): (YM) ~~0.43~~ 1.7	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.43	Sample Collection Depth (ft. BTOC): 119.93

COMMENTS

320-10 FIELD INSPECTION REPORT

Contract Number:	W912DR19D0004	**Task Order No:**	W912DR24F0222	
CAPE Project No.:	10409-0222	**Date:**	23-Oct-25	
Project Location:	Radford Army Ammunition Plant, Radford, VA			
DFW:	SWMU 49 & SWMU 54 LTM Sampling	**Spec Sect.**		
Inspection Performed by:	Yoko Miyakawa			

1. DESCRIPTION OF WORK INSPECTED:

SWMU-49: Gauged and sampled wells 49MW03, 48MW1 (including field duplicate "48TW1"), 49MW01, and 50MW2.
Equipment blank taken at well 49MW03 at 1035 on deconned bladder pump; sample "49MW03-EQB."
Dumped approximately 7 gallons of IDW water into SWMU-49 designated, labeled, 55-gal drum at ACD/BAE storage facility.

2. TYPE OF INSPECTION:

☑ Visual ☐ Dimensional
☐ Non-Destructive Examination (NDE) ☐ Other _____

☐ In Progress ☐ Final

3. REFERENCED DRAWINGS / STANDARDS:

See below aerial view

4. FINDINGS:

FedEx reached out about the support claim/case for the delayed/missing cooler from 10/21/2025 sample shipment; in an email FedEx requested information about the shipment appearance, content, and destination, and stated they would reach out within 2 business days. Kim Jameson (CAPE) is supporting the RFAAP team and will follow up with FedEx.

5. SKETCH, IF APPLICABLE:

Upper SWMU 49



Inspector: _____

Quality Control Representative: _____

CAPE

320-16 WASTE INVENTORY SUMMARY

Contract Number	W912DR19D0004	DO/TO No:	W912DR24F0222	CAPE Project #	10409-0222-002-003	Project Location	RAAP, Radford, VA

Process Generating Waste	Groundwater produced through purging and sampling the monitoring wells. IDW water from SWMU 48/49 is captured and maintained separately from SWMU 54 IDW water throughout the handling process.

Load Number	Date	Description	Quantity (TNS or GAL)	Waste Classification	Receiving Disposal Facility	Method of Disposal	Date of Disposal or Destruction
1	8/19/24	IDW waste from SWMU 49	7 gal	Pending Analysis	—		
2	8/20/24	IDW + decon water from SWMU 54	8 gal	Pending Analysis	—		
3	8/21/24	IDW + decon water from SWMU 49	4 gal	Pending Analysis	—		
4	8/22/24	IDW + decon water from SWMU 49	6 gal	Pending Analysis	—		
5							
6	12/9/24	IDW from SWMU 49	15 gal	Pending Analysis	—		
7	12/10/24	IDW + decon water SWMU 54	10 gal	Pending Analysis	—		
8	12/11/24	IDW + decon water SWMU 49	5 gal	Pending Analysis	—		
9	12/12/24	IDW + decon water SWMU 49	6 gal	Pending Analysis	—		
10	12/13/24	IDW + decon water SWMU 49	4 gal	Pending Analysis	—		
11							
12	IDW drum	SWMU 49 has ~45 gallons total		(as of	12/13/24)		
13	IDW drum	SWMU 54 has ~20 gallons total		(as of	12/13/24)		
14							
15	5/19/25	IDW + decon water SWMU 54	11 gal	Pending Analysis	—		
16	5/20/25	IDW + decon water SWMU 49	9 gal	Pending Analysis	—		
17	5/21/25	IDW + decon water SWMU 49 (Drum #2)	7 gal	Pending Analysis	—		
18	5/22/25	IDW + decon water SWMU 49 (Drum 2)	5 gal	Pending Analysis	—		
19							
20	IDW Drum #1	SWMU 48/49 has ~54 gallons total		as of	5/22/25 (FULL)		
21	IDW Drum #2	SWMU 48/49 has ~12 gallons total		as of	5/22/25		
22	IDW Drum	SWMU 54 has ~31 gallons total		as of	5/22/25		
23							
24	10/20/25	IDW + decon water SWMU 54	10 gal	Pending Analysis	—		
25	10/21/25	IDW + decon water SWMU 49 (drum 2)	10 gal	Pending Analysis	—		
26	10/21/25	IDW + decon SWMU 54	200 mL	Pending Analysis	—		
27	10/22/25	IDW + decon SWMU 54	3 gal	Pending Analysis	—		
28	10/22/25	IDW + decon SWMU 49 (drum 2)	7.5	Pending Analysis	—		
29	10/23/25	IDW + decon SWMU 49 (drum 2)	7	Pending Analysis	—		
30							
31							
32							

TOTAL QUANTITY:

0.00

CAPE

SITE CONTROL LOG

Date / Day: Thursday, October 23, 2025
Project Name/Number: RADFORD ARMY AMMUNITION PLANT-SWMU 49 & SWMU 54 SAMPLING / CONTRACT W912DR19D0004, TASK ORDER W912DR24F0222
Project Location: RADFORD ARMY AMMUNITION PLANT, RADFORD, VA

Time		Name (Print)	Signature	DO YOU HAVE AN INJURY TO REPORT? Y/N	Organization
In	Out				
0752	1618	YOKO MIYAKAWA		N	CAPE
0752	1618	Paul I Taylor		N	Weston

TAILGATE SAFETY MEETING RECORD

DATE/TIME:	Thursday, October 23, 2025
PROJECT NAME:	Radford Army Ammunition Plant-SWMU 49 & SWMU 54 Sampling
PROJECT LOCATION:	Radford Army Ammunition Plant, Radford, VA
CAPE PROJECT NUMBER:	CO: W912DR19D0004, TO: W912DR24F0222
PROJECT MANAGER:	Matthew Feits
SITE SUPERINTENDENT:	
SITE HEALTH & SAFETY:	Yoko Miyakawa

SAFETY TOPICS PRESENTED

Musculoskeletal injuries, fatigue, + Hydration

Protective Clothing/Equipment:	
Modified Level D PPE	Gloves as required
High visibility vests/outerwear as required	
Safety Toe Boots and Safety Glasses required	
Chemical Hazards:	
Potential for contact with the ground water and preservatives	
Physical Hazards:	
Slip, trip, and falls	Inclement weather
Heat stress	Drum handling
Biological hazards	
Emergency Procedures:	
Provide first aid to your level of training. Contact 911 for Emergency if required. Notify your supervisor and the SSHO.	
Emergency Hospital:	Carilion New River Valley Medical Center, 2900 Lamb Cir, Christiansburg, VA 24073
Hospital Telephone Number:	(540) 731-2000
Hospital Direction:	Map in APP
Special Equipment:	
By signing this form, I confirm that I have not been previously injured on this job without informing my supervisor, and that I will immediately report all incidents/injuries to my supervisors in the future.	

SAFETY MEETING ATTENDEES

#	Printed Name	Initial	#	Printed Name	Initial
1.	Yoko Miyakawa	YM	16.		
2.	Paul I. Taylor	PIT	17.		
3.			18.		
4.			19.		
5.			20.		
6.			21.		
7.			22.		
8.			23.		
9.			24.		
10.			25.		
11.			26.		
12.			27.		
13.			28.		
14.			29.		
15.			30.		

Meeting Conducted By:

Signature _____

FedEx

Address: 305 ROANOKE STREET
CHRISTIANSBURG
VA 24073
Location: WALA
Device ID: -BTC01

FedEx Express Package(s) - Dropped Off
Tracking Number:
885327840538 50.00 lb (M)

Total Pieces: 1

Subject to terns and conditions, including terns that
linit FedEx's liebility. The estinated shipping charge
nay be different than the actual charges for your
shipnent. Differences nay occur based on actual weight,
dinensions and other factors. Shipnent-related terns
and conditions and details on how shipping charges
are calculated are available upon request or at
fedex.com/serviceguide.

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Tell us how we're doing!
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Or call 1.800.GoFedEx
1.800.463.3339

Oct 23, 2025 5:11:32 PM

Radford Army Ammunition Plant 10/23/25
Radford, VA

Personnel: Y. Miyakawa (CAPE), P. Taylor (WESTON)

Weather: 43°, Clear

Objective: GW sampling at SWMU 49

0752 P. Taylor + Y. Miyakawa onsite + checked into Guard stands; spoke w/ M. Alberts on the phone; heading to T/Th trash site

0815 pulled into trailer storage parking lot for calibrations in upper SWMU 49 area

YSI:
pH 4 → 4.00 pH
pH 7 → 7.06 pH
pH 10 → 10.09 pH
ORP 240 mV → 239.5 mV
SpC 1.413 mS/cm → 1415 µS/cm

Turbidity meter:
10 NTU → 10.1
20 NTU → 19.9
100 NTU → 100.
800 NTU → 798

0840 setting up @ well 49MW03; bladder pump interface set to 20:40 cycle + 1 l/min throttle

0906 water is coming up slowly, but muddy + goes back down into the well; likely from silty water preventing ball valve to properly seal. Will keep watching it

1035 Equipment Blank taken on decon'ed bladder pump – "49MW03-EQB"

1049 setting up @ 48MW1, took field duplicate "48TW1"

1250 setting up @ 49MW01

1422 setting up @ 50MW2; ran out of string – connected more string w/ a knot. Ran out of tubing – pulled pump + replaced w/ new tubing.

1542 finished sampling 50MW2, ready to drop off IDW water

1603 Dumped ~7 gal IDW into SWMU 49 drum #2 @ ACD/BAE storage

1618 All parties offsite

Samples will be shipped to CT Labs in Baraboo, WI

10/23/25

24 October 2025

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: CAPE Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP SWMU 49
Project #:
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: ChemistrySUCS@capeinc.com
EMAIL: mfeits@capeinc.com
Company: CAPE Environmental Mgt
Address: 500 Pinnacle Ct. #100
Invoice To:* Norcross, GA 30071
EMAIL:
Company: Same
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOC 8260C	MEE RSK-175	ToC 9060A	Anions 9056A												Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
						Fill in Spaces with Bottles per Test																		
10/24	0000	GW	G		TB-4	N	2						Trip Blank									2		
10/24	0929	GW	G		48MW2	N	3	2	1	1												7		
10/24	0957	GW	G		48MW2-EQB	N	3	2	1	1												7		
~~10/24~~	~~1050~~	~~GW~~	~~G~~		~~48MW3~~	~~N~~	~~3~~	~~2~~	~~1~~	~~1~~												~~7~~		
10/24	1050	GW	G		48MW3	N	9	6	3	3												21	X	
10/24	1252	GW	G		49MW02	N	3	2	1	1												7		
10/24	1410	GW	G		48MW7	N	3	2	1	1												7		

Relinquished By:	Date/Time	Received By:	Date/Time
	10/24/2025 1700		10/24/2025 1700
Received by:	Date/Time	Received for Laboratory by:	Date/Time

Lab Use Only
Ice Present Yes No
Temp _____ IR Gun _____
Cooler # _____

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: CAPE Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP
Project #: SWMU 49
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: Chemistry SVCS@capeinc.com
EMAIL: mfeits@capeinc.com
Company: Cape Environmental Mgmt.
Address: 500 Pinnacle Ct. #100
Norcross, GA 30071

Invoice To:* Same
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	ANALYSES REQUESTED: pH 9040	COD 410.4	Total Metals 6010C/7470A	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test					
10/24	1530	GW	G		49IDW	N	1	1	1	3		

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Relinquished By:	Date/Time	Received By:	Date/Time
	10/24/2025 1700	FedEx	10/24/2025 1700
Received by:	Date/Time	Received for Laboratory by:	Date/Time

Lab Use Only
Ice Present Yes No
Temp _____ IR Gun _____
Cooler # _____

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/24/25
Well ID: 48MW2	Weather: 33°, Foggy
Sampling Team: P Taylor, Y Miyakawa	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: written on cap
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ¼, (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 136.51	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 125.64	Screen Interval (ft. BGS): 125 - 135
Begin Well Evacuation (Time): 0829	Evacuation Rate (Lpm): 0.25
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0834	0.4	125.94	11.9	454.7	7.46	7.13	210.2	over range
0839	0.8	126.09	12.0	455.2	7.19	7.20	202.3	over range
0844	1.2	126.14	12.1	454.2	7.21	7.24	197.4	over range
0849	1.6	126.20	12.2	455.7	7.27	7.25	193.8	over range
0854	2.0	126.27	12.2	454.4	7.32	7.25	191.7	760
0859	2.4	126.27	12.3	455.6	7.36	7.31	108.2	591
0904	2.8	126.14	12.3	454.3	7.40	7.25	144.7	471
0909	3.2	126.26	12.4	453.2	7.41	7.24	150.6	403
0914	3.6	126.28	12.4	452.6	7.43	7.26	153.2	355
0919	4.0	126.30	12.4	453.3	7.46	7.24	154.6	328
0924	4.4	126.32	12.4	452.7	7.46	7.26	155.7	285
0929	4.8	126.33	12.5	452.7	7.46	7.27	155.8	240

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 126.33	Drawdown Observed (ft): 0.69
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 0943	Total Volume Purged (L): 4.8

SAMPLE COLLECTION INFORMATION

Sample ID: 48MW2	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/24/25 0929	(SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn)
Duplicate Sample ID: ———	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): -0.2 out of range	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.19	Sample Collection Depth (ft. BTOC): 134.51

COMMENTS

All parameters stable except Turbidity — taking sample
equipment blank taken here — "48MW2-EQB" @ 0957

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date 10/24/25
Well ID 48MW3	Weather 49° Sunny
Sampling Team P. Taylor, Y. Miyakawa	Sampler's Signature

WELL INSPECTION

Protective Casing Intact/Damaged	Well ID Tag Condition Written on c-p
Locked YES / NO	Measuring Point Marked YES / NO
Concrete Base Intact/Damaged Covered in vegetation	Comments
Casing Diameter ½ in, ¾ in, 1 in, 1 ½, 2 in, 3 in, 4 in, 6 in, 8 in	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft BTOC) 122.31	Well Evacuation Method (peristaltic, bladder pump, other)
Depth to Water (ft BTOC) 99.03	Screen Interval (ft BGS) 115-125
Begin Well Evacuation (Time) 1025	Evacuation Rate (l pm) 0.1
Stop Evacuation (Time/Reason)	Restart Time
	Headspace (ppm) 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1030	0.5	99.26	12.1	636	3.36	6.94	194.2	11.1
1035	1.0	99.27	12.2	637	2.61	6.99	190.9	10.3
1040	1.5	99.32	12.4	638	2.38	7.01	188.4	8.57
1045	2.0	99.48	12.5	638	2.25	7.02	185.6	7.80
1050	2.5	99.54	12.6	638	2.19	7.02	183.6	6.19

Red font indicates stabilization criteria to be achieved over three consecutive readings

Final Depth to Water (ft BTOC) 99.54	Drawdown Observed (ft) 0.51
Odor YES / NO	Well Pumped Dry YES / NO
End Well Evacuation (Time) 1126	Total Volume Purged (L) 2.5

SAMPLE COLLECTION INFORMATION

Sample ID 48MW3	PARAMETERS (Circle all applicable)
Sample Date & Time 10/24/25 1050	SWMU 49 VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe. & Mn
Duplicate Sample ID —	SWMU 54 Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe. & Mn
Manganese (mg/L) 0.0	Sample Collection Method Low Flow Other
Ferrous Iron (mg/L) 0.12	Sample Collection Depth (ft BTOC) 120.31

COMMENTS

MS/MSDs taken here

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date 10/24/25
Well ID 49MW02	Weather 50° Sunny
Sampling Team P. Taylor, Y. Miyakawa	Sampler's Signature

WELL INSPECTION

Protective Casing Intact/Damaged	Well ID Tag Condition Written on casing
Locked YES/NO	Measuring Point Marked YES/NO
Concrete Base Intact/Damaged	Comments
Casing Diameter ½ in, ¾ in, 1 in, 1½ (2 in), 3 in, 4 in, 6 in, 8 in	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft BTOC) 134.66	Well Evacuation Method (peristaltic bladder pump other)
Depth to Water (ft BTOC) 96.04	Screen Interval (ft BGS) 125-135
Begin Well Evacuation (Time) 1202	Evacuation Rate (Lpm) ~~0.4~~ 0.09
Stop Evacuation (Time/Reason)	Restart Time
	Headspace (ppm) 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1207	0.45	96.43	13.7	507	2.67	7.13	116.5	540
1212	0.9	96.66	13.7	510	2.69	7.17	84.3	478
1217	1.35	97.10	13.6	510	2.88	7.20	64.8	382
1222	1.8	97.55	13.6	510	3.35	7.20	53.0	256
1227	2.25	97.89	13.5	510	3.82	7.22	48.3	301
1232	2.7	98.44	13.6	510	4.29	7.22	44.4	232
1237	3.15	98.86	13.5	510	4.55	7.22	45.0	211
1242	3.6	99.18	13.5	510	4.78	7.22	46.2	189
1247	4.05	99.61	13.4	510	4.90	7.23	47.8	179
1252	4.5	100.03	13.4	509	4.77	7.23	48.1	174
~~1257~~	~~4.95~~							
~~1302~~	~~5.4~~							

Red font indicates stabilization criteria to be achieved over three consecutive readings

Final Depth to Water (ft BTOC) 100.03	Drawdown Observed (ft) 3.99
Odor YES (NO)	Well Pumped Dry YES (NO)
End Well Evacuation (Time) 1308	Total Volume Purged (L) 4.5

SAMPLE COLLECTION INFORMATION

Sample ID 49MW02	PARAMETERS (Circle all applicable)
Sample Date & Time 10/24/25 1252	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID	~~SWMU 54~~ Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L) 0.8	Sample Collection Method (Low Flow) Other
Ferrous Iron (mg/L) 0.37	Sample Collection Depth (ft BTOC) 132.66

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/24/25
Well ID: 48MW7	Weather: 55°, Sunny
Sampling Team: P. Taylor, Y. Miyakawa	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact) Damaged	Well ID Tag Condition: (absent on casing
Locked: (YES) NO	Measuring Point Marked: (YES) NO
Concrete Base: (Intact) Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ in., (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 83.72	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 50.69	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1350	Evacuation Rate (Lpm): 0.08
Stop Evacuation (Time/Reason)	Restart Time: ~~6~~
	Headspace (ppm): 0.6

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1355	0.4	~~15~~ 51.26	15.6	198.3	6.99	7.89	103.4	over range
1400	0.8	51.72	15.6	196.0	6.84	7.97	101.6	over range
1405	1.2	52.02	15.7	195.1	6.89	8.02	100.2	over range
1410	1.6	52.18	15.5	194.4	6.86	8.05	99.2	over range

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 52.18	Drawdown Observed (ft): 1.49
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1427	Total Volume Purged (L): 1.6

SAMPLE COLLECTION INFORMATION

Sample ID: 48MW7	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/24/25 1410	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: ≠	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.9	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.58	Sample Collection Depth (ft. BTOC): 81.22

COMMENTS

Resample due to missing shipment from 10/21/25 sampling

320-10 FIELD INSPECTION REPORT

Contract Number:	W912DR19D0004	**Task Order No:**	W912DR24F0222	
CAPE Project No.:	10409-0222	**Date:**	24-Oct-25	
Project Location:	Radford Army Ammunition Plant, Radford, VA			
DFW:	SWMU 49 & SWMU 54 LTM Sampling	**Spec Sect.**		
Inspection Performed by:	Yoko Miyakawa			

1. DESCRIPTION OF WORK INSPECTED:

SWMU-49: Gauged and sampled wells 48MW2, 48MW3 (including MS/MSDs), 49MW02, and 48MW7.
Equipment blank taken at well 48MW2 at 0957 on deconned bladder pump; sample "48MW2-EQB."
Dumped approximately 8 gallons of IDW water into SWMU-49 designated, labeled, 55-gal drum at ACD/BAE storage facility.
Sample "49IDW" taken for waste characterization analysis at 1530.

2. TYPE OF INSPECTION:

☑ Visual ☐ Dimensional
☐ Non-Destructive Examination (NDE) ☐ Other _____

☐ In Progress ☐ Final

3. REFERENCED DRAWINGS / STANDARDS:

See below aerial view

4. FINDINGS:

48MW7 was resampled. The missing cooler from the shipment on 10/21/25 has not been located.

5. SKETCH, IF APPLICABLE:

Upper SWMU 49



Inspector: _____

Quality Control Representative: _____

CAPE

320-16 WASTE INVENTORY SUMMARY

Contract Number	W912DR19D0004	DO/TO No:	W912DR24F0222	CAPE Project #	10409-0222-002-003	Project Location	RAAP, Radford, VA

Process Generating Waste	Groundwater produced through purging and sampling the monitoring wells. IDW water from SWMU 48/49 is captured and maintained separately from SWMU 54 IDW water throughout the handling process.

Load Number	Date	Description	Quantity (TNS or GAL)	Waste Classification	Receiving Disposal Facility	Method of Disposal	Date of Disposal or Destruction
1	8/19/24	IDW waste from SWMU 49	7 gal	Pending Analysis	—		
2	8/20/24	IDW + decon water from SWMU 54	8 gal	Pending Analysis	—		
3	8/21/24	IDW + decon water from SWMU 49	9 gal	Pending Analysis	—		
4	8/22/24	IDW + decon water from SWMU 49	6 gal	Pending Analysis	—		
5							
6	12/9/24	IDW from SWMU 49	15 gal	Pending Analysis	—		
7	12/10/24	IDW + decon water SWMU 54	10 gal	Pending Analysis	—		
8	12/11/24	IDW + decon water SWMU 49	5 gal	Pending Analysis	—		
9	12/12/24	IDW + decon water SWMU 49	6 gal	Pending Analysis	—		
10	12/13/24	IDW + decon water SWMU 49	4 gal	Pending Analysis	—		
11							
12	IDW drum	SWMU 49 has ~45 gallons total		(as of 12/13/24)			
13	IDW drum	SWMU 54 has ~20 gallons total		(as of 12/13/24)			
14							
15	5/19/25	IDW + decon water SWMU 54	11 gal	Pending Analysis	—		
16	5/20/25	IDW + decon water SWMU 49	9 gal	Pending Analysis	—		
17	5/21/25	IDW + decon water SWMU 49 (Drum #2)	7 gal	Pending Analysis	—		
18	5/22/25	IDW + decon water SWMU 49 (Drum 2)	5 gal	Pending Analysis	—		
19							
20	IDW Drum #1	SWMU 48/49 has ~54 gallons total as of 5/22/25 (FULL)					
21	IDW Drum #2	SWMU 48/49 has ~12 gallons total as of 5/22/25					
22	IDW Drum	SWMU 54 has ~31 gallons total as of 5/22/25					
23							
24	10/20/25	IDW + decon water SWMU 54	10 gal	Pending Analysis	—		
25	10/21/25	IDW + decon water SWMU 49 (drm2)	10 gal	Pending Analysis	—		
26	10/21/25	IDW + decon SWMU 54	200mL	Pending Analysis	—		
27	10/22/25	IDW + decon SWMU 54	3 gal	Pending Analysis	—		
28	10/22/25	IDW + decon SWMU 49 (drm2)	7.5	Pending Analysis	—		
29	10/23/25	IDW + decon SWMU 49 (drm2)	7	Pending Analysis	—		
30	10/24/25	IDW + decon SWMU 49 (drm2)	8	Pending Analysis	—		
31	IDW Drum #1	SWMU 49 Full as of 5/22/25					
32	IDW Drum #2	SWMU 49 has ~44 gallons total as of 10/24/25					
	IDW Drum	SWMU 54 has ~44 gallons total as of 10/24/25					

CAPE Form 320-16, Revised May 2022	TOTAL QUANTITY:	Page 1 of 1	0.00				

CAPE

SITE CONTROL LOG

Date / Day: Friday, October 24, 2025
Project Name/Number: RADFORD ARMY AMMUNITION PLANT-SWMU 49 & SWMU 54 SAMPLING / CONTRACT W912DR19D0004, TASK ORDER W912DR24F0222
Project Location: RADFORD ARMY AMMUNITION PLANT, RADFORD, VA

Time		Name (Print)	Signature	DO YOU HAVE AN INJURY TO REPORT? Y/N	Organization
In	Out				
0732	1550	Yoko Miyakawa		N	CAPE
0732	1550	Paul I. Taylor		N	Weston

TAILGATE SAFETY MEETING RECORD

DATE/TIME:	Friday, October 24, 2025
PROJECT NAME:	Radford Army Ammunition Plant-SWMU 49 & SWMU 54 Sampling
PROJECT LOCATION:	Radford Army Ammunition Plant, Radford, VA
CAPE PROJECT NUMBER:	CO: W912DR19D0004, TO: W912DR24F0222
PROJECT MANAGER:	Matthew Feits
SITE SUPERINTENDENT:	
SITE HEALTH & SAFETY:	Yoko Miyakawa

SAFETY TOPICS PRESENTED

Cold stress ; driving safety ; dehydration

Protective Clothing/Equipment:	
Modified Level D PPE	Gloves as required
High visibility vests/outerwear as required	
Safety Toe Boots and Safety Glasses required	
Chemical Hazards:	
Potential for contact with the ground water and preservatives	
Physical Hazards:	
Slip, trip, and falls	Inclement weather
Heat stress	Drum handling
Biological hazards	
Emergency Procedures:	
Provide first aid to your level of training. Contact 911 for Emergency if required. Notify your supervisor and the SSHO.	
Emergency Hospital:	Carilion New River Valley Medical Center, 2900 Lamb Cir, Christiansburg, VA 24073
Hospital Telephone Number:	(540) 731-2000
Hospital Direction:	Map in APP
Special Equipment:	
By signing this form, I confirm that I have not been previously injured on this job without informing my supervisor, and that I will immediately report all incidents/injuries to my supervisors in the future.	

SAFETY MEETING ATTENDEES

#	Printed Name	Initial	#	Printed Name	Initial
1.	Yoko Miyakawa	YM	16.		
2.	Paul E Taylor	PT	17.		
3.			18.		
4.			19.		
5.			20.		
6.			21.		
7.			22.		
8.			23.		
9.			24.		
10.			25.		
11.			26.		
12.			27.		
13.			28.		
14.			29.		
15.			30.		

Meeting Conducted By:

Signature _____

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Oct 24, 2025 4:47:37 PM

Radford Army Ammunition Plant 10/24/25
Radford, VA
+
Personnel: Y. Miyakawa (CAPE), P. Taylor (Weston)

Weather: 32°, Foggy

Objective: GW sampling at SWMU 49

0732 P. Taylor + Y. Miyakawa onsite + Checked through guard stands
0744 Pulled over to trailer parking to calibrate equipment
YSI:
pH 4 → 4.00 pH
pH 7 → 7.01
pH 10 → 10.09
ORP 240mV → 239.4
SpC 1413 µS/cm → 1413 µS/cm
Turb. Hach meter
10 NTU → 9.90
20 NTU → 20.3
100 NTU → 101
800 NTU → 811
0809 Setting up @ 48MW2; bladder pump, interface set to 20:40 cycle + 170' depth to bottle

0918 Rinse sample 48MW2
Laundry detergent blank in decanted bladder pump = "48MW2-EQB"
0957 Equipment Blank taken
1016 setting up @ 48MW3; MS/MSD stated
1037 setting up @ 49MW02
1330 setting up @ 48MW7 - Resampling due to missing cooler from 10/23/25 shipment
1438 done sampling + taking inventory. See next page
1508 Heading to AED/BAE Storage Site
Talked to M. Alberts about dropping off our tote → "620" on bumper of Gray F-150 @ Building 220 parking lot. M. Alberts requested email about lost cooler + wants a COC plus reminder about drug screening time limit that's needed for next time he's back out here
1523 dumped approx 8 gal IDW into SWMU 49 drum #2
1530 Collected Waste Characterization Sample "49 IDW"
1547 Dropped off tote, buckets, eq, trash, etc.
1550 All parties offsite
Samples will be shipped to CT Labs in Baraboo, WI

10/24/25

Oct 2025 Inventory

*reorder

- 7 Reagent Packets (Ferrous Iron, Buffer Extract, + Sodium Periodate *
- 4 - 4oz. eyewash bottles
- 1/2 cup liquinox *
- 100 ppm isobutylene
- trash bags
- packing tape
- fire extinguisher
- First Aid / BBP kits
- 500 ft of rope
- extra sample bottles
- 5 TB's (10 vials total)
- 300 ft peristaltic tubing
- 20 ft flex tubing
- 80% box XL gloves + M gloves *
- 200 - Zip loc bags
- 4 - bladders
- 350 ft bonded tubing
- drink cooler
- Spray bottles
- Kim wipes
- paper towels
- Anchor Rods for peri tubing
- WD-40 per
- Rubbermaid tubs
- broom stick
- YSI calibration fluid (pH4/7/10, SpC 1413 MS/cm)

- extra labels + custody seals + COCs
- buckets

Appendix B: Laboratory Analytical Reports

CT LABORATORIES
delivering more than data from your environmental analyses

1230 Lange Court • Baraboo, WI 53913 • 608-356-2760

www.ctlaboratories.com

ANALYTICAL SUMMARY REPORT

This report at a minimum contains the following information:

Analytical Report of Test Results
Description of QC Qualifiers
Chain of Custody (copy)
Quality Control Summary (if applicable)
Case Narrative (if applicable)
Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

ANALYTICAL SAMPLE DATA

CAPE ENVIRONMENTAL MANAGEMENT
MATT FEITS
500 PINNACLE COURT
SUITE 100
NORCROSS, GA 30071

Project Name: RADFORD AAP SWMU 49
Project Phase: RADFORD, VA
Project #: 10409-0222
Folder #: 195112
Purchase Order #: SC013781
Contract #: 3648

Arrival Temperature: 3.5
Report Date: 6/6/2025
Date Received: 5/21/2025
Reprint Date: 6/6/2025

Copy: chemistrysvcs@cape-inc.com

CT LAB#: 1585584 Sample Description: TB-1 Client Sample #: Sampled: 5/20/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/23/25 16:05	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 16:05	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/23/25 16:05	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 16:05	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 16:05	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 16:05	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/23/25 16:05	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/23/25 16:05	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1585584 Sample Description: TB-1 Client Sample #: Sampled: 5/20/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/23/25 16:05	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/23/25 16:05	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/23/25 16:05	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			5/23/25 16:05	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/23/25 16:05	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/23/25 16:05	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1585584 Sample Description: TB-1 Client Sample #: Sampled: 5/20/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/23/25 16:05	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/23/25 16:05	DGS	EPA 8260C
1,2 Dichloroethane-d4	98.0	% Recovery	81			118	1.00				5/23/25 16:05	DGS	EPA 8260C
Bromofluorobenzene	91.0	% Recovery	85			114	1.00				5/23/25 16:05	DGS	EPA 8260C
d8-Toluene	104	% Recovery	89			112	1.00				5/23/25 16:05	DGS	EPA 8260C
Dibromofluoromethane	101	% Recovery	80			119	1.00				5/23/25 16:05	DGS	EPA 8260C

CT LAB#: 1585585 Sample Description: 49MW01 Client Sample #: Sampled: 5/20/2025 09:31

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***5.6***	mg/L	1.0	1.5	3.0	3.0	1.00				5/21/25 16:42	TMG	EPA 9056A
Nitrate Nitrogen	***0.20***	mg/L	0.12	0.20	0.40	0.40	1.00	J			5/21/25 16:42	TMG	EPA 9056A
Sulfate	***1.7***	mg/L	0.80	1.5	3.0	3.0	1.00	J			5/21/25 16:42	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			5/23/25 15:19	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/23/25 18:55	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1585585 Sample Description: 49MW01 Client Sample #: Sampled: 5/20/2025 09:31

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 18:55	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/23/25 18:55	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 18:55	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 18:55	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 18:55	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/23/25 18:55	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/23/25 18:55	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/23/25 18:55	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/23/25 18:55	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Carbon tetrachloride	***1.5***	ug/L	0.37	1.0	1.2	1.2	1.00				5/23/25 18:55	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/23/25 18:55	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1585585 Sample Description: 49MW01 Client Sample #: Sampled: 5/20/2025 09:31

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			5/23/25 18:55	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/23/25 18:55	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/23/25 18:55	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/23/25 18:55	DGS	EPA 8260C
1,2 Dichloroethane-d4	97.0	% Recovery	81			118	1.00				5/23/25 18:55	DGS	EPA 8260C
Bromofluorobenzene	90.0	% Recovery	85			114	1.00				5/23/25 18:55	DGS	EPA 8260C
d8-Toluene	104	% Recovery	89			112	1.00				5/23/25 18:55	DGS	EPA 8260C
Dibromofluoromethane	103	% Recovery	80			119	1.00				5/23/25 18:55	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 09:44	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		5/23/25 09:06	5/23/25 09:44	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 09:44	SRW	RSK 175

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1585585 Sample Description: 49MW01 Client Sample #: Sampled: 5/20/2025 09:31

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method

CT LAB#: 1585586 Sample Description: 49MW01-EQB Client Sample #: Sampled: 5/20/2025 10:08

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	<1.5	mg/L	1.0	1.5	3.0	3.0	1.00	U			5/21/25 17:08	TMG	EPA 9056A
Nitrate Nitrogen	<0.20	mg/L	0.12	0.20	0.40	0.40	1.00	U			5/21/25 17:08	TMG	EPA 9056A
Sulfate	<1.5	mg/L	0.80	1.5	3.0	3.0	1.00	U			5/21/25 17:08	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			5/23/25 15:37	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/23/25 17:30	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 17:30	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/23/25 17:30	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 17:30	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 17:30	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 17:30	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/23/25 17:30	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/23/25 17:30	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1585586 Sample Description: 49MW01-EQB Client Sample #: Sampled: 5/20/2025 10:08

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/23/25 17:30	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/23/25 17:30	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/23/25 17:30	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			5/23/25 17:30	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/23/25 17:30	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/23/25 17:30	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1585586 Sample Description: 49MW01-EQB Client Sample #: Sampled: 5/20/2025 10:08

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/23/25 17:30	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/23/25 17:30	DGS	EPA 8260C
1,2 Dichloroethane-d4	98.0	% Recovery	81			118	1.00				5/23/25 17:30	DGS	EPA 8260C
Bromofluorobenzene	90.0	% Recovery	85			114	1.00				5/23/25 17:30	DGS	EPA 8260C
d8-Toluene	103	% Recovery	89			112	1.00				5/23/25 17:30	DGS	EPA 8260C
Dibromofluoromethane	101	% Recovery	80			119	1.00				5/23/25 17:30	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 09:54	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		5/23/25 09:06	5/23/25 09:54	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 09:54	SRW	RSK 175

CT LAB#: 1585587 Sample Description: 48MW6 Client Sample #: Sampled: 5/20/2025 11:46

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***12***	mg/L	1.0	1.5	3.0	3.0	1.00				5/21/25 17:33	TMG	EPA 9056A
Nitrate Nitrogen	***2.4***	mg/L	0.12	0.20	0.40	0.40	1.00				5/21/25 17:33	TMG	EPA 9056A
Sulfate	***130***	mg/L	4.0	7.5	15	15	5.00				5/22/25 10:03	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			5/23/25 15:55	TMG	EPA 9060A
Organic Results													

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1585587 Sample Description: 48MW6 Client Sample #: Sampled: 5/20/2025 11:46

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/23/25 19:23	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/23/25 19:23	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 19:23	DGS	EPA 8260C
1,1-Dichloroethane	***2.0***	ug/L	0.28	1.0	1.1	1.1	1.00				5/23/25 19:23	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 19:23	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/23/25 19:23	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 19:23	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 19:23	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 19:23	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 19:23	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/23/25 19:23	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 19:23	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/23/25 19:23	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 19:23	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/23/25 19:23	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/23/25 19:23	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/23/25 19:23	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/23/25 19:23	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 19:23	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1585587 Sample Description: 48MW6 Client Sample #: Sampled: 5/20/2025 11:46

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/23/25 19:23	DGS	EPA 8260C
cis-1,2-Dichloroethene	***5.0***	ug/L	0.41	1.0	1.3	1.3	1.00				5/23/25 19:23	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/23/25 19:23	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/23/25 19:23	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Tetrachloroethene	***0.45***	ug/L	0.25	1.0	2.0	2.0	1.00	J			5/23/25 19:23	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 19:23	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 19:23	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Trichloroethene	***1.9***	ug/L	0.25	1.0	1.2	1.2	1.00				5/23/25 19:23	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/23/25 19:23	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/23/25 19:23	DGS	EPA 8260C
1,2 Dichloroethane-d4	96.0	% Recovery	81			118	1.00				5/23/25 19:23	DGS	EPA 8260C
Bromofluorobenzene	89.0	% Recovery	85			114	1.00				5/23/25 19:23	DGS	EPA 8260C
d8-Toluene	104	% Recovery	89			112	1.00				5/23/25 19:23	DGS	EPA 8260C
Dibromofluoromethane	101	% Recovery	80			119	1.00				5/23/25 19:23	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1585587 Sample Description: 48MW6 Client Sample #: Sampled: 5/20/2025 11:46

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 09:58	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		5/23/25 09:06	5/23/25 09:58	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 09:58	SRW	RSK 175

CT LAB#: 1585588 Sample Description: 48TW6 Client Sample #: Sampled: 5/20/2025 11:46

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***12***	mg/L	1.0	1.5	3.0	3.0	1.00				5/21/25 17:59	TMG	EPA 9056A
Nitrate Nitrogen	***2.4***	mg/L	0.12	0.20	0.40	0.40	1.00				5/21/25 17:59	TMG	EPA 9056A
Sulfate	***130***	mg/L	4.0	7.5	15	15	5.00				5/22/25 10:29	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			5/23/25 16:06	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/23/25 19:52	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/23/25 19:52	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 19:52	DGS	EPA 8260C
1,1-Dichloroethane	***2.2***	ug/L	0.28	1.0	1.1	1.1	1.00				5/23/25 19:52	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 19:52	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/23/25 19:52	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 19:52	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 19:52	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 19:52	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 19:52	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/23/25 19:52	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 19:52	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1585588 Sample Description: 48TW6 Client Sample #: Sampled: 5/20/2025 11:46

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/23/25 19:52	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 19:52	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/23/25 19:52	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/23/25 19:52	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/23/25 19:52	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/23/25 19:52	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/23/25 19:52	DGS	EPA 8260C
cis-1,2-Dichloroethene	***5.1***	ug/L	0.41	1.0	1.3	1.3	1.00				5/23/25 19:52	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/23/25 19:52	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/23/25 19:52	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1585588 Sample Description: 48TW6 Client Sample #: Sampled: 5/20/2025 11:46

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/23/25 19:52	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Tetrachloroethene	***0.55***	ug/L	0.25	1.0	2.0	2.0	1.00	J			5/23/25 19:52	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 19:52	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 19:52	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Trichloroethene	***1.9***	ug/L	0.25	1.0	1.2	1.2	1.00				5/23/25 19:52	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/23/25 19:52	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/23/25 19:52	DGS	EPA 8260C
1,2 Dichloroethane-d4	95.0	% Recovery	81			118	1.00				5/23/25 19:52	DGS	EPA 8260C
Bromofluorobenzene	90.0	% Recovery	85			114	1.00				5/23/25 19:52	DGS	EPA 8260C
d8-Toluene	105	% Recovery	89			112	1.00				5/23/25 19:52	DGS	EPA 8260C
Dibromofluoromethane	103	% Recovery	80			119	1.00				5/23/25 19:52	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 10:01	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		5/23/25 09:06	5/23/25 10:01	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 10:01	SRW	RSK 175

CT LAB#: 1585589 Sample Description: 13MW4 Client Sample #: Sampled: 5/20/2025 13:33

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***5.6***	mg/L	1.0	1.5	3.0	3.0	1.00				5/21/25 18:24	TMG	EPA 9056A
Nitrate Nitrogen	***0.31***	mg/L	0.12	0.20	0.40	0.40	1.00	J			5/21/25 18:24	TMG	EPA 9056A

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1585589 Sample Description: 13MW4 Client Sample #: Sampled: 5/20/2025 13:33

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Sulfate	***31***	mg/L	0.80	1.5	3.0	3.0	1.00	M			5/21/25 18:24	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			5/23/25 16:20	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/23/25 20:21	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 20:21	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/23/25 20:21	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 20:21	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 20:21	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 20:21	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/23/25 20:21	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/23/25 20:21	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/23/25 20:21	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/23/25 20:21	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 20:21	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1585589 Sample Description: 13MW4 Client Sample #: Sampled: 5/20/2025 13:33

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/23/25 20:21	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			5/23/25 20:21	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/23/25 20:21	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Trichloroethene	***0.50***	ug/L	0.25	1.0	1.2	1.2	1.00	J			5/23/25 20:21	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/23/25 20:21	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/23/25 20:21	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1585589 Sample Description: 13MW4 Client Sample #: Sampled: 5/20/2025 13:33

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,2 Dichloroethane-d4	93.0	% Recovery	81			118	1.00				5/23/25 20:21	DGS	EPA 8260C
Bromofluorobenzene	91.0	% Recovery	85			114	1.00				5/23/25 20:21	DGS	EPA 8260C
d8-Toluene	104	% Recovery	89			112	1.00				5/23/25 20:21	DGS	EPA 8260C
Dibromofluoromethane	104	% Recovery	80			119	1.00				5/23/25 20:21	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 10:23	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		5/23/25 09:06	5/23/25 10:23	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 10:23	SRW	RSK 175

CT LAB#: 1585590 Sample Description: 13MW3 Client Sample #: Sampled: 5/20/2025 14:50

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***4.9***	mg/L	1.0	1.5	3.0	3.0	1.00				5/21/25 21:22	TMG	EPA 9056A
Nitrate Nitrogen	***1.1***	mg/L	0.12	0.20	0.40	0.40	1.00				5/21/25 21:22	TMG	EPA 9056A
Sulfate	***84***	mg/L	4.0	7.5	15	15	5.00				5/22/25 10:54	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			5/23/25 17:59	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/23/25 20:49	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 20:49	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/23/25 20:49	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 20:49	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 20:49	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1585590 Sample Description: 13MW3 Client Sample #: Sampled: 5/20/2025 14:50

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 20:49	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/23/25 20:49	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/23/25 20:49	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/23/25 20:49	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/23/25 20:49	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Carbon tetrachloride	***3.3***	ug/L	0.37	1.0	1.2	1.2	1.00				5/23/25 20:49	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Chloroform	***0.36***	ug/L	0.30	1.0	1.4	1.4	1.00	J			5/23/25 20:49	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/23/25 20:49	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			5/23/25 20:49	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1585590 Sample Description: 13MW3 Client Sample #: Sampled: 5/20/2025 14:50

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/23/25 20:49	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Trichloroethene	***0.47***	ug/L	0.25	1.0	1.2	1.2	1.00	J			5/23/25 20:49	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/23/25 20:49	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/23/25 20:49	DGS	EPA 8260C
1,2 Dichloroethane-d4	99.0	% Recovery	81			118	1.00				5/23/25 20:49	DGS	EPA 8260C
Bromofluorobenzene	88.0	% Recovery	85			114	1.00				5/23/25 20:49	DGS	EPA 8260C
d8-Toluene	104	% Recovery	89			112	1.00				5/23/25 20:49	DGS	EPA 8260C
Dibromofluoromethane	102	% Recovery	80			119	1.00				5/23/25 20:49	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 10:36	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		5/23/25 09:06	5/23/25 10:36	SRW	RSK 175
Methane	***0.52***	ug/L	0.45	0.90	1.0	1.0	1.00	J		5/23/25 09:06	5/23/25 10:36	SRW	RSK 175

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes:

^ Indicates the laboratory is NELAP accredited for this analyte by the indicated matrix and method . DL (detection limit), LOD (limit of detection), loq (limit of quantitation) as defined by most recent DOD QSM version.

All samples were received intact and properly preserved unless otherwise noted . The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for the parameters where accreditation is required or available, unless noted in the case narrative.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

QC Qualifiers

Code	Description
A	Result cannot be used for compliance due to QC issue
B	Analyte detected in the associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
I	Incubator temperature was outside acceptance limits during test period.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was below detection limit.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Specified calibration criteria was not met.

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 289
Louisiana NELAP (primary) ID# 115843
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Florida NELAP Lab ID# E871111

DoD-ELAP QSM5.4 -
PJLA Testing Accreditation # 78929

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QC Summary Report

CAPE ENVIRONMENTAL MANAGEMENT **Project Name: RADFORD AAP SWMU 49**

SDG #: 0 **Folder #: 195112** **Project #: 10409-0222**

Duplicate

Analytical Run #:	291812	Analysis Date:	5/21/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1586696	Analysis Time:	18:50	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1585589	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	5.79	mg/L	5.6				3.0	3	10
Nitrate Nitrogen	0.320	mg/L	0.31				0.40	3	10
Sulfate	30.9	mg/L	31				3.0	0	10

Lab Control Spike Water

Analytical Run #:	291812	Analysis Date:	5/21/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1586692	Analysis Time:	09:04	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Chloride	14.70	mg/L			15.00	98	87	---	111		
Nitrate Nitrogen	3.282	mg/L			3.500	94	88	---	111		
Sulfate	24.64	mg/L			25.00	99	87	---	112		

Method Blank Water

Analytical Run #:	291812	Analysis Date:	5/21/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1586693	Analysis Time:	09:29	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	1.0	mg/L		U	0		1.5		
Nitrate Nitrogen	0.12	mg/L		U	0		0.20		
Sulfate	0.8	mg/L		U	0		1.5		

Matrix Spike Duplicate Water

Analytical Run #:	291812	Analysis Date:	5/21/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1586699	Analysis Time:	20:57	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1586698	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	13.3	mg/L	5.6		8.00	96	87 --- 111	1	15
Nitrate Nitrogen	2.22	mg/L	0.31		2.00	96	88 --- 111	2	15
Sulfate	37.6	mg/L	31		8.00	82	87 --- 112	1	15

Matrix Spike Water

Analytical Run #:	291812	Analysis Date:	5/21/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1586698	Analysis Time:	20:32	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1585589	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	13.3	mg/L	5.6		8.00	96	87 --- 111		15
Nitrate Nitrogen	2.26	mg/L	0.31		2.00	98	88 --- 111		15
Sulfate	37.3	mg/L	31		8.00	79	87 --- 112		15

Duplicate

Analytical Run #:	291896	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1587376	Analysis Time:	16:42	Prep Date/Time:		Method:	SW9060
Parent Sample #:	1585589	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.4	mg/L	<DL	U			1.5	0	20

Lab Control Spike Water

Analytical Run #:	291896	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587372	Analysis Time:	10:09	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	49.19	mg/L			50.0	98	85 --- 111		20

Method Blank Water

Analytical Run #:	291896	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587373	Analysis Time:	10:45	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.40	mg/L		U	0		1.5		

Matrix Spike Duplicate Water

Analytical Run #:	291896	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1587380	Analysis Time:	17:45	Prep Date/Time:		Method:	SW9060
Parent Sample #:	1587379	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	51.1	mg/L	<DL		50.0	102	85 --- 111	0	20

Matrix Spike Water

Analytical Run #:	291896	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1587379	Analysis Time:	17:31	Prep Date/Time:		Method:	SW9060
Parent Sample #:	1585589	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	51.1	mg/L	<DL		50.0	102	85 --- 111		20

Lab Control Spike Water

Analytical Run #:	291874	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587261	Analysis Time:	14:39	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
1,1,1-Trichloroethane	10.8	ug/L			10.0	108	74	---	131		20
1,1,2,2-Tetrachloroethane	8.38	ug/L			10.0	84	71	---	121		20
1,1,2-Trichloroethane	10.4	ug/L			10.0	104	80	---	119		20
1,1-Dichloroethane	9.21	ug/L			10.0	92	77	---	125		20
1,1-Dichloroethene	10.6	ug/L			10.0	106	71	---	131		20
1,2,3-Trichlorobenzene	9.30	ug/L			10.0	93	69	---	129		20
1,2,4-Trichlorobenzene	9.72	ug/L			10.0	97	69	---	130		20
1,2-Dibromo-3-chloropropane	8.77	ug/L			10.0	88	62	---	128		20
1,2-Dibromoethane	9.45	ug/L			10.0	94	77	---	121		20
1,2-Dichlorobenzene	9.71	ug/L			10.0	97	80	---	119		20
1,2-Dichloroethane	9.53	ug/L			10.0	95	73	---	128		20
1,2-Dichloropropane	9.15	ug/L			10.0	92	78	---	122		20
1,3-Dichlorobenzene	9.63	ug/L			10.0	96	80	---	119		20
1,4-Dichlorobenzene	9.78	ug/L			10.0	98	79	---	118		20
1,4-Dioxane	452	ug/L			500	90	59	---	139		20
112Trichloro122trifluoroethane	24.0	ug/L			20.0	120	70	---	136		20
2-Butanone	95.6	ug/L			100	96	56	---	143		20
2-Hexanone	75.8	ug/L			100	76	57	---	139		20
4-Methyl-2-pentanone	80.4	ug/L			100	80	67	---	130		20
Acetone	83.7	ug/L			100	84	39	---	160		20
Benzene	10.3	ug/L			10.0	103	79	---	120		20
Bromochloromethane	11.3	ug/L			10.0	113	78	---	123		20
Bromodichloromethane	10.00	ug/L			10.0	100	79	---	125		20
Bromoform	9.79	ug/L			10.0	98	66	---	130		20
Bromomethane	10.7	ug/L			10.0	107	53	---	141		20
Carbon disulfide	20.7	ug/L			20.0	104	64	---	133		20
Carbon tetrachloride	11.0	ug/L			10.0	110	72	---	136		20
Chlorobenzene	10.0	ug/L			10.0	100	82	---	118		20
Chloroethane	9.00	ug/L			10.0	90	60	---	138		20
Chloroform	10.2	ug/L			10.0	102	79	---	124		20
Chloromethane	8.23	ug/L			10.0	82	50	---	139		20
cis-1,2-Dichloroethene	10.2	ug/L			10.0	102	78	---	123		20
cis-1,3-Dichloropropene	9.75	ug/L			10.0	98	75	---	124		20
Cyclohexane	9.78	ug/L			10.0	98	71	---	130		20
Dibromochloromethane	9.42	ug/L			10.0	94	74	---	126		20
Dichlorodifluoromethane	11.5	ug/L			10.0	115	32	---	152		20
Ethylbenzene	9.22	ug/L			10.0	92	79	---	121		20
Isopropylbenzene	10.1	ug/L			10.0	101	72	---	131		20
m & p-Xylene	20.2	ug/L			20.0	101	80	---	121		20
Methyl acetate	9.21	ug/L			10.0	92	56	---	136		20
Methyl tert-butyl ether	9.51	ug/L			10.0	95	71	---	124		20
Methylcyclohexane	10.7	ug/L			10.0	107	72	---	132		20

Lab Control Spike Water

Analytical Run #:	291874	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587261	Analysis Time:	14:39	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Methylene chloride	9.56	ug/L			10.0	96	74 --- 124		20
o-Xylene	9.63	ug/L			10.0	96	78 --- 122		20
Styrene	9.92	ug/L			10.0	99	78 --- 123		20
Tetrachloroethene	12.0	ug/L			10.0	120	74 --- 129		20
Toluene	10.7	ug/L			10.0	107	80 --- 121		20
trans-1,2-Dichloroethene	10.7	ug/L			10.0	107	75 --- 124		20
trans-1,3-Dichloropropene	9.33	ug/L			10.0	93	73 --- 127		20
Trichloroethene	10.6	ug/L			10.0	106	79 --- 123		20
Trichlorofluoromethane	11.9	ug/L			10.0	119	65 --- 141		20
Vinyl chloride	9.38	ug/L			10.0	94	58 --- 137		20

Method Blank Water

Analytical Run #:	291874	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587332	Analysis Time:	15:36	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.38	ug/L		U	0		0.60		
1,1,2,2-Tetrachloroethane	0.36	ug/L		U	0		0.55		
1,1,2-Trichloroethane	0.27	ug/L		U	0		0.55		
1,1-Dichloroethane	0.28	ug/L		U	0		0.55		
1,1-Dichloroethene	0.49	ug/L		U	0		1.0		
1,2,3-Trichlorobenzene	0.43	ug/L		U	0		1.0		
1,2,4-Trichlorobenzene	0.50	ug/L		U	0		1.0		
1,2-Dibromo-3-chloropropane	0.50	ug/L		U	0		1.0		
1,2-Dibromoethane	0.33	ug/L		U	0		0.55		
1,2-Dichlorobenzene	0.35	ug/L		U	0		0.55		
1,2-Dichloroethane	0.69	ug/L		U	0		1.05		
1,2-Dichloropropane	0.25	ug/L		U	0		0.60		
1,3-Dichlorobenzene	0.30	ug/L		U	0		0.55		
1,4-Dichlorobenzene	0.33	ug/L		U	0		0.55		
1,4-Dioxane	34	ug/L		U	0		50		
112Trichloro122trifluoroethane	1.5	ug/L		U	0		2.25		
2-Butanone	2.9	ug/L		U	0		5.5		
2-Hexanone	3.3	ug/L		U	0		5.5		
4-Methyl-2-pentanone	3.7	ug/L		U	0		6.0		
Acetone	4.1	ug/L		U	0		10		
Benzene	0.40	ug/L		U	0		1.0		
Bromochloromethane	0.26	ug/L		U	0		0.55		
Bromodichloromethane	0.080	ug/L		U	0		0.25		
Bromoform	0.50	ug/L		U	0		1.0		
Bromomethane	0.49	ug/L		U	0		1.0		
Carbon disulfide	0.83	ug/L		U	0		2.0		
Carbon tetrachloride	0.37	ug/L		U	0		0.60		
Chlorobenzene	0.25	ug/L		U	0		0.60		
Chloroethane	1.0	ug/L		U	0		1.5		
Chloroform	0.30	ug/L		U	0		0.70		
Chloromethane	0.39	ug/L		U	0		1.0		
cis-1,2-Dichloroethene	0.41	ug/L		U	0		0.65		
cis-1,3-Dichloropropene	0.25	ug/L		U	0		0.55		
Cyclohexane	0.71	ug/L		U	0		1.1		
Dibromochloromethane	0.25	ug/L		U	0		0.55		
Dichlorodifluoromethane	0.63	ug/L		U	0		1.05		
Ethylbenzene	0.42	ug/L		U	0		0.65		
Isopropylbenzene	0.39	ug/L		U	0		0.60		
m & p-Xylene	0.74	ug/L		U	0		1.15		
Methyl acetate	0.34	ug/L		U	0		1.0		
Methyl tert-butyl ether	0.28	ug/L		U	0		0.55		
Methylcyclohexane	0.78	ug/L		U	0		1.2		

Method Blank Water

Analytical Run #:	291874	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587332	Analysis Time:	15:36	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Methylene chloride	1.2	ug/L		U	0		2.05		
o-Xylene	0.50	ug/L		U	0		1.1		
Styrene	0.33	ug/L		U	0		0.55		
Tetrachloroethene	0.25	ug/L		U	0		1.0		
Toluene	0.27	ug/L		U	0		0.55		
trans-1,2-Dichloroethene	0.35	ug/L		U	0		0.55		
trans-1,3-Dichloropropene	0.56	ug/L		U	0		1.05		
Trichloroethene	0.25	ug/L		U	0		0.60		
Trichlorofluoromethane	0.41	ug/L		U	0		1.0		
Vinyl chloride	0.12	ug/L		U	0		0.25		

Matrix Spike Duplicate Water

Analytical Run #:	291874	Analysis Date:	5/27/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1587598	Analysis Time:	12:10	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	1587597	Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
1,1,1-Trichloroethane	11.4	ug/L	<DL		10.0	114	74	---	131	6	20
1,1,2,2-Tetrachloroethane	8.20	ug/L	<DL		10.0	82	71	---	121	2	20
1,1,2-Trichloroethane	10.1	ug/L	<DL		10.0	101	80	---	119	1	20
1,1-Dichloroethane	9.51	ug/L	<DL		10.0	95	77	---	125	0	20
1,1-Dichloroethene	11.2	ug/L	<DL		10.0	112	71	---	131	4	20
1,2 Dichloroethane-d4	95.0	% Recovery	BDL		100	95.0	81	---	118	0	
1,2,3-Trichlorobenzene	11.4	ug/L	<DL		10.0	114	69	---	129	10	20
1,2,4-Trichlorobenzene	10.8	ug/L	<DL		10.0	108	69	---	130	1	20
1,2-Dibromo-3-chloropropane	8.28	ug/L	<DL		10.0	83	62	---	128	7	20
1,2-Dibromoethane	9.64	ug/L	<DL		10.0	96	77	---	121	4	20
1,2-Dichlorobenzene	10.2	ug/L	<DL		10.0	102	80	---	119	1	20
1,2-Dichloroethane	10.1	ug/L	<DL		10.0	101	73	---	128	3	20
1,2-Dichloropropane	9.20	ug/L	<DL		10.0	92	78	---	122	6	20
1,3-Dichlorobenzene	9.98	ug/L	<DL		10.0	100	80	---	119	0	20
1,4-Dichlorobenzene	10.2	ug/L	<DL		10.0	102	79	---	118	2	20
1,4-Dioxane	468	ug/L	<DL		500	94	59	---	139	7	20
112Trichloro122trifluoroethane	23.3	ug/L	<DL		20.0	116	70	---	136	2	20
2-Butanone	76.6	ug/L	<DL		100	77	56	---	143	0	20
2-Hexanone	65.3	ug/L	<DL		100	65	57	---	139	2	20
4-Methyl-2-pentanone	78.4	ug/L	<DL		100	78	67	---	130	4	20
Acetone	47.2	ug/L	<DL		100	47	39	---	160	3	20
Benzene	10.6	ug/L	<DL		10.0	106	79	---	120	2	20
Bromochloromethane	11.4	ug/L	<DL		10.0	114	78	---	123	3	20
Bromodichloromethane	9.93	ug/L	<DL		10.0	99	79	---	125	7	20
Bromofluorobenzene	89.0	% Recovery	BDL		100	89.0	85	---	114	0	
Bromoform	8.81	ug/L	<DL		10.0	88	66	---	130	6	20
Bromomethane	11.7	ug/L	<DL		10.0	117	53	---	141	4	20
Carbon disulfide	20.7	ug/L	<DL		20.0	104	64	---	133	3	20
Carbon tetrachloride	10.9	ug/L	<DL		10.0	109	72	---	136	7	20
Chlorobenzene	10.3	ug/L	<DL		10.0	103	82	---	118	3	20
Chloroethane	10.9	ug/L	<DL		10.0	109	60	---	138	9	20
Chloroform	10.5	ug/L	<DL		10.0	105	79	---	124	2	20
Chloromethane	6.23	ug/L	<DL		10.0	62	50	---	139	2	20
cis-1,2-Dichloroethene	10.8	ug/L	<DL		10.0	108	78	---	123	5	20
cis-1,3-Dichloropropene	10.0	ug/L	<DL		10.0	100	75	---	124	4	20
Cyclohexane	9.30	ug/L	<DL		10.0	93	71	---	130	5	20
d8-Toluene	105	% Recovery	BDL		100	105	89	---	112	0	
Dibromochloromethane	9.15	ug/L	<DL		10.0	92	74	---	126	8	20
Dibromofluoromethane	102	% Recovery	BDL		100	102	80	---	119	0	
Dichlorodifluoromethane	6.15	ug/L	<DL		10.0	62	32	---	152	3	20
Ethylbenzene	9.72	ug/L	<DL		10.0	97	79	---	121	1	20
Isopropylbenzene	10.7	ug/L	<DL		10.0	107	72	---	131	1	20

Matrix Spike Duplicate Water

Analytical Run #:	291874	Analysis Date:	5/27/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1587598	Analysis Time:	12:10	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	1587597	Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
m & p-Xylene	21.0	ug/L	<DL		20.0	105	80 --- 121	3	20
Methyl acetate	8.87	ug/L	<DL		10.0	89	56 --- 136	0	20
Methyl tert-butyl ether	9.54	ug/L	<DL		10.0	95	71 --- 124	1	20
Methylcyclohexane	10.7	ug/L	<DL		10.0	107	72 --- 132	3	20
Methylene chloride	9.91	ug/L	<DL		10.0	99	74 --- 124	3	20
o-Xylene	9.98	ug/L	<DL		10.0	100	78 --- 122	2	20
Styrene	10.3	ug/L	<DL		10.0	103	78 --- 123	3	20
Tetrachloroethene	12.7	ug/L	<DL		10.0	127	74 --- 129	3	20
Toluene	11.2	ug/L	<DL		10.0	112	80 --- 121	4	20
trans-1,2-Dichloroethene	11.1	ug/L	<DL		10.0	111	75 --- 124	3	20
trans-1,3-Dichloropropene	9.66	ug/L	<DL		10.0	97	73 --- 127	2	20
Trichloroethene	11.6	ug/L	0.50		10.0	111	79 --- 123	5	20
Trichlorofluoromethane	13.2	ug/L	<DL		10.0	132	65 --- 141	16	20
Vinyl chloride	9.90	ug/L	<DL		10.0	99	58 --- 137	5	20

Matrix Spike Water

Analytical Run #:	291874	Analysis Date:	5/27/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1587597	Analysis Time:	11:41	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	1585589	Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
1,1,1-Trichloroethane	10.7	ug/L	<DL		10.0	107	74	---	131		20
1,1,2,2-Tetrachloroethane	8.05	ug/L	<DL		10.0	80	71	---	121		20
1,1,2-Trichloroethane	10.0	ug/L	<DL		10.0	100	80	---	119		20
1,1-Dichloroethane	9.47	ug/L	<DL		10.0	95	77	---	125		20
1,1-Dichloroethene	10.8	ug/L	<DL		10.0	108	71	---	131		20
1,2 Dichloroethane-d4	95.0	% Recovery	BDL		100	95.0	81	---	118		
1,2,3-Trichlorobenzene	10.3	ug/L	<DL		10.0	103	69	---	129		20
1,2,4-Trichlorobenzene	10.7	ug/L	<DL		10.0	107	69	---	130		20
1,2-Dibromo-3-chloropropane	7.74	ug/L	<DL		10.0	77	62	---	128		20
1,2-Dibromoethane	9.30	ug/L	<DL		10.0	93	77	---	121		20
1,2-Dichlorobenzene	10.1	ug/L	<DL		10.0	101	80	---	119		20
1,2-Dichloroethane	9.75	ug/L	<DL		10.0	98	73	---	128		20
1,2-Dichloropropane	8.67	ug/L	<DL		10.0	87	78	---	122		20
1,3-Dichlorobenzene	10.0	ug/L	<DL		10.0	100	80	---	119		20
1,4-Dichlorobenzene	9.96	ug/L	<DL		10.0	100	79	---	118		20
1,4-Dioxane	438	ug/L	<DL		500	88	59	---	139		20
112Trichloro122trifluoroethane	22.9	ug/L	<DL		20.0	114	70	---	136		20
2-Butanone	76.4	ug/L	<DL		100	76	56	---	143		20
2-Hexanone	64.2	ug/L	<DL		100	64	57	---	139		20
4-Methyl-2-pentanone	75.5	ug/L	<DL		100	76	67	---	130		20
Acetone	45.6	ug/L	<DL		100	46	39	---	160		20
Benzene	10.4	ug/L	<DL		10.0	104	79	---	120		20
Bromochloromethane	11.0	ug/L	<DL		10.0	110	78	---	123		20
Bromodichloromethane	9.22	ug/L	<DL		10.0	92	79	---	125		20
Bromofluorobenzene	90.0	% Recovery	BDL		100	90.0	85	---	114		
Bromoform	8.33	ug/L	<DL		10.0	83	66	---	130		20
Bromomethane	12.1	ug/L	<DL		10.0	121	53	---	141		20
Carbon disulfide	20.1	ug/L	<DL		20.0	100	64	---	133		20
Carbon tetrachloride	10.2	ug/L	<DL		10.0	102	72	---	136		20
Chlorobenzene	9.93	ug/L	<DL		10.0	99	82	---	118		20
Chloroethane	10.0	ug/L	<DL		10.0	100	60	---	138		20
Chloroform	10.3	ug/L	<DL		10.0	103	79	---	124		20
Chloromethane	6.11	ug/L	<DL		10.0	61	50	---	139		20
cis-1,2-Dichloroethene	10.3	ug/L	<DL		10.0	103	78	---	123		20
cis-1,3-Dichloropropene	9.60	ug/L	<DL		10.0	96	75	---	124		20
Cyclohexane	8.82	ug/L	<DL		10.0	88	71	---	130		20
d8-Toluene	105	% Recovery	BDL		100	105	89	---	112		
Dibromochloromethane	8.42	ug/L	<DL		10.0	84	74	---	126		20
Dibromofluoromethane	104	% Recovery	BDL		100	104	80	---	119		
Dichlorodifluoromethane	5.95	ug/L	<DL		10.0	60	32	---	152		20
Ethylbenzene	9.59	ug/L	<DL		10.0	96	79	---	121		20
Isopropylbenzene	10.5	ug/L	<DL		10.0	105	72	---	131		20

Matrix Spike Water

Analytical Run #:	291874	Analysis Date:	5/27/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1587597	Analysis Time:	11:41	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	1585589	Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
m & p-Xylene	20.4	ug/L	<DL		20.0	102	80 --- 121		20
Methyl acetate	8.86	ug/L	<DL		10.0	89	56 --- 136		20
Methyl tert-butyl ether	9.48	ug/L	<DL		10.0	95	71 --- 124		20
Methylcyclohexane	10.3	ug/L	<DL		10.0	103	72 --- 132		20
Methylene chloride	9.58	ug/L	<DL		10.0	96	74 --- 124		20
o-Xylene	9.76	ug/L	<DL		10.0	98	78 --- 122		20
Styrene	10.0	ug/L	<DL		10.0	100	78 --- 123		20
Tetrachloroethene	12.4	ug/L	<DL		10.0	124	74 --- 129		20
Toluene	10.8	ug/L	<DL		10.0	108	80 --- 121		20
trans-1,2-Dichloroethene	10.7	ug/L	<DL		10.0	107	75 --- 124		20
trans-1,3-Dichloropropene	9.47	ug/L	<DL		10.0	95	73 --- 127		20
Trichloroethene	11.0	ug/L	0.50		10.0	105	79 --- 123		20
Trichlorofluoromethane	11.2	ug/L	<DL		10.0	112	65 --- 141		20
Vinyl chloride	10.4	ug/L	<DL		10.0	104	58 --- 137		20

Lab Control Spike Water

Analytical Run #:	291897	Analysis Date:	5/23/2025	Prep Batch #:	138906	Matrix:	LIQUID
CTLab #:	1586718	Analysis Time:	09:24	Prep Date/Time:	05/23/2025 09:06	Method:	RSK175
Parent Sample #:		Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	4.60	ug/L			4.80	96	74 --- 131		20
Ethene	6.32	ug/L			6.81	93	72 --- 133		20
Methane	2.09	ug/L			2.31	90	73 --- 125		20

Method Blank Water

Analytical Run #:	291897	Analysis Date:	5/23/2025	Prep Batch #:	138906	Matrix:	LIQUID
CTLab #:	1586717	Analysis Time:	09:37	Prep Date/Time:	05/23/2025 09:06	Method:	RSK175
Parent Sample #:		Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	0.38	ug/L		U	0		0.5		
Ethene	0.59	ug/L		U	0		0.7		
Methane	0.45	ug/L		U	0		0.5		

Matrix Spike Duplicate Water

Analytical Run #:	291897	Analysis Date:	5/23/2025	Prep Batch #:	138906	Matrix:	GROUND WATER
CTLab #:	1586721	Analysis Time:	10:32	Prep Date/Time:	05/23/2025 09:06	Method:	RSK175
Parent Sample #:	1586720	Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	4.77	ug/L	<DL		4.80	99	74 --- 131	2	30
Ethene	6.72	ug/L	<DL		6.81	99	72 --- 133	2	30
Methane	2.43	ug/L	<DL		2.31	105	73 --- 125	5	30

Matrix Spike Water

Analytical Run #:	291897	Analysis Date:	5/23/2025	Prep Batch #:	138906	Matrix:	GROUND WATER
CTLab #:	1586720	Analysis Time:	10:27	Prep Date/Time:	05/23/2025 09:06	Method:	RSK175
Parent Sample #:	1585589	Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	4.88	ug/L	<DL		4.80	102	74 --- 131		30
Ethene	6.89	ug/L	<DL		6.81	101	72 --- 133		30
Methane	2.56	ug/L	<DL		2.31	111	73 --- 125		30

CT LABORATORIES
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Sample Condition Report

Folder #:	195112	Print Date / Time:	05/21/2025	08:25	
Client:	CAPE ENVIRONMENTAL MANAGEMENT	Received Date / Time / By:	05/21/2025	10:35	DJL
Project Name:	RADFORD AAP SWMU 49	Log-In Date / Time / By:	05/21/2025	10:46	erc
Project Phase:	RADFORD, VA	Project #:	10409-0222	PM:	BMS
Coolers:	1-UNMARKED	Temperature:	3.5 C	On Ice:	**Y**
Custody Seals Present :	**Y**	COC Present:?	**Y**	Complete?	**Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED		
Ship Method:	FEDEX EXPRESS	Tracking Number:	881316285501		
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**		

Notes: THE SAMPLES WER ERECEIVED IN GOOD CONDITION ON ICE.

TWO (2) CUSTODY SEALS WERE PRESENT AND INTACT ON THE COOLER UPON RECEIPT (BOTH WERE DATED 5/20/2025 AND SIGNED).

Sample ID / Description	Container Type	Cond. Code	pH OK?	/ Filtered?	Tests
1585584 TB-1					
	VOA HCL	1		/	VOC
	VOA HCL	1		/	VOC
	Total # of Containers of Type	(***VOA HCL***) = **2**			
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?**	**/ Filtered?**	**Tests**
1585585 49MW01					
	UNPRES PL	1		/	Anions
	Total # of Containers of Type	(***UNPRES PL***) = **1**			
1585585 49MW01					
	VOA HCL	1		/	GAS,VOC
	VOA HCL	1		/	GAS,VOC
	VOA HCL	1		/	GAS,VOC
	VOA HCL	1		/	GAS,VOC
	VOA HCL	1		/	GAS,VOC
	Total # of Containers of Type	(***VOA HCL***) = **5**			
1585585 49MW01					
	H2SO4 PL	1	Y	/ N	TOC
	Total # of Containers of Type	(***H2SO4 PL***) = **1**			
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?**	**/ Filtered?**	**Tests**
1585586 49MW01-EQB					
	UNPRES PL	1		/	Anions
	Total # of Containers of Type	(***UNPRES PL***) = **1**			

1585586	49MW01-EQB					
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**			
1585586	49MW01-EQB					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**			

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?		Tests
1585587	48MW6					
		UNPRES PL	1		/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**			
1585587	48MW6					
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**			
1585587	48MW6					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**			

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?		Tests
1585588	48TW6					
		UNPRES PL	1		/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**			
1585588	48TW6					
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**			
1585588	48TW6					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**			

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?		Tests
1585589	13MW4					
		UNPRES PL	1	N	/ N	ANIONS
		UNPRES PL	1	N	/ N	ANIONS
		UNPRES PL	1		/	Anions

		Total # of Containers of Type	**(*UNPRES PL*) =**	**3**			
1585589	13MW4						
		VOA HCL	1	N	/	N	GAS,VOC
		VOA HCL	1		/		GAS,VOC
		VOA HCL	1		/		GAS,VOC
		VOA HCL	1		/		GAS,VOC
		VOA HCL	1		/		GAS,VOC
		VOA HCL	1		/		GAS,VOC
		VOA HCL	1	N	/	N	GAS,VOC
		VOA HCL	1	N	/	N	GAS,VOC
		VOA HCL	1	N	/	N	GAS,VOC
		VOA HCL	1	N	/	N	GAS,VOC
		VOA HCL	1	N	/	N	GAS,VOC
		VOA HCL	1	N	/	N	GAS,VOC
		VOA HCL	1	N	/	N	GAS,VOC
		VOA HCL	1	N	/	N	GAS,VOC
		VOA HCL	1	N	/	N	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**15**			
1585589	13MW4						
		H2SO4 PL	1	Y	/	N	TOC
		H2SO4 PL	1	Y	/	N	TOC
		H2SO4 PL	1	Y	/	N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**3**			

Sample ID /	**Description**	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**		**Tests**
1585590	13MW3					
		UNPRES PL	1		/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) =**	**1**		
1585590	13MW3					
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**5**		
1585590	13MW3					
		H2SO4 PL	1	Y	/	N TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**		

Condition Code *Condition Description*

1 Sample Received OK

195112

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Cape Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP
Project #: SWMU 48/49
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder #: 195112
Company: CAPE ENVIRONMENTAL MGM
Project: RADFORD AAP SWMU 48/49
Logged By: erc PM: BMS

Program: RCRA SDWA NPDES
Solid Waste Other _____
#

Report To:
EMAIL: Chemistry SVCS@cape-inc.com
Company: mfeits@cape-inc.com
Address: CAPE Environmental Mgt.
500 Pinnacle Court #100
Norcross, GA 30071

Invoice To:*
EMAIL:
Company: Same
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time: Normal / RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOC 8260C	MEE RSK-175	TOC 9060A	Anions 9056A	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test						
5/20	0000	GW	G		TB-1	N	2				2		1585584
5/20	0931	GW	G		49MW01	N	3	2	1	1	7		85
5/20	1008	GW	G		49MW01-EQB	N	3	2	1	1	7		86
5/20	1146	GW	G		48MW6	N	3	2	1	1	7		87
5/20	1146	GW	G		48TW6	N	3	2	1	1	7		88
5/20	1333	GW	G		13MW4	N	9	6	3	3	21	X	89
5/20	1450	GW	G		13MW3	N	3	2	1	1	7		90

Trip Blank

Relinquished By:	Date/Time	Received By:	Date/Time
	5/20/2025 1800	FedEx	5/20/2025 1800
Received by:	Date/Time	Received for Laboratory by:	Date/Time
			5/21 1015

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Lab Use Only
Ice Present Yes No
Temp 3.5 IR Gun 33
Cooler # XXX



Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Ice Present Yes No
Temperature 3.5
Initials
Date 5/21/25 Time 10:35
Cooler #

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ANALYTICAL SUMMARY REPORT

This report at a minimum contains the following information:

Analytical Report of Test Results
Description of QC Qualifiers
Chain of Custody (copy)
Quality Control Summary (if applicable)
Case Narrative (if applicable)
Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

ANALYTICAL SAMPLE DATA

CAPE ENVIRONMENTAL MANAGEMENT
MATT FEITS
500 PINNACLE COURT
SUITE 100
NORCROSS, GA 30071

Project Name: RADFORD AAP SWMU 49
Project Phase: RADFORD, VA
Project #: 10409-0222
Folder #: 195152
Purchase Order #: SC013781
Contract #: 3648

Arrival Temperature: 3.2
Report Date: 6/6/2025
Date Received: 5/22/2025
Reprint Date: 6/6/2025

Copy: chemistrysvcs@cape-inc.com

CT LAB#: 1586203 Sample Description: TB-2 Client Sample #: Sampled: 5/21/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/23/25 16:33	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 16:33	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/23/25 16:33	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 16:33	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 16:33	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 16:33	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/23/25 16:33	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/23/25 16:33	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586203 Sample Description: TB-2 Client Sample #: Sampled: 5/21/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/23/25 16:33	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/23/25 16:33	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/23/25 16:33	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			5/23/25 16:33	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/23/25 16:33	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/23/25 16:33	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586203 Sample Description: TB-2 Client Sample #: Sampled: 5/21/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/23/25 16:33	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/23/25 16:33	DGS	EPA 8260C
1,2 Dichloroethane-d4	99.0	% Recovery	81			118	1.00				5/23/25 16:33	DGS	EPA 8260C
Bromofluorobenzene	89.0	% Recovery	85			114	1.00				5/23/25 16:33	DGS	EPA 8260C
d8-Toluene	103	% Recovery	89			112	1.00				5/23/25 16:33	DGS	EPA 8260C
Dibromofluoromethane	101	% Recovery	80			119	1.00				5/23/25 16:33	DGS	EPA 8260C

CT LAB#: 1586204 Sample Description: 48MW1 Client Sample #: Sampled: 5/21/2025 09:31

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***12***	mg/L	1.0	1.5	3.0	3.0	1.00				5/22/25 13:35	TMG	EPA 9056A
Nitrate Nitrogen	***2.1***	mg/L	0.12	0.20	0.40	0.40	1.00	M			5/22/25 13:35	TMG	EPA 9056A
Sulfate	***64***	mg/L	0.80	1.5	3.0	3.0	1.00	M			5/22/25 13:35	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			5/23/25 18:19	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/23/25 21:18	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/23/25 21:18	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 21:18	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586204 Sample Description: 48MW1 Client Sample #: Sampled: 5/21/2025 09:31

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,1-Dichloroethane	***0.56***	ug/L	0.28	1.0	1.1	1.1	1.00	J			5/23/25 21:18	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 21:18	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/23/25 21:18	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 21:18	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 21:18	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 21:18	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 21:18	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/23/25 21:18	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 21:18	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/23/25 21:18	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 21:18	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/23/25 21:18	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/23/25 21:18	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/23/25 21:18	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/23/25 21:18	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/23/25 21:18	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586204 Sample Description: 48MW1 Client Sample #: Sampled: 5/21/2025 09:31

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
cis-1,2-Dichloroethene	***1.3***	ug/L	0.41	1.0	1.3	1.3	1.00				5/23/25 21:18	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/23/25 21:18	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/23/25 21:18	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Tetrachloroethene	***0.33***	ug/L	0.25	1.0	2.0	2.0	1.00	J			5/23/25 21:18	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 21:18	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 21:18	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Trichloroethene	***2.3***	ug/L	0.25	1.0	1.2	1.2	1.00				5/23/25 21:18	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/23/25 21:18	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/23/25 21:18	DGS	EPA 8260C
1,2 Dichloroethane-d4	102	% Recovery	81			118	1.00				5/23/25 21:18	DGS	EPA 8260C
Bromofluorobenzene	90.0	% Recovery	85			114	1.00				5/23/25 21:18	DGS	EPA 8260C
d8-Toluene	105	% Recovery	89			112	1.00				5/23/25 21:18	DGS	EPA 8260C
Dibromofluoromethane	103	% Recovery	80			119	1.00				5/23/25 21:18	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 10:49	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		5/23/25 09:06	5/23/25 10:49	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 10:49	SRW	RSK 175

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586204 Sample Description: 48MW1 Client Sample #: Sampled: 5/21/2025 09:31

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method

CT LAB#: 1586205 Sample Description: 48MW1-EQB Client Sample #: Sampled: 5/21/2025 10:01

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	<1.5	mg/L	1.0	1.5	3.0	3.0	1.00	U			5/22/25 14:00	TMG	EPA 9056A
Nitrate Nitrogen	<0.20	mg/L	0.12	0.20	0.40	0.40	1.00	U			5/22/25 14:00	TMG	EPA 9056A
Sulfate	<1.5	mg/L	0.80	1.5	3.0	3.0	1.00	U			5/22/25 14:00	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			5/23/25 18:39	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/23/25 17:58	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 17:58	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/23/25 17:58	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 17:58	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 17:58	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 17:58	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/23/25 17:58	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/23/25 17:58	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586205 Sample Description: 48MW1-EQB Client Sample #: Sampled: 5/21/2025 10:01

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/23/25 17:58	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/23/25 17:58	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/23/25 17:58	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			5/23/25 17:58	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/23/25 17:58	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/23/25 17:58	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586205 Sample Description: 48MW1-EQB Client Sample #: Sampled: 5/21/2025 10:01

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/23/25 17:58	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/23/25 17:58	DGS	EPA 8260C
1,2 Dichloroethane-d4	98.0	% Recovery	81			118	1.00				5/23/25 17:58	DGS	EPA 8260C
Bromofluorobenzene	90.0	% Recovery	85			114	1.00				5/23/25 17:58	DGS	EPA 8260C
d8-Toluene	106	% Recovery	89			112	1.00				5/23/25 17:58	DGS	EPA 8260C
Dibromofluoromethane	103	% Recovery	80			119	1.00				5/23/25 17:58	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 12:23	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		5/23/25 09:06	5/23/25 12:23	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 12:23	SRW	RSK 175

CT LAB#: 1586206 Sample Description: 50MW2 Client Sample #: Sampled: 5/21/2025 11:35

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***7.8***	mg/L	1.0	1.5	3.0	3.0	1.00				5/22/25 14:25	TMG	EPA 9056A
Nitrate Nitrogen	***1.7***	mg/L	0.12	0.20	0.40	0.40	1.00				5/22/25 14:25	TMG	EPA 9056A
Sulfate	***66***	mg/L	4.0	7.5	15	15	5.00				5/23/25 08:25	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			5/23/25 18:57	TMG	EPA 9060A
Organic Results													

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586206 Sample Description: 50MW2 Client Sample #: Sampled: 5/21/2025 11:35

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/23/25 21:47	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 21:47	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/23/25 21:47	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 21:47	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 21:47	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 21:47	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/23/25 21:47	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/23/25 21:47	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/23/25 21:47	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/23/25 21:47	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Carbon tetrachloride	***0.98***	ug/L	0.37	1.0	1.2	1.2	1.00	J			5/23/25 21:47	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 21:47	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586206 Sample Description: 50MW2 Client Sample #: Sampled: 5/21/2025 11:35

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/23/25 21:47	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			5/23/25 21:47	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/23/25 21:47	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Trichloroethene	***1.2***	ug/L	0.25	1.0	1.2	1.2	1.00				5/23/25 21:47	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/23/25 21:47	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/23/25 21:47	DGS	EPA 8260C
1,2 Dichloroethane-d4	97.0	% Recovery	81			118	1.00				5/23/25 21:47	DGS	EPA 8260C
Bromofluorobenzene	89.0	% Recovery	85			114	1.00				5/23/25 21:47	DGS	EPA 8260C
d8-Toluene	104	% Recovery	89			112	1.00				5/23/25 21:47	DGS	EPA 8260C
Dibromofluoromethane	103	% Recovery	80			119	1.00				5/23/25 21:47	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586206 Sample Description: 50MW2 Client Sample #: Sampled: 5/21/2025 11:35

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 11:18	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		5/23/25 09:06	5/23/25 11:18	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 11:18	SRW	RSK 175

CT LAB#: 1586207 Sample Description: 49MW04 Client Sample #: Sampled: 5/21/2025 12:51

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***7.5***	mg/L	1.0	1.5	3.0	3.0	1.00				5/22/25 14:51	TMG	EPA 9056A
Nitrate Nitrogen	<0.20	mg/L	0.12	0.20	0.40	0.40	1.00	U			5/22/25 14:51	TMG	EPA 9056A
Sulfate	***62***	mg/L	0.80	1.5	3.0	3.0	1.00				5/22/25 14:51	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			5/23/25 19:14	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/23/25 22:15	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 22:15	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/23/25 22:15	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 22:15	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 22:15	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 22:15	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586207 Sample Description: 49MW04 Client Sample #: Sampled: 5/21/2025 12:51

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/23/25 22:15	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/23/25 22:15	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/23/25 22:15	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/23/25 22:15	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Carbon tetrachloride	***0.52***	ug/L	0.37	1.0	1.2	1.2	1.00	J			5/23/25 22:15	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/23/25 22:15	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			5/23/25 22:15	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/23/25 22:15	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/23/25 22:15	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586207 Sample Description: 49MW04 Client Sample #: Sampled: 5/21/2025 12:51

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/23/25 22:15	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/23/25 22:15	DGS	EPA 8260C
1,2 Dichloroethane-d4	101	% Recovery	81			118	1.00				5/23/25 22:15	DGS	EPA 8260C
Bromofluorobenzene	90.0	% Recovery	85			114	1.00				5/23/25 22:15	DGS	EPA 8260C
d8-Toluene	104	% Recovery	89			112	1.00				5/23/25 22:15	DGS	EPA 8260C
Dibromofluoromethane	103	% Recovery	80			119	1.00				5/23/25 22:15	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 12:10	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		5/23/25 09:06	5/23/25 12:10	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 12:10	SRW	RSK 175

CT LAB#: 1586208 Sample Description: 49TW04 Client Sample #: Sampled: 5/21/2025 12:51

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***7.2***	mg/L	1.0	1.5	3.0	3.0	1.00				5/22/25 15:16	TMG	EPA 9056A
Nitrate Nitrogen	***0.17***	mg/L	0.12	0.20	0.40	0.40	1.00	J			5/22/25 15:16	TMG	EPA 9056A

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586208 Sample Description: 49TW04 Client Sample #: Sampled: 5/21/2025 12:51

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Sulfate	***62***	mg/L	0.80	1.5	3.0	3.0	1.00				5/22/25 15:16	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			5/23/25 19:36	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/23/25 22:44	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 22:44	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/23/25 22:44	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 22:44	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 22:44	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 22:44	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/23/25 22:44	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/23/25 22:44	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/23/25 22:44	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/23/25 22:44	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 22:44	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586208 Sample Description: 49TW04 Client Sample #: Sampled: 5/21/2025 12:51

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Carbon tetrachloride	***0.43***	ug/L	0.37	1.0	1.2	1.2	1.00	J			5/23/25 22:44	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/23/25 22:44	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			5/23/25 22:44	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/23/25 22:44	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/23/25 22:44	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/23/25 22:44	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586208 Sample Description: 49TW04 Client Sample #: Sampled: 5/21/2025 12:51

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,2 Dichloroethane-d4	98.0	% Recovery	81			118	1.00				5/23/25 22:44	DGS	EPA 8260C
Bromofluorobenzene	91.0	% Recovery	85			114	1.00				5/23/25 22:44	DGS	EPA 8260C
d8-Toluene	105	% Recovery	89			112	1.00				5/23/25 22:44	DGS	EPA 8260C
Dibromofluoromethane	100	% Recovery	80			119	1.00				5/23/25 22:44	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 13:16	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		5/23/25 09:06	5/23/25 13:16	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 13:16	SRW	RSK 175

CT LAB#: 1586209 Sample Description: 13MW2 Client Sample #: Sampled: 5/21/2025 13:59

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***4.6***	mg/L	1.0	1.5	3.0	3.0	1.00				5/22/25 15:42	TMG	EPA 9056A
Nitrate Nitrogen	***0.36***	mg/L	0.12	0.20	0.40	0.40	1.00	J			5/22/25 15:42	TMG	EPA 9056A
Sulfate	***22***	mg/L	0.80	1.5	3.0	3.0	1.00				5/22/25 15:42	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			5/23/25 19:53	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/23/25 23:12	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 23:12	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/23/25 23:12	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 23:12	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 23:12	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586209 Sample Description: 13MW2 Client Sample #: Sampled: 5/21/2025 13:59

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 23:12	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/23/25 23:12	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/23/25 23:12	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/23/25 23:12	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/23/25 23:12	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/23/25 23:12	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			5/23/25 23:12	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586209 Sample Description: 13MW2 Client Sample #: Sampled: 5/21/2025 13:59

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/23/25 23:12	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/23/25 23:12	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/23/25 23:12	DGS	EPA 8260C
1,2 Dichloroethane-d4	99.0	% Recovery	81			118	1.00				5/23/25 23:12	DGS	EPA 8260C
Bromofluorobenzene	88.0	% Recovery	85			114	1.00				5/23/25 23:12	DGS	EPA 8260C
d8-Toluene	104	% Recovery	89			112	1.00				5/23/25 23:12	DGS	EPA 8260C
Dibromofluoromethane	104	% Recovery	80			119	1.00				5/23/25 23:12	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 13:30	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		5/23/25 09:06	5/23/25 13:30	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 13:30	SRW	RSK 175

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes:

^ Indicates the laboratory is NELAP accredited for this analyte by the indicated matrix and method . DL (detection limit), LOD (limit of detection), loq (limit of quantitation) as defined by most recent DOD QSM version.

All samples were received intact and properly preserved unless otherwise noted . The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for the parameters where accreditation is required or available, unless noted in the case narrative.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

QC Qualifiers

Code	Description
A	Result cannot be used for compliance due to QC issue
B	Analyte detected in the associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
I	Incubator temperature was outside acceptance limits during test period.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was below detection limit.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Specified calibration criteria was not met.

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 289
Louisiana NELAP (primary) ID# 115843
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Florida NELAP Lab ID# E871111

DoD-ELAP QSM5.4 -
PJLA Testing Accreditation # 78929

ISO/IEC 17025-2017 Accredited -
PJLA Testing Accreditation # 78929

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QC Summary Report

CAPE ENVIRONMENTAL MANAGEMENT **Project Name: RADFORD AAP SWMU 49**

SDG #: 0 **Folder #: 195152** **Project #: 10409-0222**

Duplicate

Analytical Run #:	291864	Analysis Date:	5/22/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1587389	Analysis Time:	16:07	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1586204	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	11.6	mg/L	12				3.0	3	10
Nitrate Nitrogen	2.02	mg/L	2.1				0.40	4	10
Sulfate	60.8	mg/L	64				3.0	5	10

Lab Control Spike Water

Analytical Run #:	291864	Analysis Date:	5/22/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587386	Analysis Time:	12:44	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Chloride	15.26	mg/L			15.00	102	87	---	111		
Nitrate Nitrogen	3.280	mg/L			3.500	94	88	---	111		
Sulfate	25.37	mg/L			25.00	101	87	---	112		

Method Blank Water

Analytical Run #:	291864	Analysis Date:	5/22/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587388	Analysis Time:	13:09	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	1.0	mg/L		U	0		1.5		
Nitrate Nitrogen	0.12	mg/L		U	0		0.20		
Sulfate	0.8	mg/L		U	0		1.5		

Matrix Spike Duplicate Water

Analytical Run #:	291864	Analysis Date:	5/22/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1587391	Analysis Time:	16:58	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1587390	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Chloride	19.9	mg/L	12		8.00	99	87	---	111	1	15
Nitrate Nitrogen	4.15	mg/L	2.1		2.00	102	88	---	111	5	15
Sulfate	96.2	mg/L	64		40.0	80	87	---	112	1	15

Matrix Spike Water

Analytical Run #:	291864	Analysis Date:	5/22/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1587390	Analysis Time:	16:33	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1586204	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	20.1	mg/L	12		8.00	101	87 --- 111		15
Nitrate Nitrogen	4.35	mg/L	2.1		2.00	112	88 --- 111		15
Sulfate	95.1	mg/L	64		40.0	78	87 --- 112		15

Lab Control Spike Water

Analytical Run #:	291896	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587372	Analysis Time:	10:09	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	49.19	mg/L			50.0	98	85 --- 111		20

Method Blank Water

Analytical Run #:	291896	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587373	Analysis Time:	10:45	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.40	mg/L		U	0		1.5		

Lab Control Spike Water

Analytical Run #:	291874	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587261	Analysis Time:	14:39	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
1,1,1-Trichloroethane	10.8	ug/L			10.0	108	74	---	131		20
1,1,2,2-Tetrachloroethane	8.38	ug/L			10.0	84	71	---	121		20
1,1,2-Trichloroethane	10.4	ug/L			10.0	104	80	---	119		20
1,1-Dichloroethane	9.21	ug/L			10.0	92	77	---	125		20
1,1-Dichloroethene	10.6	ug/L			10.0	106	71	---	131		20
1,2,3-Trichlorobenzene	9.30	ug/L			10.0	93	69	---	129		20
1,2,4-Trichlorobenzene	9.72	ug/L			10.0	97	69	---	130		20
1,2-Dibromo-3-chloropropane	8.77	ug/L			10.0	88	62	---	128		20
1,2-Dibromoethane	9.45	ug/L			10.0	94	77	---	121		20
1,2-Dichlorobenzene	9.71	ug/L			10.0	97	80	---	119		20
1,2-Dichloroethane	9.53	ug/L			10.0	95	73	---	128		20
1,2-Dichloropropane	9.15	ug/L			10.0	92	78	---	122		20
1,3-Dichlorobenzene	9.63	ug/L			10.0	96	80	---	119		20
1,4-Dichlorobenzene	9.78	ug/L			10.0	98	79	---	118		20
1,4-Dioxane	452	ug/L			500	90	59	---	139		20
112Trichloro122trifluoroethane	24.0	ug/L			20.0	120	70	---	136		20
2-Butanone	95.6	ug/L			100	96	56	---	143		20
2-Hexanone	75.8	ug/L			100	76	57	---	139		20
4-Methyl-2-pentanone	80.4	ug/L			100	80	67	---	130		20
Acetone	83.7	ug/L			100	84	39	---	160		20
Benzene	10.3	ug/L			10.0	103	79	---	120		20
Bromochloromethane	11.3	ug/L			10.0	113	78	---	123		20
Bromodichloromethane	10.00	ug/L			10.0	100	79	---	125		20
Bromoform	9.79	ug/L			10.0	98	66	---	130		20
Bromomethane	10.7	ug/L			10.0	107	53	---	141		20
Carbon disulfide	20.7	ug/L			20.0	104	64	---	133		20
Carbon tetrachloride	11.0	ug/L			10.0	110	72	---	136		20
Chlorobenzene	10.0	ug/L			10.0	100	82	---	118		20
Chloroethane	9.00	ug/L			10.0	90	60	---	138		20
Chloroform	10.2	ug/L			10.0	102	79	---	124		20
Chloromethane	8.23	ug/L			10.0	82	50	---	139		20
cis-1,2-Dichloroethene	10.2	ug/L			10.0	102	78	---	123		20
cis-1,3-Dichloropropene	9.75	ug/L			10.0	98	75	---	124		20
Cyclohexane	9.78	ug/L			10.0	98	71	---	130		20
Dibromochloromethane	9.42	ug/L			10.0	94	74	---	126		20
Dichlorodifluoromethane	11.5	ug/L			10.0	115	32	---	152		20
Ethylbenzene	9.22	ug/L			10.0	92	79	---	121		20
Isopropylbenzene	10.1	ug/L			10.0	101	72	---	131		20
m & p-Xylene	20.2	ug/L			20.0	101	80	---	121		20
Methyl acetate	9.21	ug/L			10.0	92	56	---	136		20
Methyl tert-butyl ether	9.51	ug/L			10.0	95	71	---	124		20
Methylcyclohexane	10.7	ug/L			10.0	107	72	---	132		20

Lab Control Spike Water

Analytical Run #:	291874	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587261	Analysis Time:	14:39	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Methylene chloride	9.56	ug/L			10.0	96	74 --- 124		20
o-Xylene	9.63	ug/L			10.0	96	78 --- 122		20
Styrene	9.92	ug/L			10.0	99	78 --- 123		20
Tetrachloroethene	12.0	ug/L			10.0	120	74 --- 129		20
Toluene	10.7	ug/L			10.0	107	80 --- 121		20
trans-1,2-Dichloroethene	10.7	ug/L			10.0	107	75 --- 124		20
trans-1,3-Dichloropropene	9.33	ug/L			10.0	93	73 --- 127		20
Trichloroethene	10.6	ug/L			10.0	106	79 --- 123		20
Trichlorofluoromethane	11.9	ug/L			10.0	119	65 --- 141		20
Vinyl chloride	9.38	ug/L			10.0	94	58 --- 137		20

Method Blank Water

Analytical Run #:	291874	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587332	Analysis Time:	15:36	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.38	ug/L		U	0		0.60		
1,1,2,2-Tetrachloroethane	0.36	ug/L		U	0		0.55		
1,1,2-Trichloroethane	0.27	ug/L		U	0		0.55		
1,1-Dichloroethane	0.28	ug/L		U	0		0.55		
1,1-Dichloroethene	0.49	ug/L		U	0		1.0		
1,2,3-Trichlorobenzene	0.43	ug/L		U	0		1.0		
1,2,4-Trichlorobenzene	0.50	ug/L		U	0		1.0		
1,2-Dibromo-3-chloropropane	0.50	ug/L		U	0		1.0		
1,2-Dibromoethane	0.33	ug/L		U	0		0.55		
1,2-Dichlorobenzene	0.35	ug/L		U	0		0.55		
1,2-Dichloroethane	0.69	ug/L		U	0		1.05		
1,2-Dichloropropane	0.25	ug/L		U	0		0.60		
1,3-Dichlorobenzene	0.30	ug/L		U	0		0.55		
1,4-Dichlorobenzene	0.33	ug/L		U	0		0.55		
1,4-Dioxane	34	ug/L		U	0		50		
112Trichloro122trifluoroethane	1.5	ug/L		U	0		2.25		
2-Butanone	2.9	ug/L		U	0		5.5		
2-Hexanone	3.3	ug/L		U	0		5.5		
4-Methyl-2-pentanone	3.7	ug/L		U	0		6.0		
Acetone	4.1	ug/L		U	0		10		
Benzene	0.40	ug/L		U	0		1.0		
Bromochloromethane	0.26	ug/L		U	0		0.55		
Bromodichloromethane	0.080	ug/L		U	0		0.25		
Bromoform	0.50	ug/L		U	0		1.0		
Bromomethane	0.49	ug/L		U	0		1.0		
Carbon disulfide	0.83	ug/L		U	0		2.0		
Carbon tetrachloride	0.37	ug/L		U	0		0.60		
Chlorobenzene	0.25	ug/L		U	0		0.60		
Chloroethane	1.0	ug/L		U	0		1.5		
Chloroform	0.30	ug/L		U	0		0.70		
Chloromethane	0.39	ug/L		U	0		1.0		
cis-1,2-Dichloroethene	0.41	ug/L		U	0		0.65		
cis-1,3-Dichloropropene	0.25	ug/L		U	0		0.55		
Cyclohexane	0.71	ug/L		U	0		1.1		
Dibromochloromethane	0.25	ug/L		U	0		0.55		
Dichlorodifluoromethane	0.63	ug/L		U	0		1.05		
Ethylbenzene	0.42	ug/L		U	0		0.65		
Isopropylbenzene	0.39	ug/L		U	0		0.60		
m & p-Xylene	0.74	ug/L		U	0		1.15		
Methyl acetate	0.34	ug/L		U	0		1.0		
Methyl tert-butyl ether	0.28	ug/L		U	0		0.55		
Methylcyclohexane	0.78	ug/L		U	0		1.2		

Method Blank Water

Analytical Run #:	291874	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587332	Analysis Time:	15:36	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Methylene chloride	1.2	ug/L		U	0		2.05		
o-Xylene	0.50	ug/L		U	0		1.1		
Styrene	0.33	ug/L		U	0		0.55		
Tetrachloroethene	0.25	ug/L		U	0		1.0		
Toluene	0.27	ug/L		U	0		0.55		
trans-1,2-Dichloroethene	0.35	ug/L		U	0		0.55		
trans-1,3-Dichloropropene	0.56	ug/L		U	0		1.05		
Trichloroethene	0.25	ug/L		U	0		0.60		
Trichlorofluoromethane	0.41	ug/L		U	0		1.0		
Vinyl chloride	0.12	ug/L		U	0		0.25		

Duplicate

Analytical Run #:	291897	Analysis Date:	5/23/2025	Prep Batch #:	138906	Matrix:	GROUND WATER
CTLab #:	1587044	Analysis Time:	13:23	Prep Date/Time:	05/23/2025 09:06	Method:	RSK175
Parent Sample #:	1586208	Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	0.38	ug/L	<DL	U			1.0	0	20
Ethene	0.59	ug/L	<DL	U			1.4	0	20
Methane	0.45	ug/L	<DL	U			1.0	0	20

Lab Control Spike Water

Analytical Run #:	291897	Analysis Date:	5/23/2025	Prep Batch #:	138906	Matrix:	LIQUID
CTLab #:	1586718	Analysis Time:	09:24	Prep Date/Time:	05/23/2025 09:06	Method:	RSK175
Parent Sample #:		Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	4.60	ug/L			4.80	96	74 --- 131		20
Ethene	6.32	ug/L			6.81	93	72 --- 133		20
Methane	2.09	ug/L			2.31	90	73 --- 125		20

Method Blank Water

Analytical Run #:	291897	Analysis Date:	5/23/2025	Prep Batch #:	138906	Matrix:	LIQUID
CTLab #:	1586717	Analysis Time:	09:37	Prep Date/Time:	05/23/2025 09:06	Method:	RSK175
Parent Sample #:		Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	0.38	ug/L		U	0		0.5		
Ethene	0.59	ug/L		U	0		0.7		
Methane	0.45	ug/L		U	0		0.5		

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #: 195152
Print Date / Time: 05/22/2025 08:14
Client: CAPE ENVIRONMENTAL MANAGEMENT
Received Date / Time / By: 05/22/2025 10:35 erc
Project Name: RADFORD AAP SWMU 49
Log-In Date / Time / By: 05/22/2025 10:48 erc
Project Phase: RADFORD, VA
Project #: 10409-0222 PM: BMS
Coolers: 6665
Temperature: 3.2 C On Ice: **Y**
Custody Seals Present : **Y**
COC Present:? **Y** Complete? **Y**
Seal Intact? **Y**
Numbers: DATED AND SIGNED
Ship Method: FEDEX EXPRESS
Tracking Number: 881316319216
Adequate Packaging: **Y**
Temp Blank Enclosed? **N**

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

TWO (2) CUSTODY SEALS WERE PRESENT AND INTACT ON THE COOLER UPON RECEIPT (BOTH WERE DATED 5/21/2025 AND SIGNED).

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1586203 TB-2				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type	(***VOA HCL***) = **2**		
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1586204 48MW1				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type	(***UNPRES PL***) = **1**		
1586204 48MW1				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type	(***VOA HCL***) = **5**		
1586204 48MW1				
	H2SO4 PL	1	Y / N	TOC
	Total # of Containers of Type	(***H2SO4 PL***) = **1**		
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1586205 48MW1-EQB				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type	(***UNPRES PL***) = **1**		

1586205	48MW1-EQB					
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**5**		
1586205	48MW1-EQB					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1586206	50MW2				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) =**	**1**	
1586206	50MW2				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**5**	
1586206	50MW2				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**	

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1586207	49MW04				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) =**	**1**	
1586207	49MW04				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**5**	
1586207	49MW04				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**	

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1586208	49TW04				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) =**	**1**	

1586208	49TW04					
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) = **5**			
1586208	49TW04					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) = **1**			

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1586209	13MW2				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	(***UNPRES PL***) = **1**		
1586209	13MW2				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) = **5**		
1586209	13MW2				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) = **1**		

Condition Code *Condition Description*

1 Sample Received OK

195152

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Cape Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP SWMU 48/49
Project #:
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT Laboratories
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Order #: 195152
Company: CAPE ENVIRONMENTAL M
Project: RADFORD AAP SWMU 48/4
Logged By: erc PM: BMS

Program:
DSM RCRA SDWA NPDES
Solid Waste Other _____
PO #

Report To: chemistrySVCS@cape-inc.com
EMAIL: mfeits@cape-inc.com
Company: Cape Environmental Mgt.
Address: 500 Pinnacle Court #100 Norcross, GA 30071
Invoice To:* Same
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOC 8260C	MEE RSK-175	TOC 9060A	Anions 9056A											Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
						Fill in Spaces with Bottles per Test																	
5/21	00:00	GW	G		TB-2	N	2						Trip Blank								2		1586203
5/21	0931	GW	G		48MW1	N	3	2	1	1											7		04
5/21	1001	GW	G		48MW1-EQB	N	3	2	1	1											7		05
5/21	1135	GW	G		50MW2	N	3	2	1	1											7		06
5/21	1251	GW	G		49MW04	N	3	2	1	1											7		07
5/21	1251	GW	G		49TW04	N	3	2	1	1											7		08
5/21	1359	GW	G		13MW2	N	3	2	1	1											7		09

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Relinquished By:	Date/Time	Received By:	Date/Time
	5/21/2025 1600	FedEx	5/21/2025 1600
Received by:	Date/Time	Received for Laboratory by:	Date/Time
			5/22/25 1038

Lab Use Only
Ice Present Yes No
Temp 3.6 IR Gun 33
Cooler # 6665

ORIGIN ID:LIYA (724) 622-3625
MATTHEW FEITS
CAPE ENVIRONMENTAL MANAGEMENT, INC
500 PINNACLE COURT
SUITE 100
NORCROSS, GA 30071
UNITED STATES US

SHIP DATE: 21MAY25
ACTWGT: 45.00 LB
CAD: 100980732/INET4535

BILL SENDER

TO **SAMPLE RECEIVING**
CT LABS
1230 LANGE COURT

BARABOO WI 53913
(608) 356-2760
INV:
PO:
REF: 10409-0222-002-003
DEPT:

58GJ4/EA36/59F2

J252025040801uv

FedEx Express

1 of 3

TRK# 0201 8813 1631 9216
MASTER

THU - 22 MAY 10:30A
PRIORITY OVERNIGHT

XS LNRA

53913
WI-US MSN

CUSTODY SEAL
DATE 5/21/2025
SIGNATURE

QEC
Quality Environmental Containers
800-255-3950 • www.qecusa.com

After printing this label:
CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH
1. Fold the printed page along the horizontal line.
2. Place label in shipping pouch and affix it to your shipment.

CUSTODY SEAL
DATE 5/21/2025
SIGNATURE

QEC
Quality Environmental Containers
800-255-3950 • www.qecusa.com

Us
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de
yo

FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Ice Present (Yes) No
Temperature 3.2 °C/F
Initials
Date 5/22/25 Time 1035
Cooler # 6665

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1230 Lange Court • Baraboo, WI 53913 • 608-356-2760

www.ctlaboratories.com

ANALYTICAL SUMMARY REPORT

This report at a minimum contains the following information:

Analytical Report of Test Results
Description of QC Qualifiers
Chain of Custody (copy)
Quality Control Summary (if applicable)
Case Narrative (if applicable)
Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

ANALYTICAL SAMPLE DATA

CAPE ENVIRONMENTAL MANAGEMENT
MATT FEITS
500 PINNACLE COURT
SUITE 100
NORCROSS, GA 30071

Project Name: RADFORD AAP SWMU 49
Project Phase: RADFORD, VA
Project #: 10409-0222
Folder #: 195207
Purchase Order #: SC013781
Contract #: 3648

Arrival Temperature: 2.5
Report Date: 6/6/2025
Date Received: 5/23/2025
Reprint Date: 6/6/2025

Copy: chemistrysvcs@cape-inc.com

CT LAB#: 1586771 Sample Description: TB-3 Client Sample #: Sampled: 5/22/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/23/25 17:01	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 17:01	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/23/25 17:01	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 17:01	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 17:01	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 17:01	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/23/25 17:01	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/23/25 17:01	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586771 Sample Description: TB-3 Client Sample #: Sampled: 5/22/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/23/25 17:01	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/23/25 17:01	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/23/25 17:01	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			5/23/25 17:01	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/23/25 17:01	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/23/25 17:01	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586771 Sample Description: TB-3 Client Sample #: Sampled: 5/22/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/23/25 17:01	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/23/25 17:01	DGS	EPA 8260C
1,2 Dichloroethane-d4	101	% Recovery	81			118	1.00				5/23/25 17:01	DGS	EPA 8260C
Bromofluorobenzene	90.0	% Recovery	85			114	1.00				5/23/25 17:01	DGS	EPA 8260C
d8-Toluene	104	% Recovery	89			112	1.00				5/23/25 17:01	DGS	EPA 8260C
Dibromofluoromethane	102	% Recovery	80			119	1.00				5/23/25 17:01	DGS	EPA 8260C

CT LAB#: 1586772 Sample Description: 48MW2 Client Sample #: Sampled: 5/22/2025 09:20

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***2.5***	mg/L	1.0	1.5	3.0	3.0	1.00	J			5/23/25 13:10	TMG	EPA 9056A
Nitrate Nitrogen	***0.63***	mg/L	0.12	0.20	0.40	0.40	1.00				5/23/25 13:10	TMG	EPA 9056A
Sulfate	***5.1***	mg/L	0.80	1.5	3.0	3.0	1.00				5/23/25 13:10	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			5/29/25 11:05	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/23/25 23:41	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586772 Sample Description: 48MW2 Client Sample #: Sampled: 5/22/2025 09:20

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 23:41	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/23/25 23:41	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 23:41	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 23:41	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 23:41	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/23/25 23:41	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/23/25 23:41	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/23/25 23:41	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/23/25 23:41	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Carbon tetrachloride	***52***	ug/L	0.37	1.0	1.2	1.2	1.00				5/23/25 23:41	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Chloroform	***5.0***	ug/L	0.30	1.0	1.4	1.4	1.00				5/23/25 23:41	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/23/25 23:41	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586772 Sample Description: 48MW2 Client Sample #: Sampled: 5/22/2025 09:20

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			5/23/25 23:41	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/23/25 23:41	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Trichloroethene	***5.2***	ug/L	0.25	1.0	1.2	1.2	1.00				5/23/25 23:41	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/23/25 23:41	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/23/25 23:41	DGS	EPA 8260C
1,2 Dichloroethane-d4	103	% Recovery	81			118	1.00				5/23/25 23:41	DGS	EPA 8260C
Bromofluorobenzene	88.0	% Recovery	85			114	1.00				5/23/25 23:41	DGS	EPA 8260C
d8-Toluene	105	% Recovery	89			112	1.00				5/23/25 23:41	DGS	EPA 8260C
Dibromofluoromethane	103	% Recovery	80			119	1.00				5/23/25 23:41	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 14:10	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		5/23/25 09:06	5/23/25 14:10	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 14:10	SRW	RSK 175

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586772 Sample Description: 48MW2 Client Sample #: Sampled: 5/22/2025 09:20

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method

CT LAB#: 1586773 Sample Description: 48MW2-EQB Client Sample #: Sampled: 5/22/2025 09:54

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	<1.5	mg/L	1.0	1.5	3.0	3.0	1.00	U			5/23/25 13:36	TMG	EPA 9056A
Nitrate Nitrogen	<0.20	mg/L	0.12	0.20	0.40	0.40	1.00	U			5/23/25 13:36	TMG	EPA 9056A
Sulfate	<1.5	mg/L	0.80	1.5	3.0	3.0	1.00	U			5/23/25 13:36	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			5/29/25 11:25	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/23/25 18:27	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 18:27	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/23/25 18:27	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 18:27	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 18:27	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 18:27	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/23/25 18:27	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/23/25 18:27	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586773 Sample Description: 48MW2-EQB Client Sample #: Sampled: 5/22/2025 09:54

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/23/25 18:27	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/23/25 18:27	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/23/25 18:27	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			5/23/25 18:27	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/23/25 18:27	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/23/25 18:27	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586773 Sample Description: 48MW2-EQB Client Sample #: Sampled: 5/22/2025 09:54

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/23/25 18:27	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/23/25 18:27	DGS	EPA 8260C
1,2 Dichloroethane-d4	97.0	% Recovery	81			118	1.00				5/23/25 18:27	DGS	EPA 8260C
Bromofluorobenzene	89.0	% Recovery	85			114	1.00				5/23/25 18:27	DGS	EPA 8260C
d8-Toluene	105	% Recovery	89			112	1.00				5/23/25 18:27	DGS	EPA 8260C
Dibromofluoromethane	102	% Recovery	80			119	1.00				5/23/25 18:27	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 14:14	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		5/23/25 09:06	5/23/25 14:14	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 14:14	SRW	RSK 175

CT LAB#: 1586774 Sample Description: 48MW3 Client Sample #: Sampled: 5/22/2025 11:23

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***3.2***	mg/L	1.0	1.5	3.0	3.0	1.00				5/23/25 14:01	TMG	EPA 9056A
Nitrate Nitrogen	***6.4***	mg/L	0.12	0.20	0.40	0.40	1.00				5/23/25 14:01	TMG	EPA 9056A
Sulfate	***31***	mg/L	0.80	1.5	3.0	3.0	1.00				5/23/25 14:01	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			5/29/25 11:43	TMG	EPA 9060A
Organic Results													

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586774 Sample Description: 48MW3 Client Sample #: Sampled: 5/22/2025 11:23

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/24/25 00:10	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/24/25 00:10	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/24/25 00:10	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/24/25 00:10	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/24/25 00:10	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/24/25 00:10	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/24/25 00:10	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/24/25 00:10	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/24/25 00:10	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/24/25 00:10	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Carbon tetrachloride	***71***	ug/L	1.9	5.0	6.0	6.0	5.00				5/27/25 14:19	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/24/25 00:10	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586774 Sample Description: 48MW3 Client Sample #: Sampled: 5/22/2025 11:23

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Chloroform	***11***	ug/L	0.30	1.0	1.4	1.4	1.00				5/24/25 00:10	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/24/25 00:10	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			5/24/25 00:10	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/24/25 00:10	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Trichloroethene	***16***	ug/L	0.25	1.0	1.2	1.2	1.00				5/24/25 00:10	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/24/25 00:10	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/24/25 00:10	DGS	EPA 8260C
1,2 Dichloroethane-d4	101	% Recovery	81			118	1.00				5/24/25 00:10	DGS	EPA 8260C
Bromofluorobenzene	88.0	% Recovery	85			114	1.00				5/24/25 00:10	DGS	EPA 8260C
d8-Toluene	104	% Recovery	89			112	1.00				5/24/25 00:10	DGS	EPA 8260C
Dibromofluoromethane	101	% Recovery	80			119	1.00				5/24/25 00:10	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586774 Sample Description: 48MW3 Client Sample #: Sampled: 5/22/2025 11:23

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 14:17	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		5/23/25 09:06	5/23/25 14:17	SRW	RSK 175
Methane	***0.71***	ug/L	0.45	0.90	1.0	1.0	1.00	J		5/23/25 09:06	5/23/25 14:17	SRW	RSK 175

CT LAB#: 1586775 Sample Description: 49MW02 Client Sample #: Sampled: 5/22/2025 13:27

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***2.6***	mg/L	1.0	1.5	3.0	3.0	1.00	J			5/23/25 14:27	TMG	EPA 9056A
Nitrate Nitrogen	***0.19***	mg/L	0.12	0.20	0.40	0.40	1.00	J			5/23/25 14:27	TMG	EPA 9056A
Sulfate	***18***	mg/L	0.80	1.5	3.0	3.0	1.00	M			5/23/25 14:27	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			5/29/25 12:01	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			5/24/25 00:39	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/24/25 00:39	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			5/24/25 00:39	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/24/25 00:39	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/24/25 00:39	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/24/25 00:39	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586775 Sample Description: 49MW02 Client Sample #: Sampled: 5/22/2025 13:27

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			5/24/25 00:39	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			5/24/25 00:39	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			5/24/25 00:39	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			5/24/25 00:39	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			5/24/25 00:39	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			5/24/25 00:39	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			5/24/25 00:39	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			5/24/25 00:39	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586775 Sample Description: 49MW02 Client Sample #: Sampled: 5/22/2025 13:27

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			5/24/25 00:39	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			5/24/25 00:39	DGS	EPA 8260C
1,2 Dichloroethane-d4	104	% Recovery	81			118	1.00				5/24/25 00:39	DGS	EPA 8260C
Bromofluorobenzene	91.0	% Recovery	85			114	1.00				5/24/25 00:39	DGS	EPA 8260C
d8-Toluene	105	% Recovery	89			112	1.00				5/24/25 00:39	DGS	EPA 8260C
Dibromofluoromethane	103	% Recovery	80			119	1.00				5/24/25 00:39	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		5/23/25 09:06	5/23/25 14:21	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		5/23/25 09:06	5/23/25 14:21	SRW	RSK 175
Methane	***0.59***	ug/L	0.45	0.90	1.0	1.0	1.00	J		5/23/25 09:06	5/23/25 14:21	SRW	RSK 175

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes:

^ Indicates the laboratory is NELAP accredited for this analyte by the indicated matrix and method . DL (detection limit), LOD (limit of detection), loq (limit of quantitation) as defined by most recent DOD QSM version.

All samples were received intact and properly preserved unless otherwise noted . The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for the parameters where accreditation is required or available, unless noted in the case narrative.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

QC Qualifiers

Code	Description
A	Result cannot be used for compliance due to QC issue
B	Analyte detected in the associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
I	Incubator temperature was outside acceptance limits during test period.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was below detection limit.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Specified calibration criteria was not met.

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 289
Louisiana NELAP (primary) ID# 115843
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Florida NELAP Lab ID# E871111

DoD-ELAP QSM5.4 -
PJLA Testing Accreditation # 78929

ISO/IEC 17025-2017 Accredited -
PJLA Testing Accreditation # 78929

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QC Summary Report

CAPE ENVIRONMENTAL MANAGEMENT **Project Name: RADFORD AAP SWMU 49**

SDG #: 0 **Folder #: 195207** **Project #: 10409-0222**

Duplicate

Analytical Run #:	291900	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1587997	Analysis Time:	14:52	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1586775	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	2.55	mg/L	2.6				3.0	2	10
Nitrate Nitrogen	0.186	mg/L	0.19				0.40	2	10
Sulfate	16.9	mg/L	18				3.0	6	10

Lab Control Spike Water

Analytical Run #:	291900	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587994	Analysis Time:	12:19	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Chloride	15.10	mg/L			15.00	101	87	---	111		
Nitrate Nitrogen	3.435	mg/L			3.500	98	88	---	111		
Sulfate	25.88	mg/L			25.00	104	87	---	112		

Method Blank Water

Analytical Run #:	291900	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587996	Analysis Time:	12:45	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	1.0	mg/L		U	0		1.5		
Nitrate Nitrogen	0.12	mg/L		U	0		0.20		
Sulfate	0.8	mg/L		U	0		1.5		

Matrix Spike Duplicate Water

Analytical Run #:	291900	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1587999	Analysis Time:	15:43	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1587998	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Chloride	10.2	mg/L	2.6		8.00	95	87	---	111	5	15
Nitrate Nitrogen	2.18	mg/L	0.19		2.00	100	88	---	111	7	15
Sulfate	23.8	mg/L	18		8.00	72	87	---	112	7	15

Matrix Spike Water

Analytical Run #:	291900	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1587998	Analysis Time:	15:18	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1586775	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	10.7	mg/L	2.6		8.00	101	87 --- 111		15
Nitrate Nitrogen	2.34	mg/L	0.19		2.00	108	88 --- 111		15
Sulfate	25.6	mg/L	18		8.00	95	87 --- 112		15

Duplicate

Analytical Run #:	292003	Analysis Date:	5/29/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1589075	Analysis Time:	12:21	Prep Date/Time:		Method:	SW9060
Parent Sample #:	1586775	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.4	mg/L	<DL	U			1.5	0	20

Lab Control Spike Water

Analytical Run #:	292003	Analysis Date:	5/29/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1589073	Analysis Time:	09:57	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	51.50	mg/L			50.0	103	85 --- 111		20

Method Blank Water

Analytical Run #:	292003	Analysis Date:	5/29/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1589074	Analysis Time:	10:35	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.40	mg/L		U	0		1.5		

Matrix Spike Duplicate Water

Analytical Run #:	292003	Analysis Date:	5/29/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1589077	Analysis Time:	12:51	Prep Date/Time:		Method:	SW9060
Parent Sample #:	1589076	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	52.4	mg/L	<DL		50.0	105	85 --- 111	1	20

Matrix Spike Water

Analytical Run #:	292003	Analysis Date:	5/29/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1589076	Analysis Time:	12:38	Prep Date/Time:		Method:	SW9060
Parent Sample #:	1586775	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	52.9	mg/L	<DL		50.0	106	85 --- 111		20

Lab Control Spike Water

Analytical Run #:	291874	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587261	Analysis Time:	14:39	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
1,1,1-Trichloroethane	10.8	ug/L			10.0	108	74	---	131		20
1,1,2,2-Tetrachloroethane	8.38	ug/L			10.0	84	71	---	121		20
1,1,2-Trichloroethane	10.4	ug/L			10.0	104	80	---	119		20
1,1-Dichloroethane	9.21	ug/L			10.0	92	77	---	125		20
1,1-Dichloroethene	10.6	ug/L			10.0	106	71	---	131		20
1,2,3-Trichlorobenzene	9.30	ug/L			10.0	93	69	---	129		20
1,2,4-Trichlorobenzene	9.72	ug/L			10.0	97	69	---	130		20
1,2-Dibromo-3-chloropropane	8.77	ug/L			10.0	88	62	---	128		20
1,2-Dibromoethane	9.45	ug/L			10.0	94	77	---	121		20
1,2-Dichlorobenzene	9.71	ug/L			10.0	97	80	---	119		20
1,2-Dichloroethane	9.53	ug/L			10.0	95	73	---	128		20
1,2-Dichloropropane	9.15	ug/L			10.0	92	78	---	122		20
1,3-Dichlorobenzene	9.63	ug/L			10.0	96	80	---	119		20
1,4-Dichlorobenzene	9.78	ug/L			10.0	98	79	---	118		20
1,4-Dioxane	452	ug/L			500	90	59	---	139		20
112Trichloro122trifluoroethane	24.0	ug/L			20.0	120	70	---	136		20
2-Butanone	95.6	ug/L			100	96	56	---	143		20
2-Hexanone	75.8	ug/L			100	76	57	---	139		20
4-Methyl-2-pentanone	80.4	ug/L			100	80	67	---	130		20
Acetone	83.7	ug/L			100	84	39	---	160		20
Benzene	10.3	ug/L			10.0	103	79	---	120		20
Bromochloromethane	11.3	ug/L			10.0	113	78	---	123		20
Bromodichloromethane	10.00	ug/L			10.0	100	79	---	125		20
Bromoform	9.79	ug/L			10.0	98	66	---	130		20
Bromomethane	10.7	ug/L			10.0	107	53	---	141		20
Carbon disulfide	20.7	ug/L			20.0	104	64	---	133		20
Carbon tetrachloride	11.0	ug/L			10.0	110	72	---	136		20
Chlorobenzene	10.0	ug/L			10.0	100	82	---	118		20
Chloroethane	9.00	ug/L			10.0	90	60	---	138		20
Chloroform	10.2	ug/L			10.0	102	79	---	124		20
Chloromethane	8.23	ug/L			10.0	82	50	---	139		20
cis-1,2-Dichloroethene	10.2	ug/L			10.0	102	78	---	123		20
cis-1,3-Dichloropropene	9.75	ug/L			10.0	98	75	---	124		20
Cyclohexane	9.78	ug/L			10.0	98	71	---	130		20
Dibromochloromethane	9.42	ug/L			10.0	94	74	---	126		20
Dichlorodifluoromethane	11.5	ug/L			10.0	115	32	---	152		20
Ethylbenzene	9.22	ug/L			10.0	92	79	---	121		20
Isopropylbenzene	10.1	ug/L			10.0	101	72	---	131		20
m & p-Xylene	20.2	ug/L			20.0	101	80	---	121		20
Methyl acetate	9.21	ug/L			10.0	92	56	---	136		20
Methyl tert-butyl ether	9.51	ug/L			10.0	95	71	---	124		20
Methylcyclohexane	10.7	ug/L			10.0	107	72	---	132		20

Lab Control Spike Water

Analytical Run #:	291874	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587261	Analysis Time:	14:39	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Methylene chloride	9.56	ug/L			10.0	96	74 --- 124		20
o-Xylene	9.63	ug/L			10.0	96	78 --- 122		20
Styrene	9.92	ug/L			10.0	99	78 --- 123		20
Tetrachloroethene	12.0	ug/L			10.0	120	74 --- 129		20
Toluene	10.7	ug/L			10.0	107	80 --- 121		20
trans-1,2-Dichloroethene	10.7	ug/L			10.0	107	75 --- 124		20
trans-1,3-Dichloropropene	9.33	ug/L			10.0	93	73 --- 127		20
Trichloroethene	10.6	ug/L			10.0	106	79 --- 123		20
Trichlorofluoromethane	11.9	ug/L			10.0	119	65 --- 141		20
Vinyl chloride	9.38	ug/L			10.0	94	58 --- 137		20

Method Blank Water

Analytical Run #:	291874	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587332	Analysis Time:	15:36	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.38	ug/L		U	0		0.60		
1,1,2,2-Tetrachloroethane	0.36	ug/L		U	0		0.55		
1,1,2-Trichloroethane	0.27	ug/L		U	0		0.55		
1,1-Dichloroethane	0.28	ug/L		U	0		0.55		
1,1-Dichloroethene	0.49	ug/L		U	0		1.0		
1,2,3-Trichlorobenzene	0.43	ug/L		U	0		1.0		
1,2,4-Trichlorobenzene	0.50	ug/L		U	0		1.0		
1,2-Dibromo-3-chloropropane	0.50	ug/L		U	0		1.0		
1,2-Dibromoethane	0.33	ug/L		U	0		0.55		
1,2-Dichlorobenzene	0.35	ug/L		U	0		0.55		
1,2-Dichloroethane	0.69	ug/L		U	0		1.05		
1,2-Dichloropropane	0.25	ug/L		U	0		0.60		
1,3-Dichlorobenzene	0.30	ug/L		U	0		0.55		
1,4-Dichlorobenzene	0.33	ug/L		U	0		0.55		
1,4-Dioxane	34	ug/L		U	0		50		
112Trichloro122trifluoroethane	1.5	ug/L		U	0		2.25		
2-Butanone	2.9	ug/L		U	0		5.5		
2-Hexanone	3.3	ug/L		U	0		5.5		
4-Methyl-2-pentanone	3.7	ug/L		U	0		6.0		
Acetone	4.1	ug/L		U	0		10		
Benzene	0.40	ug/L		U	0		1.0		
Bromochloromethane	0.26	ug/L		U	0		0.55		
Bromodichloromethane	0.080	ug/L		U	0		0.25		
Bromoform	0.50	ug/L		U	0		1.0		
Bromomethane	0.49	ug/L		U	0		1.0		
Carbon disulfide	0.83	ug/L		U	0		2.0		
Carbon tetrachloride	0.37	ug/L		U	0		0.60		
Chlorobenzene	0.25	ug/L		U	0		0.60		
Chloroethane	1.0	ug/L		U	0		1.5		
Chloroform	0.30	ug/L		U	0		0.70		
Chloromethane	0.39	ug/L		U	0		1.0		
cis-1,2-Dichloroethene	0.41	ug/L		U	0		0.65		
cis-1,3-Dichloropropene	0.25	ug/L		U	0		0.55		
Cyclohexane	0.71	ug/L		U	0		1.1		
Dibromochloromethane	0.25	ug/L		U	0		0.55		
Dichlorodifluoromethane	0.63	ug/L		U	0		1.05		
Ethylbenzene	0.42	ug/L		U	0		0.65		
Isopropylbenzene	0.39	ug/L		U	0		0.60		
m & p-Xylene	0.74	ug/L		U	0		1.15		
Methyl acetate	0.34	ug/L		U	0		1.0		
Methyl tert-butyl ether	0.28	ug/L		U	0		0.55		
Methylcyclohexane	0.78	ug/L		U	0		1.2		

Method Blank Water

Analytical Run #:	291874	Analysis Date:	5/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1587332	Analysis Time:	15:36	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Methylene chloride	1.2	ug/L		U	0		2.05		
o-Xylene	0.50	ug/L		U	0		1.1		
Styrene	0.33	ug/L		U	0		0.55		
Tetrachloroethene	0.25	ug/L		U	0		1.0		
Toluene	0.27	ug/L		U	0		0.55		
trans-1,2-Dichloroethene	0.35	ug/L		U	0		0.55		
trans-1,3-Dichloropropene	0.56	ug/L		U	0		1.05		
Trichloroethene	0.25	ug/L		U	0		0.60		
Trichlorofluoromethane	0.41	ug/L		U	0		1.0		
Vinyl chloride	0.12	ug/L		U	0		0.25		

Lab Control Spike Water

Analytical Run #:	291897	Analysis Date:	5/23/2025	Prep Batch #:	138906	Matrix:	LIQUID
CTLab #:	1586718	Analysis Time:	09:24	Prep Date/Time:	05/23/2025 09:06	Method:	RSK175
Parent Sample #:		Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	4.60	ug/L			4.80	96	74 --- 131		20
Ethene	6.32	ug/L			6.81	93	72 --- 133		20
Methane	2.09	ug/L			2.31	90	73 --- 125		20

Method Blank Water

Analytical Run #:	291897	Analysis Date:	5/23/2025	Prep Batch #:	138906	Matrix:	LIQUID
CTLab #:	1586717	Analysis Time:	09:37	Prep Date/Time:	05/23/2025 09:06	Method:	RSK175
Parent Sample #:		Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	0.38	ug/L		U	0		0.5		
Ethene	0.59	ug/L		U	0		0.7		
Methane	0.45	ug/L		U	0		0.5		

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Sample Condition Report

Folder #:	195207	Print Date / Time:	05/23/2025	10:09	
Client:	CAPE ENVIRONMENTAL MANAGEMENT	Received Date / Time / By:	05/23/2025	09:46	DJL
Project Name:	RADFORD AAP SWMU 49	Log-In Date / Time / By:	05/23/2025	10:09	erc
Project Phase:	RADFORD, VA	Project #:	10409-0222	PM:	BMS
Coolers:	6561	Temperature:	2.5 C	On Ice:	**Y**
Custody Seals Present :	**Y**	COC Present:?	**Y**	Complete?	**Y**
Seal Intact?	**Y**	Numbers:	DATED SIGNED		
Ship Method:	FEDEX EXPRESS	Tracking Number:	881316349090		
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**		

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

TWO (2) CUSTODY SEALS WERE PRESENT AND INTACT ON THE COOLER UPON RECEIPT (BOTH WERE DATED 5/22/2025 AND SIGNED).

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1586771 TB-3				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type (*VOA HCL*) = 2			
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1586772 48MW2				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
1586772 48MW2				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (*VOA HCL*) = 5			
1586772 48MW2				
	H2SO4 PL	1	Y / N	TOC
	Total # of Containers of Type (*H2SO4 PL*) = 1			
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1586773 48MW2-EQB				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			

1586773	48MW2-EQB					
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**5**		
1586773	48MW2-EQB					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1586774	48MW3				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) =**	**1**	
1586774	48MW3				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**5**	
1586774	48MW3				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**	

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1586775	49MW02				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) =**	**1**	
1586775	49MW02				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**5**	
1586775	49MW02				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**	

Condition Code Condition Description

1 Sample Received OK

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Cape Enviromental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP
Project #: SWMU 48/49
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Order #: 195207
Company: CAPE ENVIRONMENTAL MAN
Project: RADFORD AAP SWMU 48/49
Logged By: erc PM: BMS

Program: RCRA SDWA NPDES Waste Other _____

Report To:
EMAIL: ChemistrySVCS@cape-inc.com
Company: mfeits@cape-inc.com
Address: Cape Environmental Mgt. 500 Pinnacle Court #160 Norcross, GA 30071

Invoice To:*
EMAIL: Same
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time: (Normal) RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOC 8260C	MEE RSK-175	TOC 9060A	Anions 9056A											Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
						Fill in Spaces with Bottles per Test																	
5/22	0000	GW	G		TB-3	N	2						Trip Blank								2		1586771
5/22	0920	GW	G		48MW2	N	3	2	1	1											7		72
5/22	0954	GW	G		48MW2-EQB	N	3	2	1	1											7		73
5/22	1123	GW	G		48MW3	N	3	2	1	1											7		74
5/22	1327	GW	G		49MW02	N	3	2	1	1											7		75

Relinquished By:	Date/Time	Received By:	Date/Time
	5/22/2025 1700	FedEx	5/22/2025 1705
Received by:	Date/Time	Received for Laboratory by:	Date/Time
		EnL 5224	946

Lab Use Only
Ice Present (Yes) No
Temp 25 IR Gun 33
Cooler # 6561

ORIGIN ID:LIYA (724) 622-3625
MATTHEW FEITS
CAPE ENVIRONMENTAL MANAGEMENT, INC
500 PINNACLE COURT
SUITE 100
NORCROSS, GA 30071
UNITED STATES US

SHIP DATE: 22MAY25
ACTWGT: 45.00 LB
CAD: 100980732/INET4535

BILL SENDER

TO **SAMPLE RECEIVING**
CT LABS
1230 LANGE COURT

BARABOO WI 53913
(608) 356-2760
INV:
PO:
REF: 10409-0222-002-003
DEPT:

58GJ4/EA36/59F2

1 of 3

TRK# 0201 **8813 1634 9090**
MASTER

XS LNRA

FRI - 23 MAY 10:30A
PRIORITY OVERNIGHT

53913
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Ice Present (Yes) No
Temperature 2.5
Initials
Date 5/23/25 Time 9:46
Cooler # 6561

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ANALYTICAL SUMMARY REPORT

This report at a minimum contains the following information:

Analytical Report of Test Results
Description of QC Qualifiers
Chain of Custody (copy)
Quality Control Summary (if applicable)
Case Narrative (if applicable)
Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

ANALYTICAL SAMPLE DATA

CAPE ENVIRONMENTAL MANAGEMENT
MATT FEITS
500 PINNACLE COURT
SUITE 100
NORCROSS, GA 30071

Project Name: RADFORD AAP SWMU 49
Project Phase: IDW
Project #: 10409-0222
Folder #: 195208
Purchase Order #: SC013781
Contract #: 3648

Arrival Temperature: 2.5
Report Date: 6/6/2025
Date Received: 5/23/2025
Reprint Date: 6/6/2025

Copy: chemistrysvcs@cape-inc.com

CT LAB#: 1586776 Sample Description: 49IDW Client Sample #: Sampled: 5/22/2025 14:28

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method	
Inorganic Results														
pH	***7.80***	S.U.	0.1	0.1	0.1	0.1	1.00				5/23/25 15:15	RLB	EPA 9040C	^
COD	***230***	mg/L	18	50	75	75	1.00			5/27/25 09:00	5/28/25 11:48	RLB	EPA 410.4	^
Metals Results														
Total Potassium	***5440***	ug/L	120	250	500	500	1.00			5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C	
Total Sodium	***29800***	ug/L	200	500	700	700	1.00			5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C	
Total Aluminum	***1270***	ug/L	15	60	120	120	1.00			5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C	
Total Antimony	<10	ug/L	4.4	10	20	20	1.00	U		5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C	
Total Arsenic	<20	ug/L	7.7	20	40	40	1.00	U		5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C	
Total Barium	***96.1***	ug/L	0.71	2.0	4.0	4.0	1.00			5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C	
Total Beryllium	<3.0	ug/L	0.75	3.0	8.0	8.0	1.00	U		5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C	
Total Cadmium	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U		5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C	
Total Calcium	***60100***	ug/L	25	50	100	100	1.00			5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C	
Total Chromium	***4.2***	ug/L	1.1	2.5	5.0	5.0	1.00	J		5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C	
Total Cobalt	***0.74***	ug/L	0.60	2.5	5.0	5.0	1.00	J		5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C	
Total Copper	***6.4***	ug/L	5.2	20	40	40	1.00	J		5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C	

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1586776 Sample Description: 49IDW Client Sample #: Sampled: 5/22/2025 14:28

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	***1410***	ug/L	14	40	80	80	1.00			5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C
Total Lead	***2.3***	ug/L	1.4	5.0	10	10	1.00	J		5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C
Total Magnesium	***31500***	ug/L	10	25	40	40	1.00			5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C
Total Manganese	***175***	ug/L	1.4	3.0	5.0	5.0	1.00			5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C
Total Nickel	***2.1***	ug/L	1.5	3.0	5.0	5.0	1.00	J		5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C
Total Selenium	<20	ug/L	10	20	40	40	1.00	U		5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C
Total Silver	<2.5	ug/L	1.1	2.5	5.0	5.0	1.00	U M		5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C
Total Thallium	<20	ug/L	6.8	20	40	40	1.00	U		5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C
Total Vanadium	***3.2***	ug/L	1.3	3.0	5.0	5.0	1.00	J		5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C
Total Zinc	***11.5***	ug/L	4.5	10	20	20	1.00	J		5/26/25 21:23	5/27/25 16:54	NAH	EPA 6010C
Total Mercury	<0.080	ug/L	0.020	0.080	0.12	0.12	1.00	U M		5/28/25 14:15	5/29/25 13:06	MDS	EPA 7470A

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes:

^ Indicates the laboratory is NELAP accredited for this analyte by the indicated matrix and method . DL (detection limit), LOD (limit of detection), loq (limit of quantitation) as defined by most recent DOD QSM version.

All samples were received intact and properly preserved unless otherwise noted . The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for the parameters where accreditation is required or available, unless noted in the case narrative.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

QC Qualifiers

Code	Description
A	Result cannot be used for compliance due to QC issue
B	Analyte detected in the associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
I	Incubator temperature was outside acceptance limits during test period.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was below detection limit.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Specified calibration criteria was not met.

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 289
Louisiana NELAP (primary) ID# 115843
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Florida NELAP Lab ID# E871111

DoD-ELAP QSM5.4 -
PJLA Testing Accreditation # 78929

ISO/IEC 17025-2017 Accredited -
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QC Summary Report

CAPE ENVIRONMENTAL MANAGEMENT **Project Name: RADFORD AAP SWMU 49**

SDG #: 0 **Folder #: 195208** **Project #: 10409-0222**

Duplicate

Analytical Run #:	291933	Analysis Date:	5/28/2025	Prep Batch #:	138928	Matrix:	GROUND WATER
CTLab #:	1587302	Analysis Time:	11:48	Prep Date/Time:	05/27/2025 09:00	Method:	E410.4
Parent Sample #:	1586776	Analyst:	RLB	Prep Analyst:	RLB		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
COD	228	mg/L	230					1	20

Lab Control Spike Water

Analytical Run #:	291933	Analysis Date:	5/28/2025	Prep Batch #:	138928	Matrix:	LIQUID
CTLab #:	1587301	Analysis Time:	11:48	Prep Date/Time:	05/27/2025 09:00	Method:	E410.4
Parent Sample #:		Analyst:	RLB	Prep Analyst:	RLB		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
COD	405.9	mg/L			400.0	101	90 --- 110		

Method Blank Water

Analytical Run #:	291933	Analysis Date:	5/28/2025	Prep Batch #:	138928	Matrix:	LIQUID
CTLab #:	1587300	Analysis Time:	11:48	Prep Date/Time:	05/27/2025 09:00	Method:	E410.4
Parent Sample #:		Analyst:	RLB	Prep Analyst:	RLB		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total COD	18	mg/L		U	0		37		

Matrix Spike Duplicate Water

Analytical Run #:	291933	Analysis Date:	5/28/2025	Prep Batch #:	138928	Matrix:	GROUND WATER
CTLab #:	1587304	Analysis Time:	11:48	Prep Date/Time:	05/27/2025 09:00	Method:	E410.4
Parent Sample #:	1587303	Analyst:	RLB	Prep Analyst:	RLB		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
COD	372	mg/L	230		148	96	90 --- 110	4	20

Matrix Spike Water

Analytical Run #:	291933	Analysis Date:	5/28/2025	Prep Batch #:	138928	Matrix:	GROUND WATER
CTLab #:	1587303	Analysis Time:	11:48	Prep Date/Time:	05/27/2025 09:00	Method:	E410.4
Parent Sample #:	1586776	Analyst:	RLB	Prep Analyst:	RLB		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
COD	389	mg/L	230		148	107	90 --- 110		20

Duplicate

Analytical Run #:	291939	Analysis Date:	5/27/2025	Prep Batch #:	138917	Matrix:	GROUND WATER
CTLab #:	1587053	Analysis Time:	17:09	Prep Date/Time:	05/26/2025 21:23	Method:	SW6010
Parent Sample #:	1586776	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Potassium	5470	ug/L	5440				500	1	20

Duplicate

Analytical Run #:	291939	Analysis Date:	5/27/2025	Prep Batch #:	138917	Matrix:	GROUND WATER
CTLab #:	1587053	Analysis Time:	17:09	Prep Date/Time:	05/26/2025 21:23	Method:	SW6010
Parent Sample #:	1586776	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Sodium	29800	ug/L	29800				700	0	20

Lab Control Spike Water

Analytical Run #:	291939	Analysis Date:	5/27/2025	Prep Batch #:	138917	Matrix:	LIQUID
CTLab #:	1587052	Analysis Time:	16:39	Prep Date/Time:	05/26/2025 21:23	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Potassium	98600	ug/L			100000	99	86 --- 114		

Lab Control Spike Water

Analytical Run #:	291939	Analysis Date:	5/27/2025	Prep Batch #:	138917	Matrix:	LIQUID
CTLab #:	1587052	Analysis Time:	16:39	Prep Date/Time:	05/26/2025 21:23	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Sodium	97900	ug/L			100000	98	87 --- 115		

Method Blank Water

Analytical Run #:	291939	Analysis Date:	5/27/2025	Prep Batch #:	138917	Matrix:	LIQUID
CTLab #:	1587051	Analysis Time:	16:47	Prep Date/Time:	05/26/2025 21:23	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Potassium	120	ug/L		U	0		250		

Method Blank Water

Analytical Run #:	291939	Analysis Date:	5/27/2025	Prep Batch #:	138917	Matrix:	LIQUID
CTLab #:	1587051	Analysis Time:	16:47	Prep Date/Time:	05/26/2025 21:23	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Sodium	200	ug/L		U	0		350		

Matrix Spike Duplicate Water

Analytical Run #:	291939	Analysis Date:	5/27/2025	Prep Batch #:	138917	Matrix:	GROUND WATER
CTLab #:	1587055	Analysis Time:	17:45	Prep Date/Time:	05/26/2025 21:23	Method:	SW6010
Parent Sample #:	1587054	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Potassium	103000	ug/L	5440		100000	98	86 --- 114	1	20

Matrix Spike Duplicate Water

Analytical Run #:	291939	Analysis Date:	5/27/2025	Prep Batch #:	138917	Matrix:	GROUND WATER
CTLab #:	1587055	Analysis Time:	17:45	Prep Date/Time:	05/26/2025 21:23	Method:	SW6010
Parent Sample #:	1587054	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Sodium	125000	ug/L	29800		100000	95	87 --- 115	2	20

Matrix Spike Water

Analytical Run #:	291939	Analysis Date:	5/27/2025	Prep Batch #:	138917	Matrix:	GROUND WATER
CTLab #:	1587054	Analysis Time:	17:37	Prep Date/Time:	05/26/2025 21:23	Method:	SW6010
Parent Sample #:	1586776	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Potassium	104000	ug/L	5440		100000	99	86 --- 114		20

Matrix Spike Water

Analytical Run #:	291939	Analysis Date:	5/27/2025	Prep Batch #:	138917	Matrix:	GROUND WATER
CTLab #:	1587054	Analysis Time:	17:37	Prep Date/Time:	05/26/2025 21:23	Method:	SW6010
Parent Sample #:	1586776	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Sodium	127000	ug/L	29800		100000	97	87 --- 115		20

Duplicate

Analytical Run #:	291940	Analysis Date:	5/27/2025	Prep Batch #:	138918	Matrix:	GROUND WATER
CTLab #:	1587064	Analysis Time:	17:09	Prep Date/Time:	05/26/2025 21:23	Method:	SW6010
Parent Sample #:	1586776	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Aluminum	1540	ug/L	1270				120	19	20
Total Antimony	4.40	ug/L	<DL	U			20	0	20
Total Arsenic	7.70	ug/L	<DL	U			40	0	20
Total Barium	97.4	ug/L	96.1				4.0	1	20
Total Beryllium	0.750	ug/L	<DL	U			8.0	0	20
Total Cadmium	0.410	ug/L	<DL	U			2.0	0	20
Total Calcium	60200	ug/L	60100				100	0	20
Total Chromium	4.4	ug/L	4.2				5.0	5	20
Total Cobalt	0.63	ug/L	0.74				5.0	16	20
Total Copper	5.7	ug/L	6.4				40	12	20
Total Iron	1480	ug/L	1410				80	5	20
Total Lead	1.40	ug/L	2.3	U			10	200	20
Total Magnesium	31600	ug/L	31500				40	0	20
Total Manganese	175	ug/L	175				5.0	0	20
Total Nickel	2.0	ug/L	2.1				5.0	5	20
Total Selenium	10.0	ug/L	<DL	U			40	0	20
Total Silver	1.10	ug/L	<DL	U			5.0	0	20
Total Thallium	6.80	ug/L	<DL	U			40	0	20
Total Vanadium	3.3	ug/L	3.2				5.0	3	20
Total Zinc	11.6	ug/L	11.5				20	1	20

Lab Control Spike Water

Analytical Run #:	291940	Analysis Date:	5/27/2025	Prep Batch #:	138918	Matrix:	LIQUID
CTLab #:	1587057	Analysis Time:	16:39	Prep Date/Time:	05/26/2025 21:23	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Total Aluminum	792.0	ug/L			800.0	99	86	---	115		
Total Antimony	188.0	ug/L			200.0	94	88	---	113		
Total Arsenic	773.0	ug/L			800.0	97	87	---	113		
Total Barium	787.0	ug/L			800.0	98	88	---	113		
Total Beryllium	18.10	ug/L			20.0	90	89	---	112		
Total Cadmium	19.70	ug/L			20.0	98	88	---	113		
Total Calcium	191000	ug/L			200000	96	87	---	113		
Total Chromium	73.80	ug/L			80.0	92	90	---	113		
Total Cobalt	193.0	ug/L			200.0	96	89	---	114		
Total Copper	110.0	ug/L			100.0	110	86	---	114		
Total Iron	383.0	ug/L			400.0	96	87	---	115		
Total Lead	171.0	ug/L			200.0	86	86	---	113		
Total Magnesium	96700	ug/L			100000	97	85	---	113		
Total Manganese	195.0	ug/L			200.0	98	90	---	114		
Total Nickel	195.0	ug/L			200.0	98	88	---	113		
Total Selenium	809.0	ug/L			800.0	101	83	---	114		
Total Silver	17.90	ug/L			20.0	90	84	---	115		
Total Thallium	752.0	ug/L			800.0	94	85	---	114		
Total Vanadium	196.0	ug/L			200.0	98	90	---	111		
Total Zinc	193.0	ug/L			200.0	96	87	---	115		

Method Blank Water

Analytical Run #:	291940	Analysis Date:	5/27/2025	Prep Batch #:	138918	Matrix:	LIQUID
CTLab #:	1587056	Analysis Time:	16:47	Prep Date/Time:	05/26/2025 21:23	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Aluminum	15	ug/L		U	0		60		
Total Antimony	4.4	ug/L		U	0		10		
Total Arsenic	7.7	ug/L		U	0		20		
Total Barium	0.71	ug/L		U	0		2.0		
Total Beryllium	0.75	ug/L		U	0		4.0		
Total Cadmium	0.41	ug/L		U	0		1.0		
Total Calcium	25	ug/L		U	0		50		
Total Chromium	1.1	ug/L		U	0		2.5		
Total Cobalt	0.60	ug/L		U	0		2.5		
Total Copper	5.2	ug/L		U	0		20		
Total Iron	14	ug/L		U	0		40		
Total Lead	1.4	ug/L		U	0		5.0		
Total Magnesium	10	ug/L		U	0		20		
Total Manganese	1.4	ug/L		U	0		2.5		
Total Nickel	1.5	ug/L		U	0		2.5		
Total Selenium	10	ug/L		U	0		20		
Total Silver	1.1	ug/L		U	0		2.5		
Total Thallium	6.8	ug/L		U	0		20		
Total Vanadium	1.3	ug/L		U	0		2.5		
Total Zinc	4.5	ug/L		U	0		10		

Matrix Spike Duplicate Water

Analytical Run #:	291940	Analysis Date:	5/27/2025	Prep Batch #:	138918	Matrix:	GROUND WATER
CTLab #:	1587072	Analysis Time:	17:45	Prep Date/Time:	05/26/2025 21:23	Method:	SW6010
Parent Sample #:	1587068	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Total Aluminum	2570	ug/L	1270		800	162	86	---	115	0	20
Total Antimony	182	ug/L	<DL		200	91	88	---	113	3	20
Total Arsenic	753	ug/L	<DL		800	94	87	---	113	3	20
Total Barium	859	ug/L	96.1		800	95	88	---	113	2	20
Total Beryllium	18.1	ug/L	<DL		20.0	90	89	---	112	0	20
Total Cadmium	19.5	ug/L	<DL		20.0	98	88	---	113	1	20
Total Calcium	245000	ug/L	60100		200000	92	87	---	113	1	20
Total Chromium	76.9	ug/L	4.2		80.0	91	90	---	113	1	20
Total Cobalt	190	ug/L	0.74		200	95	89	---	114	1	20
Total Copper	127	ug/L	6.4		100	121	86	---	114	2	20
Total Iron	1940	ug/L	1410		400	132	87	---	115	1	20
Total Lead	167	ug/L	2.3		200	82	86	---	113	1	20
Total Magnesium	124000	ug/L	31500		100000	92	85	---	113	2	20
Total Manganese	364	ug/L	175		200	94	90	---	114	0	20
Total Nickel	190	ug/L	2.1		200	94	88	---	113	2	20
Total Selenium	806	ug/L	<DL		800	101	83	---	114	1	20
Total Silver	36.0	ug/L	<DL		20.0	180	84	---	115	11	20
Total Thallium	722	ug/L	<DL		800	90	85	---	114	2	20
Total Vanadium	194	ug/L	3.2		200	95	90	---	111	2	20
Total Zinc	201	ug/L	11.5		200	95	87	---	115	1	20

Matrix Spike Water

Analytical Run #:	291940	Analysis Date:	5/27/2025	Prep Batch #:	138918	Matrix:	GROUND WATER
CTLab #:	1587068	Analysis Time:	17:37	Prep Date/Time:	05/26/2025 21:23	Method:	SW6010
Parent Sample #:	1586776	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Total Aluminum	2580	ug/L	1270		800	164	86	---	115		20
Total Antimony	187	ug/L	<DL		200	94	88	---	113		20
Total Arsenic	773	ug/L	<DL		800	97	87	---	113		20
Total Barium	878	ug/L	96.1		800	98	88	---	113		20
Total Beryllium	18.1	ug/L	<DL		20.0	90	89	---	112		20
Total Cadmium	19.4	ug/L	<DL		20.0	97	88	---	113		20
Total Calcium	248000	ug/L	60100		200000	94	87	---	113		20
Total Chromium	77.3	ug/L	4.2		80.0	91	90	---	113		20
Total Cobalt	192	ug/L	0.74		200	96	89	---	114		20
Total Copper	129	ug/L	6.4		100	123	86	---	114		20
Total Iron	1920	ug/L	1410		400	128	87	---	115		20
Total Lead	168	ug/L	2.3		200	83	86	---	113		20
Total Magnesium	126000	ug/L	31500		100000	94	85	---	113		20
Total Manganese	364	ug/L	175		200	94	90	---	114		20
Total Nickel	193	ug/L	2.1		200	95	88	---	113		20
Total Selenium	818	ug/L	<DL		800	102	83	---	114		20
Total Silver	32.1	ug/L	<DL		20.0	160	84	---	115		20
Total Thallium	737	ug/L	<DL		800	92	85	---	114		20
Total Vanadium	198	ug/L	3.2		200	97	90	---	111		20
Total Zinc	204	ug/L	11.5		200	96	87	---	115		20

Duplicate

Analytical Run #:	292016	Analysis Date:	5/29/2025	Prep Batch #:	138911	Matrix:	GROUND WATER
CTLab #:	1586877	Analysis Time:	13:29	Prep Date/Time:	05/28/2025 14:15	Method:	SW7470A
Parent Sample #:	1586776	Analyst:	MDS	Prep Analyst:	MDS		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Mercury	0.0200	ug/L	<DL	U			0.12	0	20

Lab Control Spike Water

Analytical Run #:	292016	Analysis Date:	5/29/2025	Prep Batch #:	138911	Matrix:	LIQUID
CTLab #:	1586876	Analysis Time:	12:58	Prep Date/Time:	05/28/2025 14:15	Method:	SW7470A
Parent Sample #:		Analyst:	MDS	Prep Analyst:	MDS		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Mercury	1.77	ug/L			2.00	88	82 --- 119		

Method Blank Water

Analytical Run #:	292016	Analysis Date:	5/29/2025	Prep Batch #:	138911	Matrix:	LIQUID
CTLab #:	1586875	Analysis Time:	13:04	Prep Date/Time:	05/28/2025 14:15	Method:	SW7470A
Parent Sample #:		Analyst:	MDS	Prep Analyst:	MDS		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Mercury	0.020	ug/L		U	0		0.06		

Matrix Spike Duplicate Water

Analytical Run #:	292016	Analysis Date:	5/29/2025	Prep Batch #:	138911	Matrix:	GROUND WATER
CTLab #:	1586879	Analysis Time:	13:45	Prep Date/Time:	05/28/2025 14:15	Method:	SW7470A
Parent Sample #:	1586878	Analyst:	MDS	Prep Analyst:	MDS		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Mercury	0.55	ug/L	<DL		2.0	28	82 --- 119	5	20

Matrix Spike Water

Analytical Run #:	292016	Analysis Date:	5/29/2025	Prep Batch #:	138911	Matrix:	GROUND WATER
CTLab #:	1586878	Analysis Time:	13:42	Prep Date/Time:	05/28/2025 14:15	Method:	SW7470A
Parent Sample #:	1586776	Analyst:	MDS	Prep Analyst:	MDS		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Mercury	0.52	ug/L	<DL		2.0	26	82 --- 119		20

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delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	195208	Print Date / Time:	05/23/2025 10:11
Client:	CAPE ENVIRONMENTAL MANAGEMENT	Received Date / Time / By:	05/23/2025 09:46 DJL
Project Name:	RADFORD AAP SWMU 49	Log-In Date / Time / By:	05/23/2025 10:11 erc
Project Phase:	IDW	Project #:	10409-0222 PM: BMS
Coolers:	6561	Temperature:	2.5 C On Ice: **Y**
Custody Seals Present :	**Y**	COC Present:?	**Y** Complete? **Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED
Ship Method:	FEDEX EXPRESS	Tracking Number:	881316349090
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**

Notes: THE SAMPLE WAS RECEIVED IN GOOD CONDITION ON ICE.

TWO (2) CUSTODY SEALS WERE PRESENT AND INTACT ON THE COOLER UPON RECEIPT (BOTH WERE DATED 5/22/2025 AND SIGNED).

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1586776 49IDW				
	H2SO4 PL	1	Y / N	COD
	Total # of Containers of Type (*H2SO4 PL*) = 1			
1586776 49IDW				
	HNO3	1	Y / N	HG,ICP,K,NA
	Total # of Containers of Type (*HNO3*) = 1			
1586776 49IDW				
	UNPRES PL	1	/	pH
	Total # of Containers of Type (*UNPRES PL*) = 1			

Condition Code *Condition Description*

1 Sample Received OK

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Cape Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP SWMU 48/49
Project #:
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab #: 195208
Company: CAPE ENVIRONMENTAL MAM
Project: RADFORD AAP SWMU 48/49
Logged By: erc PM: BMS

gram:
M RCRA SDWA NPDES
d Waste Other _____
#

Report To: Chemistry SVC S@ cape-inc.
EMAIL: mfeits@cape-inc.com cc's
Company: Cape Environmental Mgt.
Address: 500 Pinnacle Court #100 Norcross, GA 30071
Invoice To:* same
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	ANALYSES REQUESTED: pH 9040	COD 410.4	Total Metals 6010C 7470A	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test					
5/22	1428	GW	~~GC~~		49IDW	N	1	1	1	3		1586776

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Relinquished By:	Date/Time	Received By:	Date/Time
	5/22/2025 1708	FedEx	5/22/2025 1700
Received by:	Date/Time	Received for Laboratory by:	Date/Time
		LSC SMA	5/24 946

Lab Use Only
Ice Present Yes No
Temp 2C IR Gun 33
Cooler # 6581

ORIGIN ID:LIYA (724) 622-3625
MATTHEW FEITS
CAPE ENVIRONMENTAL MANAGEMENT, INC
500 PINNACLE COURT
SUITE 100
NORCROSS, GA 30071
UNITED STATES US

SHIP DATE: 22MAY25
ACTWGT: 45.00 LB
CAD: 100980732/INET4535

BILL SENDER

TO **SAMPLE RECEIVING**
CT LABS
1230 LANGE COURT

BARABOO WI 53913
(608) 356-2760
INV:
PO:
REF: 10409-0222-002-003
DEPT:

58GJ4/EA36/59F2

1 of 3

TRK# 0201 **8813 1634 9090**
MASTER

XS LNRA

FRI - 23 MAY 10:30A
PRIORITY OVERNIGHT

53913
WI-US MSN

.i252!250408!uv

FedEx Express

CUSTODY SEAL
DATE 5/22/2025
SIGNATURE

QEC Quality Environmental Containers
800-255-3950 • www.qecusa.com

After printing this label:

CUSTODY SEAL
DATE 5/22/2025
SIGNATURE

QEC Quality Environmental Containers
800-255-3950 • www.qecusa.com

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Ice Present (Yes) No
Temperature 2.5
Initials
Date 5/23/25 Time 9:46
Cooler # 6561

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ANALYTICAL SUMMARY REPORT

This report at a minimum contains the following information:

Analytical Report of Test Results
Description of QC Qualifiers
Chain of Custody (copy)
Quality Control Summary (if applicable)
Case Narrative (if applicable)
Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

ANALYTICAL SAMPLE DATA

CAPE ENVIRONMENTAL MANAGEMENT
MATT FEITS
500 PINNACLE COURT
SUITE 100
NORCROSS, GA 30071

Project Name: RADFORD AAP SWMU 49
Project Phase: RADFORD, VA
Project #: 10409-0222
Folder #: 199294
Purchase Order #: SC013781
Contract #: 3648

Arrival Temperature: 3.4
Report Date: 11/11/2025
Date Received: 10/23/2025
Reprint Date: 11/11/2025

Copy: chemistrysvcs@cape-inc.com

CT LAB#: 1643244 Sample Description: TB-2 Client Sample #: Sampled: 10/22/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			11/1/25 08:57	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			11/1/25 08:57	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			11/1/25 08:57	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 08:57	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			11/1/25 08:57	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 08:57	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			11/1/25 08:57	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			11/1/25 08:57	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643244 Sample Description: TB-2 Client Sample #: Sampled: 10/22/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			11/1/25 08:57	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			11/1/25 08:57	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			11/1/25 08:57	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			11/1/25 08:57	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			11/1/25 08:57	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			11/1/25 08:57	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			11/1/25 08:57	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643244 Sample Description: TB-2 Client Sample #: Sampled: 10/22/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			11/1/25 08:57	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			11/1/25 08:57	DGS	EPA 8260C
1,2 Dichloroethane-d4	95.0	% Recovery	81			118	1.00				11/1/25 08:57	DGS	EPA 8260C
Bromofluorobenzene	96.0	% Recovery	85			114	1.00				11/1/25 08:57	DGS	EPA 8260C
d8-Toluene	102	% Recovery	89			112	1.00				11/1/25 08:57	DGS	EPA 8260C
Dibromofluoromethane	102	% Recovery	80			119	1.00				11/1/25 08:57	DGS	EPA 8260C

CT LAB#: 1643245 Sample Description: 48MW6 Client Sample #: Sampled: 10/22/2025 11:35

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***14***	mg/L	1.0	1.5	3.0	3.0	1.00				10/23/25 12:19	TMG	EPA 9056A
Nitrate Nitrogen	***2.6***	mg/L	0.12	0.20	0.40	0.40	1.00				10/23/25 12:19	TMG	EPA 9056A
Sulfate	***120***	mg/L	4.0	7.5	15	15	5.00				10/23/25 12:42	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			10/24/25 14:46	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			11/1/25 09:55	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			11/1/25 09:55	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 09:55	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643245 Sample Description: 48MW6 Client Sample #: Sampled: 10/22/2025 11:35

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,1-Dichloroethane	***2.5***	ug/L	0.28	1.0	1.1	1.1	1.00				11/1/25 09:55	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			11/1/25 09:55	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			11/1/25 09:55	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 09:55	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			11/1/25 09:55	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 09:55	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 09:55	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			11/1/25 09:55	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 09:55	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			11/1/25 09:55	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 09:55	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			11/1/25 09:55	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			11/1/25 09:55	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			11/1/25 09:55	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			11/1/25 09:55	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			11/1/25 09:55	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			11/1/25 09:55	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643245 Sample Description: 48MW6 Client Sample #: Sampled: 10/22/2025 11:35

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
cis-1,2-Dichloroethene	***6.0***	ug/L	0.41	1.0	1.3	1.3	1.00				11/1/25 09:55	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			11/1/25 09:55	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			11/1/25 09:55	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Tetrachloroethene	***0.55***	ug/L	0.25	1.0	2.0	2.0	1.00	J			11/1/25 09:55	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 09:55	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 09:55	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Trichloroethene	***2.3***	ug/L	0.25	1.0	1.2	1.2	1.00				11/1/25 09:55	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			11/1/25 09:55	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			11/1/25 09:55	DGS	EPA 8260C
1,2 Dichloroethane-d4	98.0	% Recovery	81			118	1.00				11/1/25 09:55	DGS	EPA 8260C
Bromofluorobenzene	97.0	% Recovery	85			114	1.00				11/1/25 09:55	DGS	EPA 8260C
d8-Toluene	103	% Recovery	89			112	1.00				11/1/25 09:55	DGS	EPA 8260C
Dibromofluoromethane	100	% Recovery	80			119	1.00				11/1/25 09:55	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		10/24/25 10:11	10/24/25 12:01	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		10/24/25 10:11	10/24/25 12:01	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		10/24/25 10:11	10/24/25 12:01	SRW	RSK 175

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643245 Sample Description: 48MW6 Client Sample #: Sampled: 10/22/2025 11:35

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method

CT LAB#: 1643247 Sample Description: 48MW6-EQB Client Sample #: Sampled: 10/22/2025 12:05

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	<1.5	mg/L	1.0	1.5	3.0	3.0	1.00	U			10/23/25 13:05	TMG	EPA 9056A
Nitrate Nitrogen	<0.20	mg/L	0.12	0.20	0.40	0.40	1.00	U			10/23/25 13:05	TMG	EPA 9056A
Sulfate	<1.5	mg/L	0.80	1.5	3.0	3.0	1.00	U			10/23/25 13:05	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			10/24/25 14:57	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			11/1/25 10:24	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			11/1/25 10:24	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			11/1/25 10:24	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 10:24	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			11/1/25 10:24	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 10:24	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			11/1/25 10:24	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			11/1/25 10:24	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643247 Sample Description: 48MW6-EQB Client Sample #: Sampled: 10/22/2025 12:05

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			11/1/25 10:24	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			11/1/25 10:24	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			11/1/25 10:24	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			11/1/25 10:24	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			11/1/25 10:24	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			11/1/25 10:24	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			11/1/25 10:24	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643247 Sample Description: 48MW6-EQB Client Sample #: Sampled: 10/22/2025 12:05

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			11/1/25 10:24	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			11/1/25 10:24	DGS	EPA 8260C
1,2 Dichloroethane-d4	100	% Recovery	81			118	1.00				11/1/25 10:24	DGS	EPA 8260C
Bromofluorobenzene	96.0	% Recovery	85			114	1.00				11/1/25 10:24	DGS	EPA 8260C
d8-Toluene	104	% Recovery	89			112	1.00				11/1/25 10:24	DGS	EPA 8260C
Dibromofluoromethane	101	% Recovery	80			119	1.00				11/1/25 10:24	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		10/24/25 10:11	10/24/25 12:08	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		10/24/25 10:11	10/24/25 12:08	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		10/24/25 10:11	10/24/25 12:08	SRW	RSK 175

CT LAB#: 1643248 Sample Description: 49MW04 Client Sample #: Sampled: 10/22/2025 13:03

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***6.9***	mg/L	1.0	1.5	3.0	3.0	1.00				10/23/25 13:29	TMG	EPA 9056A
Nitrate Nitrogen	***0.36***	mg/L	0.12	0.20	0.40	0.40	1.00	J			10/23/25 13:29	TMG	EPA 9056A
Sulfate	***57***	mg/L	0.80	1.5	3.0	3.0	1.00				10/23/25 13:29	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			10/24/25 15:49	TMG	EPA 9060A
Organic Results													

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643248 Sample Description: 49MW04 Client Sample #: Sampled: 10/22/2025 13:03

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			11/1/25 10:53	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			11/1/25 10:53	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			11/1/25 10:53	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 10:53	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			11/1/25 10:53	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 10:53	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			11/1/25 10:53	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			11/1/25 10:53	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			11/1/25 10:53	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			11/1/25 10:53	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			11/1/25 10:53	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Carbon tetrachloride	***0.97***	ug/L	0.37	1.0	1.2	1.2	1.00	J			11/1/25 10:53	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 10:53	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643248 Sample Description: 49MW04 Client Sample #: Sampled: 10/22/2025 13:03

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			11/1/25 10:53	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			11/1/25 10:53	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			11/1/25 10:53	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			11/1/25 10:53	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			11/1/25 10:53	DGS	EPA 8260C
1,2 Dichloroethane-d4	101	% Recovery	81			118	1.00				11/1/25 10:53	DGS	EPA 8260C
Bromofluorobenzene	98.0	% Recovery	85			114	1.00				11/1/25 10:53	DGS	EPA 8260C
d8-Toluene	103	% Recovery	89			112	1.00				11/1/25 10:53	DGS	EPA 8260C
Dibromofluoromethane	100	% Recovery	80			119	1.00				11/1/25 10:53	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643248 Sample Description: 49MW04 Client Sample #: Sampled: 10/22/2025 13:03

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		10/24/25 10:11	10/24/25 12:11	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		10/24/25 10:11	10/24/25 12:11	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		10/24/25 10:11	10/24/25 12:11	SRW	RSK 175

CT LAB#: 1643249 Sample Description: 49TW04 Client Sample #: Sampled: 10/22/2025 13:03

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***7.2***	mg/L	1.0	1.5	3.0	3.0	1.00				10/23/25 13:52	TMG	EPA 9056A
Nitrate Nitrogen	***0.36***	mg/L	0.12	0.20	0.40	0.40	1.00	J			10/23/25 13:52	TMG	EPA 9056A
Sulfate	***57***	mg/L	0.80	1.5	3.0	3.0	1.00				10/23/25 13:52	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			10/24/25 16:39	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			11/1/25 11:21	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			11/1/25 11:21	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			11/1/25 11:21	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 11:21	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			11/1/25 11:21	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 11:21	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643249 Sample Description: 49TW04 Client Sample #: Sampled: 10/22/2025 13:03

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			11/1/25 11:21	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			11/1/25 11:21	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			11/1/25 11:21	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			11/1/25 11:21	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			11/1/25 11:21	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Carbon tetrachloride	***0.99***	ug/L	0.37	1.0	1.2	1.2	1.00	J			11/1/25 11:21	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			11/1/25 11:21	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			11/1/25 11:21	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			11/1/25 11:21	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			11/1/25 11:21	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643249 Sample Description: 49TW04 Client Sample #: Sampled: 10/22/2025 13:03

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			11/1/25 11:21	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			11/1/25 11:21	DGS	EPA 8260C
1,2 Dichloroethane-d4	105	% Recovery	81			118	1.00				11/1/25 11:21	DGS	EPA 8260C
Bromofluorobenzene	97.0	% Recovery	85			114	1.00				11/1/25 11:21	DGS	EPA 8260C
d8-Toluene	103	% Recovery	89			112	1.00				11/1/25 11:21	DGS	EPA 8260C
Dibromofluoromethane	103	% Recovery	80			119	1.00				11/1/25 11:21	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		10/24/25 10:11	10/24/25 12:15	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		10/24/25 10:11	10/24/25 12:15	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		10/24/25 10:11	10/24/25 12:15	SRW	RSK 175

CT LAB#: 1643250 Sample Description: 13MW2 Client Sample #: Sampled: 10/22/2025 14:05

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***4.8***	mg/L	1.0	1.5	3.0	3.0	1.00				10/23/25 14:16	TMG	EPA 9056A
Nitrate Nitrogen	***0.41***	mg/L	0.12	0.20	0.40	0.40	1.00				10/23/25 14:16	TMG	EPA 9056A

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643250 Sample Description: 13MW2 Client Sample #: Sampled: 10/22/2025 14:05

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Sulfate	***28***	mg/L	0.80	1.5	3.0	3.0	1.00	M			10/23/25 14:16	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			10/24/25 16:50	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			11/1/25 11:50	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			11/1/25 11:50	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			11/1/25 11:50	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 11:50	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			11/1/25 11:50	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 11:50	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			11/1/25 11:50	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			11/1/25 11:50	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			11/1/25 11:50	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			11/1/25 11:50	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 11:50	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643250 Sample Description: 13MW2 Client Sample #: Sampled: 10/22/2025 14:05

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			11/1/25 11:50	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			11/1/25 11:50	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			11/1/25 11:50	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			11/1/25 11:50	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			11/1/25 11:50	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			11/1/25 11:50	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643250 Sample Description: 13MW2 Client Sample #: Sampled: 10/22/2025 14:05

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,2 Dichloroethane-d4	103	% Recovery	81			118	1.00				11/1/25 11:50	DGS	EPA 8260C
Bromofluorobenzene	99.0	% Recovery	85			114	1.00				11/1/25 11:50	DGS	EPA 8260C
d8-Toluene	105	% Recovery	89			112	1.00				11/1/25 11:50	DGS	EPA 8260C
Dibromofluoromethane	105	% Recovery	80			119	1.00				11/1/25 11:50	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		10/24/25 10:11	10/24/25 12:19	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		10/24/25 10:11	10/24/25 12:19	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		10/24/25 10:11	10/24/25 12:19	SRW	RSK 175

CT LAB#: 1643251 Sample Description: 49MW05 Client Sample #: Sampled: 10/22/2025 15:03

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***3.8***	mg/L	1.0	1.5	3.0	3.0	1.00				10/23/25 15:49	TMG	EPA 9056A
Nitrate Nitrogen	<0.20	mg/L	0.12	0.20	0.40	0.40	1.00	U			10/23/25 15:49	TMG	EPA 9056A
Sulfate	***46***	mg/L	0.80	1.5	3.0	3.0	1.00				10/23/25 15:49	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			10/24/25 17:06	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			11/1/25 12:19	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			11/1/25 12:19	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			11/1/25 12:19	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 12:19	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			11/1/25 12:19	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643251 Sample Description: 49MW05 Client Sample #: Sampled: 10/22/2025 15:03

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 12:19	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			11/1/25 12:19	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			11/1/25 12:19	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			11/1/25 12:19	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			11/1/25 12:19	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			11/1/25 12:19	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			11/1/25 12:19	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			11/1/25 12:19	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643251 Sample Description: 49MW05 Client Sample #: Sampled: 10/22/2025 15:03

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			11/1/25 12:19	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			11/1/25 12:19	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			11/1/25 12:19	DGS	EPA 8260C
1,2 Dichloroethane-d4	102	% Recovery	81			118	1.00				11/1/25 12:19	DGS	EPA 8260C
Bromofluorobenzene	95.0	% Recovery	85			114	1.00				11/1/25 12:19	DGS	EPA 8260C
d8-Toluene	103	% Recovery	89			112	1.00				11/1/25 12:19	DGS	EPA 8260C
Dibromofluoromethane	101	% Recovery	80			119	1.00				11/1/25 12:19	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		10/24/25 10:11	10/24/25 12:23	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		10/24/25 10:11	10/24/25 12:23	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		10/24/25 10:11	10/24/25 12:23	SRW	RSK 175

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes:

^ Indicates the laboratory is NELAP accredited for this analyte by the indicated matrix and method . DL (detection limit), LOD (limit of detection), loq (limit of quantitation) as defined by most recent DOD QSM version.

All samples were received intact and properly preserved unless otherwise noted . The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for the parameters where accreditation is required or available, unless noted in the case narrative.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

QC Qualifiers

Code	Description
A	Result cannot be used for compliance due to QC issue
B	Analyte detected in the associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
I	Incubator temperature was outside acceptance limits during test period.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was below detection limit.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Specified calibration criteria was not met.

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 289
Louisiana NELAP (primary) ID# 115843
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Florida NELAP Lab ID# E871111

DoD-ELAP QSM5.4 -
PJLA Testing Accreditation # 78929

ISO/IEC 17025-2017 Accredited -
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QC Summary Report

CAPE ENVIRONMENTAL MANAGEMENT **Project Name: RADFORD AAP SWMU 49**

SDG #: 0 **Folder #: 199294** **Project #: 10409-0222**

Duplicate

Analytical Run #:	296161	Analysis Date:	10/23/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1644404	Analysis Time:	14:39	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1643250	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	5.03	mg/L	4.8				3.0	5	10
Nitrate Nitrogen	0.416	mg/L	0.41				0.40	1	10
Sulfate	28.3	mg/L	28				3.0	1	10

Lab Control Spike Water

Analytical Run #:	296161	Analysis Date:	10/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1644400	Analysis Time:	08:16	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Chloride	14.58	mg/L			15.00	97	87	---	111		
Nitrate Nitrogen	3.567	mg/L			3.500	102	88	---	111		
Sulfate	25.39	mg/L			25.00	102	87	---	112		

Method Blank Water

Analytical Run #:	296161	Analysis Date:	10/23/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1644401	Analysis Time:	08:39	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	1.0	mg/L		U	0		1.5		
Nitrate Nitrogen	0.12	mg/L		U	0		0.20		
Sulfate	0.8	mg/L		U	0		1.5		

Matrix Spike Duplicate Water

Analytical Run #:	296161	Analysis Date:	10/23/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1644406	Analysis Time:	15:26	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1644405	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	12.4	mg/L	4.8		8.00	95	87 --- 111	1	15
Nitrate Nitrogen	2.43	mg/L	0.41		2.00	101	88 --- 111	1	15
Sulfate	34.3	mg/L	28		8.00	79	87 --- 112	2	15

Matrix Spike Water

Analytical Run #:	296161	Analysis Date:	10/23/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1644405	Analysis Time:	15:03	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1643250	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	12.2	mg/L	4.8		8.00	92	87 --- 111		15
Nitrate Nitrogen	2.46	mg/L	0.41		2.00	102	88 --- 111		15
Sulfate	34.8	mg/L	28		8.00	85	87 --- 112		15

Duplicate

Analytical Run #:	296204	Analysis Date:	10/24/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1645072	Analysis Time:	16:02	Prep Date/Time:		Method:	SW9060
Parent Sample #:	1643248	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.4	mg/L	<DL	U			1.5	0	20

Lab Control Spike Water

Analytical Run #:	296204	Analysis Date:	10/24/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1645068	Analysis Time:	11:56	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	51.36	mg/L			50.0	103	85 --- 111		20

Method Blank Water

Analytical Run #:	296204	Analysis Date:	10/24/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1645069	Analysis Time:	12:26	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.40	mg/L		U	0		1.5		

Matrix Spike Duplicate Water

Analytical Run #:	296204	Analysis Date:	10/24/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1645074	Analysis Time:	16:26	Prep Date/Time:		Method:	SW9060
Parent Sample #:	1645073	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	45.7	mg/L	<DL		50.0	91	85 --- 111	0	20

Matrix Spike Water

Analytical Run #:	296204	Analysis Date:	10/24/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1645073	Analysis Time:	16:13	Prep Date/Time:		Method:	SW9060
Parent Sample #:	1643248	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	45.5	mg/L	<DL		50.0	91	85 --- 111		20

Duplicate

Analytical Run #:	296207	Analysis Date:	10/24/2025	Prep Batch #:	140741	Matrix:	GROUND WATER
CTLab #:	1644065	Analysis Time:	12:05	Prep Date/Time:	10/24/2025 10:11	Method:	RSK175
Parent Sample #:	1643245	Analyst:	SRW	Prep Analyst:	TMG		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	0.38	ug/L	<DL	U			1.0	0	20
Ethene	0.59	ug/L	<DL	U			1.4	0	20
Methane	0.45	ug/L	<DL	U			1.0	0	20

Lab Control Spike Water

Analytical Run #:	296207	Analysis Date:	10/24/2025	Prep Batch #:	140741	Matrix:	LIQUID
CTLab #:	1643927	Analysis Time:	10:37	Prep Date/Time:	10/24/2025 10:11	Method:	RSK175
Parent Sample #:		Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Ethane	4.24	ug/L			4.78	89	74	---	131		20
Ethene	6.02	ug/L			6.80	89	72	---	133		20
Methane	2.06	ug/L			2.30	90	73	---	125		20

Method Blank Water

Analytical Run #:	296207	Analysis Date:	10/24/2025	Prep Batch #:	140741	Matrix:	LIQUID
CTLab #:	1643926	Analysis Time:	10:44	Prep Date/Time:	10/24/2025 10:11	Method:	RSK175
Parent Sample #:		Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	0.38	ug/L		U	0		0.5		
Ethene	0.59	ug/L		U	0		0.7		
Methane	0.45	ug/L		U	0		0.5		

Lab Control Spike Water

Analytical Run #:	296248	Analysis Date:	11/1/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1647116	Analysis Time:	07:30	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
1,1,1-Trichloroethane	11.2	ug/L			10.0	112	74	---	131		20
1,1,2,2-Tetrachloroethane	9.07	ug/L			10.0	91	71	---	121		20
1,1,2-Trichloroethane	10.5	ug/L			10.0	105	80	---	119		20
1,1-Dichloroethane	10.9	ug/L			10.0	109	77	---	125		20
1,1-Dichloroethene	11.9	ug/L			10.0	119	71	---	131		20
1,2,3-Trichlorobenzene	9.27	ug/L			10.0	93	69	---	129		20
1,2,4-Trichlorobenzene	9.45	ug/L			10.0	94	69	---	130		20
1,2-Dibromo-3-chloropropane	7.87	ug/L			10.0	79	62	---	128		20
1,2-Dibromoethane	9.36	ug/L			10.0	94	77	---	121		20
1,2-Dichlorobenzene	9.75	ug/L			10.0	98	80	---	119		20
1,2-Dichloroethane	10.3	ug/L			10.0	103	73	---	128		20
1,2-Dichloropropane	10.4	ug/L			10.0	104	78	---	122		20
1,3-Dichlorobenzene	10.1	ug/L			10.0	101	80	---	119		20
1,4-Dichlorobenzene	9.85	ug/L			10.0	98	79	---	118		20
1,4-Dioxane	597	ug/L			500	119	59	---	139		20
112Trichloro122trifluoroethane	22.4	ug/L			20.0	112	70	---	136		20
2-Butanone	111	ug/L			100	111	56	---	143		20
2-Hexanone	101	ug/L			100	101	57	---	139		20
4-Methyl-2-pentanone	107	ug/L			100	107	67	---	130		20
Acetone	118	ug/L			100	118	39	---	160		20
Benzene	11.3	ug/L			10.0	113	79	---	120		20
Bromochloromethane	10.8	ug/L			10.0	108	78	---	123		20
Bromodichloromethane	10.5	ug/L			10.0	105	79	---	125		20
Bromoform	9.31	ug/L			10.0	93	66	---	130		20
Bromomethane	18.4	ug/L			10.0	184	53	---	141		20
Carbon disulfide	23.6	ug/L			20.0	118	64	---	133		20
Carbon tetrachloride	9.82	ug/L			10.0	98	72	---	136		20
Chlorobenzene	10.1	ug/L			10.0	101	82	---	118		20
Chloroethane	9.83	ug/L			10.0	98	60	---	138		20
Chloroform	10.9	ug/L			10.0	109	79	---	124		20
Chloromethane	10.6	ug/L			10.0	106	50	---	139		20
cis-1,2-Dichloroethene	10.7	ug/L			10.0	107	78	---	123		20
cis-1,3-Dichloropropene	10.8	ug/L			10.0	108	75	---	124		20
Cyclohexane	10.9	ug/L			10.0	109	71	---	130		20
Dibromochloromethane	9.45	ug/L			10.0	94	74	---	126		20
Dichlorodifluoromethane	10.3	ug/L			10.0	103	32	---	152		20
Ethylbenzene	10.8	ug/L			10.0	108	79	---	121		20
Isopropylbenzene	10.0	ug/L			10.0	100	72	---	131		20
m & p-Xylene	21.2	ug/L			20.0	106	80	---	121		20
Methyl acetate	9.09	ug/L			10.0	91	56	---	136		20
Methyl tert-butyl ether	10.5	ug/L			10.0	105	71	---	124		20
Methylcyclohexane	11.3	ug/L			10.0	113	72	---	132		20

Lab Control Spike Water

Analytical Run #:	296248	Analysis Date:	11/1/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1647116	Analysis Time:	07:30	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Methylene chloride	8.90	ug/L			10.0	89	74 --- 124		20
o-Xylene	10.4	ug/L			10.0	104	78 --- 122		20
Styrene	9.89	ug/L			10.0	99	78 --- 123		20
Tetrachloroethene	11.8	ug/L			10.0	118	74 --- 129		20
Toluene	11.2	ug/L			10.0	112	80 --- 121		20
trans-1,2-Dichloroethene	11.4	ug/L			10.0	114	75 --- 124		20
trans-1,3-Dichloropropene	10.2	ug/L			10.0	102	73 --- 127		20
Trichloroethene	11.0	ug/L			10.0	110	79 --- 123		20
Trichlorofluoromethane	11.2	ug/L			10.0	112	65 --- 141		20
Vinyl chloride	12.0	ug/L			10.0	120	58 --- 137		20

Method Blank Water

Analytical Run #:	296248	Analysis Date:	11/1/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1647233	Analysis Time:	08:28	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.38	ug/L		U	0		0.60		
1,1,2,2-Tetrachloroethane	0.36	ug/L		U	0		0.55		
1,1,2-Trichloroethane	0.27	ug/L		U	0		0.55		
1,1-Dichloroethane	0.28	ug/L		U	0		0.55		
1,1-Dichloroethene	0.49	ug/L		U	0		1.0		
1,2,3-Trichlorobenzene	0.43	ug/L		U	0		1.0		
1,2,4-Trichlorobenzene	0.50	ug/L		U	0		1.0		
1,2-Dibromo-3-chloropropane	0.50	ug/L		U	0		1.0		
1,2-Dibromoethane	0.33	ug/L		U	0		0.55		
1,2-Dichlorobenzene	0.35	ug/L		U	0		0.55		
1,2-Dichloroethane	0.69	ug/L		U	0		1.05		
1,2-Dichloropropane	0.25	ug/L		U	0		0.60		
1,3-Dichlorobenzene	0.30	ug/L		U	0		0.55		
1,4-Dichlorobenzene	0.33	ug/L		U	0		0.55		
1,4-Dioxane	34	ug/L		U	0		50		
112Trichloro122trifluoroethane	1.5	ug/L		U	0		2.25		
2-Butanone	2.9	ug/L		U	0		5.5		
2-Hexanone	3.3	ug/L		U	0		5.5		
4-Methyl-2-pentanone	3.7	ug/L		U	0		6.0		
Acetone	4.1	ug/L		U	0		10		
Benzene	0.40	ug/L		U	0		1.0		
Bromochloromethane	0.26	ug/L		U	0		0.55		
Bromodichloromethane	0.080	ug/L		U	0		0.25		
Bromoform	0.50	ug/L		U	0		1.0		
Bromomethane	0.49	ug/L		U	0		1.0		
Carbon disulfide	0.83	ug/L		U	0		2.0		
Carbon tetrachloride	0.37	ug/L		U	0		0.60		
Chlorobenzene	0.25	ug/L		U	0		0.60		
Chloroethane	1.0	ug/L		U	0		1.5		
Chloroform	0.30	ug/L		U	0		0.70		
Chloromethane	0.39	ug/L		U	0		1.0		
cis-1,2-Dichloroethene	0.41	ug/L		U	0		0.65		
cis-1,3-Dichloropropene	0.25	ug/L		U	0		0.55		
Cyclohexane	0.71	ug/L		U	0		1.1		
Dibromochloromethane	0.25	ug/L		U	0		0.55		
Dichlorodifluoromethane	0.63	ug/L		U	0		1.05		
Ethylbenzene	0.42	ug/L		U	0		0.65		
Isopropylbenzene	0.39	ug/L		U	0		0.60		
m & p-Xylene	0.74	ug/L		U	0		1.15		
Methyl acetate	0.34	ug/L		U	0		1.0		
Methyl tert-butyl ether	0.28	ug/L		U	0		0.55		
Methylcyclohexane	0.78	ug/L		U	0		1.2		

Method Blank Water

Analytical Run #:	296248	Analysis Date:	11/1/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1647233	Analysis Time:	08:28	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Methylene chloride	1.2	ug/L		U	0		2.05		
o-Xylene	0.50	ug/L		U	0		1.1		
Styrene	0.33	ug/L		U	0		0.55		
Tetrachloroethene	0.25	ug/L		U	0		1.0		
Toluene	0.27	ug/L		U	0		0.55		
trans-1,2-Dichloroethene	0.35	ug/L		U	0		0.55		
trans-1,3-Dichloropropene	0.56	ug/L		U	0		1.05		
Trichloroethene	0.25	ug/L		U	0		0.60		
Trichlorofluoromethane	0.41	ug/L		U	0		1.0		
Vinyl chloride	0.12	ug/L		U	0		0.25		

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	199294	Print Date / Time:	10/23/2025	10:34	
Client:	CAPE ENVIRONMENTAL MANAGEMENT	Received Date / Time / By:	10/23/2025	10:18	erc
Project Name:	RADFORD AAP SWMU 49	Log-In Date / Time / By:	10/23/2025	10:34	erc
Project Phase:	RADFORD, VA	Project #:	10409-0222	PM:	BMS
Coolers:	1-UNMARKED	Temperature:	3.4 C	On Ice:	**Y**
Custody Seals Present :	**Y**	COC Present:?	**Y**	Complete?	**Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED		
Ship Method:	FEDEX EXPRESS	Tracking Number:	885327582797		
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**		

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

ONE (1) CUSTODY SEAL WAS PRESENT AND INTACT ON THE COOLER UPON RECEIPT (DATED 10/22/2025 AND SIGNED).

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1643244	TB-2				
		VOA HCL	1	/	VOC
		VOA HCL	1	/	VOC
		Total # of Containers of Type	(***VOA HCL***) = **2**		
Sample ID /	**Description**	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1643245	48MW6				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	(***UNPRES PL***) = **1**		
1643245	48MW6				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) = **5**		
1643245	48MW6				
		H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type	(***H2SO4 PL***) = **1**		
Sample ID /	**Description**	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1643247	48MW6-EQB				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	(***UNPRES PL***) = **1**		

1643247	48MW6-EQB				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1643247	48MW6-EQB				
		H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1643248	49MW04				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1643248	49MW04				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1643248	49MW04				
		H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1643249	49TW04				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1643249	49TW04				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1643249	49TW04				
		H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1643250	13MW2				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		

1643250	13MW2					
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**5**		
1643250	13MW2					
		H2SO4 PL	1	Y	/	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1643251	49MW05				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) =**	**1**	
1643251	49MW05				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**5**	
1643251	49MW05				
		H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**	

Condition Code *Condition Description*

1 Sample Received OK

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: CAPE Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP
Project #: SWMU 48/49
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

(# 199294
Company: CAPE ENVIRONMENTAL MAN
RADFORD AAP SWMU 48 49
Logged By: etc PM: BMS

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____
PO #

Report To: Chemistry SVCS@Cape-inc.com
EMAIL: mfeits@cape-inc.com
Company: CAPE Environmental Mgt.
Address: 500 Pinnacle Ct. #100 Norcross, GA 30071
Invoice To:* same
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOC 8260C	TOC 9060A	Anions 9056A	MEE RSK-175										Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test															
10/22	0000	GW	G		TB-2	N	2							Trip Blank						2		164744
10/22	1135	GW	G		48MW6	N	3	1	1	2										7		45
10/22	1205	GW	G		48MW6-EQB	N	3	1	1	2										7		47
10/22	1303	GW	G		49MW04	N	3	1	1	2										7		48
10/22	1303	GW	G		49TW04	N	3	1	1	2										7		49
10/22	1405	GW	G		13MW2	N	3	1	1	2										7		50
10/22	1503	GW	G		49MW05	N	3	1	1	2										7		51

Relinquished By: _____ Date/Time 10/22/2025 1700
Received by: _____ Date/Time

Received By: FedEx Date/Time 10/22/2025 1700
Received for Laboratory by: _____ Date/Time 10/23/25 1018

Lab Use Only
Ice Present (Yes) No
Temp 3.7 IR Gun 77
Cooler # XXX

EC 10/23/25 1037

ORIGIN ID:LIYA (614) 716-8502
YOKO MIYAKAWA
CAPE ENVIRONMENTAL MANAGAMENT INC.
500 PINNACLE COURT
STE. 100
NORCROSS, GA 30071
UNITED STATES US

SHIP DATE: 22OCT25
ACTWGT: 45.00 LB
CAD: 100211060/INET4535

BILL SENDER

TO SAMPLE RECEIVING
CT LABS
1230 LANGE COURT

BARABOO WI 53913
(608) 356-2760
REF: 10409-0222-002-006
INV:
PO:
DEPT:

58HJ4/008C/59F2

J2540256924011uv

FedEx Express

THU - 23 OCT 10:30A
PRIORITY OVERNIGHT

TRK# 0201 8853 2758 2797

XS LNRA

53913
WI-US MSN

CUSTODY SEAL
DATE 10/22/2025
SIGNATURE

QEC
Quality Environmental Containers
800-255-3950 • www.qecusa.com

After printing this label:
CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH
1. Fold the printed page along the horizontal line.
2. Place label in shipping pouch and affix it to your shipment.

CUSTODY SEAL
DATE 10/22/2025
SIGNATURE

QEC
Quality Environmental Containers
800-255-3950 • www.qecusa.com

Use of this system constitutes ... agrees to the ... s fees, costs, and ... is limited to the greater of $100 or the authorized ... documented loss. Maximum for items of extraordinary value is $1,000, e.g. ... precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Ice Present Yes No
Temperature 3.9 15?
Seals 42
Date 10/22/25 Time 1018
Cooler # XXX

CT LABORATORIES
delivering more than data from your environmental analyses

1230 Lange Court • Baraboo, WI 53913 • 608-356-2760

www.ctlaboratories.com

ANALYTICAL SUMMARY REPORT

This report at a minimum contains the following information:

Analytical Report of Test Results
Description of QC Qualifiers
Chain of Custody (copy)
Quality Control Summary (if applicable)
Case Narrative (if applicable)
Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

ANALYTICAL SAMPLE DATA

CAPE ENVIRONMENTAL MANAGEMENT
MATT FEITS
500 PINNACLE COURT
SUITE 100
NORCROSS, GA 30071

Project Name: RADFORD AAP SWMU 49
Project Phase: RADFORD, VA
Project #: 10409-0222
Folder #: 199349
Purchase Order #: SC013781
Contract #: 3648

Arrival Temperature: 2.6
Report Date: 11/11/2025
Date Received: 10/24/2025
Reprint Date: 11/11/2025

Copy: chemistrysvcs@cape-inc.com

CT LAB#: 1643982 Sample Description: TB-3 Client Sample #: Sampled: 10/23/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			11/1/25 09:26	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			11/1/25 09:26	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			11/1/25 09:26	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 09:26	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			11/1/25 09:26	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 09:26	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			11/1/25 09:26	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			11/1/25 09:26	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643982 Sample Description: TB-3 Client Sample #: Sampled: 10/23/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			11/1/25 09:26	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			11/1/25 09:26	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			11/1/25 09:26	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			11/1/25 09:26	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			11/1/25 09:26	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			11/1/25 09:26	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			11/1/25 09:26	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643982 Sample Description: TB-3 Client Sample #: Sampled: 10/23/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			11/1/25 09:26	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			11/1/25 09:26	DGS	EPA 8260C
1,2 Dichloroethane-d4	100	% Recovery	81			118	1.00				11/1/25 09:26	DGS	EPA 8260C
Bromofluorobenzene	98.0	% Recovery	85			114	1.00				11/1/25 09:26	DGS	EPA 8260C
d8-Toluene	103	% Recovery	89			112	1.00				11/1/25 09:26	DGS	EPA 8260C
Dibromofluoromethane	103	% Recovery	80			119	1.00				11/1/25 09:26	DGS	EPA 8260C

CT LAB#: 1643985 Sample Description: 49MW03 Client Sample #: Sampled: 10/23/2025 10:11

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***6.4***	mg/L	1.0	1.5	3.0	3.0	1.00				10/24/25 13:29	TMG	EPA 9056A
Nitrate Nitrogen	***1.2***	mg/L	0.12	0.20	0.40	0.40	1.00				10/24/25 13:29	TMG	EPA 9056A
Sulfate	***4.0***	mg/L	0.80	1.5	3.0	3.0	1.00				10/24/25 13:29	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			10/27/25 18:10	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			11/1/25 12:48	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643985 Sample Description: 49MW03 Client Sample #: Sampled: 10/23/2025 10:11

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			11/1/25 12:48	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			11/1/25 12:48	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 12:48	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			11/1/25 12:48	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 12:48	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			11/1/25 12:48	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			11/1/25 12:48	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			11/1/25 12:48	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			11/1/25 12:48	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			11/1/25 12:48	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			11/1/25 12:48	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643985 Sample Description: 49MW03 Client Sample #: Sampled: 10/23/2025 10:11

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			11/1/25 12:48	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			11/1/25 12:48	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 12:48	DGS	EPA 8260C
Trichlorofluoromethane	***0.44***	ug/L	0.41	1.0	2.0	2.0	1.00	J			11/1/25 12:48	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			11/1/25 12:48	DGS	EPA 8260C
1,2 Dichloroethane-d4	99.0	% Recovery	81			118	1.00				11/1/25 12:48	DGS	EPA 8260C
Bromofluorobenzene	97.0	% Recovery	85			114	1.00				11/1/25 12:48	DGS	EPA 8260C
d8-Toluene	105	% Recovery	89			112	1.00				11/1/25 12:48	DGS	EPA 8260C
Dibromofluoromethane	102	% Recovery	80			119	1.00				11/1/25 12:48	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 11:05	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		10/28/25 10:23	10/28/25 11:05	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 11:05	SRW	RSK 175

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643985 Sample Description: 49MW03 Client Sample #: Sampled: 10/23/2025 10:11

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method

CT LAB#: 1643987 Sample Description: 49MW03-EQB Client Sample #: Sampled: 10/23/2025 10:35

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	<1.5	mg/L	1.0	1.5	3.0	3.0	1.00	U			10/24/25 13:50	TMG	EPA 9056A
Nitrate Nitrogen	<0.20	mg/L	0.12	0.20	0.40	0.40	1.00	U			10/24/25 13:50	TMG	EPA 9056A
Sulfate	<1.5	mg/L	0.80	1.5	3.0	3.0	1.00	U			10/24/25 13:50	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			10/27/25 18:28	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			11/1/25 13:17	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			11/1/25 13:17	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			11/1/25 13:17	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 13:17	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			11/1/25 13:17	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 13:17	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			11/1/25 13:17	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			11/1/25 13:17	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643987 Sample Description: 49MW03-EQB Client Sample #: Sampled: 10/23/2025 10:35

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			11/1/25 13:17	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			11/1/25 13:17	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			11/1/25 13:17	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			11/1/25 13:17	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			11/1/25 13:17	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			11/1/25 13:17	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			11/1/25 13:17	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643987 Sample Description: 49MW03-EQB Client Sample #: Sampled: 10/23/2025 10:35

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			11/1/25 13:17	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			11/1/25 13:17	DGS	EPA 8260C
1,2 Dichloroethane-d4	101	% Recovery	81			118	1.00				11/1/25 13:17	DGS	EPA 8260C
Bromofluorobenzene	95.0	% Recovery	85			114	1.00				11/1/25 13:17	DGS	EPA 8260C
d8-Toluene	104	% Recovery	89			112	1.00				11/1/25 13:17	DGS	EPA 8260C
Dibromofluoromethane	101	% Recovery	80			119	1.00				11/1/25 13:17	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 11:12	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		10/28/25 10:23	10/28/25 11:12	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 11:12	SRW	RSK 175

CT LAB#: 1643988 Sample Description: 48MW1 Client Sample #: Sampled: 10/23/2025 11:48

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***9.0***	mg/L	1.0	1.5	3.0	3.0	1.00				10/24/25 14:10	TMG	EPA 9056A
Nitrate Nitrogen	***2.2***	mg/L	0.12	0.20	0.40	0.40	1.00				10/24/25 14:10	TMG	EPA 9056A
Sulfate	***57***	mg/L	0.80	1.5	3.0	3.0	1.00				10/24/25 14:10	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			10/27/25 18:46	TMG	EPA 9060A
Organic Results													

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643988 Sample Description: 48MW1 Client Sample #: Sampled: 10/23/2025 11:48

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			11/1/25 13:46	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			11/1/25 13:46	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 13:46	DGS	EPA 8260C
1,1-Dichloroethane	***0.64***	ug/L	0.28	1.0	1.1	1.1	1.00	J			11/1/25 13:46	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			11/1/25 13:46	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			11/1/25 13:46	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 13:46	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			11/1/25 13:46	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 13:46	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 13:46	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			11/1/25 13:46	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 13:46	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			11/1/25 13:46	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 13:46	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			11/1/25 13:46	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			11/1/25 13:46	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			11/1/25 13:46	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			11/1/25 13:46	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			11/1/25 13:46	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 13:46	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643988 Sample Description: 48MW1 Client Sample #: Sampled: 10/23/2025 11:48

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			11/1/25 13:46	DGS	EPA 8260C
cis-1,2-Dichloroethene	***1.1***	ug/L	0.41	1.0	1.3	1.3	1.00	J			11/1/25 13:46	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			11/1/25 13:46	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			11/1/25 13:46	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Tetrachloroethene	***0.34***	ug/L	0.25	1.0	2.0	2.0	1.00	J			11/1/25 13:46	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 13:46	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 13:46	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Trichloroethene	***1.9***	ug/L	0.25	1.0	1.2	1.2	1.00				11/1/25 13:46	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			11/1/25 13:46	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			11/1/25 13:46	DGS	EPA 8260C
1,2 Dichloroethane-d4	97.0	% Recovery	81			118	1.00				11/1/25 13:46	DGS	EPA 8260C
Bromofluorobenzene	96.0	% Recovery	85			114	1.00				11/1/25 13:46	DGS	EPA 8260C
d8-Toluene	105	% Recovery	89			112	1.00				11/1/25 13:46	DGS	EPA 8260C
Dibromofluoromethane	101	% Recovery	80			119	1.00				11/1/25 13:46	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643988 Sample Description: 48MW1 Client Sample #: Sampled: 10/23/2025 11:48

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 11:16	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		10/28/25 10:23	10/28/25 11:16	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 11:16	SRW	RSK 175

CT LAB#: 1643989 Sample Description: 48TW1 Client Sample #: Sampled: 10/23/2025 11:48

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***8.8***	mg/L	1.0	1.5	3.0	3.0	1.00				10/24/25 14:31	TMG	EPA 9056A
Nitrate Nitrogen	***2.2***	mg/L	0.12	0.20	0.40	0.40	1.00				10/24/25 14:31	TMG	EPA 9056A
Sulfate	***59***	mg/L	0.80	1.5	3.0	3.0	1.00				10/24/25 14:31	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			10/27/25 19:01	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			11/1/25 14:14	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			11/1/25 14:14	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 14:14	DGS	EPA 8260C
1,1-Dichloroethane	***0.67***	ug/L	0.28	1.0	1.1	1.1	1.00	J			11/1/25 14:14	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			11/1/25 14:14	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			11/1/25 14:14	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 14:14	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			11/1/25 14:14	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 14:14	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 14:14	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			11/1/25 14:14	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 14:14	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643989 Sample Description: 48TW1 Client Sample #: Sampled: 10/23/2025 11:48

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			11/1/25 14:14	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 14:14	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			11/1/25 14:14	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			11/1/25 14:14	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			11/1/25 14:14	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			11/1/25 14:14	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			11/1/25 14:14	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			11/1/25 14:14	DGS	EPA 8260C
cis-1,2-Dichloroethene	***1.1***	ug/L	0.41	1.0	1.3	1.3	1.00	J			11/1/25 14:14	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			11/1/25 14:14	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			11/1/25 14:14	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643989 Sample Description: 48TW1 Client Sample #: Sampled: 10/23/2025 11:48

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			11/1/25 14:14	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 14:14	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 14:14	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Trichloroethene	***2.0***	ug/L	0.25	1.0	1.2	1.2	1.00				11/1/25 14:14	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			11/1/25 14:14	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			11/1/25 14:14	DGS	EPA 8260C
1,2 Dichloroethane-d4	100	% Recovery	81			118	1.00				11/1/25 14:14	DGS	EPA 8260C
Bromofluorobenzene	98.0	% Recovery	85			114	1.00				11/1/25 14:14	DGS	EPA 8260C
d8-Toluene	105	% Recovery	89			112	1.00				11/1/25 14:14	DGS	EPA 8260C
Dibromofluoromethane	102	% Recovery	80			119	1.00				11/1/25 14:14	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 11:20	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		10/28/25 10:23	10/28/25 11:20	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 11:20	SRW	RSK 175

CT LAB#: 1643990 Sample Description: 49MW01 Client Sample #: Sampled: 10/23/2025 14:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***5.7***	mg/L	1.0	1.5	3.0	3.0	1.00				10/24/25 14:51	TMG	EPA 9056A
Nitrate Nitrogen	***0.43***	mg/L	0.12	0.20	0.40	0.40	1.00				10/24/25 14:51	TMG	EPA 9056A

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643990 Sample Description: 49MW01 Client Sample #: Sampled: 10/23/2025 14:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Sulfate	***1.8***	mg/L	0.80	1.5	3.0	3.0	1.00	J			10/24/25 14:51	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			10/27/25 19:21	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			11/1/25 14:44	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			11/1/25 14:44	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			11/1/25 14:44	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 14:44	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			11/1/25 14:44	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 14:44	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			11/1/25 14:44	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			11/1/25 14:44	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			11/1/25 14:44	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			11/1/25 14:44	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 14:44	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643990 Sample Description: 49MW01 Client Sample #: Sampled: 10/23/2025 14:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			11/1/25 14:44	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Carbon tetrachloride	***2.4***	ug/L	0.37	1.0	1.2	1.2	1.00				11/1/25 14:44	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Chloroform	***0.34***	ug/L	0.30	1.0	1.4	1.4	1.00	J			11/1/25 14:44	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			11/1/25 14:44	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			11/1/25 14:44	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			11/1/25 14:44	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			11/1/25 14:44	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			11/1/25 14:44	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643990 Sample Description: 49MW01 Client Sample #: Sampled: 10/23/2025 14:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,2 Dichloroethane-d4	99.0	% Recovery	81			118	1.00				11/1/25 14:44	DGS	EPA 8260C
Bromofluorobenzene	97.0	% Recovery	85			114	1.00				11/1/25 14:44	DGS	EPA 8260C
d8-Toluene	104	% Recovery	89			112	1.00				11/1/25 14:44	DGS	EPA 8260C
Dibromofluoromethane	103	% Recovery	80			119	1.00				11/1/25 14:44	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 11:23	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		10/28/25 10:23	10/28/25 11:23	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 11:23	SRW	RSK 175

CT LAB#: 1643991 Sample Description: 50MW2 Client Sample #: Sampled: 10/23/2025 15:15

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***8.2***	mg/L	1.0	1.5	3.0	3.0	1.00				10/24/25 16:54	TMG	EPA 9056A
Nitrate Nitrogen	***2.2***	mg/L	0.12	0.20	0.40	0.40	1.00				10/24/25 16:54	TMG	EPA 9056A
Sulfate	***72***	mg/L	4.0	7.5	15	15	5.00				10/24/25 17:15	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			10/27/25 19:38	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			11/1/25 15:12	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			11/1/25 15:12	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			11/1/25 15:12	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 15:12	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			11/1/25 15:12	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643991 Sample Description: 50MW2 Client Sample #: Sampled: 10/23/2025 15:15

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 15:12	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U			11/1/25 15:12	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			11/1/25 15:12	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			11/1/25 15:12	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			11/1/25 15:12	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			11/1/25 15:12	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Carbon tetrachloride	***0.84***	ug/L	0.37	1.0	1.2	1.2	1.00	J			11/1/25 15:12	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			11/1/25 15:12	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			11/1/25 15:12	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1643991 Sample Description: 50MW2 Client Sample #: Sampled: 10/23/2025 15:15

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			11/1/25 15:12	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Trichloroethene	***0.96***	ug/L	0.25	1.0	1.2	1.2	1.00	J			11/1/25 15:12	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			11/1/25 15:12	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			11/1/25 15:12	DGS	EPA 8260C
1,2 Dichloroethane-d4	105	% Recovery	81			118	1.00				11/1/25 15:12	DGS	EPA 8260C
Bromofluorobenzene	97.0	% Recovery	85			114	1.00				11/1/25 15:12	DGS	EPA 8260C
d8-Toluene	104	% Recovery	89			112	1.00				11/1/25 15:12	DGS	EPA 8260C
Dibromofluoromethane	104	% Recovery	80			119	1.00				11/1/25 15:12	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 11:26	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		10/28/25 10:23	10/28/25 11:26	SRW	RSK 175
Methane	***1.7***	ug/L	0.45	0.90	1.0	1.0	1.00			10/28/25 10:23	10/28/25 11:26	SRW	RSK 175

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes:

^ Indicates the laboratory is NELAP accredited for this analyte by the indicated matrix and method . DL (detection limit), LOD (limit of detection), loq (limit of quantitation) as defined by most recent DOD QSM version.

All samples were received intact and properly preserved unless otherwise noted . The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for the parameters where accreditation is required or available, unless noted in the case narrative.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

QC Qualifiers

Code	Description
A	Result cannot be used for compliance due to QC issue
B	Analyte detected in the associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
I	Incubator temperature was outside acceptance limits during test period.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was below detection limit.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Specified calibration criteria was not met.

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 289
Louisiana NELAP (primary) ID# 115843
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Florida NELAP Lab ID# E871111

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PJLA Testing Accreditation # 78929

ISO/IEC 17025-2017 Accredited -
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QC Summary Report

CAPE ENVIRONMENTAL MANAGEMENT **Project Name: RADFORD AAP SWMU 49**

SDG #: 0 **Folder #: 199349** **Project #: 10409-0222**

Duplicate

Analytical Run #:	296213	Analysis Date:	10/24/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1644445	Analysis Time:	18:57	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1643985	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	6.12	mg/L	6.4				3.0	4	10
Nitrate Nitrogen	1.19	mg/L	1.2				0.40	1	10
Sulfate	3.95	mg/L	4.0				3.0	1	10

Lab Control Spike Water

Analytical Run #:	296213	Analysis Date:	10/24/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1644448	Analysis Time:	19:58	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Chloride	15.25	mg/L			15.00	102	87	---	111		
Nitrate Nitrogen	3.773	mg/L			3.500	108	88	---	111		
Sulfate	25.98	mg/L			25.00	104	87	---	112		

Method Blank Water

Analytical Run #:	296213	Analysis Date:	10/24/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1644449	Analysis Time:	20:20	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	1.0	mg/L		U	0		1.5		
Nitrate Nitrogen	0.12	mg/L		U	0		0.20		
Sulfate	0.8	mg/L		U	0		1.5		

Matrix Spike Duplicate Water

Analytical Run #:	296213	Analysis Date:	10/24/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1644450	Analysis Time:	20:40	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1644446	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Chloride	13.8	mg/L	6.4		8.00	92	87	---	111	3	15
Nitrate Nitrogen	3.34	mg/L	1.2		2.00	107	88	---	111	5	15
Sulfate	11.5	mg/L	4.0		8.00	94	87	---	112	3	15

Matrix Spike Water

Analytical Run #:	296213	Analysis Date:	10/24/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1644446	Analysis Time:	19:17	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1643985	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Chloride	13.4	mg/L	6.4		8.00	88	87	---	111		15
Nitrate Nitrogen	3.18	mg/L	1.2		2.00	99	88	---	111		15
Sulfate	11.1	mg/L	4.0		8.00	89	87	---	112		15

Lab Control Spike Water

Analytical Run #:	296245	Analysis Date:	10/27/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1645028	Analysis Time:	14:50	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	50.13	mg/L			50.0	100	85 --- 111		20

Method Blank Water

Analytical Run #:	296245	Analysis Date:	10/27/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1645029	Analysis Time:	15:05	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.40	mg/L		U	0		1.5		

Lab Control Spike Water

Analytical Run #:	296248	Analysis Date:	11/1/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1647116	Analysis Time:	07:30	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
1,1,1-Trichloroethane	11.2	ug/L			10.0	112	74	---	131		20
1,1,2,2-Tetrachloroethane	9.07	ug/L			10.0	91	71	---	121		20
1,1,2-Trichloroethane	10.5	ug/L			10.0	105	80	---	119		20
1,1-Dichloroethane	10.9	ug/L			10.0	109	77	---	125		20
1,1-Dichloroethene	11.9	ug/L			10.0	119	71	---	131		20
1,2,3-Trichlorobenzene	9.27	ug/L			10.0	93	69	---	129		20
1,2,4-Trichlorobenzene	9.45	ug/L			10.0	94	69	---	130		20
1,2-Dibromo-3-chloropropane	7.87	ug/L			10.0	79	62	---	128		20
1,2-Dibromoethane	9.36	ug/L			10.0	94	77	---	121		20
1,2-Dichlorobenzene	9.75	ug/L			10.0	98	80	---	119		20
1,2-Dichloroethane	10.3	ug/L			10.0	103	73	---	128		20
1,2-Dichloropropane	10.4	ug/L			10.0	104	78	---	122		20
1,3-Dichlorobenzene	10.1	ug/L			10.0	101	80	---	119		20
1,4-Dichlorobenzene	9.85	ug/L			10.0	98	79	---	118		20
1,4-Dioxane	597	ug/L			500	119	59	---	139		20
112Trichloro122trifluoroethane	22.4	ug/L			20.0	112	70	---	136		20
2-Butanone	111	ug/L			100	111	56	---	143		20
2-Hexanone	101	ug/L			100	101	57	---	139		20
4-Methyl-2-pentanone	107	ug/L			100	107	67	---	130		20
Acetone	118	ug/L			100	118	39	---	160		20
Benzene	11.3	ug/L			10.0	113	79	---	120		20
Bromochloromethane	10.8	ug/L			10.0	108	78	---	123		20
Bromodichloromethane	10.5	ug/L			10.0	105	79	---	125		20
Bromoform	9.31	ug/L			10.0	93	66	---	130		20
Bromomethane	18.4	ug/L			10.0	184	53	---	141		20
Carbon disulfide	23.6	ug/L			20.0	118	64	---	133		20
Carbon tetrachloride	9.82	ug/L			10.0	98	72	---	136		20
Chlorobenzene	10.1	ug/L			10.0	101	82	---	118		20
Chloroethane	9.83	ug/L			10.0	98	60	---	138		20
Chloroform	10.9	ug/L			10.0	109	79	---	124		20
Chloromethane	10.6	ug/L			10.0	106	50	---	139		20
cis-1,2-Dichloroethene	10.7	ug/L			10.0	107	78	---	123		20
cis-1,3-Dichloropropene	10.8	ug/L			10.0	108	75	---	124		20
Cyclohexane	10.9	ug/L			10.0	109	71	---	130		20
Dibromochloromethane	9.45	ug/L			10.0	94	74	---	126		20
Dichlorodifluoromethane	10.3	ug/L			10.0	103	32	---	152		20
Ethylbenzene	10.8	ug/L			10.0	108	79	---	121		20
Isopropylbenzene	10.0	ug/L			10.0	100	72	---	131		20
m & p-Xylene	21.2	ug/L			20.0	106	80	---	121		20
Methyl acetate	9.09	ug/L			10.0	91	56	---	136		20
Methyl tert-butyl ether	10.5	ug/L			10.0	105	71	---	124		20
Methylcyclohexane	11.3	ug/L			10.0	113	72	---	132		20

Lab Control Spike Water

Analytical Run #:	296248	Analysis Date:	11/1/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1647116	Analysis Time:	07:30	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Methylene chloride	8.90	ug/L			10.0	89	74 --- 124		20
o-Xylene	10.4	ug/L			10.0	104	78 --- 122		20
Styrene	9.89	ug/L			10.0	99	78 --- 123		20
Tetrachloroethene	11.8	ug/L			10.0	118	74 --- 129		20
Toluene	11.2	ug/L			10.0	112	80 --- 121		20
trans-1,2-Dichloroethene	11.4	ug/L			10.0	114	75 --- 124		20
trans-1,3-Dichloropropene	10.2	ug/L			10.0	102	73 --- 127		20
Trichloroethene	11.0	ug/L			10.0	110	79 --- 123		20
Trichlorofluoromethane	11.2	ug/L			10.0	112	65 --- 141		20
Vinyl chloride	12.0	ug/L			10.0	120	58 --- 137		20

Method Blank Water

Analytical Run #:	296248	Analysis Date:	11/1/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1647233	Analysis Time:	08:28	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.38	ug/L		U	0		0.60		
1,1,2,2-Tetrachloroethane	0.36	ug/L		U	0		0.55		
1,1,2-Trichloroethane	0.27	ug/L		U	0		0.55		
1,1-Dichloroethane	0.28	ug/L		U	0		0.55		
1,1-Dichloroethene	0.49	ug/L		U	0		1.0		
1,2,3-Trichlorobenzene	0.43	ug/L		U	0		1.0		
1,2,4-Trichlorobenzene	0.50	ug/L		U	0		1.0		
1,2-Dibromo-3-chloropropane	0.50	ug/L		U	0		1.0		
1,2-Dibromoethane	0.33	ug/L		U	0		0.55		
1,2-Dichlorobenzene	0.35	ug/L		U	0		0.55		
1,2-Dichloroethane	0.69	ug/L		U	0		1.05		
1,2-Dichloropropane	0.25	ug/L		U	0		0.60		
1,3-Dichlorobenzene	0.30	ug/L		U	0		0.55		
1,4-Dichlorobenzene	0.33	ug/L		U	0		0.55		
1,4-Dioxane	34	ug/L		U	0		50		
112Trichloro122trifluoroethane	1.5	ug/L		U	0		2.25		
2-Butanone	2.9	ug/L		U	0		5.5		
2-Hexanone	3.3	ug/L		U	0		5.5		
4-Methyl-2-pentanone	3.7	ug/L		U	0		6.0		
Acetone	4.1	ug/L		U	0		10		
Benzene	0.40	ug/L		U	0		1.0		
Bromochloromethane	0.26	ug/L		U	0		0.55		
Bromodichloromethane	0.080	ug/L		U	0		0.25		
Bromoform	0.50	ug/L		U	0		1.0		
Bromomethane	0.49	ug/L		U	0		1.0		
Carbon disulfide	0.83	ug/L		U	0		2.0		
Carbon tetrachloride	0.37	ug/L		U	0		0.60		
Chlorobenzene	0.25	ug/L		U	0		0.60		
Chloroethane	1.0	ug/L		U	0		1.5		
Chloroform	0.30	ug/L		U	0		0.70		
Chloromethane	0.39	ug/L		U	0		1.0		
cis-1,2-Dichloroethene	0.41	ug/L		U	0		0.65		
cis-1,3-Dichloropropene	0.25	ug/L		U	0		0.55		
Cyclohexane	0.71	ug/L		U	0		1.1		
Dibromochloromethane	0.25	ug/L		U	0		0.55		
Dichlorodifluoromethane	0.63	ug/L		U	0		1.05		
Ethylbenzene	0.42	ug/L		U	0		0.65		
Isopropylbenzene	0.39	ug/L		U	0		0.60		
m & p-Xylene	0.74	ug/L		U	0		1.15		
Methyl acetate	0.34	ug/L		U	0		1.0		
Methyl tert-butyl ether	0.28	ug/L		U	0		0.55		
Methylcyclohexane	0.78	ug/L		U	0		1.2		

Method Blank Water

Analytical Run #:	296248	Analysis Date:	11/1/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1647233	Analysis Time:	08:28	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Methylene chloride	1.2	ug/L		U	0		2.05		
o-Xylene	0.50	ug/L		U	0		1.1		
Styrene	0.33	ug/L		U	0		0.55		
Tetrachloroethene	0.25	ug/L		U	0		1.0		
Toluene	0.27	ug/L		U	0		0.55		
trans-1,2-Dichloroethene	0.35	ug/L		U	0		0.55		
trans-1,3-Dichloropropene	0.56	ug/L		U	0		1.05		
Trichloroethene	0.25	ug/L		U	0		0.60		
Trichlorofluoromethane	0.41	ug/L		U	0		1.0		
Vinyl chloride	0.12	ug/L		U	0		0.25		

Duplicate

Analytical Run #:	296308	Analysis Date:	10/28/2025	Prep Batch #:	140782	Matrix:	GROUND WATER
CTLab #:	1645295	Analysis Time:	11:09	Prep Date/Time:	10/28/2025 10:23	Method:	RSK175
Parent Sample #:	1643985	Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	0.38	ug/L	<DL	U			1.0	0	20
Ethene	0.59	ug/L	<DL	U			1.4	0	20
Methane	0.45	ug/L	<DL	U			1.0	0	20

Lab Control Spike Water

Analytical Run #:	296308	Analysis Date:	10/28/2025	Prep Batch #:	140782	Matrix:	LIQUID
CTLab #:	1645153	Analysis Time:	10:51	Prep Date/Time:	10/28/2025 10:23	Method:	RSK175
Parent Sample #:		Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	4.04	ug/L			4.79	84	74 --- 131		20
Ethene	5.77	ug/L			6.80	85	72 --- 133		20
Methane	1.90	ug/L			2.30	83	73 --- 125		20

Method Blank Water

Analytical Run #:	296308	Analysis Date:	10/28/2025	Prep Batch #:	140782	Matrix:	LIQUID
CTLab #:	1645152	Analysis Time:	10:56	Prep Date/Time:	10/28/2025 10:23	Method:	RSK175
Parent Sample #:		Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	0.38	ug/L		U	0		0.5		
Ethene	0.59	ug/L		U	0		0.7		
Methane	0.45	ug/L		U	0		0.5		

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	199349	Print Date / Time:	10/24/2025	10:28	
Client:	CAPE ENVIRONMENTAL MANAGEMENT	Received Date / Time / By:	10/24/2025	10:08	BPC
Project Name:	RADFORD AAP SWMU 49	Log-In Date / Time / By:	10/24/2025	10:36	BPC
Project Phase:	RADFORD, VA	Project #:	10409-0222	PM:	BMS
Coolers:	1-UNMARKED	Temperature:	2.6 C	On Ice:	**Y**
Custody Seals Present :	**Y**	COC Present:?	**Y**	Complete?	**Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED		
Ship Method:	FEDEX EXPRESS	Tracking Number:	885327840538		
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**		

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

TWO (2) CUSTODY SEALS WERE PRESENT AND INTACT ON THE COOLER UPON RECEIPT (DATED 10/23/25 AND SIGNED).

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1643982 TB-3				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type	(***VOA HCL***) = **2**		
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1643985 49MW03				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type	(***UNPRES PL***) = **1**		
1643985 49MW03				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type	(***VOA HCL***) = **5**		
1643985 49MW03				
	H2SO4 PL	1	Y /	TOC
	Total # of Containers of Type	(***H2SO4 PL***) = **1**		
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1643987 49MW03-EQB				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type	(***UNPRES PL***) = **1**		

1643987	49MW03-EQB				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1643987	49MW03-EQB				
		H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1643988	48MW1				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1643988	48MW1				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1643988	48MW1				
		H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1643989	48TW1				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1643989	48TW1				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1643989	48TW1				
		H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1643990	49MW01				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		

1643990	49MW01					
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) =	**5**		
1643990	49MW01					
		H2SO4 PL	1	Y	/	TOC
		Total # of Containers of Type	(***H2SO4 PL***) =	**1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1643991	50MW2				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	(***UNPRES PL***) =	**1**	
1643991	50MW2				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) =	**5**	
1643991	50MW2				
		H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type	(***H2SO4 PL***) =	**1**	

Condition Code *Condition Description*

1 Sample Received OK

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: CAPE Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP
Project #: SWMU 48/49
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder # 199349
Company: CAPE ENVIRONMENTAL MAT
Project: RADFORD AAP SWMU 4849
Logged By: BPC PM: BMS

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____
PO #

Report To: Chemistry SVCS @ capeinc.com
EMAIL: mfeits@cape-inc.com
Company:
Address: CAPE Environmental Mgmt. 500 Pinnacle Ct. #100 Norcross, GA 30071
Invoice To:* Same
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOC 8260C	MEE RSK-175	TOC 9060A	Anions 9056A												Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
						Fill in Spaces with Bottles per Test																		
10/23	0800	GW	G		TB-3	N	2												Trip Blanks			2		1643982
10/23	1011	GW	G		49MW03	N	3	2	1	1												7		1643985
10/23	1035	GW	G		49MW03-EQB	N	3	2	1	1												7		1643987
10/23	1148	GW	G		48MW1	N	3	2	1	1												7		1643988
10/23	1148	GW	G		48TW1	N	3	2	1	1												7		1643989
10/23	1400	GW	G		49MW01	N	3	2	1	1												7		1643990
10/23	1515	GW	G		50MW2	N	3	2	1	1												7		1643991

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Relinquished By:	Date/Time	Received By:	Date/Time
	10/23/2025 1800	FedEx	10/23/2025 1800
Received by:	Date/Time	Received for Laboratory by: BPC	Date/Time 10/24/25 10:36

Lab Use Only
Ice Present (Yes) No
Temp 2.6 IR Gun 34
Cooler # XXXX

ORIGIN ID:LIYA (614) 716-8502
YOKO MIYAKAWA
CAPE ENVIRONMENTAL MANAGAMENT INC.
500 PINNACLE COURT
STE. 100
NORCROSS, GA 30071
UNITED STATES US

SHIP DATE: 23OCT25
ACTWGT: 45.00 LB
CAD: 100211060/INET-

BILL SENDER

TO **SAMPLE RECEIVING**
CT LABS
1230 LANGE COURT

BARABOO WI 53913
(608) 356-2760
INV:
PO:
REF: 10409-0222-002-006
DEPT:

58HJ4/008C/59F2

J254025092401uv

FedEx Express

TRK# 0201 **8853 2784 0538**

FRI - 24 OCT 10:30A
PRIORITY OVERNIGHT

XS LNRA

53913
WI-US MSN

CUSTODY SEAL
DATE 10/23/2025
SIGNATURE

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Ice Present (Yes) No
Temperature 2.6
Initials BPC
Date 10/24/25 Time 1008
Air Bill # XXXX

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ANALYTICAL SUMMARY REPORT

This report at a minimum contains the following information:

Analytical Report of Test Results
Description of QC Qualifiers
Chain of Custody (copy)
Quality Control Summary (if applicable)
Case Narrative (if applicable)
Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

ANALYTICAL SAMPLE DATA

CAPE ENVIRONMENTAL MANAGEMENT
MATT FEITS
500 PINNACLE COURT
SUITE 100
NORCROSS, GA 30071

Project Name: RADFORD AAP SWMU 49
Project Phase: RADFORD, VA
Project #: 10409-0222
Folder #: 199367
Purchase Order #: SC013781
Contract #: 3648

Arrival Temperature: 3
Report Date: 11/11/2025
Date Received: 10/25/2025
Reprint Date: 11/11/2025

Copy: chemistrysvcs@cape-inc.com

CT LAB#: 1644155 Sample Description: TB-4 Client Sample #: Sampled: 10/24/2025

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			10/31/25 12:11	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			10/31/25 12:11	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			10/31/25 12:11	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 12:11	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			10/31/25 12:11	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 12:11	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U Z			10/31/25 12:11	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			10/31/25 12:11	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1644155 Sample Description: TB-4 Client Sample #: Sampled: 10/24/2025

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			10/31/25 12:11	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			10/31/25 12:11	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			10/31/25 12:11	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			10/31/25 12:11	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			10/31/25 12:11	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			10/31/25 12:11	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			10/31/25 12:11	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1644155 Sample Description: TB-4 Client Sample #: Sampled: 10/24/2025

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			10/31/25 12:11	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			10/31/25 12:11	DGS	EPA 8260C
1,2 Dichloroethane-d4	98.0	% Recovery	81			118	1.00				10/31/25 12:11	DGS	EPA 8260C
Bromofluorobenzene	97.0	% Recovery	85			114	1.00				10/31/25 12:11	DGS	EPA 8260C
d8-Toluene	102	% Recovery	89			112	1.00				10/31/25 12:11	DGS	EPA 8260C
Dibromofluoromethane	99.0	% Recovery	80			119	1.00				10/31/25 12:11	DGS	EPA 8260C

CT LAB#: 1644156 Sample Description: 48MW2 Client Sample #: Sampled: 10/24/2025 09:29

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***2.5***	mg/L	1.0	1.5	3.0	3.0	1.00	J			10/25/25 23:23	TMG	EPA 9056A
Nitrate Nitrogen	***0.86***	mg/L	0.12	0.20	0.40	0.40	1.00				10/25/25 23:23	TMG	EPA 9056A
Sulfate	***4.5***	mg/L	0.80	1.5	3.0	3.0	1.00				10/25/25 23:23	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			10/27/25 19:53	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			10/31/25 15:36	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1644156 Sample Description: 48MW2 Client Sample #: Sampled: 10/24/2025 09:29

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			10/31/25 15:36	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			10/31/25 15:36	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 15:36	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			10/31/25 15:36	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 15:36	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U Z			10/31/25 15:36	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			10/31/25 15:36	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			10/31/25 15:36	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			10/31/25 15:36	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			10/31/25 15:36	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Carbon tetrachloride	***46***	ug/L	0.37	1.0	1.2	1.2	1.00				10/31/25 15:36	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Chloroform	***5.8***	ug/L	0.30	1.0	1.4	1.4	1.00				10/31/25 15:36	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			10/31/25 15:36	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1644156 Sample Description: 48MW2 Client Sample #: Sampled: 10/24/2025 09:29

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			10/31/25 15:36	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			10/31/25 15:36	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Trichloroethene	***6.1***	ug/L	0.25	1.0	1.2	1.2	1.00				10/31/25 15:36	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			10/31/25 15:36	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			10/31/25 15:36	DGS	EPA 8260C
1,2 Dichloroethane-d4	100	% Recovery	81			118	1.00				10/31/25 15:36	DGS	EPA 8260C
Bromofluorobenzene	99.0	% Recovery	85			114	1.00				10/31/25 15:36	DGS	EPA 8260C
d8-Toluene	103	% Recovery	89			112	1.00				10/31/25 15:36	DGS	EPA 8260C
Dibromofluoromethane	101	% Recovery	80			119	1.00				10/31/25 15:36	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 11:36	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		10/28/25 10:23	10/28/25 11:36	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 11:36	SRW	RSK 175

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1644156 Sample Description: 48MW2 Client Sample #: Sampled: 10/24/2025 09:29

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method

CT LAB#: 1644157 Sample Description: 48MW2-EQB Client Sample #: Sampled: 10/24/2025 09:57

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	<1.5	mg/L	1.0	1.5	3.0	3.0	1.00	U			10/25/25 23:43	TMG	EPA 9056A
Nitrate Nitrogen	<0.20	mg/L	0.12	0.20	0.40	0.40	1.00	U			10/25/25 23:43	TMG	EPA 9056A
Sulfate	<1.5	mg/L	0.80	1.5	3.0	3.0	1.00	U			10/25/25 23:43	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			10/27/25 20:10	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			10/31/25 16:05	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			10/31/25 16:05	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			10/31/25 16:05	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 16:05	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			10/31/25 16:05	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 16:05	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U Z			10/31/25 16:05	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			10/31/25 16:05	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1644157 Sample Description: 48MW2-EQB Client Sample #: Sampled: 10/24/2025 09:57

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			10/31/25 16:05	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			10/31/25 16:05	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			10/31/25 16:05	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			10/31/25 16:05	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			10/31/25 16:05	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			10/31/25 16:05	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			10/31/25 16:05	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1644157 Sample Description: 48MW2-EQB Client Sample #: Sampled: 10/24/2025 09:57

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			10/31/25 16:05	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			10/31/25 16:05	DGS	EPA 8260C
1,2 Dichloroethane-d4	101	% Recovery	81			118	1.00				10/31/25 16:05	DGS	EPA 8260C
Bromofluorobenzene	96.0	% Recovery	85			114	1.00				10/31/25 16:05	DGS	EPA 8260C
d8-Toluene	103	% Recovery	89			112	1.00				10/31/25 16:05	DGS	EPA 8260C
Dibromofluoromethane	101	% Recovery	80			119	1.00				10/31/25 16:05	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 11:39	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		10/28/25 10:23	10/28/25 11:39	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 11:39	SRW	RSK 175

CT LAB#: 1644158 Sample Description: 48MW3 Client Sample #: Sampled: 10/24/2025 10:50

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***3.1***	mg/L	1.0	1.5	3.0	3.0	1.00				10/26/25 00:04	TMG	EPA 9056A
Nitrate Nitrogen	***6.5***	mg/L	0.12	0.20	0.40	0.40	1.00				10/26/25 00:04	TMG	EPA 9056A
Sulfate	***28***	mg/L	0.80	1.5	3.0	3.0	1.00				10/26/25 00:04	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			10/27/25 20:28	TMG	EPA 9060A
Organic Results													

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1644158 Sample Description: 48MW3 Client Sample #: Sampled: 10/24/2025 10:50

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			10/31/25 16:34	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			10/31/25 16:34	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			10/31/25 16:34	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 16:34	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			10/31/25 16:34	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 16:34	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U Z			10/31/25 16:34	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			10/31/25 16:34	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			10/31/25 16:34	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			10/31/25 16:34	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q,M			10/31/25 16:34	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Carbon tetrachloride	***72***	ug/L	0.37	1.0	1.2	1.2	1.00	M			10/31/25 16:34	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 16:34	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1644158 Sample Description: 48MW3 Client Sample #: Sampled: 10/24/2025 10:50

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Chloroform	***12***	ug/L	0.30	1.0	1.4	1.4	1.00				10/31/25 16:34	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			10/31/25 16:34	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			10/31/25 16:34	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			10/31/25 16:34	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Trichloroethene	***15***	ug/L	0.25	1.0	1.2	1.2	1.00				10/31/25 16:34	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			10/31/25 16:34	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			10/31/25 16:34	DGS	EPA 8260C
1,2 Dichloroethane-d4	102	% Recovery	81			118	1.00				10/31/25 16:34	DGS	EPA 8260C
Bromofluorobenzene	97.0	% Recovery	85			114	1.00				10/31/25 16:34	DGS	EPA 8260C
d8-Toluene	103	% Recovery	89			112	1.00				10/31/25 16:34	DGS	EPA 8260C
Dibromofluoromethane	103	% Recovery	80			119	1.00				10/31/25 16:34	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1644158 Sample Description: 48MW3 Client Sample #: Sampled: 10/24/2025 10:50

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 11:43	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		10/28/25 10:23	10/28/25 11:43	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 11:43	SRW	RSK 175

CT LAB#: 1644159 Sample Description: 49MW02 Client Sample #: Sampled: 10/24/2025 12:52

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***2.5***	mg/L	1.0	1.5	3.0	3.0	1.00	J			10/26/25 00:24	TMG	EPA 9056A
Nitrate Nitrogen	***0.30***	mg/L	0.12	0.20	0.40	0.40	1.00	J			10/26/25 00:24	TMG	EPA 9056A
Sulfate	***16***	mg/L	0.80	1.5	3.0	3.0	1.00				10/26/25 00:24	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			10/27/25 21:55	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			10/31/25 17:03	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			10/31/25 17:03	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			10/31/25 17:03	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 17:03	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			10/31/25 17:03	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 17:03	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1644159 Sample Description: 49MW02 Client Sample #: Sampled: 10/24/2025 12:52

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U Z			10/31/25 17:03	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			10/31/25 17:03	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			10/31/25 17:03	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			10/31/25 17:03	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			10/31/25 17:03	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			10/31/25 17:03	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			10/31/25 17:03	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			10/31/25 17:03	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			10/31/25 17:03	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1644159 Sample Description: 49MW02 Client Sample #: Sampled: 10/24/2025 12:52

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			10/31/25 17:03	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			10/31/25 17:03	DGS	EPA 8260C
1,2 Dichloroethane-d4	105	% Recovery	81			118	1.00				10/31/25 17:03	DGS	EPA 8260C
Bromofluorobenzene	97.0	% Recovery	85			114	1.00				10/31/25 17:03	DGS	EPA 8260C
d8-Toluene	104	% Recovery	89			112	1.00				10/31/25 17:03	DGS	EPA 8260C
Dibromofluoromethane	101	% Recovery	80			119	1.00				10/31/25 17:03	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 12:04	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		10/28/25 10:23	10/28/25 12:04	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 12:04	SRW	RSK 175

CT LAB#: 1644160 Sample Description: 48MW7 Client Sample #: Sampled: 10/24/2025 14:10

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***1.7***	mg/L	1.0	1.5	3.0	3.0	1.00	J			10/26/25 00:45	TMG	EPA 9056A
Nitrate Nitrogen	***1.0***	mg/L	0.12	0.20	0.40	0.40	1.00				10/26/25 00:45	TMG	EPA 9056A

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1644160 Sample Description: 48MW7 Client Sample #: Sampled: 10/24/2025 14:10

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Sulfate	***3.0***	mg/L	0.80	1.5	3.0	3.0	1.00				10/26/25 00:45	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U			10/27/25 22:14	TMG	EPA 9060A
Organic Results													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			10/31/25 17:32	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			10/31/25 17:32	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			10/31/25 17:32	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 17:32	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			10/31/25 17:32	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 17:32	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U Z			10/31/25 17:32	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			10/31/25 17:32	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			10/31/25 17:32	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			10/31/25 17:32	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 17:32	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1644160 Sample Description: 48MW7 Client Sample #: Sampled: 10/24/2025 14:10

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			10/31/25 17:32	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			10/31/25 17:32	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			10/31/25 17:32	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			10/31/25 17:32	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			10/31/25 17:32	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			10/31/25 17:32	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1644160 Sample Description: 48MW7 Client Sample #: Sampled: 10/24/2025 14:10

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,2 Dichloroethane-d4	102	% Recovery	81			118	1.00				10/31/25 17:32	DGS	EPA 8260C
Bromofluorobenzene	97.0	% Recovery	85			114	1.00				10/31/25 17:32	DGS	EPA 8260C
d8-Toluene	103	% Recovery	89			112	1.00				10/31/25 17:32	DGS	EPA 8260C
Dibromofluoromethane	102	% Recovery	80			119	1.00				10/31/25 17:32	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 12:08	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U		10/28/25 10:23	10/28/25 12:08	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U		10/28/25 10:23	10/28/25 12:08	SRW	RSK 175

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes:

^ Indicates the laboratory is NELAP accredited for this analyte by the indicated matrix and method . DL (detection limit), LOD (limit of detection), loq (limit of quantitation) as defined by most recent DOD QSM version.

All samples were received intact and properly preserved unless otherwise noted . The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for the parameters where accreditation is required or available, unless noted in the case narrative.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

QC Qualifiers

Code	Description
A	Result cannot be used for compliance due to QC issue
B	Analyte detected in the associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
I	Incubator temperature was outside acceptance limits during test period.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was below detection limit.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Specified calibration criteria was not met.

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 289
Louisiana NELAP (primary) ID# 115843
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Florida NELAP Lab ID# E871111

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PJLA Testing Accreditation # 78929

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QC Summary Report

CAPE ENVIRONMENTAL MANAGEMENT **Project Name: RADFORD AAP SWMU 49**

SDG #: 0 **Folder #: 199367** **Project #: 10409-0222**

Duplicate

Analytical Run #:	296225	Analysis Date:	10/26/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1644191	Analysis Time:	01:05	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1644158	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	3.01	mg/L	3.1				3.0	3	10
Nitrate Nitrogen	5.91	mg/L	6.5				0.40	10	10
Sulfate	26.9	mg/L	28				3.0	4	10

Lab Control Spike Water

Analytical Run #:	296225	Analysis Date:	10/25/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1644189	Analysis Time:	22:21	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Chloride	14.89	mg/L			15.00	99	87	---	111		
Nitrate Nitrogen	3.735	mg/L			3.500	107	88	---	111		
Sulfate	24.97	mg/L			25.00	100	87	---	112		

Method Blank Water

Analytical Run #:	296225	Analysis Date:	10/25/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1644190	Analysis Time:	22:42	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	1.0	mg/L		U	0		1.5		
Nitrate Nitrogen	0.12	mg/L		U	0		0.20		
Sulfate	0.8	mg/L		U	0		1.5		

Matrix Spike Duplicate Water

Analytical Run #:	296225	Analysis Date:	10/27/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1644193	Analysis Time:	13:58	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1644192	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	10.4	mg/L	3.1		8.00	91	87 --- 111	2	15
Nitrate Nitrogen	16.6	mg/L	6.5		10.0	101	88 --- 111	5	15
Sulfate	35.8	mg/L	28		8.00	98	87 --- 112	1	15

Matrix Spike Water

Analytical Run #:	296225	Analysis Date:	10/27/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1644192	Analysis Time:	13:38	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1644158	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	10.1	mg/L	3.1		8.00	88	87 --- 111		15
Nitrate Nitrogen	15.9	mg/L	6.5		10.0	94	88 --- 111		15
Sulfate	36.3	mg/L	28		8.00	104	87 --- 112		15

Duplicate

Analytical Run #:	296245	Analysis Date:	10/27/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1645034	Analysis Time:	21:14	Prep Date/Time:		Method:	SW9060
Parent Sample #:	1644158	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.4	mg/L	<DL	U			1.5	0	20

Lab Control Spike Water

Analytical Run #:	296245	Analysis Date:	10/27/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1645028	Analysis Time:	14:50	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	50.13	mg/L			50.0	100	85 --- 111		20

Method Blank Water

Analytical Run #:	296245	Analysis Date:	10/27/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1645029	Analysis Time:	15:05	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.40	mg/L		U	0		1.5		

Matrix Spike Duplicate Water

Analytical Run #:	296245	Analysis Date:	10/27/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1645036	Analysis Time:	21:42	Prep Date/Time:		Method:	SW9060
Parent Sample #:	1645035	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	47.2	mg/L	<DL		50.0	94	85 --- 111	2	20

Matrix Spike Water

Analytical Run #:	296245	Analysis Date:	10/27/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1645035	Analysis Time:	21:29	Prep Date/Time:		Method:	SW9060
Parent Sample #:	1644158	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	48.1	mg/L	<DL		50.0	96	85 --- 111		20

Lab Control Spike Water

Analytical Run #:	296249	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1646779	Analysis Time:	10:44	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
1,1,1-Trichloroethane	10.9	ug/L			10.0	109	74	---	131		20
1,1,2,2-Tetrachloroethane	8.90	ug/L			10.0	89	71	---	121		20
1,1,2-Trichloroethane	11.1	ug/L			10.0	111	80	---	119		20
1,1-Dichloroethane	10.7	ug/L			10.0	107	77	---	125		20
1,1-Dichloroethene	11.4	ug/L			10.0	114	71	---	131		20
1,2,3-Trichlorobenzene	8.99	ug/L			10.0	90	69	---	129		20
1,2,4-Trichlorobenzene	9.52	ug/L			10.0	95	69	---	130		20
1,2-Dibromo-3-chloropropane	7.05	ug/L			10.0	70	62	---	128		20
1,2-Dibromoethane	9.40	ug/L			10.0	94	77	---	121		20
1,2-Dichlorobenzene	9.61	ug/L			10.0	96	80	---	119		20
1,2-Dichloroethane	10.4	ug/L			10.0	104	73	---	128		20
1,2-Dichloropropane	10.8	ug/L			10.0	108	78	---	122		20
1,3-Dichlorobenzene	10.1	ug/L			10.0	101	80	---	119		20
1,4-Dichlorobenzene	9.86	ug/L			10.0	99	79	---	118		20
1,4-Dioxane	654	ug/L			500	131	59	---	139		20
112Trichloro122trifluoroethane	21.7	ug/L			20.0	108	70	---	136		20
2-Butanone	110	ug/L			100	110	56	---	143		20
2-Hexanone	96.3	ug/L			100	96	57	---	139		20
4-Methyl-2-pentanone	105	ug/L			100	105	67	---	130		20
Acetone	112	ug/L			100	112	39	---	160		20
Benzene	11.0	ug/L			10.0	110	79	---	120		20
Bromochloromethane	10.8	ug/L			10.0	108	78	---	123		20
Bromodichloromethane	10.3	ug/L			10.0	103	79	---	125		20
Bromoform	8.59	ug/L			10.0	86	66	---	130		20
Bromomethane	17.3	ug/L			10.0	173	53	---	141		20
Carbon disulfide	22.9	ug/L			20.0	114	64	---	133		20
Carbon tetrachloride	9.36	ug/L			10.0	94	72	---	136		20
Chlorobenzene	10.1	ug/L			10.0	101	82	---	118		20
Chloroethane	9.64	ug/L			10.0	96	60	---	138		20
Chloroform	10.9	ug/L			10.0	109	79	---	124		20
Chloromethane	10.3	ug/L			10.0	103	50	---	139		20
cis-1,2-Dichloroethene	10.5	ug/L			10.0	105	78	---	123		20
cis-1,3-Dichloropropene	10.6	ug/L			10.0	106	75	---	124		20
Cyclohexane	10.6	ug/L			10.0	106	71	---	130		20
Dibromochloromethane	8.88	ug/L			10.0	89	74	---	126		20
Dichlorodifluoromethane	9.78	ug/L			10.0	98	32	---	152		20
Ethylbenzene	10.5	ug/L			10.0	105	79	---	121		20
Isopropylbenzene	9.76	ug/L			10.0	98	72	---	131		20
m & p-Xylene	20.9	ug/L			20.0	104	80	---	121		20
Methyl acetate	9.42	ug/L			10.0	94	56	---	136		20
Methyl tert-butyl ether	10.6	ug/L			10.0	106	71	---	124		20
Methylcyclohexane	10.7	ug/L			10.0	107	72	---	132		20

Lab Control Spike Water

Analytical Run #:	296249	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1646779	Analysis Time:	10:44	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Methylene chloride	8.91	ug/L			10.0	89	74 --- 124		20
o-Xylene	10.3	ug/L			10.0	103	78 --- 122		20
Styrene	9.82	ug/L			10.0	98	78 --- 123		20
Tetrachloroethene	11.4	ug/L			10.0	114	74 --- 129		20
Toluene	11.1	ug/L			10.0	111	80 --- 121		20
trans-1,2-Dichloroethene	11.1	ug/L			10.0	111	75 --- 124		20
trans-1,3-Dichloropropene	10.1	ug/L			10.0	101	73 --- 127		20
Trichloroethene	10.6	ug/L			10.0	106	79 --- 123		20
Trichlorofluoromethane	10.6	ug/L			10.0	106	65 --- 141		20
Vinyl chloride	11.6	ug/L			10.0	116	58 --- 137		20

Method Blank Water

Analytical Run #:	296249	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1646879	Analysis Time:	11:42	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.38	ug/L		U	0		0.60		
1,1,2,2-Tetrachloroethane	0.36	ug/L		U	0		0.55		
1,1,2-Trichloroethane	0.27	ug/L		U	0		0.55		
1,1-Dichloroethane	0.28	ug/L		U	0		0.55		
1,1-Dichloroethene	0.49	ug/L		U	0		1.0		
1,2,3-Trichlorobenzene	0.43	ug/L		U	0		1.0		
1,2,4-Trichlorobenzene	0.50	ug/L		U	0		1.0		
1,2-Dibromo-3-chloropropane	0.50	ug/L		U	0		1.0		
1,2-Dibromoethane	0.33	ug/L		U	0		0.55		
1,2-Dichlorobenzene	0.35	ug/L		U	0		0.55		
1,2-Dichloroethane	0.69	ug/L		U	0		1.05		
1,2-Dichloropropane	0.25	ug/L		U	0		0.60		
1,3-Dichlorobenzene	0.30	ug/L		U	0		0.55		
1,4-Dichlorobenzene	0.33	ug/L		U	0		0.55		
1,4-Dioxane	34	ug/L		U	0		50		
112Trichloro122trifluoroethane	1.5	ug/L		U	0		2.25		
2-Butanone	2.9	ug/L		U	0		5.5		
2-Hexanone	3.3	ug/L		U	0		5.5		
4-Methyl-2-pentanone	3.7	ug/L		U	0		6.0		
Acetone	4.1	ug/L		U	0		10		
Benzene	0.40	ug/L		U	0		1.0		
Bromochloromethane	0.26	ug/L		U	0		0.55		
Bromodichloromethane	0.080	ug/L		U	0		0.25		
Bromoform	0.50	ug/L		U	0		1.0		
Bromomethane	0.49	ug/L		U	0		1.0		
Carbon disulfide	0.83	ug/L		U	0		2.0		
Carbon tetrachloride	0.37	ug/L		U	0		0.60		
Chlorobenzene	0.25	ug/L		U	0		0.60		
Chloroethane	1.0	ug/L		U	0		1.5		
Chloroform	0.30	ug/L		U	0		0.70		
Chloromethane	0.39	ug/L		U	0		1.0		
cis-1,2-Dichloroethene	0.41	ug/L		U	0		0.65		
cis-1,3-Dichloropropene	0.25	ug/L		U	0		0.55		
Cyclohexane	0.71	ug/L		U	0		1.1		
Dibromochloromethane	0.25	ug/L		U	0		0.55		
Dichlorodifluoromethane	0.63	ug/L		U	0		1.05		
Ethylbenzene	0.42	ug/L		U	0		0.65		
Isopropylbenzene	0.39	ug/L		U	0		0.60		
m & p-Xylene	0.74	ug/L		U	0		1.15		
Methyl acetate	0.34	ug/L		U	0		1.0		
Methyl tert-butyl ether	0.28	ug/L		U	0		0.55		
Methylcyclohexane	0.78	ug/L		U	0		1.2		

Method Blank Water

Analytical Run #:	296249	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1646879	Analysis Time:	11:42	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Methylene chloride	1.2	ug/L		U	0		2.05		
o-Xylene	0.50	ug/L		U	0		1.1		
Styrene	0.33	ug/L		U	0		0.55		
Tetrachloroethene	0.25	ug/L		U	0		1.0		
Toluene	0.27	ug/L		U	0		0.55		
trans-1,2-Dichloroethene	0.35	ug/L		U	0		0.55		
trans-1,3-Dichloropropene	0.56	ug/L		U	0		1.05		
Trichloroethene	0.25	ug/L		U	0		0.60		
Trichlorofluoromethane	0.41	ug/L		U	0		1.0		
Vinyl chloride	0.12	ug/L		U	0		0.25		

Matrix Spike Duplicate Water

Analytical Run #:	296249	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1647112	Analysis Time:	20:26	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	1647111	Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
1,1,1-Trichloroethane	12.0	ug/L	<DL		10.0	120	74	---	131	10	20
1,1,2,2-Tetrachloroethane	9.51	ug/L	<DL		10.0	95	71	---	121	4	20
1,1,2-Trichloroethane	11.3	ug/L	<DL		10.0	113	80	---	119	6	20
1,1-Dichloroethane	11.5	ug/L	<DL		10.0	115	77	---	125	8	20
1,1-Dichloroethene	12.6	ug/L	<DL		10.0	126	71	---	131	5	20
1,2 Dichloroethane-d4	102	% Recovery	BDL		100	102	81	---	118	0	
1,2,3-Trichlorobenzene	9.34	ug/L	<DL		10.0	93	69	---	129	8	20
1,2,4-Trichlorobenzene	9.82	ug/L	<DL		10.0	98	69	---	130	5	20
1,2-Dibromo-3-chloropropane	8.22	ug/L	<DL		10.0	82	62	---	128	15	20
1,2-Dibromoethane	9.93	ug/L	<DL		10.0	99	77	---	121	11	20
1,2-Dichlorobenzene	9.87	ug/L	<DL		10.0	99	80	---	119	6	20
1,2-Dichloroethane	11.0	ug/L	<DL		10.0	110	73	---	128	0	20
1,2-Dichloropropane	11.2	ug/L	<DL		10.0	112	78	---	122	5	20
1,3-Dichlorobenzene	10.0	ug/L	<DL		10.0	100	80	---	119	1	20
1,4-Dichlorobenzene	9.90	ug/L	<DL		10.0	99	79	---	118	2	20
1,4-Dioxane	630	ug/L	<DL		500	126	59	---	139	3	20
112Trichloro122trifluoroethane	22.5	ug/L	<DL		20.0	112	70	---	136	5	20
2-Butanone	86.2	ug/L	<DL		100	86	56	---	143	5	20
2-Hexanone	84.0	ug/L	<DL		100	84	57	---	139	5	20
4-Methyl-2-pentanone	108	ug/L	<DL		100	108	67	---	130	5	20
Acetone	62.1	ug/L	<DL		100	62	39	---	160	5	20
Benzene	11.9	ug/L	<DL		10.0	119	79	---	120	6	20
Bromochloromethane	11.4	ug/L	<DL		10.0	114	78	---	123	8	20
Bromodichloromethane	11.2	ug/L	<DL		10.0	112	79	---	125	7	20
Bromofluorobenzene	97.0	% Recovery	BDL		100	97.0	85	---	114	0	
Bromoform	9.97	ug/L	<DL		10.0	100	66	---	130	15	20
Bromomethane	19.0	ug/L	<DL		10.0	190	53	---	141	13	20
Carbon disulfide	25.2	ug/L	<DL		20.0	126	64	---	133	7	20
Carbon tetrachloride	87.1	ug/L	72		10.0	151	72	---	136	4	20
Chlorobenzene	10.5	ug/L	<DL		10.0	105	82	---	118	5	20
Chloroethane	11.0	ug/L	<DL		10.0	110	60	---	138	7	20
Chloroform	23.1	ug/L	12		10.0	111	79	---	124	3	20
Chloromethane	11.9	ug/L	<DL		10.0	119	50	---	139	6	20
cis-1,2-Dichloroethene	11.3	ug/L	<DL		10.0	113	78	---	123	6	20
cis-1,3-Dichloropropene	10.8	ug/L	<DL		10.0	108	75	---	124	6	20
Cyclohexane	11.4	ug/L	<DL		10.0	114	71	---	130	8	20
d8-Toluene	104	% Recovery	BDL		100	104	89	---	112	0	
Dibromochloromethane	10.2	ug/L	<DL		10.0	102	74	---	126	12	20
Dibromofluoromethane	102	% Recovery	BDL		100	102	80	---	119	0	
Dichlorodifluoromethane	10.8	ug/L	<DL		10.0	108	32	---	152	8	20
Ethylbenzene	11.5	ug/L	<DL		10.0	115	79	---	121	6	20
Isopropylbenzene	10.6	ug/L	<DL		10.0	106	72	---	131	6	20

Matrix Spike Duplicate Water

Analytical Run #:	296249	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1647112	Analysis Time:	20:26	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	1647111	Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
m & p-Xylene	22.5	ug/L	<DL		20.0	112	80 --- 121	4	20
Methyl acetate	8.12	ug/L	<DL		10.0	81	56 --- 136	2	20
Methyl tert-butyl ether	10.9	ug/L	<DL		10.0	109	71 --- 124	6	20
Methylcyclohexane	10.9	ug/L	<DL		10.0	109	72 --- 132	6	20
Methylene chloride	9.56	ug/L	<DL		10.0	96	74 --- 124	9	20
o-Xylene	10.9	ug/L	<DL		10.0	109	78 --- 122	5	20
Styrene	10.3	ug/L	<DL		10.0	103	78 --- 123	5	20
Tetrachloroethene	12.4	ug/L	<DL		10.0	124	74 --- 129	7	20
Toluene	11.7	ug/L	<DL		10.0	117	80 --- 121	5	20
trans-1,2-Dichloroethene	12.4	ug/L	<DL		10.0	124	75 --- 124	10	20
trans-1,3-Dichloropropene	10.5	ug/L	<DL		10.0	105	73 --- 127	9	20
Trichloroethene	26.1	ug/L	15		10.0	111	79 --- 123	3	20
Trichlorofluoromethane	12.1	ug/L	<DL		10.0	121	65 --- 141	9	20
Vinyl chloride	13.3	ug/L	<DL		10.0	133	58 --- 137	8	20

Matrix Spike Water

Analytical Run #:	296249	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1647111	Analysis Time:	19:57	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	1644158	Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1-Trichloroethane	10.9	ug/L	<DL		10.0	109	74 --- 131		20
1,1,2,2-Tetrachloroethane	9.14	ug/L	<DL		10.0	91	71 --- 121		20
1,1,2-Trichloroethane	10.6	ug/L	<DL		10.0	106	80 --- 119		20
1,1-Dichloroethane	10.6	ug/L	<DL		10.0	106	77 --- 125		20
1,1-Dichloroethene	12.0	ug/L	<DL		10.0	120	71 --- 131		20
1,2 Dichloroethane-d4	100	% Recovery	BDL		100	100	81 --- 118		
1,2,3-Trichlorobenzene	8.60	ug/L	<DL		10.0	86	69 --- 129		20
1,2,4-Trichlorobenzene	9.32	ug/L	<DL		10.0	93	69 --- 130		20
1,2-Dibromo-3-chloropropane	7.08	ug/L	<DL		10.0	71	62 --- 128		20
1,2-Dibromoethane	8.92	ug/L	<DL		10.0	89	77 --- 121		20
1,2-Dichlorobenzene	9.33	ug/L	<DL		10.0	93	80 --- 119		20
1,2-Dichloroethane	11.0	ug/L	<DL		10.0	110	73 --- 128		20
1,2-Dichloropropane	10.6	ug/L	<DL		10.0	106	78 --- 122		20
1,3-Dichlorobenzene	9.91	ug/L	<DL		10.0	99	80 --- 119		20
1,4-Dichlorobenzene	9.67	ug/L	<DL		10.0	97	79 --- 118		20
1,4-Dioxane	614	ug/L	<DL		500	123	59 --- 139		20
112Trichloro122trifluoroethane	21.4	ug/L	<DL		20.0	107	70 --- 136		20
2-Butanone	82.0	ug/L	<DL		100	82	56 --- 143		20
2-Hexanone	80.1	ug/L	<DL		100	80	57 --- 139		20
4-Methyl-2-pentanone	103	ug/L	<DL		100	103	67 --- 130		20
Acetone	59.0	ug/L	<DL		100	59	39 --- 160		20
Benzene	11.2	ug/L	<DL		10.0	112	79 --- 120		20
Bromochloromethane	10.6	ug/L	<DL		10.0	106	78 --- 123		20
Bromodichloromethane	10.4	ug/L	<DL		10.0	104	79 --- 125		20
Bromofluorobenzene	96.0	% Recovery	BDL		100	96.0	85 --- 114		
Bromoform	8.55	ug/L	<DL		10.0	86	66 --- 130		20
Bromomethane	16.7	ug/L	<DL		10.0	167	53 --- 141		20
Carbon disulfide	23.4	ug/L	<DL		20.0	117	64 --- 133		20
Carbon tetrachloride	83.6	ug/L	72		10.0	116	72 --- 136		20
Chlorobenzene	10.0	ug/L	<DL		10.0	100	82 --- 118		20
Chloroethane	10.3	ug/L	<DL		10.0	103	60 --- 138		20
Chloroform	22.5	ug/L	12		10.0	105	79 --- 124		20
Chloromethane	11.2	ug/L	<DL		10.0	112	50 --- 139		20
cis-1,2-Dichloroethene	10.7	ug/L	<DL		10.0	107	78 --- 123		20
cis-1,3-Dichloropropene	10.2	ug/L	<DL		10.0	102	75 --- 124		20
Cyclohexane	10.5	ug/L	<DL		10.0	105	71 --- 130		20
d8-Toluene	105	% Recovery	BDL		100	105	89 --- 112		
Dibromochloromethane	9.05	ug/L	<DL		10.0	90	74 --- 126		20
Dibromofluoromethane	102	% Recovery	BDL		100	102	80 --- 119		
Dichlorodifluoromethane	10.0	ug/L	<DL		10.0	100	32 --- 152		20
Ethylbenzene	10.8	ug/L	<DL		10.0	108	79 --- 121		20
Isopropylbenzene	9.97	ug/L	<DL		10.0	100	72 --- 131		20

Matrix Spike Water

Analytical Run #:	296249	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1647111	Analysis Time:	19:57	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	1644158	Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
m & p-Xylene	21.6	ug/L	<DL		20.0	108	80 --- 121		20
Methyl acetate	8.24	ug/L	<DL		10.0	82	56 --- 136		20
Methyl tert-butyl ether	10.3	ug/L	<DL		10.0	103	71 --- 124		20
Methylcyclohexane	10.2	ug/L	<DL		10.0	102	72 --- 132		20
Methylene chloride	8.72	ug/L	<DL		10.0	87	74 --- 124		20
o-Xylene	10.4	ug/L	<DL		10.0	104	78 --- 122		20
Styrene	9.81	ug/L	<DL		10.0	98	78 --- 123		20
Tetrachloroethene	11.6	ug/L	<DL		10.0	116	74 --- 129		20
Toluene	11.1	ug/L	<DL		10.0	111	80 --- 121		20
trans-1,2-Dichloroethene	11.3	ug/L	<DL		10.0	113	75 --- 124		20
trans-1,3-Dichloropropene	9.63	ug/L	<DL		10.0	96	73 --- 127		20
Trichloroethene	25.3	ug/L	15		10.0	103	79 --- 123		20
Trichlorofluoromethane	11.0	ug/L	<DL		10.0	110	65 --- 141		20
Vinyl chloride	12.2	ug/L	<DL		10.0	122	58 --- 137		20

Lab Control Spike Water

Analytical Run #:	296308	Analysis Date:	10/28/2025	Prep Batch #:	140782	Matrix:	LIQUID
CTLab #:	1645153	Analysis Time:	10:51	Prep Date/Time:	10/28/2025 10:23	Method:	RSK175
Parent Sample #:		Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	4.04	ug/L			4.79	84	74 --- 131		20
Ethene	5.77	ug/L			6.80	85	72 --- 133		20
Methane	1.90	ug/L			2.30	83	73 --- 125		20

Method Blank Water

Analytical Run #:	296308	Analysis Date:	10/28/2025	Prep Batch #:	140782	Matrix:	LIQUID
CTLab #:	1645152	Analysis Time:	10:56	Prep Date/Time:	10/28/2025 10:23	Method:	RSK175
Parent Sample #:		Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	0.38	ug/L		U	0		0.5		
Ethene	0.59	ug/L		U	0		0.7		
Methane	0.45	ug/L		U	0		0.5		

Matrix Spike Duplicate Water

Analytical Run #:	296308	Analysis Date:	10/28/2025	Prep Batch #:	140782	Matrix:	GROUND WATER
CTLab #:	1645156	Analysis Time:	11:53	Prep Date/Time:	10/28/2025 10:23	Method:	RSK175
Parent Sample #:	1645155	Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	3.67	ug/L	<DL		4.79	77	74 --- 131	1	30
Ethene	5.30	ug/L	<DL		6.80	78	72 --- 133	1	30
Methane	1.74	ug/L	<DL		2.30	76	73 --- 125	2	30

Matrix Spike Water

Analytical Run #:	296308	Analysis Date:	10/28/2025	Prep Batch #:	140782	Matrix:	GROUND WATER
CTLab #:	1645155	Analysis Time:	11:48	Prep Date/Time:	10/28/2025 10:23	Method:	RSK175
Parent Sample #:	1644158	Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	3.70	ug/L	<DL		4.79	77	74 --- 131		30
Ethene	5.33	ug/L	<DL		6.80	78	72 --- 133		30
Methane	1.78	ug/L	<DL		2.30	77	73 --- 125		30

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	199367	Print Date / Time:	10/25/2025	13:28	
Client:	CAPE ENVIRONMENTAL MANAGEMENT	Received Date / Time / By:	10/25/2025	11:55	ATJ
Project Name:	RADFORD AAP SWMU 49	Log-In Date / Time / By:	10/25/2025	13:28	ETK
Project Phase:	RADFORD, VA	Project #:	10409-0222	PM:	BMS
Coolers:	1-UNMARKED	Temperature:	3.0 C	On Ice:	**Y**
Custody Seals Present :	**Y**	COC Present:?	**Y**	Complete?	**Y**
Seal Intact?	**Y**	Numbers:	SIGNED & DATED		
Ship Method:	FEDEX EXPRESS	Tracking Number:	885390520908		
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**		

Notes: THE SAMPLES WERE RECEIVED INTACT, ON ICE AND IN GOOD CONDITION.

TWO (2) CUSTODY SEALS WERE PRESENT AND INTACT ON THE COOLER UPON RECEIPT (DATED 10/24/2025 AND SIGNED).

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1644155	TB-4				
		VOA HCL	1	/	VOC
		VOA HCL	1	/	VOC
		Total # of Containers of Type	(***VOA HCL***) = **2**		
Sample ID /	**Description**	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1644156	48MW2				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	(***UNPRES PL***) = **1**		
1644156	48MW2				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) = **5**		
1644156	48MW2				
		H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type	(***H2SO4 PL***) = **1**		
Sample ID /	**Description**	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1644157	48MW2-EQB				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	(***UNPRES PL***) = **1**		

1644157	48MW2-EQB				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1644157	48MW2-EQB				
		H2SO4 PL	1 Y	/	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1644158	48MW3				
		UNPRES PL	1	/	Anions
		UNPRES PL	1	/	Anions
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 3**		
1644158	48MW3				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 7**		
1644158	48MW3				
		H2SO4 PL	1 Y	/	TOC
		H2SO4 PL	1 Y	/	TOC
		H2SO4 PL	1 Y	/	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 3**		
1644158	48MW3				
		VOA HCL	1	/	VOC
		VOA HCL	1	/	VOC
		Total # of Containers of Type	**(*VOA HCL*) = 2**		
1644158	48MW3				
		VOA HCL	1	/	VOC,GAS
		Total # of Containers of Type	**(*VOA HCL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1644159	49MW02				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1644159	49MW02				
		VOA HCL	1	/	GAS,VOC

		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1644159	49MW02				
		H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1644160	48MW7				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1644160	48MW7				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1644160	48MW7				
		H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Condition Code *Condition Description*

1 Sample Received OK

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: CAPE Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP SWMU 49
Project #:
Location: Radford, VA
Sampled By: Y. Miyakawa, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Order #: 199367
Company: CAPE ENVIRONMENTAL MANA
Project: RADFORD AAP
Logged By: ETK PM BMS

Program: 1 RCRA SDWA NPDES Waste Other _____
#

Report To: ChemistrySUCS@cape-inc.com
EMAIL: mfeits@cape-inc.com
Company: CAPE Environmental Mgt
Address: 500 Pinnacle Ct. #100 Norcross, GA 30071
Invoice To:* Same
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Anions
Cl, NO3, SO4

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOC 8260C	MEE RSK-175	TOC 9060A	Anions 9056A												Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test																	
10/24	0000	GW	G		TB-4	N	2						Trip Blank									2		L644155
10/24	0929	GW	G		48MW2	N	3	2	1	1												7		1644156
10/24	0957	GW	G		48MW2-EQB	N	3	2	1	1												7		1644157
~~10/24~~	~~1050~~	~~GW~~	~~G~~		~~48MW3~~	N	3	2	1	1												7		
10/24	1050	GW	G		48MW3	N	9	6	3	3												21	X	1644158
10/24	1252	GW	G		49MW02	N	3	2	1	1												7		1644159
10/24	1410	GW	G		48MW7	N	3	2	1	1												7		1644160

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Relinquished By:	Date/Time	Received By:	Date/Time
	10/24/2025 1700		10/24/2025 1700
Received by:	Date/Time	Received for Laboratory By:	Date/Time
			10-25-25 1325

Lab Use Only
Ice Present (Yes) No
Temp 3.0 IR Gun 34
Cooler # XXX

Cooler Receipt Form

Ice Present (YES) NO

Observed Temperature 3.0

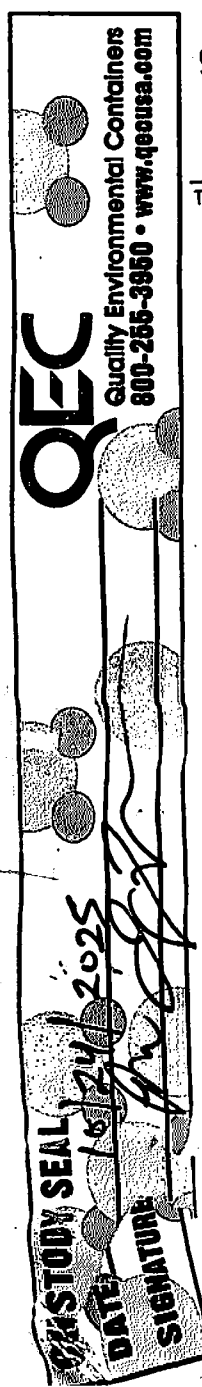
Actual Temperature —

IR Gun # SRT 34

Initials HH

Date 10-25-25 Time 1155

Cooler #: —



ORIGIN ID:LIYA (614) 716-8502
YOKO MIYAKAWA
500 PINNACLE CT SUITE 100
NORCROSS, GA 30071
UNITED STATES US

SHIP DATE: 24OCT25
ACTWGT: 50.00 LB
CAD: 100980732/INET4535

BILL SENDER

TO SAMPLE RECEIVING (CT LABS)
CT LABS
1230 LANGE COURT

BARABOO WI 53913
(614) 716-8502

REF: 10409-0222-002-006
INV:
PO:
DEPT:

58HJ4/003C/59F2

FedEx Express

SATURDAY 12:00P
PRIORITY OVERNIGHT

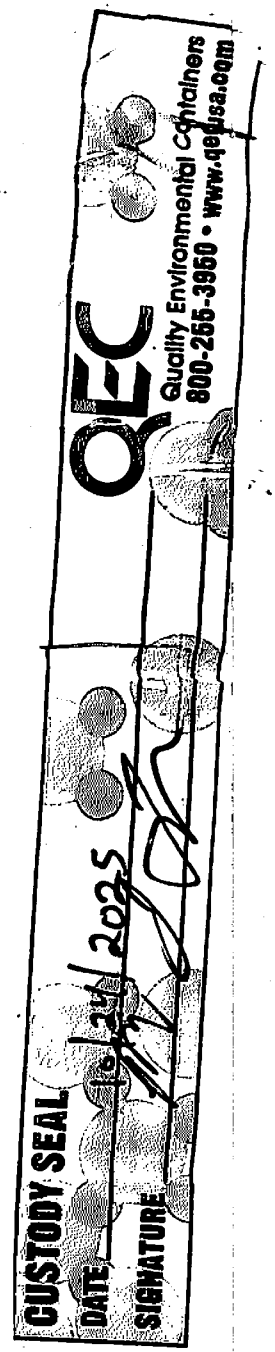
1 of 3

TRK# 0201 8853 9052 0908

MASTER

X0 LNRA

53913
WI-US MSN



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ANALYTICAL SUMMARY REPORT

This report at a minimum contains the following information:

Analytical Report of Test Results
Description of QC Qualifiers
Chain of Custody (copy)
Quality Control Summary (if applicable)
Case Narrative (if applicable)
Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

ANALYTICAL SAMPLE DATA

CAPE ENVIRONMENTAL MANAGEMENT
MATT FEITS
500 PINNACLE COURT
SUITE 100
NORCROSS, GA 30071

Project Name: RADFORD AAP SWMU 49
Project Phase: RADFORD, VA
Project #: 10409-0222
Folder #: 199400
Purchase Order #: SC013781
Contract #: 3648

Arrival Temperature: 12.8
Report Date: 11/11/2025
Date Received: 10/28/2025
Reprint Date: 11/11/2025

Copy: chemistrysvcs@cape-inc.com

CT LAB#: 1645319 Sample Description: TB-1 Client Sample #: Sampled: 10/21/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results													
Qualifiers applying to all Analytes of Method EPA 8260C: T													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			10/31/25 12:40	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			10/31/25 12:40	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			10/31/25 12:40	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 12:40	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			10/31/25 12:40	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 12:40	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1645319 Sample Description: TB-1 Client Sample #: Sampled: 10/21/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Qualifiers applying to all Analytes of Method EPA 8260C: T													
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U Z			10/31/25 12:40	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			10/31/25 12:40	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			10/31/25 12:40	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			10/31/25 12:40	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			10/31/25 12:40	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			10/31/25 12:40	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			10/31/25 12:40	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			10/31/25 12:40	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			10/31/25 12:40	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1645319 Sample Description: TB-1 Client Sample #: Sampled: 10/21/2025 00:00

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Qualifiers applying to all Analytes of Method EPA 8260C: T													
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			10/31/25 12:40	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			10/31/25 12:40	DGS	EPA 8260C
1,2 Dichloroethane-d4	98.0	% Recovery	81			118	1.00				10/31/25 12:40	DGS	EPA 8260C
Bromofluorobenzene	98.0	% Recovery	85			114	1.00				10/31/25 12:40	DGS	EPA 8260C
d8-Toluene	103	% Recovery	89			112	1.00				10/31/25 12:40	DGS	EPA 8260C
Dibromofluoromethane	101	% Recovery	80			119	1.00				10/31/25 12:40	DGS	EPA 8260C

CT LAB#: 1645320 Sample Description: 48MW7-EQB Client Sample #: Sampled: 10/21/2025 10:05

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	<1.5	mg/L	1.0	1.5	3.0	3.0	1.00	U T			10/28/25 15:48	TMG	EPA 9056A
Nitrate Nitrogen	<0.20	mg/L	0.12	0.20	0.40	0.40	1.00	U H,T			10/28/25 15:48	TMG	EPA 9056A
Sulfate	<1.5	mg/L	0.80	1.5	3.0	3.0	1.00	U T			10/28/25 15:48	TMG	EPA 9056A

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1645320 Sample Description: 48MW7-EQB Client Sample #: Sampled: 10/21/2025 10:05

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U T			10/30/25 13:22	TMG	EPA 9060A
Organic Results													
Qualifiers applying to all Analytes of Method EPA 8260C: T													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			10/31/25 18:01	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			10/31/25 18:01	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			10/31/25 18:01	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 18:01	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			10/31/25 18:01	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 18:01	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U Z			10/31/25 18:01	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			10/31/25 18:01	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			10/31/25 18:01	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			10/31/25 18:01	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			10/31/25 18:01	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1645320 Sample Description: 48MW7-EQB Client Sample #: Sampled: 10/21/2025 10:05

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Qualifiers applying to all Analytes of Method EPA 8260C: T													
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			10/31/25 18:01	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			10/31/25 18:01	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			10/31/25 18:01	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			10/31/25 18:01	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			10/31/25 18:01	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1645320 Sample Description: 48MW7-EQB Client Sample #: Sampled: 10/21/2025 10:05

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Qualifiers applying to all Analytes of Method EPA 8260C: T													
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			10/31/25 18:01	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			10/31/25 18:01	DGS	EPA 8260C
1,2 Dichloroethane-d4	100	% Recovery	81			118	1.00				10/31/25 18:01	DGS	EPA 8260C
Bromofluorobenzene	95.0	% Recovery	85			114	1.00				10/31/25 18:01	DGS	EPA 8260C
d8-Toluene	103	% Recovery	89			112	1.00				10/31/25 18:01	DGS	EPA 8260C
Dibromofluoromethane	101	% Recovery	80			119	1.00				10/31/25 18:01	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U T		10/29/25 10:42	10/29/25 11:13	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U T		10/29/25 10:42	10/29/25 11:13	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U T		10/29/25 10:42	10/29/25 11:13	SRW	RSK 175

CT LAB#: 1645321 Sample Description: 13MW5 Client Sample #: Sampled: 10/21/2025 11:37

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***3.9***	mg/L	1.0	1.5	3.0	3.0	1.00	M,T			10/28/25 16:09	TMG	EPA 9056A
Nitrate Nitrogen	***0.64***	mg/L	0.12	0.20	0.40	0.40	1.00	H,T			10/28/25 16:09	TMG	EPA 9056A
Sulfate	***200***	mg/L	4.0	7.5	15	15	5.00	M,T			10/28/25 17:31	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U T			10/30/25 13:36	TMG	EPA 9060A
Organic Results													
Qualifiers applying to all Analytes of Method EPA 8260C: T													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			10/31/25 18:30	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1645321 Sample Description: 13MW5 Client Sample #: Sampled: 10/21/2025 11:37

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Qualifiers applying to all Analytes of Method EPA 8260C: T													
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			10/31/25 18:30	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			10/31/25 18:30	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 18:30	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			10/31/25 18:30	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 18:30	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U Z			10/31/25 18:30	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			10/31/25 18:30	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			10/31/25 18:30	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			10/31/25 18:30	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q,M			10/31/25 18:30	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Carbon tetrachloride	***0.60***	ug/L	0.37	1.0	1.2	1.2	1.00	J			10/31/25 18:30	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1645321 Sample Description: 13MW5 Client Sample #: Sampled: 10/21/2025 11:37

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Qualifiers applying to all Analytes of Method EPA 8260C: T													
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			10/31/25 18:30	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			10/31/25 18:30	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			10/31/25 18:30	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Trichloroethene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			10/31/25 18:30	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			10/31/25 18:30	DGS	EPA 8260C
1,2 Dichloroethane-d4	105	% Recovery	81			118	1.00				10/31/25 18:30	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1645321 Sample Description: 13MW5 Client Sample #: Sampled: 10/21/2025 11:37

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Qualifiers applying to all Analytes of Method EPA 8260C: T													
Bromofluorobenzene	94.0	% Recovery	85			114	1.00				10/31/25 18:30	DGS	EPA 8260C
d8-Toluene	105	% Recovery	89			112	1.00				10/31/25 18:30	DGS	EPA 8260C
Dibromofluoromethane	102	% Recovery	80			119	1.00				10/31/25 18:30	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U T		10/29/25 10:42	10/29/25 11:16	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U T		10/29/25 10:42	10/29/25 11:16	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U T		10/29/25 10:42	10/29/25 11:16	SRW	RSK 175

CT LAB#: 1645322 Sample Description: 13MW4 Client Sample #: Sampled: 10/21/2025 13:25

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***4.0***	mg/L	1.0	1.5	3.0	3.0	1.00	T			10/28/25 18:52	TMG	EPA 9056A
Nitrate Nitrogen	***0.22***	mg/L	0.12	0.20	0.40	0.40	1.00	J H,T			10/28/25 18:52	TMG	EPA 9056A
Sulfate	***63***	mg/L	0.80	1.5	3.0	3.0	1.00	T			10/28/25 18:52	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U T			10/30/25 14:26	TMG	EPA 9060A
Organic Results													
Qualifiers applying to all Analytes of Method EPA 8260C: T													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			10/31/25 18:59	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			10/31/25 18:59	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1645322 Sample Description: 13MW4 Client Sample #: Sampled: 10/21/2025 13:25

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Qualifiers applying to all Analytes of Method EPA 8260C: T													
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			10/31/25 18:59	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 18:59	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			10/31/25 18:59	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 18:59	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U Z			10/31/25 18:59	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			10/31/25 18:59	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			10/31/25 18:59	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			10/31/25 18:59	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			10/31/25 18:59	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Carbon tetrachloride	<1.0	ug/L	0.37	1.0	1.2	1.2	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Chloroform	<1.0	ug/L	0.30	1.0	1.4	1.4	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			10/31/25 18:59	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1645322 Sample Description: 13MW4 Client Sample #: Sampled: 10/21/2025 13:25

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Qualifiers applying to all Analytes of Method EPA 8260C: T													
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			10/31/25 18:59	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			10/31/25 18:59	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Trichloroethene	***0.83***	ug/L	0.25	1.0	1.2	1.2	1.00	J			10/31/25 18:59	DGS	EPA 8260C
Trichlorofluoromethane	<1.0	ug/L	0.41	1.0	2.0	2.0	1.00	U			10/31/25 18:59	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			10/31/25 18:59	DGS	EPA 8260C
1,2 Dichloroethane-d4	100	% Recovery	81			118	1.00				10/31/25 18:59	DGS	EPA 8260C
Bromofluorobenzene	96.0	% Recovery	85			114	1.00				10/31/25 18:59	DGS	EPA 8260C
d8-Toluene	103	% Recovery	89			112	1.00				10/31/25 18:59	DGS	EPA 8260C
Dibromofluoromethane	103	% Recovery	80			119	1.00				10/31/25 18:59	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U T		10/29/25 10:42	10/29/25 11:30	SRW	RSK 175

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1645322 Sample Description: 13MW4 Client Sample #: Sampled: 10/21/2025 13:25

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U T		10/29/25 10:42	10/29/25 11:30	SRW	RSK 175
Methane	<0.90	ug/L	0.45	0.90	1.0	1.0	1.00	U T		10/29/25 10:42	10/29/25 11:30	SRW	RSK 175

CT LAB#: 1645323 Sample Description: 13MW3 Client Sample #: Sampled: 10/21/2025 14:58

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results													
Chloride	***4.9***	mg/L	1.0	1.5	3.0	3.0	1.00	T			10/28/25 19:54	TMG	EPA 9056A
Nitrate Nitrogen	***1.8***	mg/L	0.12	0.20	0.40	0.40	1.00	H,T			10/28/25 19:54	TMG	EPA 9056A
Sulfate	***70***	mg/L	4.0	7.5	15	15	5.00	T			10/28/25 20:14	TMG	EPA 9056A
Total Organic Carbon	<1.5	mg/L	0.4	1.5	3.0	3.0	1.00	U T			10/30/25 14:38	TMG	EPA 9060A
Organic Results													
Qualifiers applying to all Analytes of Method EPA 8260C: T													
1,1,1-Trichloroethane	<1.0	ug/L	0.38	1.0	1.2	1.2	1.00	U			10/31/25 19:28	DGS	EPA 8260C
1,1,2,2-Tetrachloroethane	<1.0	ug/L	0.36	1.0	1.1	1.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C
1,1,2-Trichloroethane	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C
1,1-Dichloroethane	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C
1,1-Dichloroethene	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U			10/31/25 19:28	DGS	EPA 8260C
1,2,3-Trichlorobenzene	<1.0	ug/L	0.43	1.0	2.0	2.0	1.00	U			10/31/25 19:28	DGS	EPA 8260C
1,2,4-Trichlorobenzene	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 19:28	DGS	EPA 8260C
1,2-Dibromo-3-chloropropane	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U Z			10/31/25 19:28	DGS	EPA 8260C
1,2-Dibromoethane	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C
1,2-Dichlorobenzene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C
1,2-Dichloroethane	<2.0	ug/L	0.69	2.0	2.1	2.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1645323 Sample Description: 13MW3 Client Sample #: Sampled: 10/21/2025 14:58

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Qualifiers applying to all Analytes of Method EPA 8260C: T													
1,2-Dichloropropane	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 19:28	DGS	EPA 8260C
1,3-Dichlorobenzene	<1.0	ug/L	0.30	1.0	1.1	1.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C
1,4-Dichlorobenzene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C
1,4-Dioxane	<50	ug/L	34	50	100	100	1.00	U Z			10/31/25 19:28	DGS	EPA 8260C
112Trichloro122trifluoroethane	<4.0	ug/L	1.5	4.0	4.5	4.5	1.00	U			10/31/25 19:28	DGS	EPA 8260C
2-Butanone	<10	ug/L	2.9	10	11	11	1.00	U			10/31/25 19:28	DGS	EPA 8260C
2-Hexanone	<10	ug/L	3.3	10	11	11	1.00	U			10/31/25 19:28	DGS	EPA 8260C
4-Methyl-2-pentanone	<10	ug/L	3.7	10	12	12	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Acetone	<10	ug/L	4.1	10	20	20	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Benzene	<1.0	ug/L	0.40	1.0	2.0	2.0	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Bromochloromethane	<1.0	ug/L	0.26	1.0	1.1	1.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Bromodichloromethane	<0.25	ug/L	0.080	0.25	0.50	0.50	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Bromoform	<1.0	ug/L	0.50	1.0	2.0	2.0	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Bromomethane	<1.0	ug/L	0.49	1.0	2.0	2.0	1.00	U Z,Q			10/31/25 19:28	DGS	EPA 8260C
Carbon disulfide	<2.0	ug/L	0.83	2.0	4.0	4.0	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Carbon tetrachloride	***2.6***	ug/L	0.37	1.0	1.2	1.2	1.00				10/31/25 19:28	DGS	EPA 8260C
Chlorobenzene	<1.0	ug/L	0.25	1.0	1.2	1.2	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Chloroethane	<2.0	ug/L	1.0	2.0	3.0	3.0	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Chloroform	***0.38***	ug/L	0.30	1.0	1.4	1.4	1.00	J			10/31/25 19:28	DGS	EPA 8260C
Chloromethane	<1.0	ug/L	0.39	1.0	2.0	2.0	1.00	U			10/31/25 19:28	DGS	EPA 8260C
cis-1,2-Dichloroethene	<1.0	ug/L	0.41	1.0	1.3	1.3	1.00	U			10/31/25 19:28	DGS	EPA 8260C
cis-1,3-Dichloropropene	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Cyclohexane	<2.0	ug/L	0.71	2.0	2.2	2.2	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Dibromochloromethane	<1.0	ug/L	0.25	1.0	1.1	1.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Dichlorodifluoromethane	<2.0	ug/L	0.63	2.0	2.1	2.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Ethylbenzene	<1.0	ug/L	0.42	1.0	1.3	1.3	1.00	U			10/31/25 19:28	DGS	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1645323 Sample Description: 13MW3 Client Sample #: Sampled: 10/21/2025 14:58

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Qualifiers applying to all Analytes of Method EPA 8260C: T													
Isopropylbenzene	<1.0	ug/L	0.39	1.0	1.2	1.2	1.00	U			10/31/25 19:28	DGS	EPA 8260C
m & p-Xylene	<2.0	ug/L	0.74	2.0	2.3	2.3	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Methyl acetate	<1.0	ug/L	0.34	1.0	2.0	2.0	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Methyl tert-butyl ether	<1.0	ug/L	0.28	1.0	1.1	1.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Methylcyclohexane	<2.0	ug/L	0.78	2.0	2.4	2.4	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Methylene chloride	<4.0	ug/L	1.2	4.0	4.1	4.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C
o-Xylene	<2.0	ug/L	0.50	2.0	2.2	2.2	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Styrene	<1.0	ug/L	0.33	1.0	1.1	1.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Tetrachloroethene	<1.0	ug/L	0.25	1.0	2.0	2.0	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Toluene	<1.0	ug/L	0.27	1.0	1.1	1.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C
trans-1,2-Dichloroethene	<1.0	ug/L	0.35	1.0	1.1	1.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C
trans-1,3-Dichloropropene	<2.0	ug/L	0.56	2.0	2.1	2.1	1.00	U			10/31/25 19:28	DGS	EPA 8260C
Trichloroethene	***0.32***	ug/L	0.25	1.0	1.2	1.2	1.00	J			10/31/25 19:28	DGS	EPA 8260C
Trichlorofluoromethane	***0.45***	ug/L	0.41	1.0	2.0	2.0	1.00	J			10/31/25 19:28	DGS	EPA 8260C
Vinyl chloride	<0.25	ug/L	0.12	0.25	0.50	0.50	1.00	U			10/31/25 19:28	DGS	EPA 8260C
1,2 Dichloroethane-d4	102	% Recovery	81			118	1.00				10/31/25 19:28	DGS	EPA 8260C
Bromofluorobenzene	96.0	% Recovery	85			114	1.00				10/31/25 19:28	DGS	EPA 8260C
d8-Toluene	103	% Recovery	89			112	1.00				10/31/25 19:28	DGS	EPA 8260C
Dibromofluoromethane	100	% Recovery	80			119	1.00				10/31/25 19:28	DGS	EPA 8260C
Ethane	<0.80	ug/L	0.38	0.80	1.0	1.0	1.00	U T		10/29/25 10:42	10/29/25 11:41	SRW	RSK 175
Ethene	<1.2	ug/L	0.59	1.2	1.4	1.4	1.00	U T		10/29/25 10:42	10/29/25 11:41	SRW	RSK 175
Methane	***0.87***	ug/L	0.45	0.90	1.0	1.0	1.00	J T		10/29/25 10:42	10/29/25 11:41	SRW	RSK 175

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes:

^ Indicates the laboratory is NELAP accredited for this analyte by the indicated matrix and method . DL (detection limit), LOD (limit of detection), loq (limit of quantitation) as defined by most recent DOD QSM version.

All samples were received intact and properly preserved unless otherwise noted . The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for the parameters where accreditation is required or available, unless noted in the case narrative.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

QC Qualifiers

Code	Description
A	Result cannot be used for compliance due to QC issue
B	Analyte detected in the associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
I	Incubator temperature was outside acceptance limits during test period.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was below detection limit.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Specified calibration criteria was not met.

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 289
Louisiana NELAP (primary) ID# 115843
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Florida NELAP Lab ID# E871111

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PJLA Testing Accreditation # 78929

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QC Summary Report

CAPE ENVIRONMENTAL MANAGEMENT **Project Name: RADFORD AAP SWMU 49**

SDG #: 0 **Folder #: 199400** **Project #: 10409-0222**

Duplicate

Analytical Run #:	296314	Analysis Date:	10/28/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1646434	Analysis Time:	16:29	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1645321	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	3.95	mg/L	3.9				3.0	1	10
Nitrate Nitrogen	0.645	mg/L	0.64				0.40	1	10
Sulfate	200	mg/L	200				3.0	0	10

Lab Control Spike Water

Analytical Run #:	296314	Analysis Date:	10/28/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1646430	Analysis Time:	11:01	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Chloride	14.48	mg/L			15.00	97	87	---	111		
Nitrate Nitrogen	3.593	mg/L			3.500	103	88	---	111		
Sulfate	25.27	mg/L			25.00	101	87	---	112		

Method Blank Water

Analytical Run #:	296314	Analysis Date:	10/28/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1646431	Analysis Time:	11:21	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	1.0	mg/L		U	0		1.5		
Nitrate Nitrogen	0.12	mg/L		U	0		0.20		
Sulfate	0.8	mg/L		U	0		1.5		

Matrix Spike Duplicate Water

Analytical Run #:	296314	Analysis Date:	10/28/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1646436	Analysis Time:	17:10	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1646435	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Chloride	10.8	mg/L	3.9		8.00	86	87 --- 111	1	15
Nitrate Nitrogen	2.60	mg/L	0.64		2.00	98	88 --- 111	1	15
Sulfate	232	mg/L	200		40.0	80	87 --- 112	1	15

Matrix Spike Water

Analytical Run #:	296314	Analysis Date:	10/28/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1646435	Analysis Time:	16:50	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	1645321	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Chloride	10.9	mg/L	3.9		8.00	88	87	---	111		15
Nitrate Nitrogen	2.63	mg/L	0.64		2.00	100	88	---	111		15
Sulfate	230	mg/L	200		40.0	75	87	---	112		15

Duplicate

Analytical Run #:	296370	Analysis Date:	10/30/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1646592	Analysis Time:	13:49	Prep Date/Time:		Method:	SW9060
Parent Sample #:	1645321	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.4	mg/L	<DL	U			1.5	0	20

Lab Control Spike Water

Analytical Run #:	296370	Analysis Date:	10/30/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1646590	Analysis Time:	12:24	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	52.13	mg/L			50.0	104	85 --- 111		20

Method Blank Water

Analytical Run #:	296370	Analysis Date:	10/30/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1646591	Analysis Time:	12:53	Prep Date/Time:		Method:	SW9060
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	0.40	mg/L		U	0		1.5		

Matrix Spike Duplicate Water

Analytical Run #:	296370	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1647265	Analysis Time:	12:09	Prep Date/Time:		Method:	SW9060
Parent Sample #:	1647264	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	46.8	mg/L	<DL		50.0	94	85 --- 111	3	20

Matrix Spike Water

Analytical Run #:	296370	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1647264	Analysis Time:	11:55	Prep Date/Time:		Method:	SW9060
Parent Sample #:	1645321	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Organic Carbon	48.4	mg/L	<DL		50.0	97	85 --- 111		20

Lab Control Spike Water

Analytical Run #:	296249	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1646779	Analysis Time:	10:44	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1-Trichloroethane	10.9	ug/L			10.0	109	74 --- 131		20
1,1,2,2-Tetrachloroethane	8.90	ug/L			10.0	89	71 --- 121		20
1,1,2-Trichloroethane	11.1	ug/L			10.0	111	80 --- 119		20
1,1-Dichloroethane	10.7	ug/L			10.0	107	77 --- 125		20
1,1-Dichloroethene	11.4	ug/L			10.0	114	71 --- 131		20
1,2,3-Trichlorobenzene	8.99	ug/L			10.0	90	69 --- 129		20
1,2,4-Trichlorobenzene	9.52	ug/L			10.0	95	69 --- 130		20
1,2-Dibromo-3-chloropropane	7.05	ug/L			10.0	70	62 --- 128		20
1,2-Dibromoethane	9.40	ug/L			10.0	94	77 --- 121		20
1,2-Dichlorobenzene	9.61	ug/L			10.0	96	80 --- 119		20
1,2-Dichloroethane	10.4	ug/L			10.0	104	73 --- 128		20
1,2-Dichloropropane	10.8	ug/L			10.0	108	78 --- 122		20
1,3-Dichlorobenzene	10.1	ug/L			10.0	101	80 --- 119		20
1,4-Dichlorobenzene	9.86	ug/L			10.0	99	79 --- 118		20
1,4-Dioxane	654	ug/L			500	131	59 --- 139		20
112Trichloro122trifluoroethane	21.7	ug/L			20.0	108	70 --- 136		20
2-Butanone	110	ug/L			100	110	56 --- 143		20
2-Hexanone	96.3	ug/L			100	96	57 --- 139		20
4-Methyl-2-pentanone	105	ug/L			100	105	67 --- 130		20
Acetone	112	ug/L			100	112	39 --- 160		20
Benzene	11.0	ug/L			10.0	110	79 --- 120		20
Bromochloromethane	10.8	ug/L			10.0	108	78 --- 123		20
Bromodichloromethane	10.3	ug/L			10.0	103	79 --- 125		20
Bromoform	8.59	ug/L			10.0	86	66 --- 130		20
Bromomethane	17.3	ug/L			10.0	173	53 --- 141		20
Carbon disulfide	22.9	ug/L			20.0	114	64 --- 133		20
Carbon tetrachloride	9.36	ug/L			10.0	94	72 --- 136		20
Chlorobenzene	10.1	ug/L			10.0	101	82 --- 118		20
Chloroethane	9.64	ug/L			10.0	96	60 --- 138		20
Chloroform	10.9	ug/L			10.0	109	79 --- 124		20
Chloromethane	10.3	ug/L			10.0	103	50 --- 139		20
cis-1,2-Dichloroethene	10.5	ug/L			10.0	105	78 --- 123		20
cis-1,3-Dichloropropene	10.6	ug/L			10.0	106	75 --- 124		20
Cyclohexane	10.6	ug/L			10.0	106	71 --- 130		20
Dibromochloromethane	8.88	ug/L			10.0	89	74 --- 126		20
Dichlorodifluoromethane	9.78	ug/L			10.0	98	32 --- 152		20
Ethylbenzene	10.5	ug/L			10.0	105	79 --- 121		20
Isopropylbenzene	9.76	ug/L			10.0	98	72 --- 131		20
m & p-Xylene	20.9	ug/L			20.0	104	80 --- 121		20
Methyl acetate	9.42	ug/L			10.0	94	56 --- 136		20
Methyl tert-butyl ether	10.6	ug/L			10.0	106	71 --- 124		20
Methylcyclohexane	10.7	ug/L			10.0	107	72 --- 132		20

Lab Control Spike Water

Analytical Run #:	296249	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1646779	Analysis Time:	10:44	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Methylene chloride	8.91	ug/L			10.0	89	74 --- 124		20
o-Xylene	10.3	ug/L			10.0	103	78 --- 122		20
Styrene	9.82	ug/L			10.0	98	78 --- 123		20
Tetrachloroethene	11.4	ug/L			10.0	114	74 --- 129		20
Toluene	11.1	ug/L			10.0	111	80 --- 121		20
trans-1,2-Dichloroethene	11.1	ug/L			10.0	111	75 --- 124		20
trans-1,3-Dichloropropene	10.1	ug/L			10.0	101	73 --- 127		20
Trichloroethene	10.6	ug/L			10.0	106	79 --- 123		20
Trichlorofluoromethane	10.6	ug/L			10.0	106	65 --- 141		20
Vinyl chloride	11.6	ug/L			10.0	116	58 --- 137		20

Method Blank Water

Analytical Run #:	296249	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1646879	Analysis Time:	11:42	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.38	ug/L		U	0		0.60		
1,1,2,2-Tetrachloroethane	0.36	ug/L		U	0		0.55		
1,1,2-Trichloroethane	0.27	ug/L		U	0		0.55		
1,1-Dichloroethane	0.28	ug/L		U	0		0.55		
1,1-Dichloroethene	0.49	ug/L		U	0		1.0		
1,2,3-Trichlorobenzene	0.43	ug/L		U	0		1.0		
1,2,4-Trichlorobenzene	0.50	ug/L		U	0		1.0		
1,2-Dibromo-3-chloropropane	0.50	ug/L		U	0		1.0		
1,2-Dibromoethane	0.33	ug/L		U	0		0.55		
1,2-Dichlorobenzene	0.35	ug/L		U	0		0.55		
1,2-Dichloroethane	0.69	ug/L		U	0		1.05		
1,2-Dichloropropane	0.25	ug/L		U	0		0.60		
1,3-Dichlorobenzene	0.30	ug/L		U	0		0.55		
1,4-Dichlorobenzene	0.33	ug/L		U	0		0.55		
1,4-Dioxane	34	ug/L		U	0		50		
112Trichloro122trifluoroethane	1.5	ug/L		U	0		2.25		
2-Butanone	2.9	ug/L		U	0		5.5		
2-Hexanone	3.3	ug/L		U	0		5.5		
4-Methyl-2-pentanone	3.7	ug/L		U	0		6.0		
Acetone	4.1	ug/L		U	0		10		
Benzene	0.40	ug/L		U	0		1.0		
Bromochloromethane	0.26	ug/L		U	0		0.55		
Bromodichloromethane	0.080	ug/L		U	0		0.25		
Bromoform	0.50	ug/L		U	0		1.0		
Bromomethane	0.49	ug/L		U	0		1.0		
Carbon disulfide	0.83	ug/L		U	0		2.0		
Carbon tetrachloride	0.37	ug/L		U	0		0.60		
Chlorobenzene	0.25	ug/L		U	0		0.60		
Chloroethane	1.0	ug/L		U	0		1.5		
Chloroform	0.30	ug/L		U	0		0.70		
Chloromethane	0.39	ug/L		U	0		1.0		
cis-1,2-Dichloroethene	0.41	ug/L		U	0		0.65		
cis-1,3-Dichloropropene	0.25	ug/L		U	0		0.55		
Cyclohexane	0.71	ug/L		U	0		1.1		
Dibromochloromethane	0.25	ug/L		U	0		0.55		
Dichlorodifluoromethane	0.63	ug/L		U	0		1.05		
Ethylbenzene	0.42	ug/L		U	0		0.65		
Isopropylbenzene	0.39	ug/L		U	0		0.60		
m & p-Xylene	0.74	ug/L		U	0		1.15		
Methyl acetate	0.34	ug/L		U	0		1.0		
Methyl tert-butyl ether	0.28	ug/L		U	0		0.55		
Methylcyclohexane	0.78	ug/L		U	0		1.2		

Method Blank Water

Analytical Run #:	296249	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	LIQUID
CTLab #:	1646879	Analysis Time:	11:42	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Methylene chloride	1.2	ug/L		U	0		2.05		
o-Xylene	0.50	ug/L		U	0		1.1		
Styrene	0.33	ug/L		U	0		0.55		
Tetrachloroethene	0.25	ug/L		U	0		1.0		
Toluene	0.27	ug/L		U	0		0.55		
trans-1,2-Dichloroethene	0.35	ug/L		U	0		0.55		
trans-1,3-Dichloropropene	0.56	ug/L		U	0		1.05		
Trichloroethene	0.25	ug/L		U	0		0.60		
Trichlorofluoromethane	0.41	ug/L		U	0		1.0		
Vinyl chloride	0.12	ug/L		U	0		0.25		

Matrix Spike Duplicate Water

Analytical Run #:	296249	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1647114	Analysis Time:	21:23	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	1647113	Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
1,1,1-Trichloroethane	12.2	ug/L	<DL		10.0	122	74	---	131	5	20
1,1,2,2-Tetrachloroethane	9.94	ug/L	<DL		10.0	99	71	---	121	10	20
1,1,2-Trichloroethane	11.2	ug/L	<DL		10.0	112	80	---	119	9	20
1,1-Dichloroethane	11.6	ug/L	<DL		10.0	116	77	---	125	6	20
1,1-Dichloroethene	12.7	ug/L	<DL		10.0	127	71	---	131	4	20
1,2 Dichloroethane-d4	101	% Recovery	BDL		100	101	81	---	118	0	
1,2,3-Trichlorobenzene	10.6	ug/L	<DL		10.0	106	69	---	129	13	20
1,2,4-Trichlorobenzene	10.5	ug/L	<DL		10.0	105	69	---	130	8	20
1,2-Dibromo-3-chloropropane	8.59	ug/L	<DL		10.0	86	62	---	128	2	20
1,2-Dibromoethane	9.67	ug/L	<DL		10.0	97	77	---	121	8	20
1,2-Dichlorobenzene	9.99	ug/L	<DL		10.0	100	80	---	119	4	20
1,2-Dichloroethane	11.2	ug/L	<DL		10.0	112	73	---	128	10	20
1,2-Dichloropropane	11.4	ug/L	<DL		10.0	114	78	---	122	9	20
1,3-Dichlorobenzene	10.5	ug/L	<DL		10.0	105	80	---	119	6	20
1,4-Dichlorobenzene	10.3	ug/L	<DL		10.0	103	79	---	118	5	20
1,4-Dioxane	655	ug/L	<DL		500	131	59	---	139	3	20
112Trichloro122trifluoroethane	22.8	ug/L	<DL		20.0	114	70	---	136	8	20
2-Butanone	92.8	ug/L	<DL		100	93	56	---	143	15	20
2-Hexanone	87.5	ug/L	<DL		100	88	57	---	139	12	20
4-Methyl-2-pentanone	112	ug/L	<DL		100	112	67	---	130	11	20
Acetone	63.7	ug/L	<DL		100	64	39	---	160	11	20
Benzene	12.0	ug/L	<DL		10.0	120	79	---	120	5	20
Bromochloromethane	11.4	ug/L	<DL		10.0	114	78	---	123	5	20
Bromodichloromethane	11.1	ug/L	<DL		10.0	111	79	---	125	5	20
Bromofluorobenzene	97.0	% Recovery	BDL		100	97.0	85	---	114	0	
Bromoform	9.53	ug/L	<DL		10.0	95	66	---	130	8	20
Bromomethane	19.8	ug/L	<DL		10.0	198	53	---	141	6	20
Carbon disulfide	25.1	ug/L	<DL		20.0	126	64	---	133	6	20
Carbon tetrachloride	11.1	ug/L	0.60		10.0	105	72	---	136	3	20
Chlorobenzene	10.5	ug/L	<DL		10.0	105	82	---	118	2	20
Chloroethane	10.6	ug/L	<DL		10.0	106	60	---	138	4	20
Chloroform	11.5	ug/L	<DL		10.0	115	79	---	124	5	20
Chloromethane	12.1	ug/L	<DL		10.0	121	50	---	139	6	20
cis-1,2-Dichloroethene	11.4	ug/L	<DL		10.0	114	78	---	123	6	20
cis-1,3-Dichloropropene	11.0	ug/L	<DL		10.0	110	75	---	124	5	20
Cyclohexane	11.5	ug/L	<DL		10.0	115	71	---	130	8	20
d8-Toluene	105	% Recovery	BDL		100	105	89	---	112	0	
Dibromochloromethane	9.77	ug/L	<DL		10.0	98	74	---	126	7	20
Dibromofluoromethane	104	% Recovery	BDL		100	104	80	---	119	0	
Dichlorodifluoromethane	11.1	ug/L	<DL		10.0	111	32	---	152	10	20
Ethylbenzene	11.1	ug/L	<DL		10.0	111	79	---	121	2	20
Isopropylbenzene	10.4	ug/L	<DL		10.0	104	72	---	131	2	20

Matrix Spike Duplicate Water

Analytical Run #:	296249	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1647114	Analysis Time:	21:23	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	1647113	Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
m & p-Xylene	22.1	ug/L	<DL		20.0	110	80 --- 121	3	20
Methyl acetate	9.34	ug/L	<DL		10.0	93	56 --- 136	6	20
Methyl tert-butyl ether	11.3	ug/L	<DL		10.0	113	71 --- 124	8	20
Methylcyclohexane	10.9	ug/L	<DL		10.0	109	72 --- 132	5	20
Methylene chloride	9.80	ug/L	<DL		10.0	98	74 --- 124	6	20
o-Xylene	10.9	ug/L	<DL		10.0	109	78 --- 122	3	20
Styrene	10.1	ug/L	<DL		10.0	101	78 --- 123	3	20
Tetrachloroethene	12.3	ug/L	<DL		10.0	123	74 --- 129	2	20
Toluene	12.0	ug/L	<DL		10.0	120	80 --- 121	4	20
trans-1,2-Dichloroethene	12.2	ug/L	<DL		10.0	122	75 --- 124	5	20
trans-1,3-Dichloropropene	10.8	ug/L	<DL		10.0	108	73 --- 127	8	20
Trichloroethene	11.8	ug/L	<DL		10.0	118	79 --- 123	6	20
Trichlorofluoromethane	12.0	ug/L	<DL		10.0	120	65 --- 141	8	20
Vinyl chloride	13.3	ug/L	<DL		10.0	133	58 --- 137	5	20

Matrix Spike Water

Analytical Run #:	296249	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1647113	Analysis Time:	20:54	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	1645321	Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
1,1,1-Trichloroethane	11.6	ug/L	<DL		10.0	116	74	---	131		20
1,1,2,2-Tetrachloroethane	9.00	ug/L	<DL		10.0	90	71	---	121		20
1,1,2-Trichloroethane	10.2	ug/L	<DL		10.0	102	80	---	119		20
1,1-Dichloroethane	10.9	ug/L	<DL		10.0	109	77	---	125		20
1,1-Dichloroethene	12.2	ug/L	<DL		10.0	122	71	---	131		20
1,2 Dichloroethane-d4	95.0	% Recovery	BDL		100	95.0	81	---	118		
1,2,3-Trichlorobenzene	9.28	ug/L	<DL		10.0	93	69	---	129		20
1,2,4-Trichlorobenzene	9.75	ug/L	<DL		10.0	98	69	---	130		20
1,2-Dibromo-3-chloropropane	8.76	ug/L	<DL		10.0	88	62	---	128		20
1,2-Dibromoethane	8.89	ug/L	<DL		10.0	89	77	---	121		20
1,2-Dichlorobenzene	9.65	ug/L	<DL		10.0	96	80	---	119		20
1,2-Dichloroethane	10.1	ug/L	<DL		10.0	101	73	---	128		20
1,2-Dichloropropane	10.4	ug/L	<DL		10.0	104	78	---	122		20
1,3-Dichlorobenzene	9.85	ug/L	<DL		10.0	98	80	---	119		20
1,4-Dichlorobenzene	9.75	ug/L	<DL		10.0	98	79	---	118		20
1,4-Dioxane	637	ug/L	<DL		500	127	59	---	139		20
112Trichloro122trifluoroethane	21.0	ug/L	<DL		20.0	105	70	---	136		20
2-Butanone	79.8	ug/L	<DL		100	80	56	---	143		20
2-Hexanone	77.5	ug/L	<DL		100	78	57	---	139		20
4-Methyl-2-pentanone	100	ug/L	<DL		100	100	67	---	130		20
Acetone	56.8	ug/L	<DL		100	57	39	---	160		20
Benzene	11.3	ug/L	<DL		10.0	113	79	---	120		20
Bromochloromethane	10.8	ug/L	<DL		10.0	108	78	---	123		20
Bromodichloromethane	10.5	ug/L	<DL		10.0	105	79	---	125		20
Bromofluorobenzene	96.0	% Recovery	BDL		100	96.0	85	---	114		
Bromoform	8.83	ug/L	<DL		10.0	88	66	---	130		20
Bromomethane	18.7	ug/L	<DL		10.0	187	53	---	141		20
Carbon disulfide	23.7	ug/L	<DL		20.0	118	64	---	133		20
Carbon tetrachloride	10.7	ug/L	0.60		10.0	101	72	---	136		20
Chlorobenzene	10.3	ug/L	<DL		10.0	103	82	---	118		20
Chloroethane	10.2	ug/L	<DL		10.0	102	60	---	138		20
Chloroform	10.9	ug/L	<DL		10.0	109	79	---	124		20
Chloromethane	11.3	ug/L	<DL		10.0	113	50	---	139		20
cis-1,2-Dichloroethene	10.8	ug/L	<DL		10.0	108	78	---	123		20
cis-1,3-Dichloropropene	10.5	ug/L	<DL		10.0	105	75	---	124		20
Cyclohexane	10.6	ug/L	<DL		10.0	106	71	---	130		20
d8-Toluene	103	% Recovery	BDL		100	103	89	---	112		
Dibromochloromethane	9.07	ug/L	<DL		10.0	91	74	---	126		20
Dibromofluoromethane	102	% Recovery	BDL		100	102	80	---	119		
Dichlorodifluoromethane	10.1	ug/L	<DL		10.0	101	32	---	152		20
Ethylbenzene	10.9	ug/L	<DL		10.0	109	79	---	121		20
Isopropylbenzene	10.1	ug/L	<DL		10.0	101	72	---	131		20

Matrix Spike Water

Analytical Run #:	296249	Analysis Date:	10/31/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1647113	Analysis Time:	20:54	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	1645321	Analyst:	DGS	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
m & p-Xylene	21.5	ug/L	<DL		20.0	108	80 --- 121		20
Methyl acetate	8.80	ug/L	<DL		10.0	88	56 --- 136		20
Methyl tert-butyl ether	10.4	ug/L	<DL		10.0	104	71 --- 124		20
Methylcyclohexane	10.4	ug/L	<DL		10.0	104	72 --- 132		20
Methylene chloride	9.20	ug/L	<DL		10.0	92	74 --- 124		20
o-Xylene	10.5	ug/L	<DL		10.0	105	78 --- 122		20
Styrene	9.81	ug/L	<DL		10.0	98	78 --- 123		20
Tetrachloroethene	12.0	ug/L	<DL		10.0	120	74 --- 129		20
Toluene	11.5	ug/L	<DL		10.0	115	80 --- 121		20
trans-1,2-Dichloroethene	11.7	ug/L	<DL		10.0	117	75 --- 124		20
trans-1,3-Dichloropropene	9.90	ug/L	<DL		10.0	99	73 --- 127		20
Trichloroethene	11.2	ug/L	<DL		10.0	112	79 --- 123		20
Trichlorofluoromethane	11.0	ug/L	<DL		10.0	110	65 --- 141		20
Vinyl chloride	12.6	ug/L	<DL		10.0	126	58 --- 137		20

Lab Control Spike Water

Analytical Run #:	296340	Analysis Date:	10/29/2025	Prep Batch #:	140800	Matrix:	LIQUID
CTLab #:	1645739	Analysis Time:	11:05	Prep Date/Time:	10/29/2025 10:42	Method:	RSK175
Parent Sample #:		Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	4.01	ug/L			4.78	84	74 --- 131		20
Ethene	5.76	ug/L			6.80	85	72 --- 133		20
Methane	1.90	ug/L			2.30	83	73 --- 125		20

Method Blank Water

Analytical Run #:	296340	Analysis Date:	10/29/2025	Prep Batch #:	140800	Matrix:	LIQUID
CTLab #:	1645738	Analysis Time:	11:08	Prep Date/Time:	10/29/2025 10:42	Method:	RSK175
Parent Sample #:		Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	0.38	ug/L		U	0		0.5		
Ethene	0.59	ug/L		U	0		0.7		
Methane	0.45	ug/L		U	0		0.5		

Matrix Spike Duplicate Water

Analytical Run #:	296340	Analysis Date:	10/29/2025	Prep Batch #:	140800	Matrix:	GROUND WATER
CTLab #:	1645742	Analysis Time:	11:27	Prep Date/Time:	10/29/2025 10:42	Method:	RSK175
Parent Sample #:	1645741	Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	3.87	ug/L	<DL		4.78	81	74 --- 131	1	30
Ethene	5.58	ug/L	<DL		6.80	82	72 --- 133	1	30
Methane	1.81	ug/L	<DL		2.30	79	73 --- 125	0	30

Matrix Spike Water

Analytical Run #:	296340	Analysis Date:	10/29/2025	Prep Batch #:	140800	Matrix:	GROUND WATER
CTLab #:	1645741	Analysis Time:	11:20	Prep Date/Time:	10/29/2025 10:42	Method:	RSK175
Parent Sample #:	1645321	Analyst:	SRW	Prep Analyst:	SRW		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Ethane	3.85	ug/L	<DL		4.78	81	74 --- 131		30
Ethene	5.55	ug/L	<DL		6.80	82	72 --- 133		30
Methane	1.82	ug/L	<DL		2.30	79	73 --- 125		30

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	199400	Print Date / Time:	10/28/2025	13:00	
Client:	CAPE ENVIRONMENTAL MANAGEMENT	Received Date / Time / By:	10/28/2025	10:20	erc
Project Name:	RADFORD AAP SWMU 49	Log-In Date / Time / By:	10/28/2025	13:00	erc
Project Phase:	RADFORD, VA	Project #:	10409-0222	PM:	BMS
Coolers:	1-UNMARKED	Temperature:	12.8 C	On Ice:	**N**
Custody Seals Present :	**Y**	COC Present:?	**Y**	Complete?	**Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED		
Ship Method:	FEDEX EXPRESS	Tracking Number:	885327024275		
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**		

Notes: THE SAMPLES WERE RECEIVED OVER-TEMP DUE TO A FEDEX SHIPPING DELAY. THE CLIENT INSTRUCTED THE LAB TO PROCEED WITH THE ANALYSIS OF THE SAMPLES. THE SAMPLE DATA WILL BE QUALIFIED ACCORDINGLY.

SAMPLE 48MW7 FROM THIS COC WAS CANCELLED BECAUSE THIS WELL WAS RECOLLECTED ON 10/24/2025 (PLEASE SEE FOLDER # 199367).

TWO (2) CUSTODY SEALS WERE PRESENT AND INTACT ON THE COOLER UPON RECEIPT (BOTH WERE DATED 10/21/2025 AND SIGNED).

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1645319	TB-1				
		VOA HCL	1	/	VOC
		VOA HCL	1	/	VOC
		Total # of Containers of Type	(***VOA HCL***) = **2**		
Sample ID /	**Description**	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1645320	48MW7-EQB				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	(***UNPRES PL***) = **1**		
1645320	48MW7-EQB				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) = **5**		
1645320	48MW7-EQB				
		H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type	(***H2SO4 PL***) = **1**		
Sample ID /	**Description**	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1645321	13MW5				

		UNPRES PL	1	/	Anions
		UNPRES PL	1	/	ANIONS
		UNPRES PL	1	/	ANIONS
		Total # of Containers of Type (*UNPRES PL*) = 3			
1645321	13MW5				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type (*VOA HCL*) = 15			
1645321	13MW5				
		H2SO4 PL	1	Y /	TOC
		H2SO4 PL	1	Y /	TOC
		H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type (*H2SO4 PL*) = 3			

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1645322	13MW4				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type (*UNPRES PL*) = 1			
1645322	13MW4				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type (*VOA HCL*) = 5			
1645322	13MW4				
		H2SO4 PL	1	Y /	TOC
		Total # of Containers of Type (*H2SO4 PL*) = 1			

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1645323	13MW3				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type (*UNPRES PL*) = 1			
1645323	13MW3				

	VOA HCL	1		/	GAS,VOC
	VOA HCL	1		/	GAS,VOC
	VOA HCL	1		/	GAS,VOC
	VOA HCL	1		/	GAS,VOC
	VOA HCL	1		/	GAS,VOC
	Total # of Containers of Type	(***VOA HCL***) = **5**			

1645323 13MW3

	H2SO4 PL	1	Y	/	TOC
	Total # of Containers of Type	(***H2SO4 PL***) = **1**			

Condition Code *Condition Description*

1 Sample Received OK

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: CAPE Environmental

Project Contact: Matt Feits

Telephone: (724) 622-3625

Project Name: Radford AAP

Project #: SWMU 48/49

Location: Radford, VA

Sampled By: Y. Miyakawa, P. Taylor

CT

Folder # 199400

Company: CAPE ENVIRONMENTAL MA

Project: RADFORD AAP SWMU 48 49

Logged By: ere PM: BMS

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Program:

M RCRA SDWA NPDES

lid Waste Other _____

) #

Report To: ChemistrySVCS@capeinc.com
EMAIL: mfeits@cape-inc.com
Company: CAPE Environmental Mgmt.
Address: 500 Pinnacle Ct. #100 Norcross, GA 30071

Invoice To:* Same
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

2025 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOC 8260C	MEE RSK-175	TOC 9060A	Anions 9056A											Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test																	
10/21	0000	GW	G		TB-1	N	2										Trip Blank				2		164819
10/21	0935	GW	G		48MW7	N	3	2	1	1											7		recollected 10/24 - EQ
10/21	1005	GW	G		48MW7-EQB	N	3	2	1	1											7		164820
10/21	1137	GW	G		13MW5	N	9	6	3	3											21	X	〃
10/21	1325	GW	G		13MW4	N	3	2	1	1											7		〃
10/21	1458	GW	G		13MW3	N	3	2	1	1											7		〃

Relinquished By:	Date/Time	Received By:	Date/Time	Lab Use Only
	10/21/2025 1800	FedEx	10/21/2025 1800	Ice Present Yes (No)
Received by:	Date/Time	Received for Laboratory by:	Date/Time	Temp 2.8 IR Gun 33
			10/22/25 1020	Cooler # XXX

EQ 10/22/25 1304

ORIGIN ID:LIYA (614) 716-8502
YOKO MIYAKAWA
CAPE ENVIRONMENTAL MANAGAMENT INC.
500 PINNACLE COURT
STE. 100
NORCROSS, GA 30071
UNITED STATES US

SHIP DATE: 21OCT25
ACTWGT: 45.00 LB
CAD: 10021060/INET4535

BILL SENDER

TO **SAMPLE RECEIVING**
CT LABS
1230 LANGE COURT

BARABOO WI 53913
(608) 356-2760
INV:
PO: DEPT:

REF: 10409-0222-002-006

58HJ4/008C/59F2

J2540230102401uv

FedEx Express

TRK# 0201 8853 2702 4275

XS LNRA

WED - 22 OCT 10:30A
PRIORITY OVERNIGHT

53913
WI-US MSN

CUSTODY SEAL
DATE 10/21/2025
SIGNATURE

QEC
Quality Environmental Containers
800-255-3950 • www.qecusa.com

After printing this label:
CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH
1. Fold the printed page along the horizontal line.
2. Place label in shipping pouch and affix it to your shipment.

CUSTODY SEAL
DATE 10/21/2025
SIGNATURE

QEC
Quality Environmental Containers
800-255-3950 • www.qecusa.com

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...loss of sales, income interest, profit, attorney's fees, costs, and other damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Ice Present Yes No

Temperature 128 33

Initials EC

Date 10/24 Time 1030

Cooler # XXX

Szymanski, Brett M

From: Matthew Feits <mfeits@cape-inc.com>
Sent: 10/28/2025 12:51
To: Pace, Anthony; Nisreen Saikaly; Szymanski, Brett M; Yoko Miyakawa; CAPE Chemistry Services; Scott Miller
Subject: RE: Delayed Radford AAP Cooler

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

@Szymanski, Brett M Please proceed to analyze.

Sincerely,
Matthew Feits
Project Manager
Cape Environmental Management Inc
mfeits@cape-inc.com
Freedom, PA
(724)-622-3625

OUTSTANDING PEOPLE WORKING TOGETHER TO DELIVER OUTSTANDING RESULTS

Connect with CAPE:

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---

From: Pace, Anthony <pacea@WestonSolutions.com>
Sent: Tuesday, October 28, 2025 1:38 PM
To: Matthew Feits <mfeits@cape-inc.com>; Nisreen Saikaly <nsaikaly@cape-inc.com>; Szymanski, Brett M <BSzymanski@ctlaboratories.com>; Yoko Miyakawa <ymiyakawa@cape-inc.com>; CAPE Chemistry Services <chemistrysvcs@cape-inc.com>; Scott Miller <smiller@cape-inc.com>
Subject: RE: Delayed Radford AAP Cooler

CAUTION EXTERNAL E-MAIL: This email originated from outside CAPE. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Yes, and I don't think a re-sample is required. Likely the data will be consistent with past data and that will go a long way in documenting that the data is still of sufficient quality to use for an LTM program.

Tony Pace
Principal Project Manager
(757) 362-2461 pacea@WestonSolutions.com

From: Matthew Feits <mfeits@cape-inc.com>
Sent: Tuesday, October 28, 2025 1:35 PM
To: Nisreen Saikaly <nsaikaly@cape-inc.com>; Szymanski, Brett M <BSzymanski@ctlaboratories.com>; Yoko Miyakawa <ymiyakawa@cape-inc.com>; CAPE Chemistry Services <chemistrysvcs@cape-inc.com>; Scott Miller <smiller@cape-inc.com>; Pace, Anthony <pacea@WestonSolutions.com>
Subject: RE: Delayed Radford AAP Cooler

***** External Message *** -- PROBE message before clicking links or opening attachments.**

@Pace, Anthony what is your take on this? See the email chain below.... We'll have some J values and the nitrate will be out of the hold time.

Have you ran into this instance before and do you this warrants needing to resample?

Sincerely,
Matthew Feits
Project Manager
Cape Environmental Management Inc
mfeits@cape-inc.com
Freedom, PA
(724)-622-3625

CAPE

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From: Nisreen Saikaly <nsaikaly@cape-inc.com>
Sent: Tuesday, October 28, 2025 12:18 PM
To: Matthew Feits <mfeits@cape-inc.com>; Szymanski, Brett M <BSzymanski@ctlaboratories.com>; Yoko Miyakawa <ymiyakawa@cape-inc.com>; CAPE Chemistry Services <chemistrysvcs@cape-inc.com>; Scott Miller <smiller@cape-inc.com>
Subject: RE: Delayed Radford AAP Cooler

Yes.

Thanks,

Nisreen Saikaly, PMP, ASQ CQA
Senior Program Chemist

Cape Environmental Management Inc
(803) 553-9844
Columbia, SC



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From: Matthew Feits <mfeits@cape-inc.com>
Sent: Tuesday, October 28, 2025 12:18 PM
To: Nisreen Saikaly <nsaikaly@cape-inc.com>; Szymanski, Brett M <BSzymanski@ctlaboratories.com>; Yoko Miyakawa <ymiyakawa@cape-inc.com>; CAPE Chemistry Services <chemistrysvcs@cape-inc.com>; Scott Miller <smiller@cape-inc.com>
Subject: RE: Delayed Radford AAP Cooler

Nisreen,

Would this historically still be acceptable data to use for an annual report despite the J Values?

Sincerely,
Matthew Feits
Project Manager
Cape Environmental Management Inc
mfeits@cape-inc.com
Freedom, PA
(724)-622-3625



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---

From: Nisreen Saikaly <nsaikaly@cape-inc.com>
Sent: Tuesday, October 28, 2025 12:12 PM
To: Matthew Feits <mfeits@cape-inc.com>; Szymanski, Brett M <BSzymanski@ctlaboratories.com>; Yoko Miyakawa <ymiyakawa@cape-inc.com>; CAPE Chemistry Services <chemistrysvcs@cape-inc.com>; Scott Miller <smiller@cape-

inc.com>
Cc: Nisreen Saikaly <nsaikaly@cape-inc.com>
Subject: RE: Delayed Radford AAP Cooler

The temperature exceedance of 12.5°C will result in the data being qualified (J-flagged)

Once holding time exceeds 2× the limit, the result is rejected. We are beyond that threshold for Nitrate, so the Nitrate data will be rejected during data validation.

That said, I still recommend analyzing all samples, including Nitrate. Even a rejected result can still be informative if it aligns with historical trends.

Thanks,

Nisreen Saikaly, PMP, ASQ CQA
Senior Program Chemist
Cape Environmental Management Inc
(803) 553-9844
Columbia, SC



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From: Matthew Feits <mfeits@cape-inc.com>
Sent: Tuesday, October 28, 2025 11:57 AM
To: Szymanski, Brett M <BSzymanski@ctlaboratories.com>; Nisreen Saikaly <nsaikaly@cape-inc.com>; Yoko Miyakawa <ymiyakawa@cape-inc.com>; CAPE Chemistry Services <chemistrysvcs@cape-inc.com>; Scott Miller <smiller@cape-inc.com>
Subject: RE: Delayed Radford AAP Cooler

@Nisreen Saikaly can you please give me your input on this and let me know how you advise us to proceed?

Sincerely,
Matthew Feits
Project Manager
Cape Environmental Management Inc
mfeits@cape-inc.com
Freedom, PA
(724)-622-3625



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From: Szymanski, Brett M <BSzymanski@ctlaboratories.com>
Sent: Tuesday, October 28, 2025 11:52 AM
To: Matthew Feits <mfeits@cape-inc.com>; Nisreen Saikaly <nsaikaly@cape-inc.com>; Yoko Miyakawa <ymiyakawa@cape-inc.com>; CAPE Chemistry Services <chemistrysvcs@cape-inc.com>; Scott Miller <smiller@cape-inc.com>
Subject: RE: Delayed Radford AAP Cooler

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Hello Matthew,

The only hold time that has been exceeded at this point is the 48-hour hold time for Nitrate analysis. All other parameters have a hold time of at least 14-days from collection.

I believe the data validation guidelines allow the results to be reported as estimated when samples are received at a temperature greater than 6°C but less than 15°C. You may want to check with your third-party data validation team for confirmation.

Thanks,

Brett Szymanski
Lab Director/Project Manager
CT Laboratories LLC
a woman-owned small business
1230 Lange Court
Baraboo, WI 53913
608-356-2760 office
608-356-2766 fax
www.ctlaboratories.com

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From: Matthew Feits <mfeits@cape-inc.com>
Sent: 10/28/2025 10:44 AM
To: Szymanski, Brett M <BSzymanski@ctlaboratories.com>; Nisreen Saikaly <nsaikaly@cape-inc.com>; Yoko Miyakawa <ymiyakawa@cape-inc.com>; CAPE Chemistry Services <chemistrysvcs@cape-inc.com>; Scott Miller <smiller@cape-inc.com>
Subject: RE: Delayed Radford AAP Cooler

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Brett,

I'm assuming all hold times are missed at this point and the temp wont provide adequate results?

Sincerely,
Matthew Feits
Project Manager
Cape Environmental Management Inc
mfeits@cape-inc.com
Freedom, PA
(724)-622-3625



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---

From: Szymanski, Brett M <BSzymanski@ctlaboratories.com>
Sent: Tuesday, October 28, 2025 11:40 AM
To: Matthew Feits <mfeits@cape-inc.com>; Nisreen Saikaly <nsaikaly@cape-inc.com>; Yoko Miyakawa <ymiyakawa@cape-inc.com>; CAPE Chemistry Services <chemistrysvcs@cape-inc.com>; Scott Miller <smiller@cape-inc.com>
Subject: Delayed Radford AAP Cooler
Importance: High

CAUTION EXTERNAL E-MAIL: This email originated from outside CAPE. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello,

The delayed cooler containing the Radford AAP samples from 10/21/2025 just arrived at our facility. The receipt temperature was 12.8°C with only melt-water remaining in the cooler. Please let me know how you would like to proceed.

Thanks,

Brett Szymanski
Lab Director/Project Manager
CT Laboratories LLC
a woman-owned small business
1230 Lange Court

Baraboo, WI 53913
608-356-2760 office
608-356-2766 fax
www.ctlaboratories.com

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ANALYTICAL SUMMARY REPORT

This report at a minimum contains the following information:

Analytical Report of Test Results
Description of QC Qualifiers
Chain of Custody (copy)
Quality Control Summary (if applicable)
Case Narrative (if applicable)
Correspondence with Client (if applicable)

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

ANALYTICAL SAMPLE DATA

CAPE ENVIRONMENTAL MANAGEMENT
MATT FEITS
500 PINNACLE COURT
SUITE 100
NORCROSS, GA 30071

Project Name: RADFORD AAP SWMU 49
Project Phase: IDW
Project #: 10409-0222
Folder #: 199369
Purchase Order #: SC013781
Contract #: 3648

Arrival Temperature: 3
Report Date: 11/11/2025
Date Received: 10/25/2025
Reprint Date: 11/11/2025

Copy: chemistrysvcs@cape-inc.com

CT LAB#: 1644235 Sample Description: 49IDW Client Sample #: Sampled: 10/24/2025 15:30

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method	
Inorganic Results														
pH	***7.64***	S.U.					1.00				10/27/25 15:00	ATJ	EPA 9040C	^
COD	***270***	mg/L	18	50	75	75	1.00			10/28/25 09:30	10/29/25 13:59	RLB	EPA 410.4	^
Metals Results														
Total Potassium	***10100***	ug/L	120	250	500	500	1.00			10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C	
Total Sodium	***38400***	ug/L	200	500	700	700	1.00			10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C	
Total Aluminum	***3930***	ug/L	15	60	120	120	1.00	M		10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C	
Total Antimony	<10	ug/L	4.4	10	20	20	1.00	U		10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C	
Total Arsenic	<20	ug/L	7.7	20	40	40	1.00	U		10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C	
Total Barium	***144***	ug/L	0.71	2.0	4.0	4.0	1.00			10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C	
Total Beryllium	<3.0	ug/L	0.75	3.0	8.0	8.0	1.00	U		10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C	
Total Cadmium	***1.7***	ug/L	0.41	1.0	2.0	2.0	1.00	J		10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C	
Total Calcium	***78300***	ug/L	25	50	100	100	1.00			10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C	
Total Chromium	***5.9***	ug/L	1.1	2.5	5.0	5.0	1.00			10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C	
Total Cobalt	***3.0***	ug/L	0.60	2.5	5.0	5.0	1.00	J		10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C	
Total Copper	***15.4***	ug/L	5.2	20	40	40	1.00	J		10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C	

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

CT LAB#: 1644235 Sample Description: 49IDW Client Sample #: Sampled: 10/24/2025 15:30

Analyte	Result	Units	DL	DOD LOD	DOD LOQ	RL	DF	Qualifier	Leach Date	Prep Date/Time	Analysis Date/Time	Analyst	Method
Total Iron	***4470***	ug/L	14	40	80	80	1.00			10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C
Total Lead	***15.7***	ug/L	1.4	5.0	10	10	1.00			10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C
Total Magnesium	***40300***	ug/L	10	25	40	40	1.00			10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C
Total Manganese	***113***	ug/L	1.4	3.0	5.0	5.0	1.00	M		10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C
Total Nickel	***5.3***	ug/L	1.5	3.0	5.0	5.0	1.00			10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C
Total Selenium	<20	ug/L	10	20	40	40	1.00	U		10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C
Total Silver	<2.5	ug/L	1.1	2.5	5.0	5.0	1.00	U		10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C
Total Thallium	<20	ug/L	6.8	20	40	40	1.00	U		10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C
Total Vanadium	***6.8***	ug/L	1.3	3.0	5.0	5.0	1.00			10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C
Total Zinc	***150***	ug/L	4.5	10	20	20	1.00	Y		10/27/25 22:42	10/28/25 13:07	NAH	EPA 6010C
Total Mercury	<0.080	ug/L	0.020	0.080	0.12	0.12	1.00	U M		10/28/25 15:00	10/29/25 10:36	MDS	EPA 7470A

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis

Notes:

^ Indicates the laboratory is NELAP accredited for this analyte by the indicated matrix and method . DL (detection limit), LOD (limit of detection), loq (limit of quantitation) as defined by most recent DOD QSM version.

All samples were received intact and properly preserved unless otherwise noted . The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for the parameters where accreditation is required or available, unless noted in the case narrative.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

QC Qualifiers

Code	Description
A	Result cannot be used for compliance due to QC issue
B	Analyte detected in the associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
I	Incubator temperature was outside acceptance limits during test period.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was below detection limit.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Specified calibration criteria was not met.

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 289
Louisiana NELAP (primary) ID# 115843
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Florida NELAP Lab ID# E871111

DoD-ELAP QSM5.4 -
PJLA Testing Accreditation # 78929

ISO/IEC 17025-2017 Accredited -
PJLA Testing Accreditation # 78929

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QC Summary Report

CAPE ENVIRONMENTAL MANAGEMENT **Project Name: RADFORD AAP SWMU 49**

SDG #: 0 **Folder #: 199369** **Project #: 10409-0222**

Duplicate

Analytical Run #:	296295	Analysis Date:	10/27/2025	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	1644539	Analysis Time:	15:00	Prep Date/Time:		Method:	SW9045C
Parent Sample #:	1644235	Analyst:	ATJ	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
pH	7.65	S.U.	7.64					0	1

Lab Control Spike Water

Analytical Run #:	296304	Analysis Date:	10/29/2025	Prep Batch #:	140780	Matrix:	LIQUID
CTLab #:	1645116	Analysis Time:	13:59	Prep Date/Time:	10/28/2025 09:30	Method:	E410.4
Parent Sample #:		Analyst:	RLB	Prep Analyst:	RLB		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
COD	379.8	mg/L			400.0	95	90 --- 110		

Method Blank Water

Analytical Run #:	296304	Analysis Date:	10/29/2025	Prep Batch #:	140780	Matrix:	LIQUID
CTLab #:	1645115	Analysis Time:	13:59	Prep Date/Time:	10/28/2025 09:30	Method:	E410.4
Parent Sample #:		Analyst:	RLB	Prep Analyst:	RLB		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total COD	18	mg/L		U	0		37		

Duplicate

Analytical Run #:	296298	Analysis Date:	10/28/2025	Prep Batch #:	140756	Matrix:	GROUND WATER
CTLab #:	1644371	Analysis Time:	13:22	Prep Date/Time:	10/27/2025 22:42	Method:	SW6010
Parent Sample #:	1644235	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Potassium	11000	ug/L	10100				500	9	20

Duplicate

Analytical Run #:	296298	Analysis Date:	10/28/2025	Prep Batch #:	140756	Matrix:	GROUND WATER
CTLab #:	1644371	Analysis Time:	13:22	Prep Date/Time:	10/27/2025 22:42	Method:	SW6010
Parent Sample #:	1644235	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Sodium	32900	ug/L	38400				700	15	20

Lab Control Spike Water

Analytical Run #:	296298	Analysis Date:	10/28/2025	Prep Batch #:	140756	Matrix:	LIQUID
CTLab #:	1644370	Analysis Time:	12:53	Prep Date/Time:	10/27/2025 22:42	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Potassium	102000	ug/L			100000	102	86 --- 114		

Lab Control Spike Water

Analytical Run #:	296298	Analysis Date:	10/28/2025	Prep Batch #:	140756	Matrix:	LIQUID
CTLab #:	1644370	Analysis Time:	12:53	Prep Date/Time:	10/27/2025 22:42	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Sodium	92000	ug/L			100000	92	87 --- 115		

Method Blank Water

Analytical Run #:	296298	Analysis Date:	10/28/2025	Prep Batch #:	140756	Matrix:	LIQUID
CTLab #:	1644369	Analysis Time:	13:00	Prep Date/Time:	10/27/2025 22:42	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Potassium	120	ug/L		U	0		250		

Method Blank Water

Analytical Run #:	296298	Analysis Date:	10/28/2025	Prep Batch #:	140756	Matrix:	LIQUID
CTLab #:	1644369	Analysis Time:	13:00	Prep Date/Time:	10/27/2025 22:42	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Sodium	200	ug/L		U	0		350		

Matrix Spike Duplicate Water

Analytical Run #:	296298	Analysis Date:	10/28/2025	Prep Batch #:	140756	Matrix:	GROUND WATER
CTLab #:	1644373	Analysis Time:	13:36	Prep Date/Time:	10/27/2025 22:42	Method:	SW6010
Parent Sample #:	1644372	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Potassium	108000	ug/L	10100		100000	98	86 --- 114	1	20

Matrix Spike Duplicate Water

Analytical Run #:	296298	Analysis Date:	10/28/2025	Prep Batch #:	140756	Matrix:	GROUND WATER
CTLab #:	1644373	Analysis Time:	13:36	Prep Date/Time:	10/27/2025 22:42	Method:	SW6010
Parent Sample #:	1644372	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Sodium	126000	ug/L	38400		100000	88	87 --- 115	2	20

Matrix Spike Water

Analytical Run #:	296298	Analysis Date:	10/28/2025	Prep Batch #:	140756	Matrix:	GROUND WATER
CTLab #:	1644372	Analysis Time:	13:29	Prep Date/Time:	10/27/2025 22:42	Method:	SW6010
Parent Sample #:	1644235	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Potassium	109000	ug/L	10100		100000	99	86 --- 114		20

Matrix Spike Water

Analytical Run #:	296298	Analysis Date:	10/28/2025	Prep Batch #:	140756	Matrix:	GROUND WATER
CTLab #:	1644372	Analysis Time:	13:29	Prep Date/Time:	10/27/2025 22:42	Method:	SW6010
Parent Sample #:	1644235	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Sodium	128000	ug/L	38400		100000	90	87 --- 115		20

Duplicate

Analytical Run #:	296299	Analysis Date:	10/28/2025	Prep Batch #:	140757	Matrix:	GROUND WATER
CTLab #:	1644376	Analysis Time:	13:22	Prep Date/Time:	10/27/2025 22:42	Method:	SW6010
Parent Sample #:	1644235	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Aluminum	4230	ug/L	3930				120	7	20
Total Antimony	4.40	ug/L	<DL	U			20	0	20
Total Arsenic	7.70	ug/L	<DL	U			40	0	20
Total Barium	138	ug/L	144				4.0	4	20
Total Beryllium	0.750	ug/L	<DL	U			8.0	0	20
Total Cadmium	1.5	ug/L	1.7				2.0	12	20
Total Calcium	78000	ug/L	78300				100	0	20
Total Chromium	6.4	ug/L	5.9				5.0	8	20
Total Cobalt	3.0	ug/L	3.0				5.0	0	20
Total Copper	12.9	ug/L	15.4				40	18	20
Total Iron	5120	ug/L	4470				80	14	20
Total Lead	15.2	ug/L	15.7				10	3	20
Total Magnesium	40400	ug/L	40300				40	0	20
Total Manganese	117	ug/L	113				5.0	3	20
Total Nickel	6.2	ug/L	5.3				5.0	16	20
Total Selenium	10.0	ug/L	<DL	U			40	0	20
Total Silver	1.10	ug/L	<DL	U			5.0	0	20
Total Thallium	6.80	ug/L	<DL	U			40	0	20
Total Vanadium	7.8	ug/L	6.8				5.0	14	20
Total Zinc	39.1	ug/L	150				20	117	20

Lab Control Spike Water

Analytical Run #:	296299	Analysis Date:	10/28/2025	Prep Batch #:	140757	Matrix:	LIQUID
CTLab #:	1644375	Analysis Time:	12:53	Prep Date/Time:	10/27/2025 22:42	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Total Aluminum	787.0	ug/L			800.0	98	86	---	115		
Total Antimony	193.0	ug/L			200.0	96	88	---	113		
Total Arsenic	789.0	ug/L			800.0	99	87	---	113		
Total Barium	782.0	ug/L			800.0	98	88	---	113		
Total Beryllium	20.20	ug/L			20.0	101	89	---	112		
Total Cadmium	19.90	ug/L			20.0	100	88	---	113		
Total Calcium	194000	ug/L			200000	97	87	---	113		
Total Chromium	78.20	ug/L			80.0	98	90	---	113		
Total Cobalt	191.0	ug/L			200.0	96	89	---	114		
Total Copper	101.0	ug/L			100.0	101	86	---	114		
Total Iron	377.0	ug/L			400.0	94	87	---	115		
Total Lead	182.0	ug/L			200.0	91	86	---	113		
Total Magnesium	102000	ug/L			100000	102	85	---	113		
Total Manganese	190.0	ug/L			200.0	95	90	---	114		
Total Nickel	209.0	ug/L			200.0	104	88	---	113		
Total Selenium	774.0	ug/L			800.0	97	83	---	114		
Total Silver	20.10	ug/L			20.0	100	84	---	115		
Total Thallium	776.0	ug/L			800.0	97	85	---	114		
Total Vanadium	190.0	ug/L			200.0	95	90	---	111		
Total Zinc	200.0	ug/L			200.0	100	87	---	115		

Method Blank Water

Analytical Run #:	296299	Analysis Date:	10/28/2025	Prep Batch #:	140757	Matrix:	LIQUID
CTLab #:	1644374	Analysis Time:	13:00	Prep Date/Time:	10/27/2025 22:42	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Aluminum	15	ug/L		U	0		60		
Total Antimony	4.4	ug/L		U	0		10		
Total Arsenic	7.7	ug/L		U	0		20		
Total Barium	0.71	ug/L		U	0		2.0		
Total Beryllium	0.75	ug/L		U	0		4.0		
Total Cadmium	0.41	ug/L		U	0		1.0		
Total Calcium	25	ug/L		U	0		50		
Total Chromium	1.1	ug/L		U	0		2.5		
Total Cobalt	0.60	ug/L		U	0		2.5		
Total Copper	5.2	ug/L		U	0		20		
Total Iron	14	ug/L		U	0		40		
Total Lead	1.4	ug/L		U	0		5.0		
Total Magnesium	10	ug/L		U	0		20		
Total Manganese	1.4	ug/L		U	0		2.5		
Total Nickel	1.5	ug/L		U	0		2.5		
Total Selenium	10	ug/L		U	0		20		
Total Silver	1.1	ug/L		U	0		2.5		
Total Thallium	6.8	ug/L		U	0		20		
Total Vanadium	1.3	ug/L		U	0		2.5		
Total Zinc	4.5	ug/L		U	0		10		

Matrix Spike Duplicate Water

Analytical Run #:	296299	Analysis Date:	10/28/2025	Prep Batch #:	140757	Matrix:	GROUND WATER
CTLab #:	1644378	Analysis Time:	13:36	Prep Date/Time:	10/27/2025 22:42	Method:	SW6010
Parent Sample #:	1644377	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Total Aluminum	6430	ug/L	3930		800	312	86	---	115	4	20
Total Antimony	182	ug/L	<DL		200	91	88	---	113	2	20
Total Arsenic	764	ug/L	<DL		800	96	87	---	113	1	20
Total Barium	880	ug/L	144		800	92	88	---	113	2	20
Total Beryllium	20.0	ug/L	<DL		20.0	100	89	---	112	1	20
Total Cadmium	20.1	ug/L	1.7		20.0	92	88	---	113	2	20
Total Calcium	254000	ug/L	78300		200000	88	87	---	113	2	20
Total Chromium	85.0	ug/L	5.9		80.0	99	90	---	113	0	20
Total Cobalt	187	ug/L	3.0		200	92	89	---	114	1	20
Total Copper	115	ug/L	15.4		100	100	86	---	114	0	20
Total Iron	4840	ug/L	4470		400	92	87	---	115	2	20
Total Lead	188	ug/L	15.7		200	86	86	---	113	3	20
Total Magnesium	136000	ug/L	40300		100000	96	85	---	113	1	20
Total Manganese	287	ug/L	113		200	87	90	---	114	2	20
Total Nickel	204	ug/L	5.3		200	99	88	---	113	0	20
Total Selenium	734	ug/L	<DL		800	92	83	---	114	2	20
Total Silver	20.7	ug/L	<DL		20.0	104	84	---	115	1	20
Total Thallium	708	ug/L	<DL		800	88	85	---	114	2	20
Total Vanadium	191	ug/L	6.8		200	92	90	---	111	2	20
Total Zinc	241	ug/L	150		200	46	87	---	115	2	20

Matrix Spike Water

Analytical Run #:	296299	Analysis Date:	10/28/2025	Prep Batch #:	140757	Matrix:	GROUND WATER
CTLab #:	1644377	Analysis Time:	13:29	Prep Date/Time:	10/27/2025 22:42	Method:	SW6010
Parent Sample #:	1644235	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
Total Aluminum	6180	ug/L	3930		800	281	86	---	115		20
Total Antimony	185	ug/L	<DL		200	92	88	---	113		20
Total Arsenic	774	ug/L	<DL		800	97	87	---	113		20
Total Barium	899	ug/L	144		800	94	88	---	113		20
Total Beryllium	20.3	ug/L	<DL		20.0	102	89	---	112		20
Total Cadmium	20.6	ug/L	1.7		20.0	94	88	---	113		20
Total Calcium	259000	ug/L	78300		200000	90	87	---	113		20
Total Chromium	85.2	ug/L	5.9		80.0	99	90	---	113		20
Total Cobalt	189	ug/L	3.0		200	93	89	---	114		20
Total Copper	115	ug/L	15.4		100	100	86	---	114		20
Total Iron	4750	ug/L	4470		400	70	87	---	115		20
Total Lead	193	ug/L	15.7		200	89	86	---	113		20
Total Magnesium	138000	ug/L	40300		100000	98	85	---	113		20
Total Manganese	292	ug/L	113		200	90	90	---	114		20
Total Nickel	205	ug/L	5.3		200	100	88	---	113		20
Total Selenium	748	ug/L	<DL		800	94	83	---	114		20
Total Silver	21.0	ug/L	<DL		20.0	105	84	---	115		20
Total Thallium	722	ug/L	<DL		800	90	85	---	114		20
Total Vanadium	194	ug/L	6.8		200	94	90	---	111		20
Total Zinc	246	ug/L	150		200	48	87	---	115		20

Duplicate

Analytical Run #:	296336	Analysis Date:	10/29/2025	Prep Batch #:	140758	Matrix:	GROUND WATER
CTLab #:	1644395	Analysis Time:	10:39	Prep Date/Time:	10/28/2025 15:00	Method:	SW7470A
Parent Sample #:	1644235	Analyst:	MDS	Prep Analyst:	MDS		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Mercury	0.0200	ug/L	<DL	U			0.12	0	20

Lab Control Spike Water

Analytical Run #:	296336	Analysis Date:	10/29/2025	Prep Batch #:	140758	Matrix:	LIQUID
CTLab #:	1644394	Analysis Time:	10:20	Prep Date/Time:	10/28/2025 15:00	Method:	SW7470A
Parent Sample #:		Analyst:	MDS	Prep Analyst:	MDS		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Mercury	1.87	ug/L			2.00	94	82 --- 119		

Method Blank Water

Analytical Run #:	296336	Analysis Date:	10/29/2025	Prep Batch #:	140758	Matrix:	LIQUID
CTLab #:	1644393	Analysis Time:	10:26	Prep Date/Time:	10/28/2025 15:00	Method:	SW7470A
Parent Sample #:		Analyst:	MDS	Prep Analyst:	MDS		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Mercury	0.020	ug/L		U	0		0.06		

Matrix Spike Duplicate Water

Analytical Run #:	296336	Analysis Date:	10/29/2025	Prep Batch #:	140758	Matrix:	GROUND WATER
CTLab #:	1644397	Analysis Time:	10:50	Prep Date/Time:	10/28/2025 15:00	Method:	SW7470A
Parent Sample #:	1644396	Analyst:	MDS	Prep Analyst:	MDS		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Mercury	0.0200	ug/L	<DL	U	2.0	0	82 --- 119	0	20

Matrix Spike Water

Analytical Run #:	296336	Analysis Date:	10/29/2025	Prep Batch #:	140758	Matrix:	GROUND WATER
CTLab #:	1644396	Analysis Time:	10:47	Prep Date/Time:	10/28/2025 15:00	Method:	SW7470A
Parent Sample #:	1644235	Analyst:	MDS	Prep Analyst:	MDS		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Total Mercury	0.0200	ug/L	<DL	U	2.0	0	82 --- 119		20

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	199369	Print Date / Time:	10/27/2025 09:51
Client:	CAPE ENVIRONMENTAL MANAGEMENT	Received Date / Time / By:	10/25/2025 11:55 ATJ
Project Name:	RADFORD AAP SWMU 49	Log-In Date / Time / By:	10/27/2025 09:51 BPC
Project Phase:	IDW	Project #:	10409-0222 PM: BMS
Coolers:	1-UNMARKED	Temperature:	3.0 C On Ice: **Y**
Custody Seals Present :	**Y**	COC Present:?	**Y** Complete? **Y**
Seal Intact?	**Y**	Numbers:	SIGNED & DATED
Ship Method:	FEDEX EXPRESS	Tracking Number:	885390520908
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**

Notes: THE SAMPLE WAS RECEIVED IN GOOD CONDITION ON ICE.

TWO (2) CUSTODY SEALS WERE PRESENT AND INTACT ON THE COOLER UPON RECEIPT (BOTH WERE DATED 10/24/2025 AND SIGNED).

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1644235 49IDW				
	H2SO4 PL	1	Y /	COD
	Total # of Containers of Type (*H2SO4 PL*) = 1			
1644235 49IDW				
	HNO3	1	Y /	HG,ICP,K,NA
	Total # of Containers of Type (*HNO3*) = 1			
1644235 49IDW				
	UNPRES PL	1	/	pH
	Total # of Containers of Type (*UNPRES PL*) = 1			

Condition Code	*Condition Description*
1	Sample Received OK

Rev. 02/2017

Page 1 of 1

Company: CAPE Environmental
Project Contact: Matt Feits
Telephone: (724) 622-3625
Project Name: Radford AAP SWMU 49
Project #:
Location: Radford, VA
Sampled By: Y. Misyakova, P. Taylor

Lab Log #: 199369
Company: CAPE ENVIRONMENTAL MA
Project: RADFORD AAP
Logged By: BPC PM: BMS

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO # 74704

Report To: Chemistry SVCS@Capeinc.com
EMAIL: mfeits@capeinc.com
Company: Cape Environmental Mgmt
Address: 500 Pinnacle Ct. #160 Norcross, GA 30071

Invoice To:* Some
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time: Normal (circled) RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

2025 Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	ANALYSES REQUESTED: pH 9040	COD 410.4	Total Metals 6010C	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test					
10/24	1530	GW	G		49IDW	N	1	1	1	3		1044235

Relinquished By: [signature] Date/Time 10/24/2025 1700
Received by: [signature] Date/Time 10/25/25 1155

Received By: FedEx Date/Time 10/24/2025 1700
Received for Laboratory by: BPC Date/Time 10/27/25 0945

Lab Use Only
Ice Present (Yes) No
Temp 3.0 IR Gun 34
Cooler # Unmarked

Cooler Receipt Form

Ice Present (YES) NO

Observed Temperature 3.0

Actual Temperature —

IR Gun # SRT 34

Initials HH

Date 10-25-25 Time 11:55

Cooler #: —

QEC Quality Environmental Containers 800-255-3950 • www.qecusa.com

CUSTODY SEAL 10/24/2025 SIGNATURE DATE

ORIGIN ID:LIYA (614) 716-8502
YOKO MIYAKAWA
500 PINNACLE CT SUITE 100
NORCROSS, GA 30071
UNITED STATES US

SHIP DATE: 24OCT25
ACTWGT: 50.00 LB
CAD: 100980732/INET4535

BILL SENDER

TO SAMPLE RECEIVING (CT LABS)
CT LABS
1230 LANGE COURT

BARABOO WI 53913
(614) 716-8502
REF: 1040S-0222-002-006
INV:
PO:
DEPT:

58HJ4/008C/59F2

FedEx Express

SATURDAY 12:00P
PRIORITY OVERNIGHT

1 of 3
TRK# 0201 8853 9052 0908
MASTER

53913
WI-US MSN

XO LNRA

QEC Quality Environmental Containers 800-255-3950 • www.qecusa.com

CUSTODY SEAL 10/24/2025 SIGNATURE DATE

Appendix C: Data Validation Reports



DATA VERIFICATION/VALIDATION REPORT
Solid Waste Management Unit (SWMU) 49
Radford Army Ammunition Plant (RFAAP), Radford, VA
CTL 195112

U.S. ARMY CORPS OF ENGINEERS, Baltimore District

SWMU 49 Natural Attenuation Groundwater Monitoring

August 8, 2025

Rev 1: August 21, 2025

Prepared for:

Cape Environmental Management Inc.

500 Pinnacle Ct, Ste 100

Norcross, GA 30071

Prepared by:

Neptune and Company, Inc

1435 Garrison Street, Suite 201

Lakewood CO, 80215

Signature Page

Data validator: Phil Conley	
Reviewer: Polona Carson	

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Appendix A1

Acronyms and Abbreviations

°C	degrees Celsius
%D	percent difference
%R	percent recovery
%RSD	percent relative standard deviation
CCV	continuing calibration verification
COC	chains-of-custody
CTL	CT Laboratories, LLC
DL	detection limit
ICV	initial calibration verification
IS	internal standard
LCS	laboratory control sample
LOD	limit of detection
LOQ	limit of quantitation
MS	matrix spike
MSD	matrix spike duplicate
QAPP	quality assurance project plan
QC	quality control
QSM	Quality Systems Manual
RPD	relative percent difference
SEDD	Staged Electronic Data Deliverable
SWMU	Solid Waste Management Unit
USEPA	U.S. Environmental Protection Agency
USACE	U.S. Army Corps of Engineers

Introduction

This data verification/validation report is for groundwater samples collected from Solid Waste Management Unit (SWMU) 49, the Red Water Ash Burial #2 site, at the Radford Army Ammunition Plant, located in Radford, VA. The data analyses are for 13 groundwater samples, 3 equipment blanks and 3 trip blanks collected on May 20 and 21, 2025, and were received at the primary laboratory on May 20, 21, and 22, 2025 at the Baraboo, WI location. The attributes of the samples collected, including calendar dates and identification numbers, are summarized in Table 1.

Table 1: Samples Collected from Clearfield Naval Supply Depot Historical Landfill Site

Lab ID	Client Sample ID	Matrix	Date Sampled	Date Received	Validation Stage
1585584	TB-1	Trip Blank	05/20/2025	05/21/2025	S4VEM
1585585	49MW01	Groundwater	05/20/2025	05/21/2025	S4VEM
1585586	49MW01-EQB	Equip Blank	05/20/2025	05/21/2025	S4VEM
1585587	48MW6	Groundwater	05/20/2025	05/21/2025	S4VEM
1585588	48TW6	Groundwater	05/20/2025	05/21/2025	S4VEM
1585589	13MW4	Groundwater	05/20/2025	05/21/2025	S4VEM
1585590	13MW3	Groundwater	05/20/2025	05/21/2025	S4VEM
1586203	TB-2	Trip Blank	05/21/2025	05/22/2025	S4VEM
1586204	48MW1	Groundwater	05/21/2025	05/22/2025	S4VEM
1586205	48MW1-EQB	Equipment Blank	05/21/2025	05/22/2025	S4VEM
1586206	50MW2	Groundwater	05/21/2025	05/22/2025	S4VEM
1586207	49MW04	Groundwater	05/21/2025	05/22/2025	S4VEM
1586208	49TW04	Groundwater	05/21/2025	05/22/2025	S4VEM
1586209	13MW2	Groundwater	05/21/2025	05/22/2025	S4VEM
1586771	TB-3	Trip Blank	05/22/2025	05/23/2025	S4VEM
1586772	48MW2	Groundwater	05/22/2025	05/23/2025	S4VEM
1586773	48MW2-EQB	Equipment Blank	05/22/2025	05/23/2025	S4VEM
1586774	48MW3	Groundwater	05/22/2025	05/23/2025	S4VEM
1586775	49MW02	Groundwater	05/22/2025	05/23/2025	S4VEM

Site samples were collected in accordance with the SWMU 49 Monitored Natural Attenuation Groundwater Monitoring Work Plan, Section 4 Quality Assurance Project Plan (QAPP). The samples were shipped to CT Laboratories, LLC (CTL) located in Baraboo, WI for analysis of VOC (SW8260C), TOC (SW9060A), Anions (SW9056A), and volatile gases (RSK-175).

Analytical results were reviewed in accordance with the project QAPP, the Department of Defense (DoD) Quality Systems Manual (QSM), DoD General Data Validation Guidelines, and DoD Data Validation Guidelines Module 1.

CTL provided Level IV data package, which included the required elements to perform the USEPA Region III level M3, Stage 4 electronic and manual validation (S4VEM) defined in the QAPP. The data were validated to S4VEM by the Neptune and Company, Incorporated (Neptune) data validator.

Data qualifier definitions are listed in Table 2 below.

Table 2: Final Validation Flags Definitions

Qualifier	Definition
U	Not detected. The associated number indicates the compound reporting limit for the sample.
J	Indicates an estimated value for 1) estimated value due to QC non-conformance. Reported value may not be accurate or precise, 2) estimating a concentration as a tentatively identified compound as indicated by the mass spectral and retention time data, or 3) estimating a concentration >=MDL and <MRL or <3*MRL, whichever is greater
B	The analyte has been detected in the sample and the associated laboratory or field blank.
K	Analyte present. Reported value may be biased high (estimated) due to QC non-conformance.
L	Analyte present. Reported value may be biased low (estimated) due to QC non-conformance.
UL	Value is estimated bias low and not detected due to QC non-conformance. Reporting limit may be inaccurate or imprecise. QL is probably higher
UJ	The analyte was analyzed for, but was not detected above the reported sample QL. The reported QL is approximate and may be inaccurate or imprecise.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meeting the QC criteria. The analyte may or may not be present in the sample.

Sample Receipt

All samples were received at CTL Baraboo, WI facility on August 20, 22, and 23, 2024. The coolers were received at temperatures of 3.5°C, 3.2°C, and 2.5°C. The sample ID for 13TW2 was updated to 13TW3 per the client's request. The samples were received intact and in good condition.

Preservation and Holding Times

The sample receipt form indicates that the samples were received intact and in good condition. Cooler temperatures met the criteria. The case narrative indicates all samples were extracted and analyzed within the preparation and analytical hold times. This was verified by reviewing the sample summaries containing sample collection, receipt, preparation and analytical dates.

Validation

VOCs by Method 8260

Calibration

Prior to analyzing the calibration standards, the instrument was properly tuned. The initial calibration consisted of a minimum of five and up to nine calibration standards. The lab employed the average relative response factor with the %RSD within the acceptance limit (<15%). Where the %RSD acceptance criterion was not met, linear regression was employed with the coefficient of determination, r^2, >0.99. The second source calibration verification was performed following the initial calibration and was within control limits (+/-20%). The continuing calibration checks performed prior to analysis of samples were within control limits (+/-20%), except for 2-Hexanone (low) for the opening CCV analyzed on 5/23/2025; and chloromethane (low), bromomethane (high), trichlorofluoromethane (high), and bromoform (low) for the opening CCV analyzed on 5/27/2025. All 2-hexanone results associated with the CCV analyzed on 5/23/2025 were non-detect. The results are qualified as estimated at the LOD. The samples analyzed on 5/27/2025 were for carbon tetrachloride only and not affected by the CCV outliers. No qualifiers were applied based upon the CCV analyzed on 5/27/2025.

Blanks

A method blank was prepared and analyzed with the batch of samples. There were no detects in the method blank. No qualifiers were necessary. There are three equipment blanks (48MW1-EQB, 48MW2-EQB, and 49MW01-EQB) and three trip blanks (TB-1, TB-2, and TB-3) associated with this data package. No analytes were detected in all equipment and trip blanks. No qualifiers were applied.

Laboratory Control Sample

A laboratory control sample (LCS) was prepared and analyzed with the batch of samples. All analyte recoveries were within control limits. No qualifiers were applied.

Matrix Spike / Matrix Spike Duplicate

MS/MSD analyses were performed on sample 13MW4. The MS/MSD recoveries were within control limits for all analytes. No qualifiers were necessary.

Surrogates

All Surrogate recoveries were within the control limits for water analysis and QC water samples. No qualifiers were necessary.

Internal Standards

The recoveries of all internal standards were within control limits.

Target Compound Quantitation

Target compound quantitation's were reviewed for analytes 1,1-dichloroethane, carbon tetrachloride, trichloroethene, chloroform, cis-1,2-dichloroethene, tetrachloroethene, and 1,2-dichlorobenzene-d4 (surr). Results were re-calculated from instrument responses. Slight differences in recalculations can be attributed to rounding.

Dissolved Gases by Method RSK175

Calibration

The initial calibration consisted of eight (8) calibration standards. The lab employed linear regression with the correlation coefficient within the acceptance limits. The second source calibration verification was performed following the initial calibration and was within control limits. The initial calibration and the second source verifications were verified by manual calculation for methane.

The calibration was verified through the analysis of a CCV standard. The opening and ending CCV results were within 20% drift. The continuing calibration verifications results were manually calculated from the raw data for methane.

Blanks

A method blank was prepared and analyzed with the batch of samples. There were no detects in the method blank. Raw data were reviewed for the QC blank. There are three equipment blanks (48MW1-EQB, 48MW2-EQB, and 49MW01-EQB) associated with this data package. All analytes were non-detected. No qualifiers were applied.

Laboratory Control Sample

A laboratory control sample (LCS) and LCS duplicate (LCSD) were prepared and analyzed with the batch of samples. All analyte recoveries were within control limits. The results and recoveries for methane were verified from the raw data.

Matrix Spike and Matrix Spike Duplicate

MS/MSD analysis was performed on sample 13MW4. The MS/MSD recoveries were within control limits. The MS/MSD result and recovery for methane was verified from the raw data.

Target Compound Identification and Quantitation

Target compound identification and retention times were reviewed for all samples. No anomalies were identified. Methane results were re-calculated manually from the raw data. The final results were derived from the instrument result. The equation that the laboratory used to convert the instrument result to a final result and takes into account variables such as, temperature, pressures, and gas constants was not provided.

TOC by Method SW9060A

Calibration

The initial calibration consisted of seven (7) points for TOC and the correlation coefficient, r, was >0.995. A second source calibration verification was performed following the initial calibration and was within control limits. The initial calibration and second source verifications were verified by manual calculation for TOC.

Analysis of samples proceeded immediately following the initial calibration. The calibration was verified throughout the analysis with CCV standards. All CCVs were within acceptance limits. The continuing calibration verifications results were manually calculated from the raw data for TOC.

Blanks

A method blank was prepared and analyzed with each analytical batch from each lab. There were no detects for TOC in the method blanks. Raw data was reviewed for the QC blanks. There are three equipment blanks (48MW1-EQB, 48MW2-EQB, and 49MW01-EQB) associated with this data package. All analytes were non-detected. No qualifiers were applied.

Laboratory Control Sample

A laboratory control sample (LCS) was prepared and analyzed with each analytical batch. The TOC recoveries were within the control limits. The result and recovery for TOC were verified from the raw data.

Laboratory Duplicate

A laboratory duplicate was prepared and analyzed with each analytical batch. The TOC recoveries were within the control limits. The result and recovery for TOC was verified from the raw data.

Matrix Spike / Matrix Spike Duplicate

MS/MSD analyses were performed on sample 13MW4, 48MW1 and 49MW02 for the analytical batches. The MS/MSD recoveries and percent RPD were within control limits. No qualifiers were necessary. The MS/MSD results and recoveries were verified from the raw data.

Target Compound Identification and Quantitation

Target compound identification was reviewed for all samples. No anomalies were identified. TOC sample results were calculated manually from the raw data.

Anions by Method SW9056A

Calibration

The initial calibration consisted of nine (9) points for all anions (chloride, nitrate, and sulfate) using linear regression. The correlation of determination, (r^2), was above 0.995. A second source calibration verification was performed following the initial calibration and was within control limits. The initial calibration and second source verifications were verified by manual calculation for sulfate.

The calibration was verified throughout the analysis with CCV standards. All CCVs were within acceptance limits. The continuing calibration verifications results were manually calculated from the raw data for sulfate.

Blanks

A method blank was prepared and analyzed with the analytical batch. There were no detects in the method blank. The raw data were reviewed for all QC blank. There are three equipment blanks (48MW1-EQB, 48MW2-EQB, and 49MW01-EQB) associated with this data package. All analytes were non-detected. No qualifiers were applied.

Laboratory Control Sample

A laboratory control sample (LCS) was prepared and analyzed with the analytical batch. The recoveries for all anions were within the control limits. The result and recovery for sulfate were verified from the raw data.

Laboratory Duplicate

A laboratory duplicate was prepared and analyzed with each analytical batch. The anion recoveries were within the control limits. The result and recovery for sulfate was verified from the raw data.

Matrix Spike / Matrix Spike Duplicate

MS/MSD analyses were performed on samples 13MW4, 48MW1, and 49MW02. The MS and MSD recovery for sulfate was below the control limit for sample 13MW4. The MS recovery for nitrate and sulfate and MSD recovery for sulfate were below control limits for 48MW1. The percent RPD was within control limits, demonstrating acceptable precision. The parent samples are qualified as estimated with a low bias for the respective analytes. The MS/MSD results, recoveries, and RPD for sulfate were verified from the raw data.

Target Compound Identification and Quantitation

Target compound identification was reviewed for all samples. No anomalies were identified. Sulfate sample results were calculated manually from the raw data.

Field Duplicate Comparison

Table 3 below lists the field duplicate comparison. Only detected analytes are listed. The RPD or "<2xLOQ" factor for each analyte was determined. Where the result is less than 2 times the sample-specific LOQ, the difference between the results should be less than 2 times the LOQ value. The QAPP does not provide a criterion for evaluating the field duplicate precision. Note that RPD between results for RDX is greater than 50% and MNX is greater than two times the LOQ.

Table 3: Field Duplicate Comparison

Analyte	Sample ID	Field Duplicate ID	RPD or <2xLOQ
	48MW6	**48TW6**	
1,1-dichloroethane	2.0 ug/L	2.2 ug/L	9.5%
cis-1,2-dichoroethene	5.0 ug/L	5.1 ug/L	2.0%
tetrachloroethene	0.45 J ug/L	0.55 J ug/L	**<2xLOQ**
trichloroethene	1.9 ug/L	1.9 ug/L	**0.0%**
sulfate	130 mg/L	130 mg/L	0.0%
chloride	12 mg/L	12 mg/L	0.0%
nitrate	2.4 mg/L	2.4 mg/L	0.0%
	49MW04	**49TW04**	
Carbon tetrachloride	0.52 J ug/L	0.43 J ug/L	<2xLOQ
Chloride	7.5 mg/L	7.2 mg/L	4.1%
sulfate	62 mg/L	62 mg/L	0.0%

Overall Assessment

All data are deemed usable as no results were considered for exclusion. Analyte 2-hexanone was qualified as estimated at the LOD due to a low CCV recovery. Anions nitrate and sulfate were recovered low in the MS/MSD. The results in the parent samples were qualified as estimated with a low bias. All

sample results were manually recalculated and verified for analytes: 1,2-dichoroethane, carbon tetrachloride, trichloroethene, chloroform, cis-1,2-dichloroethene, tretrachloroethene, 1,2-dichloroethane-d4 (surrogate), methane, TOC, and sulfate. All results may be utilized for project decision-making processes noting the qualifications described within this review.

Table 4: Qualified Sample Results

Client Sample ID	Analyte	Result	Qualifier	Reason
TB-1	2-hexanone	10 ug/L	UJ	V2
49MW01	2-hexanone	10 ug/L	UJ	V2
49MW01-EQB	2-hexanone	10 ug/L	UJ	V2
48MW6	2-hexanone	10 ug/L	UJ	V2
48TW6	2-hexanone	10 ug/L	UJ	V2
13MW4	2-hexanone	10 ug/L	UJ	V2
13MW4	sulfate	31 mg/L	J-	M
13MW3	2-hexanone	10 ug/L	UJ	V2
TB-2	2-hexanone	10 ug/L	UJ	V2
48MW1	2-hexanone	10 ug/L	UJ	V2
48MW1	nitrate	2.1 mg/L	J-	M
48MW1	sulfate	64 mg/L	J-	M
48MW1-EQB	2-hexanone	10 ug/L	UJ	V2
50MW2	2-hexanone	10 ug/L	UJ	V2
49MW04	2-hexanone	10 ug/L	UJ	V2
49TW04	2-hexanone	10 ug/L	UJ	V2
13MW2	2-hexanone	10 ug/L	UJ	V2
TB-3	2-hexanone	10 ug/L	UJ	V2
48MW2	2-hexanone	10 ug/L	UJ	V2
48MW2-EQB	2-hexanone	10 ug/L	UJ	V2
48MW3	2-hexanone	10 ug/L	UJ	V2
49MW02	2-hexanone	10 ug/L	UJ	V2

M – MS and/or MSD recovery outside project limits
V2 – Continuing calibration verification outside control limits

Appendix

Spreadsheet with manual calculations:



DATA VERIFICATION/VALIDATION REPORT
Solid Waste Management Unit (SWMU) 49
Radford Army Ammunition Plant (RFAAP), Radford, VA
SDG 199294

U.S. ARMY CORPS OF ENGINEERS, Baltimore District

SWMU 49 Natural Attenuation Groundwater Monitoring

January 5, 2026

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Acronyms and Abbreviations

°C	degrees Celsius
%D	percent difference
%R	percent recovery
%RSD	percent relative standard deviation
CCV	continuing calibration verification
COC	chains-of-custody
CTL	CT Laboratories, LLC
DL	detection limit
ICV	initial calibration verification
IS	internal standard
LCS	laboratory control sample
LOD	limit of detection
LOQ	limit of quantitation
MS	matrix spike
MSD	matrix spike duplicate
QAPP	quality assurance project plan
QC	quality control
QSM	Quality Systems Manual
RPD	relative percent difference
SEDD	Staged Electronic Data Deliverable
SWMU	Solid Waste Management Unit
USEPA	U.S. Environmental Protection Agency
USACE	U.S. Army Corps of Engineers

Introduction

This data verification/validation report is for groundwater samples collected from Solid Waste Management Unit (SWMU) 49, the Red Water Ash Burial #2 site, at the Radford Army Ammunition Plant, located in Radford, VA. The data analyses are for 18 groundwater samples, equipment blanks and 4 trip blanks collected on October 21, 22, 23 and 24, 2025, and were received at the primary laboratory on October 23, 24, 25 and 28, 2025 at the Baraboo, WI location. The attributes of the samples collected, including calendar dates and identification numbers, are summarized in Table 1.

Table 1: Samples Collected from Clearfield Naval Supply Depot Historical Landfill Site

Lab ID	Client Sample ID	Matrix	Date Sampled	Date Received	Validation Stage
1643244	TB-2	Trip Blank	10/22/2025	10/23/2025	S2BVEM
1643245	48MW6	Groundwater	10/22/2025	10/23/2025	S4VEM
1643247	48MW6-EQB	Equipment Blank	10/22/2025	10/23/2025	S2BVEM
1643248	49MW04	Groundwater	10/22/2025	10/23/2025	S2BVEM
1643249	49TW04	Groundwater	10/22/2025	10/23/2025	S2BVEM
1643250	13MW2	Groundwater	10/22/2025	10/23/2025	S2BVEM
1643251	49MW05	Groundwater	10/22/2025	10/23/2025	S2BVEM
1643982	TB-3	Trip Blank	10/23/2025	10/24/2025	S2BVEM
1643985	49MW03	Groundwater	10/23/2025	10/24/2025	S2BVEM
1643987	49MW03-EQB	Equipment Blank	10/23/2025	10/24/2025	S2BVEM
1643988	48MW1	Groundwater	10/23/2025	10/24/2025	S2BVEM
1643989	48TW1	Groundwater	10/23/2025	10/24/2025	S2BVEM
1643990	49MW01	Groundwater	10/23/2025	10/24/2025	S2BVEM
1643991	50MW2	Groundwater	10/23/2025	10/24/2025	S2BVEM
1644155	TB-4	Trip Blank	10/24/2025	10/25/2025	S2BVEM
1644156	48MW2	Groundwater	10/24/2025	10/25/2025	S4VEM
1644157	48MW2-EQB	Equipment Blank	10/24/2025	10/25/2025	S2BVEM
1644158	48MW3	Groundwater	10/24/2025	10/25/2025	S2BVEM
1644159	49MW02	Groundwater	10/24/2025	10/25/2025	S2BVEM
1644160	48MW7	Groundwater	10/24/2025	10/25/2025	S2BVEM
1645319	TB-1	Trip Blank	10/21/2025	10/28/2025	S2BVEM
1645320	48MW7-EQB	Equipment Blank	10/21/2025	10/28/2025	S2BVEM
1645321	13MW5	Groundwater	10/21/2025	10/28/2025	S4VEM
1645322	13MW4	Groundwater	10/21/2025	10/28/2025	S2BVEM
1645323	13MW3	Groundwater	10/21/2025	10/28/2025	S2BVEM

Site samples were collected in accordance with the SWMU 49 Monitored Natural Attenuation Groundwater Monitoring Work Plan, Section 4 Quality Assurance Project Plan (QAPP). The samples were shipped to CT Laboratories, LLC (CTL) located in Baraboo, WI for analysis of VOC (SW8260C), TOC (SW9060A), Anions (SW9056A), and volatile gases (RSK-175).

Analytical results were reviewed in accordance with the project QAPP, the Department of Defense (DoD) Quality Systems Manual (QSM), DoD General Data Validation Guidelines, and DoD Data Validation Guidelines Module 1.

CTL provided Level IV data package, which included the required elements to perform the USEPA Region III level M3, Stage 4 electronic and manual validation (S4VEM) defined in the QAPP. The data were validated to S4VEM by the Neptune and Company, Incorporated (Neptune) data validator.

Data qualifier definitions are listed in Table 2 below.

Table 2: Final Validation Flags Definitions

Qualifier*	Definition
U	The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.

*The data qualifiers listed have been modified from the work plan to reflect the current data validation qualifier practices discussed in DoD General Data Validation Guidelines, Revision 1, November 2019.

Sample Receipt

All samples were received at CTL Baraboo, WI facility on October 23, 24, 25, and 28. The coolers were received at temperatures of 3.4°C, 2.6°C , 3.0°C, and 12.8°C. FedEx experienced a shipping delay. The sample cooler shipped on October 21, 2025 was received at the lab after 7 days. The client requested the analyses to proceed. The samples were received intact and in good condition.

Preservation and Holding Times

The sample receipt form indicates that the samples were received intact and in good condition. Cooler temperatures met the acceptance range, except for the cooler shipped on October 21, 2025. All results reported from the cooler that exceeded cooler temperature criterion upon receipt are qualified as estimated with a low bias for positive results and estimated at the LOD for non-detect results. The samples associated with the high cooler temperature are TB-1, 48MW7-EQB, 13MW5, 13MW4, and

13MW3. Sample 48MW7 was resampled and shipped in another cooler. The case narrative indicates that all samples were properly preserved. The QAPP does not indicate that acid preservation is required for dissolved gases and the hold time is listed at 7 days. Samples 13MW3, 13MW4 13MW5, and 48MW7-EQB were analyzed past the holding time for dissolved gases by one day. All positive results are qualified as estimated with a low bias and the non-detect results are qualified as estimated at the LOD. Samples 13MW3, 13MW4, 13MW5, and 48MW7-EQB were analyzed more than 2 times the 48-hour holding time for analysis of nitrate. Nitrate results that were non-detect for these samples are considered for exclusion. The case narrative indicates all remaining samples were extracted and analyzed within the preparation and analytical hold times. This was verified by reviewing the sample summaries and preparation logs containing sample collection, receipt, preparation and analytical dates.

Validation

VOCs by Method 8260

Calibration

Prior to analyzing the calibration standards, the instrument was properly tuned. The initial calibration consisted of a minimum of five and up to nine calibration standards. The lab employed the average relative response factor with the %RSD within acceptance limit (<15%). Where the %RSD acceptance criterion was not met, quadratic regression was employed with coefficient of determination, r^2, >0.99. The second source calibration verification was performed following the initial calibration and was within control limits (+/-20%), except for the following:

- Dichlorodifluoromethane (high), trichlorofluoromethane (high), methylene chloride (high), cyclohexane (high), styrene (high), and isopropylbenzene (high).

The continuing calibrations checks performed prior to analysis of samples were within control limits (+/-20%), except for:

- Bromomethane (grossly high), 4-dioxane (high), 1,2-dibromo-3-chloropropane (low) analyzed on 10/31/25 10:05. Samples 48MW2, 48MW2-EQB, 48MW3, 49MW02, 48MW7, TB-4, TB-1, 13MW3, 13Mw4, 13MW5, 48MW7-EQB are associated with this CCV.
- Bromomethane (grossly high) analyzed on 10/31/25 21:13. Samples 48MW2, 48MW2-EQB, 48MW3, 49MW02, 48MW7, TB-4, TB-1, 13MW3, 13ME4, 13MW5, 48MW7-EQB are associated with this CCV.
- Bromomethane (grossly high), and 1,2-dibromo-3-chloropropane (low) analyzed on 11/01/25 06:53. Samples 48MW6, 48ME6-EQB, 49MW04, 49TW04, 13MW2, TB-2, 49MW05, 49MW03, 49MW03-EQB, 48MW1, 48TW1, 49MW01, 50MW02, and TB-3 are associated with this CCV.

- Bromomethane (grossly high) analyzed on 11/01/25. Samples 48MW6, 48ME6-EQB, 49MW04, 49TW04, 13MW2, TB-2, 49MW05, 49MW03, 49MW03-EQB, 48MW1, 48TW1, 49MW01, 50MW02, and TB-3 are associated with this CCV.

Non-detect results are qualified as estimated at the LOD. Positive results are qualified as estimated.

Blanks

A method blank was prepared and analyzed with each batch of samples. There were no detects in the method blanks. No qualifiers were necessary. There are four equipment blanks (48MW2-EQB, 48MW7-EQB, 48MW6-EQB, and 49MW03-EQB) associated with this data package. All equipment blanks were non-detect. No qualifiers were necessary. There are four trip blanks (TB-1, TB-2, TB-3, TB-4) associated with this data package. All trip blanks were non-detect. No qualifiers were necessary.

Laboratory Control Sample

A laboratory control sample (LCS) was prepared and analyzed with each batch of samples. All analyte recoveries were within control limits, except for:

- Bromomethane (high) for analytical batch 296249
- Bromomethane (high) for analytical batch 296248

All samples are affected by the LCS recovery for bromomethane. All sample results were non-detect. No qualifiers were applied.

Matrix Spike / Matrix Spike Duplicate

MS/MSD analyses were performed on samples 48MW3 and 13MW5. The MS/MSD recoveries and RPD were within control limits, except for bromomethane. The MS/MSD recoveries were above the control limits for both parent samples. The RPDs were within control limits. Results were non-detect in the parent sample. No qualifiers were necessary.

Surrogates

All Surrogate recoveries were within the control limits. No qualifiers were necessary.

Internal Standards

The recoveries of all internal standards were within control limits.

Target Compound Quantitation

Target compound quantitation's were reviewed for all detected analytes in samples 13MW5, 48MW2, and 48MW6. Results were re-calculated from instrument responses. Slight differences in recalculations can be attributed to rounding.

Dissolved Gases by Method RSK175

Calibration

The initial calibration consisted of eight (8) calibration standards. The lab employed linear regression with the correlation coefficient within acceptance limits. The second source calibration verification was performed following the initial calibration and was within control limits.

The calibration was verified through the analysis of a CCV standard. The opening and ending CCV results were within 20% drift.

Blanks

A method blank was prepared and analyzed with each batch of samples. There were no detects in the method blanks. No qualifiers were necessary. There are four equipment blanks (48MW2-EQB, 48MW7-EQB, 48MW6-EQB, and 49MW03-EQB) associated with this data package. All equipment blanks were non-detect. No qualifiers were necessary. Raw data were reviewed for the QC blank.

Laboratory Control Sample

A laboratory control sample (LCS) was prepared for each batch analyzed. All analyte recoveries were within control limits. No qualifiers were necessary.

Matrix Spike and Matrix Spike Duplicate

MS/MSD analysis was performed on samples 48MW3 and 13MW5. The MS/MSD recoveries and the RPD were within control limits. No qualifiers were necessary.

Target Compound Identification and Quantitation

Target compound identification and retention times were reviewed for all samples. No anomalies were identified. Methane results for samples 13MW5, 48MW2, 48MW3, and 48MW6 were re-calculated manually from the raw data. The final results were derived from the instrument result. The final result takes into account certain variables such as, temperature, pressures, and gas constants.

TOC by Method SW9060A

Calibration

The initial calibration consisted of nine (7) points for TOC and the correlation coefficient, r, was >0.995. A second source calibration verification was performed following the initial calibration and was within control limits.

Analysis of samples proceeded immediately following the initial calibration. The calibration was verified throughout the analysis with CCV standards. All CCVs were within acceptance limits. The continuing calibration verifications results were manually calculated from the raw data for TOC.

Blanks

A method blank was prepared and analyzed with each batch of samples. There were no detects in the method blanks. No qualifiers were necessary. There are four equipment blanks (48MW2-EQB, 48MW7-EQB, 48MW6-EQB, and 49MW03-EQB) associated with this data package. All equipment blanks were non-detect. No qualifiers were necessary. Raw data were reviewed for the QC blank.

Laboratory Control Sample

A laboratory control sample (LCS) was prepared and analyzed with each analytical batch. The TOC recoveries were within the control limits. The result and recovery for TOC were verified from the raw data.

Matrix Spike / Matrix Spike Duplicate

MS/MSD analyses were performed on sample 13MW2, 13MW5, 48MW3 and 49MW3 for the analytical batches. The MS/MSD recoveries and the RPD were within control limits. No qualifiers were necessary.

Target Compound Identification and Quantitation

Target compound identification was reviewed for all samples. No anomalies were identified. TOC results for samples 13MW5, 48MW2, 48MW3, and 48MW6 were re-calculated manually from the raw data.

Anions by Method SW9056A

Calibration

The initial calibration consisted of nine (9) points for all anions (chloride, nitrate, and sulfate) using linear regression. The correlation of determination, (r^2), was above 0.995. A second source calibration verification was performed following the initial calibration and was within control limits.

The calibration was verified throughout the analysis with CCV standards. All CCVs were within acceptance limits. No qualifiers were necessary.

Blanks

A method blank was prepared and analyzed with the analytical batch. There were no detects in the method blank. The raw data were reviewed for all QC blanks. There are three equipment blanks (48MW2-EQB, 48MW7-EQB, and 49MW03-EQB) associated with this data package. All analytes were non-detected in the associated samples. No qualifiers were applied.

Laboratory Control Sample

A laboratory control sample (LCS) was prepared and analyzed with each analytical batch. The recoveries for all anions were within the control limits. The result and recovery for sulfate were verified from the raw data.

Matrix Spike / Matrix Spike Duplicate

MS/MSD analyses were performed on sample 13MW2, 13MW5, 48MW3 and 49MW3 for the analytical batches. The MS/MSD recoveries for sulfate in 13MW2 and 13MW5 were below control limits. The MSD recovery for chloride in 13MW5 was below control limits, The MS/MSD percent RPD values were within control limits. The sulfate result in parent samples 13MW2 and 13MW5 were qualified as estimated with a low bias. The chloride result in parent sample 13MW5 was qualified as estimated with a low bias. No other qualifiers were applied.

MS/MSD analyses were performed on samples 13MW5, 48MW3, and 49MW04. The MS/MSD recoveries and RPD values are within control limits. No qualifiers were necessary.

Target Compound Identification and Quantitation

Target compound identification was reviewed for all samples. No anomalies were identified. Sulfate results for samples 13MW2, 13MW5, 48MW2, 48MW3, and 48MW6 were re-calculated manually from the raw data.

Field Duplicate Comparison

Table 3 below lists the field duplicate comparison. Only detected analytes are listed. The RPD or "<2xLOQ" factor for each analyte was determined. Where the result is less than 2 times the sample-specific LOQ, the difference between the results should be less than 2 times the LOQ value. Precision has been demonstrated for the detected analytes.

Table 3: Field Duplicate Comparison

Analyte	Sample ID	Field Duplicate ID	RPD or <2xLOQ
	49MW04	**49TW04**	
Carbon tetrachloride	0.97 J ug/L	0.99 J ug/L	<2XLOQ
Sulfate	57 mg/L	57 mg/L	0.0%
Chloride	6.9 mg/L	7.2 mg/L	4.3%
Nitrate	0.36 J mg/L	0.36 J mg/L	0.0%
	48MW1	**48TW1**	
1,1-dichloroethane	0.64 J ug/L	0.67 J ug/L	<2XLOQ
cis-1,2-Dichloroethene	1.1 J mg/L	1.1 J ug/L	<2XLOQ
Tetrachloromethane	0.34 J ug/L	1.0 U ug/L	<2XLOQ
Trichloroethene	1.9 ug/L	2.0 ug/L	5.1%
Sulfate	57 mg/L	59 mg/L	3.4%
Chloride	9.0 mg/L	8.8 mg/L	2.2%
Nitrate	2.2 mg/L	2.2 mg/L	0.0%

Overall Assessment

All data are deemed usable except for the nitrate results considered for exclusion. Results were manually calculated and verified for detected target analytes in samples 13MW2 (Anions), 13MW5 (all), 48MW2 (all), 48MW3 (Methane, TOC, Sulfate), 48MW6 (all). All results may be utilized for project decision-making processes noting the qualifications described within this review.

Table 4: Qualified Sample Results

Client Sample ID	Analyte	Result	Qualifier	Reason
TB-1	1,1,1-Trichloroethane	1	UJ	T
TB-1	1,1,2,2-Tetrachloroethane	1	UJ	T
TB-1	1,1,2-Trichloroethane	1	UJ	T
TB-1	1,1-Dichloroethane	1	UJ	T
TB-1	1,1-Dichloroethene	1	UJ	T
TB-1	1,2,3-Trichlorobenzene	1	UJ	T
TB-1	1,2,4-Trichlorobenzene	1	UJ	T
TB-1	1,2-Dibromo-3-chloropropane	1	UJ	T, V1, V2
TB-1	1,2-Dibromoethane	1	UJ	T
TB-1	1,2-Dichlorobenzene	1	UJ	T
TB-1	1,2-Dichloroethane	2	UJ	T
TB-1	1,2-Dichloropropane	1	UJ	T
TB-1	1,3-Dichlorobenzene	1	UJ	T
TB-1	1,4-Dichlorobenzene	1	UJ	T
TB-1	1,4-Dioxane	50	UJ	T, V1, V2
TB-1	2-Butanone	10	UJ	T
TB-1	2-Hexanone	10	UJ	T
TB-1	4-Methyl-2-pentanone	10	UJ	T
TB-1	Acetone	10	UJ	T
TB-1	Benzene	1	UJ	T
TB-1	Bromochloromethane	1	UJ	T, V2
TB-1	Bromodichloromethane	0.25	UJ	T
TB-1	Bromoform	1	UJ	T
TB-1	Bromomethane	1	UJ	T, V1
TB-1	Carbon disulfide	2	UJ	T
TB-1	Carbon tetrachloride	1	UJ	T
TB-1	Chlorobenzene	1	UJ	T
TB-1	Chloroethane	2	UJ	T
TB-1	Chloroform	1	UJ	T
TB-1	Chloromethane	1	UJ	T
TB-1	cis-1,2-Dichloroethene	1	UJ	T
TB-1	cis-1,3-Dichloropropene	1	UJ	T
TB-1	Cyclohexane	2	UJ	T, V1
TB-1	Dibromochloromethane	1	UJ	T
TB-1	Dichlorodifluoromethane	2	UJ	T, V1
TB-1	Ethylbenzene	1	UJ	T
TB-1	Freon 113	4	UJ	T
TB-1	Isopropylbenzene	1	UJ	T, V1

Client Sample ID	Analyte	Result	Qualifier	Reason
TB-1	m,p-Xylenes	2	UJ	T
TB-1	Methyl Acetate	1	UJ	T
TB-1	Methyl tert-butyl ether	1	UJ	T
TB-1	Methylcyclohexane	2	UJ	T
TB-1	Methylene chloride	4	UJ	T, V1
TB-1	o-Xylene	2	UJ	T
TB-1	Styrene	1	UJ	T, V1
TB-1	Tetrachloroethene	1	UJ	T
TB-1	Toluene	1	UJ	T
TB-1	trans-1,2-Dichloroethene	1	UJ	T
TB-1	trans-1,3-Dichloropropene	2	UJ	T
TB-1	Trichloroethene	1	UJ	T
TB-1	Trichlorofluoromethane	1	UJ	T, V1
TB-1	Vinyl chloride	0.25	UJ	T
48MW7-EQB	1,1,1-Trichloroethane	1	UJ	T
48MW7-EQB	1,1,2,2-Tetrachloroethane	1	UJ	T
48MW7-EQB	1,1,2-Trichloroethane	1	UJ	T
48MW7-EQB	1,1-Dichloroethane	1	UJ	T
48MW7-EQB	1,1-Dichloroethene	1	UJ	T
48MW7-EQB	1,2,3-Trichlorobenzene	1	UJ	T
48MW7-EQB	1,2,4-Trichlorobenzene	1	UJ	T
48MW7-EQB	1,2-Dibromo-3-chloropropane	1	UJ	T, V1, V2
48MW7-EQB	1,2-Dibromoethane	1	UJ	T
48MW7-EQB	1,2-Dichlorobenzene	1	UJ	T
48MW7-EQB	1,2-Dichloroethane	2	UJ	T
48MW7-EQB	1,2-Dichloropropane	1	UJ	T
48MW7-EQB	1,3-Dichlorobenzene	1	UJ	T
48MW7-EQB	1,4-Dichlorobenzene	1	UJ	T
48MW7-EQB	1,4-Dioxane	50	UJ	T, V1, V2
48MW7-EQB	2-Butanone	10	UJ	T
48MW7-EQB	2-Hexanone	10	UJ	T
48MW7-EQB	4-Methyl-2-pentanone	10	UJ	T
48MW7-EQB	Acetone	10	UJ	T
48MW7-EQB	Benzene	1	UJ	T
48MW7-EQB	Bromochloromethane	1	UJ	T, V2
48MW7-EQB	Bromodichloromethane	0.25	UJ	T
48MW7-EQB	Bromoform	1	UJ	T
48MW7-EQB	Bromomethane	1	UJ	T, V1
48MW7-EQB	Carbon disulfide	2	UJ	T
48MW7-EQB	Carbon tetrachloride	1	UJ	T
48MW7-EQB	Chlorobenzene	1	UJ	T
48MW7-EQB	Chloroethane	2	UJ	T
48MW7-EQB	Chloroform	1	UJ	T
48MW7-EQB	Chloromethane	1	UJ	T
48MW7-EQB	cis-1,2-Dichloroethene	1	UJ	T
48MW7-EQB	cis-1,3-Dichloropropene	1	UJ	T
48MW7-EQB	Cyclohexane	2	UJ	T, V1
48MW7-EQB	Dibromochloromethane	1	UJ	T
48MW7-EQB	Dichlorodifluoromethane	2	UJ	T, V1
48MW7-EQB	Ethylbenzene	1	UJ	T
48MW7-EQB	Freon 113	4	UJ	T
48MW7-EQB	Isopropylbenzene	1	UJ	T, V1
48MW7-EQB	m,p-Xylenes	2	UJ	T
48MW7-EQB	Methyl Acetate	1	UJ	T

Client Sample ID	Analyte	Result	Qualifier	Reason
48MW7-EQB	Methyl tert-butyl ether	1	UJ	T
48MW7-EQB	Methylcyclohexane	2	UJ	T
48MW7-EQB	Methylene chloride	4	UJ	T, V1
48MW7-EQB	o-Xylene	2	UJ	T
48MW7-EQB	Styrene	1	UJ	T, V1
48MW7-EQB	Tetrachloroethene	1	UJ	T
48MW7-EQB	Toluene	1	UJ	T
48MW7-EQB	trans-1,2-Dichloroethene	1	UJ	T
48MW7-EQB	trans-1,3-Dichloropropene	2	UJ	T
48MW7-EQB	Trichloroethene	1	UJ	T
48MW7-EQB	Trichlorofluoromethane	1	UJ	T, V1
48MW7-EQB	Vinyl chloride	0.25	UJ	T
48MW7-EQB	Chloride	1.5	UJ	T
48MW7-EQB	Nitrate	0.2	X	H1, T
48MW7-EQB	Sulfate	1.5	UJ	T
48MW7-EQB	Total Organic Carbon	1.5	UJ	T
48MW7-EQB	Ethane	0.8	UJ	H1, T
48MW7-EQB	Ethene	1.2	UJ	H1, T
48MW7-EQB	Methane	0.9	UJ	H1, T
13MW5	1,1,1-Trichloroethane	1	UJ	T
13MW5	1,1,2,2-Tetrachloroethane	1	UJ	T
13MW5	1,1,2-Trichloroethane	1	UJ	T
13MW5	1,1-Dichloroethane	1	UJ	T
13MW5	1,1-Dichloroethene	1	UJ	T
13MW5	1,2,3-Trichlorobenzene	1	UJ	T
13MW5	1,2,4-Trichlorobenzene	1	UJ	T
13MW5	1,2-Dibromo-3-chloropropane	1	UJ	T, V1, V2
13MW5	1,2-Dibromoethane	1	UJ	T
13MW5	1,2-Dichlorobenzene	1	UJ	T
13MW5	1,2-Dichloroethane	2	UJ	T
13MW5	1,2-Dichloropropane	1	UJ	T
13MW5	1,3-Dichlorobenzene	1	UJ	T
13MW5	1,4-Dichlorobenzene	1	UJ	T
13MW5	1,4-Dioxane	50	UJ	T, V1, V2
13MW5	2-Butanone	10	UJ	T
13MW5	2-Hexanone	10	UJ	T
13MW5	4-Methyl-2-pentanone	10	UJ	T
13MW5	Acetone	10	UJ	T
13MW5	Benzene	1	UJ	T
13MW5	Bromochloromethane	1	UJ	T, V2
13MW5	Bromodichloromethane	0.25	UJ	T
13MW5	Bromoform	1	UJ	T
13MW5	Bromomethane	1	UJ	T, V1
13MW5	Carbon disulfide	2	UJ	T
13MW5	Carbon tetrachloride	0.6	J-	T
13MW5	Chlorobenzene	1	UJ	T
13MW5	Chloroethane	2	UJ	T
13MW5	Chloroform	1	UJ	T
13MW5	Chloromethane	1	UJ	T
13MW5	cis-1,2-Dichloroethene	1	UJ	T
13MW5	cis-1,3-Dichloropropene	1	UJ	T
13MW5	Cyclohexane	2	UJ	T, V1
13MW5	Dibromochloromethane	1	UJ	T
13MW5	Dichlorodifluoromethane	2	UJ	T, V1

Client Sample ID	Analyte	Result	Qualifier	Reason
13MW5	Ethylbenzene	1	UJ	T
13MW5	Freon 113	4	UJ	T
13MW5	Isopropylbenzene	1	UJ	T, V1
13MW5	m,p-Xylenes	2	UJ	T
13MW5	Methyl Acetate	1	UJ	T
13MW5	Methyl tert-butyl ether	1	UJ	T
13MW5	Methylcyclohexane	2	UJ	T
13MW5	Methylene chloride	4	UJ	T, V1
13MW5	o-Xylene	2	UJ	T
13MW5	Styrene	1	UJ	T, V1
13MW5	Tetrachloroethene	1	UJ	T
13MW5	Toluene	1	UJ	T
13MW5	trans-1,2-Dichloroethene	1	UJ	T
13MW5	trans-1,3-Dichloropropene	2	UJ	T
13MW5	Trichloroethene	1	UJ	T
13MW5	Trichlorofluoromethane	1	UJ	T, V1
13MW5	Vinyl chloride	0.25	UJ	T
13MW5	Chloride	3.9	J-	M, T
13MW5	Nitrate	0.64	X	H1, T
13MW5	Sulfate	200	J-	M, T
13MW5	Total Organic Carbon	1.5	UJ	T
13MW5	Ethane	0.8	UJ	H1, T
13MW5	Ethene	1.2	UJ	H1, T
13MW5	Methane	0.9	UJ	H1, T
13MW4	1,1,1-Trichloroethane	1	UJ	T
13MW4	1,1,2,2-Tetrachloroethane	1	UJ	T
13MW4	1,1,2-Trichloroethane	1	UJ	T
13MW4	1,1-Dichloroethane	1	UJ	T
13MW4	1,1-Dichloroethene	1	UJ	T
13MW4	1,2,3-Trichlorobenzene	1	UJ	T
13MW4	1,2,4-Trichlorobenzene	1	UJ	T
13MW4	1,2-Dibromo-3-chloropropane	1	UJ	T, V1, V2
13MW4	1,2-Dibromoethane	1	UJ	T
13MW4	1,2-Dichlorobenzene	1	UJ	T
13MW4	1,2-Dichloroethane	2	UJ	T
13MW4	1,2-Dichloropropane	1	UJ	T
13MW4	1,3-Dichlorobenzene	1	UJ	T
13MW4	1,4-Dichlorobenzene	1	UJ	T
13MW4	1,4-Dioxane	50	UJ	T, V1, V2
13MW4	2-Butanone	10	UJ	T
13MW4	2-Hexanone	10	UJ	T
13MW4	4-Methyl-2-pentanone	10	UJ	T
13MW4	Acetone	10	UJ	T
13MW4	Benzene	1	UJ	T
13MW4	Bromochloromethane	1	UJ	T, V2
13MW4	Bromodichloromethane	0.25	UJ	T
13MW4	Bromoform	1	UJ	T
13MW4	Bromomethane	1	UJ	T, V1
13MW4	Carbon disulfide	2	UJ	T
13MW4	Carbon tetrachloride	1	UJ	T
13MW4	Chlorobenzene	1	UJ	T
13MW4	Chloroethane	2	UJ	T
13MW4	Chloroform	1	UJ	T
13MW4	Chloromethane	1	UJ	T

Client Sample ID	Analyte	Result	Qualifier	Reason
13MW4	cis-1,2-Dichloroethene	1	UJ	T
13MW4	cis-1,3-Dichloropropene	1	UJ	T
13MW4	Cyclohexane	2	UJ	T, V1
13MW4	Dibromochloromethane	1	UJ	T
13MW4	Dichlorodifluoromethane	2	UJ	T, V1
13MW4	Ethylbenzene	1	UJ	T
13MW4	Freon 113	4	UJ	T
13MW4	Isopropylbenzene	1	UJ	T, V1
13MW4	m,p-Xylenes	2	UJ	T
13MW4	Methyl Acetate	1	UJ	T
13MW4	Methyl tert-butyl ether	1	UJ	T
13MW4	Methylcyclohexane	2	UJ	T
13MW4	Methylene chloride	4	UJ	T, V1
13MW4	o-Xylene	2	UJ	T
13MW4	Styrene	1	UJ	T, V1
13MW4	Tetrachloroethene	1	UJ	T
13MW4	Toluene	1	UJ	T
13MW4	trans-1,2-Dichloroethene	1	UJ	T
13MW4	trans-1,3-Dichloropropene	2	UJ	T
13MW4	Trichloroethene	0.83	J-	T
13MW4	Trichlorofluoromethane	1	UJ	T, V1
13MW4	Vinyl chloride	0.25	UJ	T
13MW4	Chloride	4	J-	T
13MW4	Nitrate	0.22	X	H1, T
13MW4	Sulfate	63	J-	T
13MW4	Total Organic Carbon	1.5	UJ	T
13MW4	Ethane	0.8	UJ	H1, T
13MW4	Ethene	1.2	UJ	H1, T
13MW4	Methane	0.9	UJ	H1, T
13MW3	1,1,1-Trichloroethane	1	UJ	T
13MW3	1,1,2,2-Tetrachloroethane	1	UJ	T
13MW3	1,1,2-Trichloroethane	1	UJ	T
13MW3	1,1-Dichloroethane	1	UJ	T
13MW3	1,1-Dichloroethene	1	UJ	T
13MW3	1,2,3-Trichlorobenzene	1	UJ	T
13MW3	1,2,4-Trichlorobenzene	1	UJ	T
13MW3	1,2-Dibromo-3-chloropropane	1	UJ	T, V1, V2
13MW3	1,2-Dibromoethane	1	UJ	T
13MW3	1,2-Dichlorobenzene	1	UJ	T
13MW3	1,2-Dichloroethane	2	UJ	T
13MW3	1,2-Dichloropropane	1	UJ	T
13MW3	1,3-Dichlorobenzene	1	UJ	T
13MW3	1,4-Dichlorobenzene	1	UJ	T
13MW3	1,4-Dioxane	50	UJ	T, V1, V2
13MW3	2-Butanone	10	UJ	T
13MW3	2-Hexanone	10	UJ	T
13MW3	4-Methyl-2-pentanone	10	UJ	T
13MW3	Acetone	10	UJ	T
13MW3	Benzene	1	UJ	T
13MW3	Bromochloromethane	1	UJ	T, V2
13MW3	Bromodichloromethane	0.25	UJ	T
13MW3	Bromoform	1	UJ	T
13MW3	Bromomethane	1	UJ	T, V1
13MW3	Carbon disulfide	2	UJ	T

Client Sample ID	Analyte	Result	Qualifier	Reason
13MW3	Carbon tetrachloride	2.6	UJ	T
13MW3	Chlorobenzene	1	UJ	T
13MW3	Chloroethane	2	UJ	T
13MW3	Chloroform	0.38	J-	T
13MW3	Chloromethane	1	UJ	T
13MW3	cis-1,2-Dichloroethene	1	UJ	T
13MW3	cis-1,3-Dichloropropene	1	UJ	T
13MW3	Cyclohexane	2	UJ	T, V1
13MW3	Dibromochloromethane	1	UJ	T
13MW3	Dichlorodifluoromethane	2	UJ	T, V1
13MW3	Ethylbenzene	1	UJ	T
13MW3	Freon 113	4	UJ	T
13MW3	Isopropylbenzene	1	UJ	T, V1
13MW3	m,p-Xylenes	2	UJ	T
13MW3	Methyl Acetate	1	UJ	T
13MW3	Methyl tert-butyl ether	1	UJ	T
13MW3	Methylcyclohexane	2	UJ	T
13MW3	Methylene chloride	4	UJ	T, V1
13MW3	o-Xylene	2	UJ	T
13MW3	Styrene	1	UJ	T, V1
13MW3	Tetrachloroethene	1	UJ	T
13MW3	Toluene	1	UJ	T
13MW3	trans-1,2-Dichloroethene	1	UJ	T
13MW3	trans-1,3-Dichloropropene	2	UJ	T
13MW3	Trichloroethene	0.32	J-	T
13MW3	Trichlorofluoromethane	0.45	J-	T, V1
13MW3	Vinyl chloride	0.25	UJ	T
13MW3	1,2-Dichloroethane-d4	102	J-	T
13MW3	Chloride	4.9	J-	T
13MW3	Nitrate	1.8	X	H1, T
13MW3	Sulfate	70	J-	T
13MW3	Total Organic Carbon	1.5	UJ	T
13MW3	Ethane	0.8	UJ	H1, T
13MW3	Ethene	1.2	UJ	H1, T
13MW3	Methane	0.87	J-	H1, T
TB-2	Cyclohexane	2	UJ	V1
TB-2	Dichlorodifluoromethane	2	UJ	V1
TB-2	Isopropylbenzene	1	UJ	V1
TB-2	Methylene chloride	4	UJ	V1
TB-2	Styrene	1	UJ	V1
TB-2	Trichlorofluoromethane	1	UJ	V1
48MW6	Cyclohexane	2	UJ	V1
48MW6	Dichlorodifluoromethane	2	UJ	V1
48MW6	Isopropylbenzene	1	UJ	V1
48MW6	Methylene chloride	4	UJ	V1
48MW6	Styrene	1	UJ	V1
48MW6	Trichlorofluoromethane	1	UJ	V1
48MW6-EQB	Cyclohexane	2	UJ	V1
48MW6-EQB	Dichlorodifluoromethane	2	UJ	V1
48MW6-EQB	Isopropylbenzene	1	UJ	V1
48MW6-EQB	Methylene chloride	4	UJ	V1
48MW6-EQB	Styrene	1	UJ	V1
48MW6-EQB	Trichlorofluoromethane	1	UJ	V1
49MW04	Cyclohexane	2	UJ	V1

Client Sample ID	Analyte	Result	Qualifier	Reason
49MW04	Dichlorodifluoromethane	2	UJ	V1
49MW04	Isopropylbenzene	1	UJ	V1
49MW04	Methylene chloride	4	UJ	V1
49MW04	Styrene	1	UJ	V1
49MW04	Trichlorofluoromethane	1	UJ	V1
49TW04	Cyclohexane	2	UJ	V1
49TW04	Dichlorodifluoromethane	2	UJ	V1
49TW04	Isopropylbenzene	1	UJ	V1
49TW04	Methylene chloride	4	UJ	V1
49TW04	Styrene	1	UJ	V1
49TW04	Trichlorofluoromethane	1	UJ	V1
13MW2	Cyclohexane	2	UJ	V1
13MW2	Dichlorodifluoromethane	2	UJ	V1
13MW2	Isopropylbenzene	1	UJ	V1
13MW2	Methylene chloride	4	UJ	V1
13MW2	Styrene	1	UJ	V1
13MW2	Trichlorofluoromethane	1	UJ	V1
49MW05	Cyclohexane	2	UJ	V1
49MW05	Dichlorodifluoromethane	2	UJ	V1
49MW05	Isopropylbenzene	1	UJ	V1
49MW05	Methylene chloride	4	UJ	V1
49MW05	Styrene	1	UJ	V1
49MW05	Trichlorofluoromethane	1	UJ	V1
TB-3	Cyclohexane	2	UJ	V1
TB-3	Dichlorodifluoromethane	2	UJ	V1
TB-3	Isopropylbenzene	1	UJ	V1
TB-3	Methylene chloride	4	UJ	V1
TB-3	Styrene	1	UJ	V1
TB-3	Trichlorofluoromethane	1	UJ	V1
49MW03	Cyclohexane	2	UJ	V1
49MW03	Dichlorodifluoromethane	2	UJ	V1
49MW03	Isopropylbenzene	1	UJ	V1
49MW03	Methylene chloride	4	UJ	V1
49MW03	Styrene	1	UJ	V1
49MW03	Trichlorofluoromethane	0.44	J	V1
49MW03-EQB	Cyclohexane	2	UJ	V1
49MW03-EQB	Dichlorodifluoromethane	2	UJ	V1
49MW03-EQB	Isopropylbenzene	1	UJ	V1
49MW03-EQB	Methylene chloride	4	UJ	V1
49MW03-EQB	Styrene	1	UJ	V1
49MW03-EQB	Trichlorofluoromethane	1	UJ	V1
48MW1	Cyclohexane	2	UJ	V1
48MW1	Dichlorodifluoromethane	2	UJ	V1
48MW1	Isopropylbenzene	1	UJ	V1
48MW1	Methylene chloride	4	UJ	V1
48MW1	Styrene	1	UJ	V1
48MW1	Trichlorofluoromethane	1	UJ	V1
48TW1	Cyclohexane	2	UJ	V1
48TW1	Dichlorodifluoromethane	2	UJ	V1
48TW1	Isopropylbenzene	1	UJ	V1
48TW1	Methylene chloride	4	UJ	V1
48TW1	Styrene	1	UJ	V1
48TW1	Trichlorofluoromethane	1	UJ	V1
49MW01	Cyclohexane	2	UJ	V1

Client Sample ID	Analyte	Result	Qualifier	Reason
49MW01	Dichlorodifluoromethane	2	UJ	V1
49MW01	Isopropylbenzene	1	UJ	V1
49MW01	Methylene chloride	4	UJ	V1
49MW01	Styrene	1	UJ	V1
49MW01	Trichlorofluoromethane	1	UJ	V1
50MW2	Cyclohexane	2	UJ	V1
50MW2	Dichlorodifluoromethane	2	UJ	V1
50MW2	Isopropylbenzene	1	UJ	V1
50MW2	Methylene chloride	4	UJ	V1
50MW2	Styrene	1	UJ	V1
50MW2	Trichlorofluoromethane	1	UJ	V1
TB-4	Cyclohexane	2	UJ	V1
TB-4	Dichlorodifluoromethane	2	UJ	V1
TB-4	Isopropylbenzene	1	UJ	V1
TB-4	Methylene chloride	4	UJ	V1
TB-4	Styrene	1	UJ	V1
TB-4	Trichlorofluoromethane	1	UJ	V1
48MW2	Cyclohexane	2	UJ	V1
48MW2	Dichlorodifluoromethane	2	UJ	V1
48MW2	Isopropylbenzene	1	UJ	V1
48MW2	Methylene chloride	4	UJ	V1
48MW2	Styrene	1	UJ	V1
48MW2	Trichlorofluoromethane	1	UJ	V1
48MW2-EQB	Cyclohexane	2	UJ	V1
48MW2-EQB	Dichlorodifluoromethane	2	UJ	V1
48MW2-EQB	Isopropylbenzene	1	UJ	V1
48MW2-EQB	Methylene chloride	4	UJ	V1
48MW2-EQB	Styrene	1	UJ	V1
48MW2-EQB	Trichlorofluoromethane	1	UJ	V1
48MW3	Cyclohexane	2	UJ	V1
48MW3	Dichlorodifluoromethane	2	UJ	V1
48MW3	Isopropylbenzene	1	UJ	V1
48MW3	Methylene chloride	4	UJ	V1
48MW3	Styrene	1	UJ	V1
48MW3	Trichlorofluoromethane	1	UJ	V1
49MW02	Cyclohexane	2	UJ	V1
49MW02	Dichlorodifluoromethane	2	UJ	V1
49MW02	Isopropylbenzene	1	UJ	V1
49MW02	Methylene chloride	4	UJ	V1
49MW02	Styrene	1	UJ	V1
49MW02	Trichlorofluoromethane	1	UJ	V1
48MW7	Cyclohexane	2	UJ	V1
48MW7	Dichlorodifluoromethane	2	UJ	V1
48MW7	Isopropylbenzene	1	UJ	V1
48MW7	Methylene chloride	4	UJ	V1
48MW7	Styrene	1	UJ	V1
48MW7	Trichlorofluoromethane	1	UJ	V1
TB-4	1,2-Dibromo-3-chloropropane	1	UJ	V1
TB-4	1,4-Dioxane	50	UJ	V1
TB-4	Bromomethane	1	UJ	V1
48MW2	1,2-Dibromo-3-chloropropane	1	UJ	V1
48MW2	1,4-Dioxane	50	UJ	V1
48MW2	Bromomethane	1	UJ	V1
48MW2-EQB	1,2-Dibromo-3-chloropropane	1	UJ	V1

Client Sample ID	Analyte	Result	Qualifier	Reason
48MW2-EQB	1,4-Dioxane	50	UJ	V1
48MW2-EQB	Bromomethane	1	UJ	V1
48MW3	1,2-Dibromo-3-chloropropane	1	UJ	V1
48MW3	1,4-Dioxane	50	UJ	V1
48MW3	Bromomethane	1	UJ	V1
49MW02	1,2-Dibromo-3-chloropropane	1	UJ	V1
49MW02	1,4-Dioxane	50	UJ	V1
49MW02	Bromomethane	1	UJ	V1
48MW7	1,2-Dibromo-3-chloropropane	1	UJ	V1
48MW7	1,4-Dioxane	50	UJ	V1
48MW7	Bromomethane	1	UJ	V1
TB-2	1,2-Dibromo-3-chloropropane	1	UJ	V1
TB-2	Bromomethane	1	UJ	V1
48MW6	1,2-Dibromo-3-chloropropane	1	UJ	V1
48MW6	Bromomethane	1	UJ	V1
48MW6-EQB	1,2-Dibromo-3-chloropropane	1	UJ	V1
48MW6-EQB	Bromomethane	1	UJ	V1
49MW04	1,2-Dibromo-3-chloropropane	1	UJ	V1
49MW04	Bromomethane	1	UJ	V1
49TW04	1,2-Dibromo-3-chloropropane	1	UJ	V1
49TW04	Bromomethane	1	UJ	V1
13MW2	1,2-Dibromo-3-chloropropane	1	UJ	V1
13MW2	Bromomethane	1	UJ	V1
49MW05	1,2-Dibromo-3-chloropropane	1	UJ	V1
49MW05	Bromomethane	1	UJ	V1
TB-3	1,2-Dibromo-3-chloropropane	1	UJ	V1
TB-3	Bromomethane	1	UJ	V1
49MW03	1,2-Dibromo-3-chloropropane	1	UJ	V1
49MW03	Bromomethane	1	UJ	V1
49MW03-EQB	1,2-Dibromo-3-chloropropane	1	UJ	V1
49MW03-EQB	Bromomethane	1	UJ	V1
48MW1	1,2-Dibromo-3-chloropropane	1	UJ	V1
48MW1	Bromomethane	1	UJ	V1
48TW1	1,2-Dibromo-3-chloropropane	1	UJ	V1
48TW1	Bromomethane	1	UJ	V1
49MW01	1,2-Dibromo-3-chloropropane	1	UJ	V1
49MW01	Bromomethane	1	UJ	V1
50MW2	1,2-Dibromo-3-chloropropane	1	UJ	V1
50MW2	Bromomethane	1	UJ	V1

H1 – Holding time exceeded
M – MS and/or MSD recovery outside project limits
T – Cooler temperature exceeded at sample receipt
V1 – Initial calibration verification outside control limits
V2 – Continuing calibration verification outside control limits

		INTERNAL STANDARDS			SYSTEM MONITORING COMPOUNDS (SURROGATES)		
	STD Level	ISTD Fluorobenzene	ISTD Chlorobenzene -d5	ISTD 1,4 dichlorobenzene -d4	Dibromofluoromethane	1.2-Dichloroethane-d4	Toluene-d8
	Analyte#	1	68	82	41	45	61
	0.5	1366349	1027606	509672	337874	89652	1353916
	1	1367423	944324	511196	328618	95764	1350586
	2	1365555	903585	502255	341378	90029	1352309
	5	1357058	1024276	442814	332020	94072	1352378
	10	1374344	1027746	448909	338899	92368	1375839
	20	1390021	1032002	529063	342338	92672	1375675
	30	1392128	896480	463738	344460	93347	1377733
	40	1406725	1054063	537797	356790	92653	1395034
	80	1440940	1060335	469679	364988	98069	1412851

Recalculated:

	STD Level	ISTD Concentration			Response Factors		
					41	45	61
	STD 1	20	20	20	0.2473	0.0656	0.9909
	STD 2	20	20	20	0.2403	0.0700	0.9877
	STD 3	20	20	20	0.2500	0.0659	0.9903
	STD 4	20	20	20	0.2447	0.0693	0.9966
	STD 5	20	20	20	0.2466	0.0672	1.0011
	STD 6	20	20	20	0.2463	0.0667	0.9897
	STD 7	20	20	20	0.2474	0.0671	0.9897
	STD 8	20	20	20	0.2536	0.0659	0.9917
	STD 9	20	20	20	0.2533	0.0681	0.9805
	Average RF				0.2477	0.0673	0.9909
	%RSD				1.68	2.31	0.57
	Lab Avg RF				0.2480	0.0670	0.9910
	Lab %RSD				1.7	2.3	0.6
ICV	Instrument response	1428360	980725	532737	352242	97663	1399688
	Instrument result				19.9	20.3	19.8
Lab reported	Spiked Amount / True Value	20	20	20	20.0	20.0	20.0
	Lab Reported Result				19.9	20.3	19.8
	Lab % Recovery				100	102	99
Calculated	Instrument result				19.9	20.3	19.8
	Final Result				19.9	20.3	19.8
	% Recovery				100	102	99

			TARGET COMPOUNDS				
	STD Level	4-Bromofluorobenzene	1,1-dichloroethene	cis-1,2-dichloroethene	chloroform		
	Analyte#	83	13	32	39	43	
	0.5	530283	5036	9776	15569	5204	
	1	498386	12392	18323	29063	12628	
	2	538082	27482	36737	59022	29018	
	5	548531	77207	98789	153440	82555	
	10	515073	161573	197909	301370	192267	
	20	564142	317657	385368	603374	383259	
	30	480628	468548	567286	877675	584228	
	40	565263	630681	741559	1146616	807632	
	80	495786	1231360	1426693	2112531	1595866	

Recalculated:

STD Level						
	83				Known_y's	Known_x's
STD 1	1.0404	0.1474	0.2862	0.4558	0.0038	0.0250
STD 2	0.9749	0.1812	0.2680	0.4251	0.0092	0.0500
STD 3	1.0713	0.2013	0.2690	0.4322	0.0212	0.1000
STD 4	1.2387	0.2276	0.2912	0.4523	0.0608	0.2500
STD 5	1.1474	0.2351	0.2880	0.4386	0.1399	0.5000
STD 6	1.0663	0.2285	0.2772	0.4341	0.2757	1.0000
STD 7	1.0364	0.2244	0.2717	0.4203	0.4197	1.5000
STD 8	1.0511	0.2242	0.2636	0.4075	0.5741	2.0000
STD 9	1.0556	0.2136	0.2475	0.3665	1.1075	4.0000
Average RF	1.0758	0.2093	0.2736	0.4258		
%RSD	7.03	13.6	5.05	6.3		
Lab Avg RF	1.0760	0.2090	0.2740	0.4260		
Lab %RSD	7.0	13.6	5.05	6.3		

ICV	Instrument response	573634	171082	199414	321696	208410	
	Instrument result	20.0	11.4	10.2	10.6		
Lab reported	Spiked Amount / True Value	20.0	10.0	10.0	10.0		
	Lab Reported Result	20.0	11.4	10.2	10.6		
	Lab % Recovery	100	-14.5	-2.1	-5.8		
Calculated	Instrument result	20.0	11.4	10.2	10.6		
	Final Result	20.0	11.4	10.2	10.6		
	% Recovery	100	-14.5	-2.1	-5.8		

	STD Level	Carbon tetrachloride (Quadratic Regression)	Trichloroethene	Tetrachloroethane
	Analyte#		49	66
	0.5	Lab reported	8218	7222
	1	a = -0.0004	17446	15594
	2	b = 0.293	36547	31672
	5	c = -0.008	95698	87235
	10		192623	181070
	20		397232	358980
	30		571498	473259
	40		758114	702487
	80		1465536	1332310

Recalculated:

	STD Level			
			1	1
	STD 1		0.2406	0.2114
	STD 2		0.2552	0.2281
	STD 3		0.2676	0.2319
	STD 4	Excel linest function	0.2821	0.2571
	STD 5	=LINEST(known_y's, known_x's^{1,2},TRUE, TRUE)	0.2803	0.2635
	STD 6	a = -0.00355	0.2858	0.2583
	STD 7	b = 0.29331	0.2737	0.2266
	STD 8	c = -0.00763	0.2695	0.2497
	STD 9		0.2543	0.2312
	Average RF		0.2677	0.2398
	%RSD		5.6	7.5
	Lab Avg RF		0.2680	0.2400
	Lab %RSD		5.6	7.2
ICV	Instrument response		208121	184540
	Instrument result	10.5368	10.9	10.8
Lab reported	Spiked Amount / True Value	10.0000	10.0	10.0
	Lab Reported Result	10.5368	10.9	10.8
	Lab % Recovery	-5.37%	-8.9	-7.8
Calculated	Instrument result	10.5368	10.9	10.8
	Final Result	10.5	10.9	10.8
	% Recovery	-5.37%	-8.9	-7.8

		INTERNAL STANDARDS			SYSTEM MONITORING COMPOUNDS (SURROGATES)		
	STD Level	ISTD Fluorobenzene	ISTD Chlorobenzene -d5	ISTD 1,4 dichlorobenzene -d4	Dibromofluoromethane	1.2-Dichloroethane-d4	Toluene-d8
	Analyte#	1	68	82	41	45	61
CCVIS	Instrument response	1269328	1029868	534511	320223	83810	1314032
	Instrument result				20.4	19.6	20.9
Lab reported	Spiked Amount / True Value	20	20	20	20.0	20.0	20.0
	Lab Reported Result				20.4	19.6	20.9
	Lab % Recovery				102	98	104
Calculated	Instrument result				20.4	19.6	20.9
	Final Result				20.4	19.6	20.9
	% Recovery				102	98	104
CCVC	Instrument response	1240436	1005048	522693	314680	83284	1266332
	Instrument result				20.5	20.0	20.6
Lab reported	Spiked Amount / True Value	20	20	20	20.0	20.0	20.0
	Lab Reported Result				20.5	20.0	20.6
	Lab % Recovery				102	100	103
Calculated	Instrument result				20.5	20.0	20.6
	Final Result				20.5	20.0	20.6
	% Recovery				102	100	103
CCVIS	Instrument response	1248717	1001872	523875	312808	82184	1280790
	Instrument result				20.2	19.6	20.7
Lab reported	Spiked Amount / True Value	20	20	20	20.0	20.0	20.0
	Lab Reported Result				20.2	19.6	20.8
	Lab % Recovery				102	98	104
Calculated	Instrument result				20.2	19.6	20.7
	Final Result				20.2	19.6	20.7
	% Recovery				101	98	104

			TARGET COMPOUNDS				
	STD Level	4-Bromofluorobenzene	1,1-dichloroethene	cis-1,2-dichloroethene	chloroform		
	Analyte#	83	13	32	39	43	
CCVIS	Instrument response	559688	151988	182749	293765	163607	
	Instrument result	19.5	11.4	10.5	10.9		
Lab reported	Spiked Amount / True Value	20.0	10.0	10.0	10.0		
	Lab Reported Result	19.5	11.4	10.5	10.9		
	Lab % Recovery	97	-14.4	-5.2	-8.7		
	Instrument result	19.5	11.4	10.5	10.9		
Calculated	Final Result	19.5	11.4	10.5	10.9		
	% Recovery	97	-14.4	-5.2	-8.7		
CCVC	Instrument response	552656	146048	181710	283355	168394	
	Instrument result	19.7	11.3	10.7	10.7		
Lab reported	Spiked Amount / True Value	20.0	10.0	10.0	10.0		
	Lab Reported Result	19.7	11.3	10.7	10.7		
	Lab % Recovery	98	-12.5	-7.1	-7.3		
	Instrument result	19.7	11.3	10.7	10.7		
Calculated	Final Result	19.7	11.3	10.7	10.7		
	% Recovery	98	-12.5	-7.1	-7.3		
CCVIS	Instrument response	546365	155167	183450	289185	169248	
	Instrument result	19.4	11.9	10.7	10.9		
Lab reported	Spiked Amount / True Value	20.0	10.0	10.0	10.0		
	Lab Reported Result	19.4	11.9	10.7	10.9		
	Lab % Recovery	97	-18.8	-7.4	-8.8		
	Instrument result	19.4	11.9	10.7	10.9		
Calculated	Final Result	19.4	11.9	10.7	10.9		
	% Recovery	97	-18.8	-7.4	-8.8		

	STD Level	Carbon tetrachloride (Quadratic Regression)	Trichloroethene	Tetrachloroethane
	Analyte#		49	66
CCVIS	Instrument response		180289	173248
	Instrument result	9.4	10.6	11.4
Lab reported	Spiked Amount / True Value	10.0	10.0	10.0
	Lab Reported Result	9.4	10.6	11.4
	Lab % Recovery	6.4	-6.1	-13.9
Calculated	Instrument result	9.4	10.6	11.4
	Final Result	9.4	10.6	11.4
	% Recovery	-6.4	-6.1	-13.9
CCVC	Instrument response		197112	170125
	Instrument result	9.8	11.9	11.4
Lab reported	Spiked Amount / True Value	10.0	10.0	10.0
	Lab Reported Result	9.8	11.9	11.4
	Lab % Recovery	1.6	-18.7	-14.4
Calculated	Instrument result	9.8	11.9	11.4
	Final Result	9.8	11.9	11.4
	% Recovery	1.6	-18.7	-14.4
CCVIS	Instrument response		183330	175909
	Instrument result	9.8	11.0	11.8
Lab reported	Spiked Amount / True Value	10.0	10.0	10.0
	Lab Reported Result	9.8	11.0	11.8
	Lab % Recovery	1.8	-9.7	-17.5
Calculated	Instrument result	9.8	11.0	11.8
	Final Result	9.8	11.0	11.8
	% Recovery	1.8	-9.7	-17.5

		INTERNAL STANDARDS			SYSTEM MONITORING COMPOUNDS (SURROGATES)		
	STD Level	ISTD Fluorobenzene	ISTD Chlorobenzene -d5	ISTD 1,4 dichlorobenzene -d4	Dibromofluoromethane	1.2-Dichloroethane-d4	Toluene-d8
	Analyte#	1	68	82	41	45	61
CCVC	Instrument response	1200190	974811	517001	302400	80262	1243036
	Instrument result				20.3	19.9	20.9
Lab reported	Spiked Amount / True Value	20	20	20	20.0	20.0	20.0
	Lab Reported Result				20.3	19.9	20.9
	Lab % Recovery				102	99	105
Calculated	Instrument result				20.3	19.9	20.9
	Final Result				20.3	19.9	20.9
	% Recovery				102	99	105

Sample Volume, mL	Purge Volume, mL
5	5

Method Blank	Instrument response	1245433	1010991	507583	314596	84080	1266477
Lab reported	Spiked Amount	20	20	20	20	20	20
296249	Instrument Result				20.4	20.1	20.5
	Lab reported Result						
	Lab % Rec				102	100	103
Calculated	Instrument result				20.4	20.1	20.5
	Final Result						
	%Rec				102%	100%	103%

Sample Volume, mL	Purge Volume, mL
5	5

Method Blank	Instrument response	1196126	978350	497620	310173	79601	1232228
Lab reported	Spiked Amount	20	20	20	20	20	20
296249	Instrument Result				20.9	19.8	20.8
	Lab reported Result						
	Lab % Rec				105	99	104
Calculated	Instrument result				20.9	19.8	20.8
	Final Result						
	%Rec				105%	99%	104%

			TARGET COMPOUNDS				
	STD Level	4-Bromofluorobenzene	1,1-dichloroethene	cis-1,2-dichloroethene	chloroform		
	Analyte#	83	13	32	39	43	
CCVC	Instrument response	537991	144809	176460	274521	152721	
	Instrument result	19.3	11.5	10.7	10.7		
Lab reported	Spiked Amount / True Value	20.0	10.0	10.0	10.0		
	Lab Reported Result	19.3	11.5	10.7	10.7		
	Lab % Recovery	97	-15.3	-7.5	-7.4		
Calculated	Instrument result	19.3	11.5	10.7	10.7		
	Final Result	19.3	11.5	10.7	10.7		
	% Recovery	97	-15.3	-7.5	-7.4		

	Sample Volume, mL						
	5						
Method Blank	Instrument response	536434	ND	ND	ND	ND	
Lab reported	Spiked Amount	20					
296249	Instrument Result	19.6					
	Lab reported Result						
	Lab % Rec	98					
Calculated	Instrument result	19.6	ND	ND	ND		
	Final Result		ND	ND	ND		
	%Rec	98%					

	Sample Volume, mL						
	5						
Method Blank	Instrument response	526808	ND	ND	ND	ND	
Lab reported	Spiked Amount	20					
296249	Instrument Result	19.7					
	Lab reported Result						
	Lab % Rec	98					
Calculated	Instrument result	19.7	ND	ND	ND		
	Final Result		ND	ND	ND		
	%Rec	98%					

	STD Level	Carbon tetrachloride (Quadratic Regression)	Trichloroethene	Tetrachloroethane
	Analyte#		49	66
CCVC	Instrument response		191412	171704
	Instrument result	9.2	11.9	11.9
Lab reported	Spiked Amount / True Value	10.0	10.0	10.0
	Lab Reported Result	9.2	11.9	11.9
	Lab % Recovery	7.5	-19.2	-19.3
Calculated	Instrument result	9.2	11.9	11.9
	Final Result	9.2	11.9	11.9
	% Recovery	7.5	-19.2	-19.3

	Sample Volume, mL			
	5			
Method Blank	Instrument response		ND	ND
Lab reported	Spiked Amount			
296249	Instrument Result			
	Lab reported Result			
	Lab % Rec			
Calculated	Instrument result	ND	ND	ND
	Final Result	ND	ND	ND
	%Rec			

	Sample Volume, mL			
	5			
Method Blank	Instrument response		ND	ND
Lab reported	Spiked Amount			
296249	Instrument Result			
	Lab reported Result			
	Lab % Rec			
Calculated	Instrument result	ND	ND	ND
	Final Result	ND	ND	ND
	%Rec			

		INTERNAL STANDARDS			SYSTEM MONITORING COMPOUNDS (SURROGATES)		
	STD Level	ISTD Fluorobenzene	ISTD Chlorobenzene -d5	ISTD 1,4 dichlorobenzene -d4	Dibromofluoromethane	1.2-Dichloroethane-d4	Toluene-d8
	Analyte#	1	68	82	41	45	61
	Sample Volume, mL	Purge Volume, mL					
LCS	5	5					
Lab reported	LCS Response	1269328	1029868	534511	320223	83810	1314032
	LCS Instrument Conc	20	20	20	20.4	19.6	20.9
	Spike/ True Value				20	20	20
	LCS % Rec				102	100	103
Calculated	LCS Instrument result				20.3679	19.6201	25.7529
	LCS %Rec				102%	98%	129%
	Sample Volume, mL	Purge Volume, mL					
LCS	5	5					
Lab reported	LCS Response	1248717	1001872	523875	312808	82184	1280790
	LCS Instrument Conc	20	20	20	20	19.6	20.7
	Spike/ True Value				20	20	20
	LCS % Rec				102	98	104
Calculated	LCS Instrument result				20.2246	19.5570	20.7022
	LCS %Rec				101%	98%	104%

			TARGET COMPOUNDS				
	STD Level	4-Bromofluorobenzene	1,1-dichloroethene	cis-1,2-dichloroethene	chloroform		
	Analyte#	83	13	32	39	43	
	Sample Volume, mL						
LCS	5						
Lab reported	LCS Response	559688	151988	182749	293765	163607	
	LCS Instrument Conc	19.5	11.4	10.5	10.9		
	Spike/ True Value	20	10	10	10		
	LCS % Rec	98	114	105	109		
Calculated	LCS Instrument result	19.4665	11.44	10.52	10.87		
	LCS %Rec	97%	114%	105%	109%		
	Sample Volume, mL						
LCS	5						
Lab reported	LCS Response	546365	155167	183450	289185	169248	
	LCS Instrument Conc	19.4	11.9	10.7	10.9		
	Spike/ True Value	20	10	10	10		
	LCS % Rec	97	119	108	109		
Calculated	LCS Instrument result	19.3889	11.88	10.74	10.88		
	LCS %Rec	97%	119%	107%	109%		

	STD Level	Carbon tetrachloride (Quadratic Regression)	Trichloroethene	Tetrachloroethane
	Analyte#		49	66
	Sample Volume, mL			
LCS	5			
Lab reported	LCS Response		180289	173248
	LCS Instrument Conc	9.4	10.6	11.4
	Spike/ True Value	10	10	10
	LCS % Rec	94	106	114
Calculated	LCS Instrument result	9.4	10.61	11.39
	LCS %Rec	94%	106%	114%

	Sample Volume, mL			
LCS	5			
Lab reported	LCS Response		183330	175909
	LCS Instrument Conc	9.8	11.0	11.8
	Spike/ True Value	10	10	10
	LCS % Rec	98	110	118
Calculated	LCS Instrument result	9.8	10.97	11.75
	LCS %Rec	98%	110%	118%

		INTERNAL STANDARDS			SYSTEM MONITORING COMPOUNDS (SURROGATES)		
	STD Level	ISTD Fluorobenzene	ISTD Chlorobenzene -d5	ISTD 1,4 dichlorobenzene -d4	Dibromofluoromethane	1.2-Dichloroethane-d4	Toluene-d8
	Analyte#	1	68	82	41	45	61
	Sample Volume, mL	Purge Volume, mL					
MS	5	5					
MSD	5	5					
Lab reported	MS Response	1205315	967285	510993	304275	80845	1251280
	MS Instrument Conc				20.3810	19.9310	20.9530
	MS Spike True Value						
	MSD Response	1239498	993456	526218	314235	84898	1278643
	MSD Instrument Conc				20.4680	20.3530	20.8210
	MSD Spike True Value	20	20	20	20	20	20
	OS Final Result						
	MS % Rec				102	100	105
	MSD % Rec				102	102	104
	Dil						
	RPD						
Calculated MS	MS Instrument result				20.3813	19.9311	20.9535
	MS %Rec				102%	100%	105%
Calculated MSD	MSD Instrument result				20.4680	20.3531	20.8212
	MSD %Rec				102%	102%	104%
	RPD						
	Sample Volume, mL	Purge Volume, mL					
MS	5	5					
MSD	5	5					
Lab reported	MS Response	1228634	998386	519071	309631	78371	1254879
	MS Instrument Conc				20.3460	18.9540	20.6150
	MS Spike True Value						
	MSD Response	1225524	1014361	522691	317218	83608	1277045
	MSD Instrument Conc				20.8980	20.2720	21.0320
	MSD Spike True Value	20	20	20	20	20	20
	OS Final Result						
	MS % Rec				102	95	103
	MSD % Rec				104	101	105
	Dil						
	RPD						

			TARGET COMPOUNDS				
	STD Level	4-Bromofluorobenzene	1,1-dichloroethene	cis-1,2-dichloroethene	chloroform		
	Analyte#	83	13	32	39	43	
	Sample Volume, mL						
MS	5						
MSD	5						
Lab reported	MS Response	528918	150773	176853	577617	1393443	
	MS Instrument Conc	19.2430	11.96	10.73	22.51		
	MS Spike True Value		10.00	10.00	10.00		
	MSD Response	547856	163598	192340	609787	1490823	
	MSD Instrument Conc	19.3550	12.61	11.34	23.11		
	MSD Spike True Value	20	10	10	10		
	OS Final Result		0	0	12		
	MS % Rec	96	120	107	105		
	MSD % Rec	97	126	113	111		
	Dil		1.00	1.00	1.00		
	RPD		5	6	3		
Calculated MS	MS Instrument result	19.2429	11.96	10.73	22.51		
	MS %Rec	96%	120%	107%	105%		
Calculated MSD	MSD Instrument result	19.3552	12.61	11.34	23.11		
	MSD %Rec	97%	126%	113%	111%		
	RPD		5	6	3		
	Sample Volume, mL						
MS	5						
MSD	5						
Lab reported	MS Response	538621	157374	181224	285572	182929	
	MS Instrument Conc	19.2910	12.24	10.78	10.92		
	MS Spike True Value		10.00	10.00	10.00		
	MSD Response	547795	163013	191376	299222	188408	
	MSD Instrument Conc	19.4840	12.71	11.42	11.47		
	MSD Spike True Value	20	10	10	10		
	OS Final Result		0	0	0		
	MS % Rec	96	122	108	109		
	MSD % Rec	97	127	114	115		
	Dil		1.00	1.00	1.00		
	RPD		4	6	5		

	STD Level	Carbon tetrachloride (Quadratic Regression)	Trichloroethene	Tetrachloroethane
	Analyte#		49	66
	Sample Volume, mL			
MS	5			
MSD	5			
Lab reported	MS Response		408122	167088
	MS Instrument Conc	83.58	25.30	11.56
	MS Spike True Value	10.00	10.00	10.00
	MSD Response		433011	184736
	MSD Instrument Conc	87.13	26.10	12.43
	MSD Spike True Value	10	10	10
	OS Final Result	72	15	0
	MS % Rec	116	103	116
	MSD % Rec	151	111	124
	Dil	1.00	1.00	1.00
	RPD	4	3	7
Calculated MS	MS Instrument result	83.6	25.30	11.56
	MS %Rec	116%	103%	116%
Calculated MSD	MSD Instrument result	87.1	26.10	12.43
	MSD %Rec	151%	111%	124%
	RPD	4	3	7
	Sample Volume, mL			
MS	5			
MSD	5			
Lab reported	MS Response		183365	177311
	MS Instrument Conc	10.74	11.15	12.04
	MS Spike True Value	10.00	10.00	10.00
	MSD Response		193387	181048
	MSD Instrument Conc	11.08	11.79	12.32
	MSD Spike True Value	10	10	10
	OS Final Result	0.6	0	0
	MS % Rec	101	112	120
	MSD % Rec	105	118	123
	Dil	1.00	1.00	1.00
	RPD	3	6	2

		INTERNAL STANDARDS			SYSTEM MONITORING COMPOUNDS (SURROGATES)		
	STD Level	ISTD Fluorobenzene	ISTD Chlorobenzene -d5	ISTD 1,4 dichlorobenzene -d4	Dibromofluoromethane	1.2-Dichloroethane-d4	Toluene-d8
	Analyte#	1	68	82	41	45	61
Calculated MS	MS Instrument result				20.3464	18.9545	20.6149
	MS %Rec				102%	95%	103%
Calculated MSD	MSD Instrument result				20.8979	20.2724	21.0323
	MSD %Rec				104%	101%	105%
	RPD						

Sample Volume, mL	Purge Volume, mL
5	5

Lab reported 48MW3	Response	1205818	992137	503206	306603	83156	1231937
	Instrument Conc				20.529	20.492	20.621
	Spike / True Value	20	20	20	20	20	20
Calculated	MS Instrument result				20.5287	20.4923	20.6210
	Surrogate % Recovery				103%	102%	103%

Sample Volume, mL	Purge Volume, mL
5	5

Lab reported 48MW3	Response	1205818	992137	503206	306603	83156	1231937
	Instrument Conc				20.529	20.492	20.621
	Spike / True Value	20	20	20	20	20	20
	Lab Reported Surr % Rec.				103	102	103
Calculated	MS Instrument result				20.5287	20.4923	20.6210
	Surrogate % Recovery				103%	102%	103%

Sample Volume, mL	Purge Volume, mL
5	5

Lab reported 13MW5	Response	1194556	984924	507042	300760	84796	1239491
	Instrument Conc				20.327	21.093	20.943
	Spike / True Value	20	20	20	20	20	20
					102	105	105
Calculated	MS Instrument result				20.3273	21.0934	20.9430
	Surrogate % Recovery				102%	105%	105%

Sample Volume, mL	Purge Volume, mL
5	5

			TARGET COMPOUNDS				
	STD Level	4-Bromofluorobenzene	1,1-dichloroethene	cis-1,2-dichloroethene	chloroform		
	Analyte#	83	13	32	39	43	
Calculated MS	MS Instrument result	19.2910	12.24	10.78	10.92		
	MS %Rec	96%	122%	108%	109%		
Calculated MSD	MSD Instrument result	19.4837	12.71	11.42	11.47		
	MSD %Rec	97%	127%	114%	115%		
	RPD		4	6	5		
	Sample Volume, mL						
	5						
Lab reported 48MW3	Response	524761	ND	ND	316642	1209715	
	Instrument Conc	19.4	ND	ND	12.33		
	Spike / True Value	20					
Calculated	MS Instrument result	19.3871	ND	ND	12.33		
	Surrogate % Recovery	97%					
	Sample Volume, mL						
	5						
Lab reported 48MW3	Response	524761	ND	ND	316642	1209715	
	Instrument Conc	19.4	ND	ND	12.33		
	Spike / True Value	20					
	Lab Reported Surr % Rec.	97					
Calculated	MS Instrument result	19.3871	ND	ND	12.33		
	Surrogate % Recovery	97%					
	Sample Volume, mL						
	5						
Lab reported 13MW5	Response	510142	ND	ND	ND	1324	
	Instrument Conc	18.7	ND	ND	ND		
	Spike / True Value	20					
		94					
Calculated	MS Instrument result	18.7044	ND	ND	ND		
	Surrogate % Recovery	94%					
	Sample Volume, mL						
	5						

	STD Level	Carbon tetrachloride (Quadratic Regression)	Trichloroethene	Tetrachloroethane
	Analyte#		49	66
Calculated MS	MS Instrument result	10.7	11.15	12.04
	MS %Rec	101%	112%	120%
Calculated MSD	MSD Instrument result	11.1	11.79	12.32
	MSD %Rec	105%	118%	123%
	RPD	3	6	2

	Sample Volume, mL			
	5			
Lab reported 48MW3	Response		240593	ND
	Instrument Conc	72.07	14.91	ND
	Spike / True Value			
Calculated	MS Instrument result	72.1	ND	ND
	Surrogate % Recovery			

	Sample Volume, mL			
	5			
Lab reported 48MW3	Response		240593	ND
	Instrument Conc	72.07	14.91	ND
	Spike / True Value			
	Lab Reported Surr % Rec.			
Calculated	MS Instrument result	72.1	ND	ND
	Surrogate % Recovery			

	Sample Volume, mL			
	5			
Lab reported 13MW5	Response		1081	ND
	Instrument Conc	0.60	ND	ND
	Spike / True Value			
Calculated	MS Instrument result	0.6	0.00	ND
	Surrogate % Recovery			

Sample Volume, mL
5

		INTERNAL STANDARDS			SYSTEM MONITORING COMPOUNDS (SURROGATES)		
	STD Level	ISTD Fluorobenzene	ISTD Chlorobenzene -d5	ISTD 1,4 dichlorobenzene -d4	Dibromofluoromethane	1.2-Dichloroethane-d4	Toluene-d8
	Analyte#	1	68	82	41	45	61
Lab reported 48MW6	Response	1204147	968892	494382	297108	79070	1229751
	Instrument Conc				19.921	19.512	20.613
	Spike / True Value	20	20	20	20	20	20
					100	98	103
Calculated	MS Instrument result				19.9206	19.5124	20.6129
	Surrogate % Recovery				100%	98%	103%

Sample Volume, mL	Purge Volume, mL
5	5

Lab reported 48MW2	Response	1222289	992636	495478	304954	82399	1244763
	Instrument Conc				20.143	20.032	20.555
	Spike / True Value	20	20	20	20	20	20
					100	98	103
Calculated	MS Instrument result				20.1431	20.0321	20.5549
	Surrogate % Recovery				101%	100%	103%

			TARGET COMPOUNDS				
	STD Level	4-Bromofluorobenzene	1,1-dichloroethene	cis-1,2-dichloroethene	chloroform		
	Analyte#	83	13	32	39	43	
Lab reported 48MW6	Response	513442	1515	98455	ND	ND	
	Instrument Conc	19.3	ND	5.98	ND		
	Spike / True Value	20					
		97					
Calculated	MS Instrument result	19.3075	0.12	5.98	ND		
	Surrogate % Recovery	97%	ND				
	Sample Volume, mL						
	5						
Lab reported 48MW2	Response	529927	ND	ND	150079	791276	
	Instrument Conc	19.9	ND	5.98	5.77		
	Spike / True Value	20					
		97					
Calculated	MS Instrument result	19.8833	ND	ND	5.77		
	Surrogate % Recovery	99%	ND				

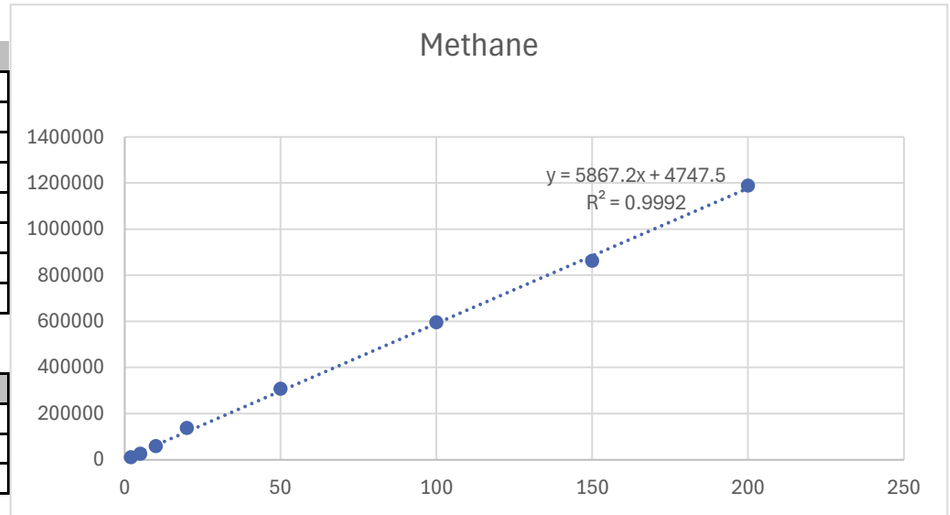
	STD Level	**Carbon tetrachloride (Quadratic Regression)**	**Trichloroethene**	**Tetrachloroethane**
	Analyte#		**49**	**66**
Lab reported 48MW6	**Response**		37264	7887
	Instrument Conc	ND	2.31	0.55
	Spike / True Value			
Calculated	**MS Instrument result**	ND	2.31	0.55
	Surrogate % Recovery			
	Sample Volume, mL			
	5			
Lab reported 48MW2	**Response**		100468	ND
	Instrument Conc	45.94	6.14	ND
	Spike / True Value			
Calculated	**MS Instrument result**	45.9	6.14	ND
	Surrogate % Recovery			

TUNE CHECK				
DATE	**MASS, m/z**	**Ion Abundance**	**% Relative Abundance**	**Lab Reported % Relative abundance**
10/17/2025 7:29	95 - Reference	82133		
10/17/2025 7:29	50	14745	18.0%	18.0%
10/17/2025 7:29	174 - Reference	61920		
10/17/2025 7:29	175	4375	7.1%	7.1%

TUNE CHECK				
DATE	**MASS, m/z**	**Ion Abundance**	**% Relative Abundance**	**Lab Reported % Relative abundance**
10/31/2025 10:00	95 - Reference	69504		
10/31/2025 10:00	50	11779	16.9%	16.9%
10/31/2025 10:00	174 - Reference	51896		
10/31/2025 10:00	175	4110	7.9%	7.9%

TUNE CHECK				
DATE	**MASS, m/z**	**Ion Abundance**	**% Relative Abundance**	**Lab Reported % Relative abundance**
11/01/2025 6:47	95 - Reference	62025		
11/01/2025 6:47	50	11705	18.9%	18.9%
11/01/2025 6:47	174 - Reference	44610		
11/01/2025 6:47	175	3848	8.6%	8.6%

Conc, Cx	Area, Ax
2	10734
5	26365
10	58678
20	137068
50	307944
100	596424
150	862377
200	1189081



Calc	Lab Report
5867.21	5867.21
4747.53	4747.53
0.999204	0.999204

Lab Tamp, C	19.8
Headspace volume, ml	4
Sample volume, ml	43
Henry's Constant	35876.8999

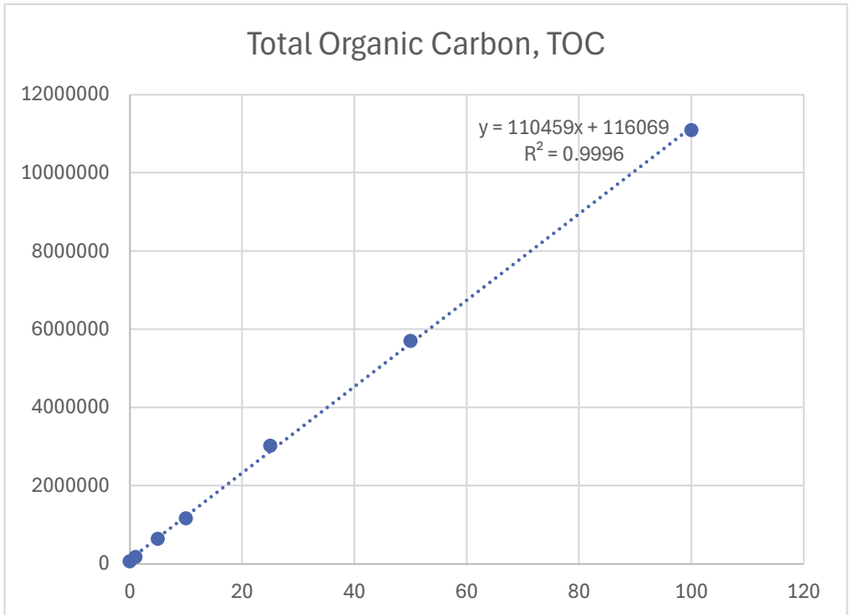
Sample Concentration Calculations										
Lab ID	Spike Conc.	Compound Area, Ax	Ave RF, On-column Conc	Dilution	Calculated instrument Result, ppmv	Lab Instrument Reported Result	Calculated Final Result, ug/L	Lab Final Result, ug/L	Calculated % Rec, % Diff	Lab Reported %Rec, %Diff
ICV	50	307707	51.636	1.000	51.636	51.636			3.272%	3.272%
ICV	50	297472	49.892	1.000	49.892	49.892			0.217%	0.217%
ICV	50	300745	50.449	1.000	50.449	50.449			0.899%	0.889%
ICV	50	301154	50.519	1.000	50.519	50.519			1.038%	1.038%
ICV	50	310153	52.053	1.000	52.053	52.053			4.106%	4.106%
ICB		8394	0.621	1.000	0.621	0.621				
CCV	50	268441	44.944	1.000	44.944	44.944			10.113%	10.113%
CCV	50	280737	47.039	1.000	47.039	47.039			5.921%	5.921%
CCB		7588	0.484	1.000	0.484	0.484				
CCV	50	272201	45.584	1.000	45.584	45.584			8.831%	8.831%
CCB		13542	1.499	1.000	1.499	1.499				
CCV	50	282239	47.295	1.000	47.295	47.295			5.409%	5.409%
CCV	50	268177	44.899	1.000	44.899	44.899			10.203%	10.203%
CCB		8355	0.615	1.000	0.615	0.615				
CCV	50	277734	46.527	1.000	46.527	46.527			6.945%	6.945%
CCB		7514	0.472	1.000	0.472	0.472				

Sample Concentration Calculations										
Lab ID	**Spike Conc.**	**Compound Area, Ax**	**Ave RF, On-column Conc**	**Dilution**	**Calculated instrument Result, ppmv**	**Lab Instrument Reported Result**	**Calculated Final Result, ug/L**	**Lab Final Result, ug/L**	**Calculated % Rec, % Diff**	**Lab Reported %Rec, %Diff**
CCV	50	276600	46.334	1.000	46.334	46.335			7.332%	7.332%
CCV	50	282668	47.368	1.000	47.368	47.368			5.263%	5.263%
CCB		8309	0.607	1.000	0.607	0.607				
LCS 1643927	2.3	136265	22.416	1.000	22.416	22.416	2.09	2.06	91%	90%
MB 1643926		12250	1.279	1.000	1.279	1.279	0.12	0.45 U		
1643245dup		10017	0.898	1.000	0.898	0.898	0.08	1.88		
LCS 1645153	2.3	125699	20.615	1.000	20.615	20.615	1.92	1.900	83%	83%
MB 1645152		11627	1.173	1.000	1.173	1.173	0.11	0.45 U		
1643985dup		9860	0.871	1.000	0.871	0.871	0.08	0.90 U		
1644158MS	2.3	118167	19.331	1.000	19.331	19.331	1.80	1.78	78%	77
1644158MSD	2.3	115676	18.907	1.000	18.907	18.907	1.76	1.74	76%, 2%	76%, 2%
LCS 1645739	2.3	126012	20.668	1.000	20.668	20.668	1.92	1.900	84%	83%
MB 1645738		8336	0.612	1.000	0.612	0.612	0.06	0.45 U		
1645321MS	2.3	120883	19.794	1.000	19.794	19.794	1.84	1.82	80%	79%
1645321MSD	2.3	120548	19.737	1.000	19.737	19.737	1.84	1.81	80%, 0%	79%, 0%
48MW6		7676	0.499	1.000	0.499	0.499	0.05	0.90 U		
48MW2		13160	1.434	1.000	1.434	1.434	0.13	0.90 U		
48MW3										
13MW5		7300	0.435	1.000	0.435	0.435	0.04	0.90 U		

The slight difference in the final result is likely due to the lab using a slightly different calculated Henry's constant.

Area1	Area 2	Area 3	Area 4	X-Values, Compound Conc, Cx	Average Area
242802	182228	169324	211724	0	201519.5
370123	301617	315699	285521	1	318240
849745	836006	841868	856310	5	845982.25
1640297	1469028	1506184	1471547	10	1521764
3849895	3663528	3539172	3629968	25	3670640.75
6941202	6774644	6785198	6852827	50	6838467.75
13069740	13074745	13060434	13138286	100	13085801.25

	Calculated	Lab Reported
Slope	129293.23	129293
intercept	255344.04	255244
COD	0.99973	0.99965



Sample Concentration Calculations													
Lab ID	Field Sample ID	Spike Conc.	Area 1	Area 2	Area 3	Area 4	Average Area	Instrument Result	Dilution	Calculated Result	Lab Instrument Reported Result	Rec., RPD, Drift, %Deviation	Lab Result Reported RPD, Drift, %Deviation
Level 1		0	242802	182228	169324	211724	201520	-0.416	1.000	-0.42			
Level 2		1	370123	301617	315699	285521	318240	0.486	1.000	0.49			
Level 3		5	849745	836006	841868	856310	845982	4.568	1.000	15.50			
Level 4		10	1640297	1469028	1506184	1471547	1521764	9.79494	1.000	9.79494			
Level 5		25	3849895	3663528	3539172	3629968	3670641	26.415	1.000	26.42			
Level 6		50	6941202	6774644	6785198	6852827	6838468	50.916	1.000	50.916			
Level 7		100	13069740	13074745	13060434	13138286	13085801	99.235	1.000	99.24			
ICV		50	7016449	6857470	6796233	7306057	6994052	52.120	1.000	52.12	52.12	104%	104.0%
CCV		50	6483926	6414504	6534130	6463783	6474086	48.098	1.000	48.10	48.08	96%	96.0%
LCSW		50	6858764	6933464	6927268	6873435	6898233	51.378	1.000	51.38	51.36	103%	103%

Sample Concentration Calculations													
Lab ID	**Field Sample ID**	**Spike Conc.**	**Area 1**	**Area 2**	**Area 3**	**Area 4**	**Average Area**	**Instrument Result**	**Dilution**	**Calculated Result**	**Lab Instrument Reported Result**	**Rec., RPD, Drift, %Deviation**	**Lab Result Reported RPD, Drift, %Deviation**
MB			0	0	0	0	0	-1.975	1.000	-1.97	1.5 U		
1643245			191666	180077	173140	165977	177715	-0.600	1.000	-0.60	1.5 U		
CCV		50	6329283	6404942	6349167	6381883	6366319	47.2644595	1.000	47.26	47.25	95%	94%
DUP1643248			123773	107337	112546	102360	111504	-1.1125102	1.000	-1.11	1.5 U		
MSW1643248		50	6020712	6127032	6125890	6297930	6142891	45.5363896	1.000	45.54	45.52	91%	91%
MSDW1643248		50	6466889	6097184	6147458	5963569	6168775	45.7365857	1.000	45.74	45.72	91%, 0%	91%, 0%
CCV		50	6330163	6438833	6405250	6469311	6410889	47.6091837	1.000	47.61	47.59	95%	95%
CCV		50	6591302	6599082	6400259	6482621	6518316	48.4400605	1.000	48.44	48.43	97%	97%
LCSW		50	6596621	6796143	6724907	6837863	6738884	50.146	1.000	50.15	50.13	100%	100%
MB			0	0	0	0	0	-1.975	1.000	-1.97	1.5 U		
CCV		50	6374729	6542707	6444011	6431623	6448268	47.8982804	1.000	47.90	47.88	96%	96%
1644156			86165	48411	0	0	33644	-1.7147072	1.000	-1.71	1.5 U		
1644158			111238	78569	57888	72802	80124	-1.3552124	1.000	-1.36	1.5 U		
CCV		50	6099070	6105121	6054424	6108463	6091770	45.1409976	1.000	45.14	45.12	90%	90%
MS1644158		50	6469196	6455121	6529918	6457931	6478042	48.1285632	1.000	48.13	48.11	96%	96
MSD1644158		50	6433365	6327392	6413105	6262439	6359075	47.2084357	1.000	47.21	47.19	94%, 1%	94%, 2%
CCV		50	6117565	6093487	6115106	6222723	6137220	45.49253	1.000	45.49	45.47	91%	91%
CCV		50	6891172	6790466	6927323	6809261	6854556	51.0406568	1.000	51.04	51.03	102%	102%
LCSW		50	7070579	6939346	6937184	7041876	6997246	52.144	1.000	52.14	52.13	104%	104%
MB			0	0	0	0	0	-1.975	1.000	-1.97	1.5 U		
1635321			206020	156877	148247	108303	154862	-0.7771659	1.000	-0.78	1.5 U		
CCV		50	6597850	6647919	6718818	6741853	6676610	49.6643628	1.000	49.66	49.65	99%	99%
CCV		50	6882024	6801672	6835064	6893461	6853055	51.0290534	1.000	51.03	51.02	102%	102%
MS1645321		50	6376508	6722106	6409838	6569650	6519526	48.4494152	1.000	48.45	48.43	97%	97
MSD1645321		50	6195855	6330406	6410989	6285053	6305576	46.7946515	1.000	46.79	46.78	94%, 2%	94%, 3%
CCV		50	6863201	6987366	6903434	6913124	6916781	51.521933	1.000	51.52	51.5	103%	103%

Initial Calibration Model Worksheet - Sulfate					
Y-Values, Compound Area, Ax	X-Values, Compound Conc, Cx/Vs	X^2	RF	Y^2	XY
		$(Cx)^2$	Ax/Cx	$(Ax)^2$	(Cx*Ax)
0.7810	3	9.000	0	6.10E-01	2.3
1.2910	5	25.000	0	1.67E+00	6.5
2.6190	10	100.000	0	6.86E+00	26.2
5.7530	20	400.000	0	3.31E+01	115.1
8.7230	30	900.000	0	7.61E+01	261.7
15.0970	50	2500.000	0	2.28E+02	754.9
22.0600	70	4900.000	0	4.87E+02	1544.2

CALIBRATION MODELS:

Linear Regression:

y = mx + b

Cx = (Ax-b)/m

Weighting		Equal	Reported
Slope (m)		0.3165	0.3165
Intercept (b)		-0.4553	-0.4553
CC (R) (≥0.99)		0.9994	NR
COD (R^2) (≥0.98)		0.99885	0.99885
Note			

Sample Concentration Calculations									
Lab Sample ID	Field Sample ID	Spike Concentration	Compound Area Ax	Linear Cal On-column Conc	Dilution	Calculated Result	Laboratory Reported	% Recovery	Lab Reported
ICV		25.000	6.908	23.261	1	23.261	23.261	93%	93%
CCV		25.000	7.571	25.3557	1	25.356	25.354	101%	101%
LCS		25.000	7.583	25.394	1	25.394	25.3920	102%	99%
MB			0	1.438	1	1.438	1.5 U		
1643245			6.932	23.337	5	116.685	116.677		
1643250			8.549	28.445	1	28.445	28.445		
MS1643250		8	10.567	34.820	1	34.820	34.821	80%	85%
MSD 1643250		8	10.389	34.258	1	34.258	34.257		
CCV		25	7.831	26.177	1	26.177	26.178	105%	105%
CCB			0	1.438	1	1.438	1.5 U		
CCV		25	8.022	26.780	1	26.780	26.779	107%	107

Sample Concentration Calculations									
Lab Sample ID	**Field Sample ID**	**Spike Concentration**	**Compound Area Ax**	**Linear Cal On-column Conc**	**Dilution**	**Calculated Result**	**Laboratory Reported**	**% Recovery**	**Lab Reported**
CCB			0	1.438	1	1.438	1.5 U		
CCV		25	7.636	25.561	1	25.561	25.560	102%	102
CCB			0	1.438	1	1.438	1.5 U		
CCV		25	7.884	26.344	1	26.344	26.345	105%	105
LCS		25	7.770	25.984	1	25.984	25.9831	104%	99%
MB			0	1.438	1	1.438	1.5 U		
CCV		25	7.726	25.845	1	25.845	25.846	103%	103%
CCB			0	1.438	1	1.438			
CCV		25	7.175	24.105	1	24.105	24.105	96%	96
LCS		25	7.449	24.970	1	24.970	24.9705	100%	99%
MB			0	1.438	1	1.438	1.5 U		
1644156			0.978	4.528	1	4.528	4.527		
CCV		25	7.429	24.907	1	24.907	24.905	100%	100
CCB			0	1.438	1	1.438			
CCV		25	7.524	25.207	1	25.207	25.205	101%	101
CCB			0	1.438	1	1.438			
1644158				1.438	1	1.438	4.527		
MS1644158		8	11.033	36.292	1	36.292	36.292	104%	104
MSD1644158		8	10.866	35.765	1	35.765	35.765	97%, 1%	82%, 1%
1644158			11.033	36.292	1	36.292	28.000		
CCV		25	7.565	25.337	1	25.337	25.336	101.3%	101%
LCS		25.000	7.545	25.274	1	25.274	25.2745	101%	99%
MB			0	1.438	1	1.438	1.5 U		
CCV		25	7.4	24.815	1	24.815	24.815	99.3%	99%
CCB			0	1.438	1	1.438	119.950		
1645321			12.294	40.276	5	201.380	201.373		
MS1645321			14.111	46.016	5	230.080	230.074	71.8%	75%
MSD1645321			14.252	46.462	5	232.308	232.311		
CCV		25	7.312	24.537	1	24.537	24.536	98.1%	98%
CCB			0	1.438	1	1.438	1.5 U		
CCV		25	7.319	24.560	1	24.560	24.558	98.2%	98
CCB			0	1.438	1	1.438	1.5 U		

Slight differences in percent recovery calculations are due to lab rounding prior to determing percent recoveries.

Sample Concentration Calculations									
Lab Sample ID	Field Sample ID	Spike Concentration	Compound Area Ax	Linear Cal On-column Conc	Dilution	Calculated Result	Laboratory Reported	% Recovery	Lab Reported

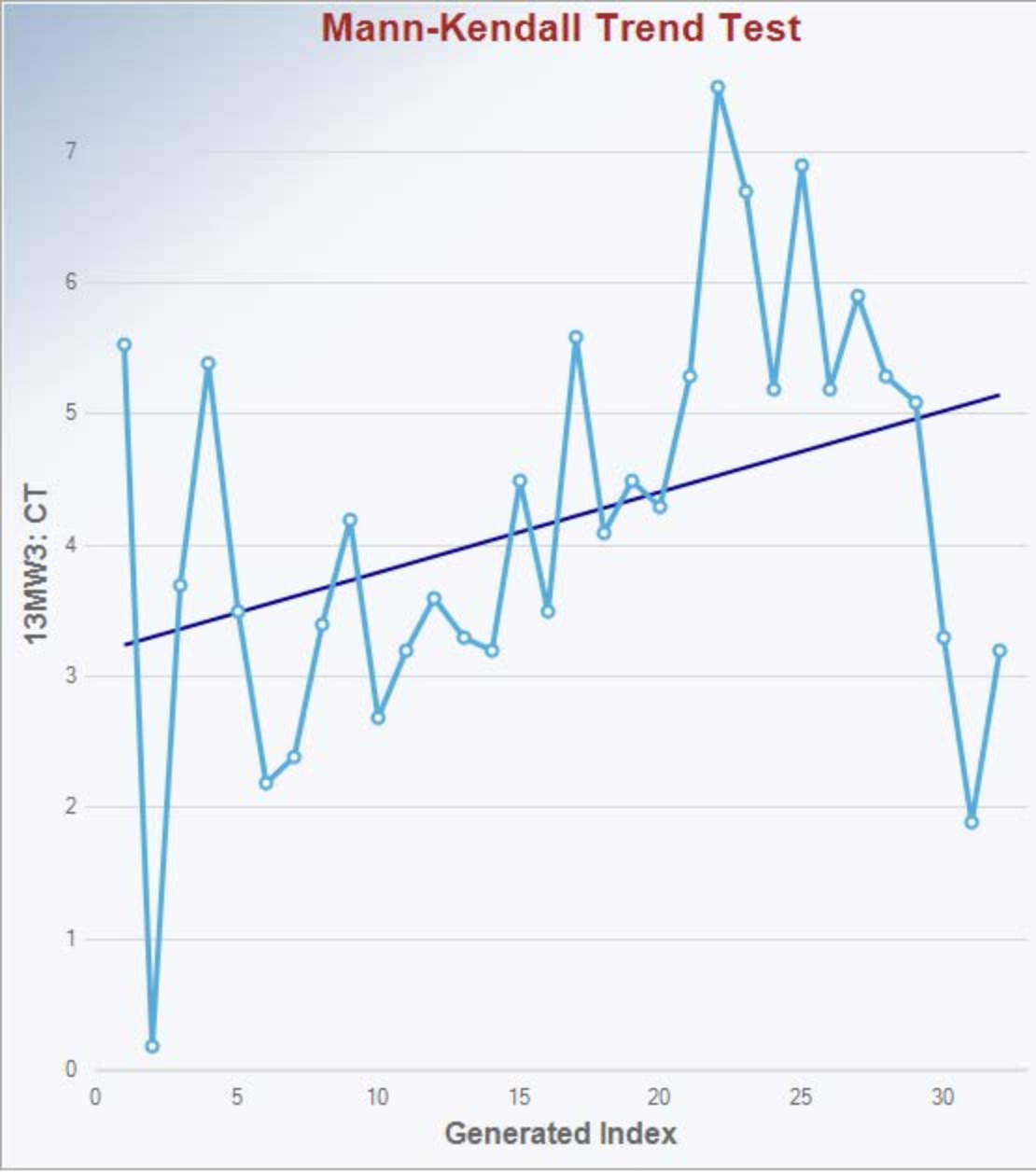
Appendix D: Mann-Kendall Analyses

TCE	48MW1: TCE	48MW2: TCE	48MW3: TCE	50MW02: TCE	13MW3: TCE	13MW4: TCE	RG: TCE
7/1995	17	11	37	na	na	na	5
4/1998	8	18	33	na	na	na	5
4/2006	5.5	3	7.4	na	na	na	5
8/2007	1.6	11.2	10.1	3.4	na	na	5
5/2013	1.9	9.75	10.7	2.31	1.08	1.08	5
9/2015	1.8	3.8	10	1.3	ND	0.65	5
1/2016	2.3	7.9	9.7	1.1	0.82	1.1	5
4/2016	2.2	2.3	10	1.9	1	0.8	5
7/2016	3.3	3.9	10	1.7	0.94	2.1	5
10/2016	0.97	2.8	9.2	1.7	0.58	2.1	5
1/2017	1.7	3.9	9.8	0.87	0.36	2.2	5
4/2017	1.7	2.3	9.8	1.3	0.58	0.9	5
7/2017	1.7	5.2	11	2.2	1	2.3	5
10/2017	1.6	3.8	10	1.5	0.56	0.99	5
01/2018	1.2	2.6	11	1.2	0.55	1.4	5
04/2018	1.5	4.6	12	1.2	0.46	0.46	5
07/2018	1.3	2.2	11	1.4	0.55	0.93	5
10/2018	1.6	1.8	11	1	0.55	1.1	5
02/2019	1.4	1.5	7.1	1.5	0.75	0.69	5
05/2019	1.9	2.8	13	1.8	0.75	0.51	5
07/2019	1.4	1.8	13	1.5	1	0.72	5
10/2019	1.7	6.5	15	1.1	0.63	0.72	5
01/2020	2.7	2.5	15	1.3	0.79	0.83	5
04/2020	1.5	2.9	12	1.4	0.85	0.72	5
07/2020	1.6	2.8	15	1.8	1.2	0.98	5
10/2020	2.2	3.2	16	1.5	1.4	0.98	5
01/2021	2.2	2.1	22	1.4	1.2	0.8	5
04/2021	1	1	16	1.3	0.97	0.45	5
07/2021	0.96	1.4	23	1.4	1.2	1.7	5
10/2021	1.2	1.7	18	1.1	0.89	1.7	5
04/2022	2.4	1.7	13	0.72	0.95	0.68	5
01/2023	ND	0.71	11	0.83	1	0.91	5
07/2023	0.41	1.2	13	1.3	0.89	0.95	5
08/2024	0.86	1.2	16	0.98	0.63	0.83	5
12/2024	0.85	3.4	14	0.93	ND	0.66	5
05/2025	2.3	5.2	16	1.2	0.5	0.5	5
10/2025	2	6.1	15	1	0.3	0.8	5

indicates incorrect value replaced.

CT	48MW2: CT	48MW3: CT	50MW02: CT	49MW01: CT	49MW04: CT	13MW3: CT	RG: CT
7/1995	92	100	na	na	na	na	5
4/1998	140	180	na	na	na	na	5
4/2006	29.2	51.2	na	na	na	na	5
8/2007	94.6	60.3	2.7	3.8	na	na	5
5/2013	82.7	73.1	0.919	4.61	0.664	5.63	5
9/2015	48	71	1.2	3.3	0.99	0.29	5
1/2016	66	62	0.56	3.1	0.94	3.8	5
4/2016	32	73	1.1	3	0.73	5.5	5
7/2016	38	64	0.61	1.8	0.71	3.6	5
10/2016	42	63	1.8	2.7	0.86	2.3	5
1/2017	49	68	0.58	2.6	0.66	2.5	5
4/2017	41	67	1	3	0.78	3.5	5
7/2017	47	69	0.95	3.5	0.55	4.3	5
10/2017	47	63	1.6	2.8	0.61	2.8	5
01/2018	33	74	0.73	1.8	0.77	3.3	5
04/2018	55	73	0.82	3.8	0.92	3.7	5
07/2018	39	78	1.7	3.2	0.76	3.4	5
10/2018	32	67	1	3.6	0.78	3.3	5
02/2019	28	34	0.84	3	0.6	4.6	5
05/2019	36	80	1.2	2.2	0.26	3.6	5
07/2019	30	77	0.98	3	0.46	5.7	5
10/2019	63	88	2	3.5	0.6	4.2	5
01/2020	21	78	0	2.5	0.6	4.6	5
04/2020	33	64	0.68	3.1	0.6	4.4	5
07/2020	24	67	1.8	2.8	0.6	5.4	5
10/2020	35	79	1.2	2.8	0.56	7.6	5
01/2021	14	95	0.89	1.4	0.61	6.8	5
04/2021	22	84	0.83	2.8	0.56	5.3	5
07/2021	25	100	1.1	2.7	0.6	7	5
10/2021	24	74	1.2	2.1	0.5	5.3	5
04/2022	29	75	0.78	3	0.74	6	5
01/2023	14	55	1.3	2.6	1.4	5.4	5
07/2023	19	76	1.1	0.38	0.77	5.2	5
08/2024	10	86	0.64	1.8	0.6	3.4	5
12/2024	36	76	0.48	1.9	0.48	2	5
05/2025	52	71	1	1.5	0.5	3.3	5
10/2025	46	72	0.8	2.4	1	ND	5

indicates incorrect value replaced.



Mann-Kendall Trend Analysis

n	32
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	61.5955
Standardized Value of S	1.8670
M-K Test Value (S)	116
Appx. Critical Value (0.05)	1.6449
Approximate p-value	0.0309

OLS Regression Line (Blue)

OLS Regression Slope	0.0614
OLS Regression Intercept	3.2911

Statistically significant evidence of an increasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis		
User Selected Options		
Date/Time of Computation	ProUCL 5.2 3/18/2026 4:52:07 PM	
From File	2025MK_SWMU49_inputs.xls	
Full Precision	OFF	
Confidence Coefficient	0.95	
Level of Significance	0.05	

13MW3: CT

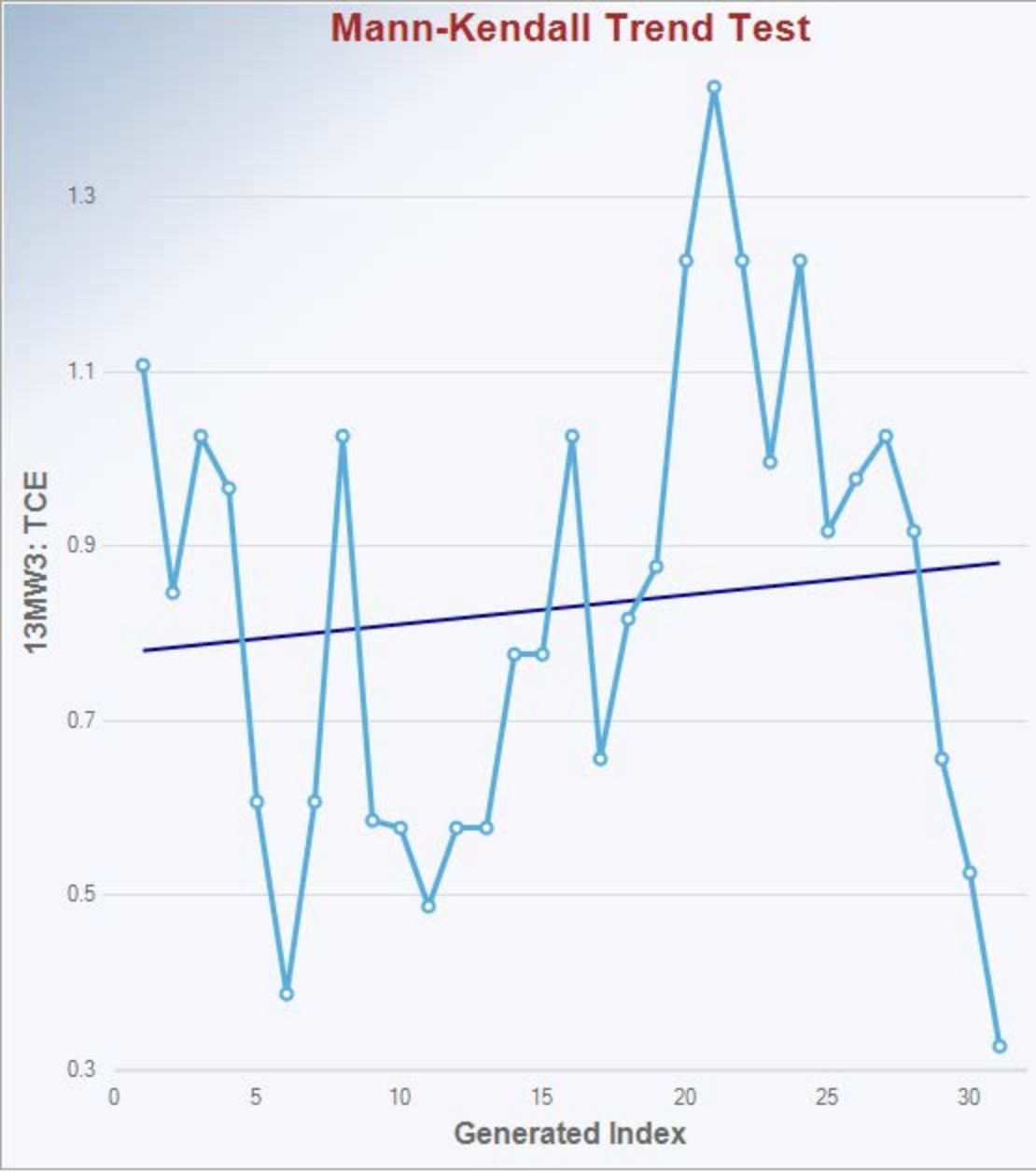
General Statistics

Number or Reported Events Not Used	0
Number of Generated Events	32
Number Values Reported (n)	37
Number Values Missing	5
Number Values Used	32
Minimum	0.29
Maximum	7.6
Mean	4.304
Geometric Mean	3.877
Median	4.25
Standard Deviation	1.562
Coefficient of Variation	0.363

Mann-Kendall Test

M-K Test Value (S)	116
Critical Value (0.05)	1.645
Standard Deviation of S	61.6
Standardized Value of S	1.867
Approximate p-value	0.0309

Statistically significant evidence of an increasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	31
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	58.6657
Standardized Value of S	0.5114
M-K Test Value (S)	31
Appx. Critical Value (0.05)	1.6449
Approximate p-value	0.3045

OLS Regression Line (Blue)

OLS Regression Slope	0.0033
OLS Regression Intercept	0.7510

Insufficient statistical evidence of a significant trend at the specified level of significance.

Mann-Kendall Trend Test Analysis		
User Selected Options		
Date/Time of Computation	ProUCL 5.2 3/18/2026 4:47:34 PM	
From File	2025MK_SWMU49_inputs.xls	
Full Precision	OFF	
Confidence Coefficient	0.95	
Level of Significance	0.05	

13MW3: TCE

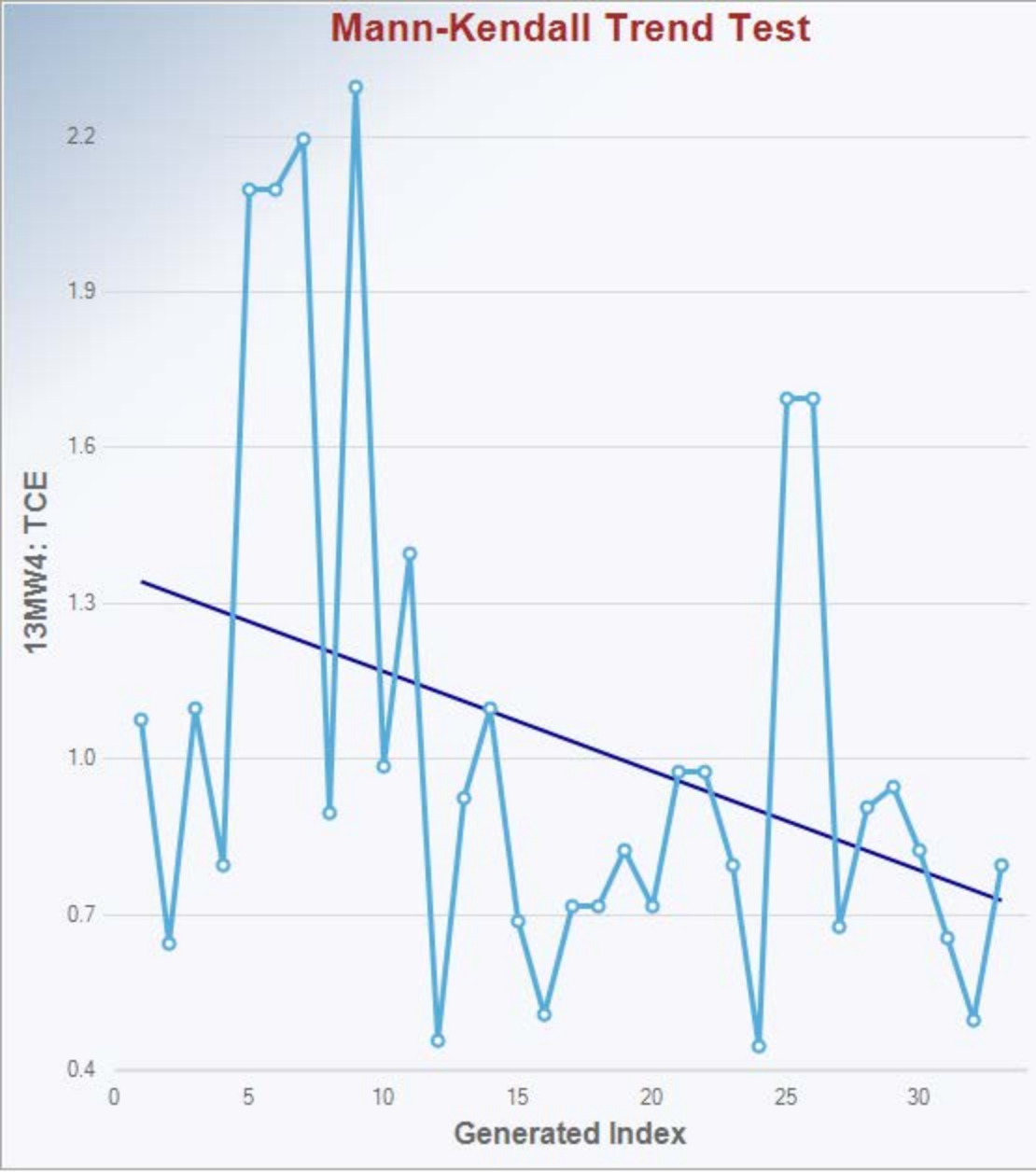
General Statistics

Number or Reported Events Not Used	0
Number of Generated Events	31
Number Values Reported (n)	37
Number Values Missing	6
Number Values Used	31
Minimum	0.3
Maximum	1.4
Mean	0.804
Geometric Mean	0.756
Median	0.82
Standard Deviation	0.272
Coefficient of Variation	0.338

Mann-Kendall Test

M-K Test Value (S)	31
Critical Value (0.05)	1.645
Standard Deviation of S	58.67
Standardized Value of S	0.511
Approximate p-value	0.305

Insufficient evidence to identify a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	33
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	64.4438
Standardized Value of S	-1.8621
M-K Test Value (S)	-121
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0313

OLS Regression Line (Blue)

OLS Regression Slope	-0.0192
OLS Regression Intercept	1.3638

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis		
User Selected Options		
Date/Time of Computation	ProUCL 5.2 3/18/2026 4:48:18 PM	
From File	2025MK_SWMU49_inputs.xls	
Full Precision	OFF	
Confidence Coefficient	0.95	
Level of Significance	0.05	

13MW4: TCE

General Statistics

Number or Reported Events Not Used	0
Number of Generated Events	33
Number Values Reported (n)	37
Number Values Missing	4
Number Values Used	33
Minimum	0.45
Maximum	2.3
Mean	1.038
Geometric Mean	0.936
Median	0.9
Standard Deviation	0.519
Coefficient of Variation	0.501

Mann-Kendall Test

M-K Test Value (S)	-121
Critical Value (0.05)	-1.645
Standard Deviation of S	64.44
Standardized Value of S	-1.862
Approximate p-value	0.0313

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	36
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	73.2393
Standardized Value of S	-2.7444
M-K Test Value (S)	-202
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0030

OLS Regression Line (Blue)

OLS Regression Slope	-0.1235
OLS Regression Intercept	4.6583

Statistically significant evidence of a decreasing trend at the specified level of significance.

	Mann-Kendall Trend Test Analysis	
User Selected Options		
Date/Time of Computation	ProUCL 5.2 3/18/2026 4:44:46 PM	
From File	2025MK_SWMU49_inputs.xls	
Full Precision	OFF	
Confidence Coefficient	0.95	
Level of Significance	0.05	

48MW1: TCE

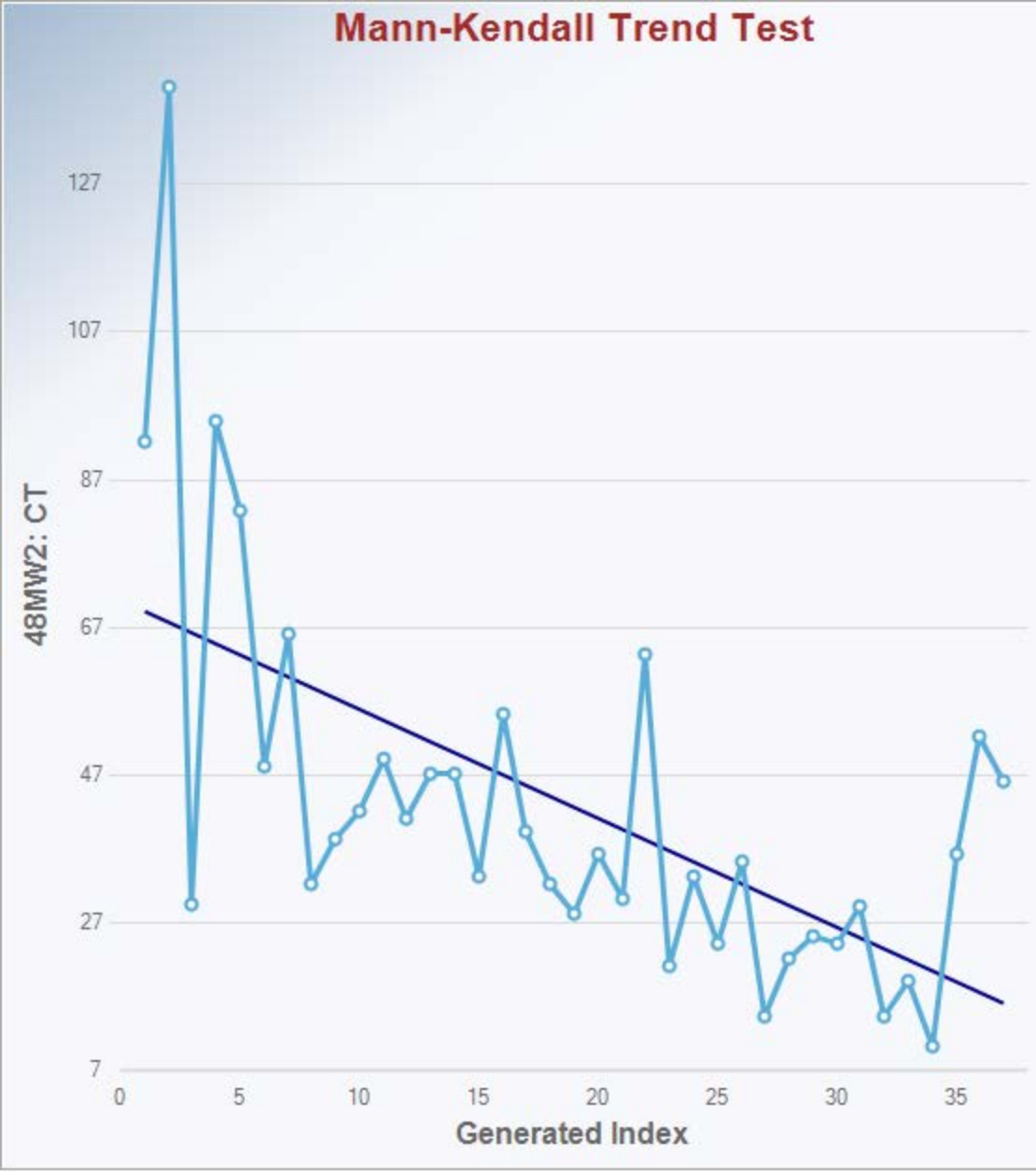
General Statistics

Number or Reported Events Not Used	0
Number of Generated Events	36
Number Values Reported (n)	37
Number Values Missing	1
Number Values Used	36
Minimum	0.41
Maximum	17
Mean	2.374
Geometric Mean	1.798
Median	1.7
Standard Deviation	2.845
Coefficient of Variation	1.198

Mann-Kendall Test

M-K Test Value (S)	-202
Critical Value (0.05)	-1.645
Standard Deviation of S	73.24
Standardized Value of S	-2.744
Approximate p-value	0.00303

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	37
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	76.4199
Standardized Value of S	-4.0434
M-K Test Value (S)	-310
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0000

OLS Regression Line (Blue)

OLS Regression Slope	-1.4765
OLS Regression Intercept	70.4459

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis		
User Selected Options		
Date/Time of Computation	ProUCL 5.2 3/18/2026 4:48:54 PM	
From File	2025MK_SWMU49_inputs.xls	
Full Precision	OFF	
Confidence Coefficient	0.95	
Level of Significance	0.05	

48MW2: CT

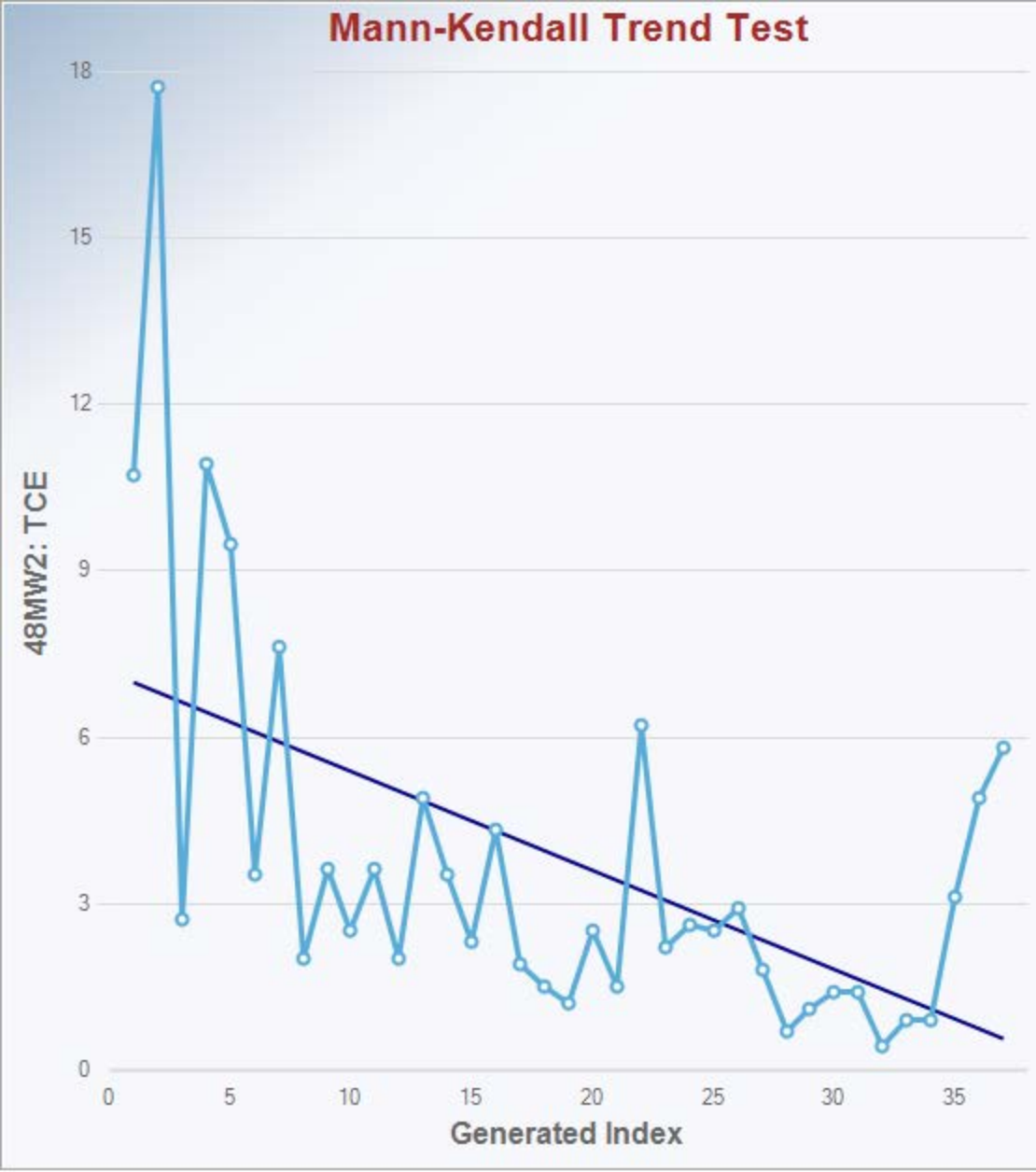
General Statistics

Number or Reported Events Not Used	0
Number of Generated Events	37
Number Values Reported (n)	37
Minimum	10
Maximum	140
Mean	42.39
Geometric Mean	36.52
Median	36
Standard Deviation	25.84
Coefficient of Variation	0.61

Mann-Kendall Test

M-K Test Value (S)	-310
Critical Value (0.05)	-1.645
Standard Deviation of S	76.42
Standardized Value of S	-4.043
Approximate p-value	2.6335E-5

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	37
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	76.3894
Standardized Value of S	-3.5738
M-K Test Value (S)	-274
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0002

OLS Regression Line (Blue)

OLS Regression Slope	-0.1785
OLS Regression Intercept	7.4393

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis		
User Selected Options		
Date/Time of Computation	ProUCL 5.2 3/18/2026 4:45:48 PM	
From File	2025MK_SWMU49_inputs.xls	
Full Precision	OFF	
Confidence Coefficient	0.95	
Level of Significance	0.05	

48MW2: TCE

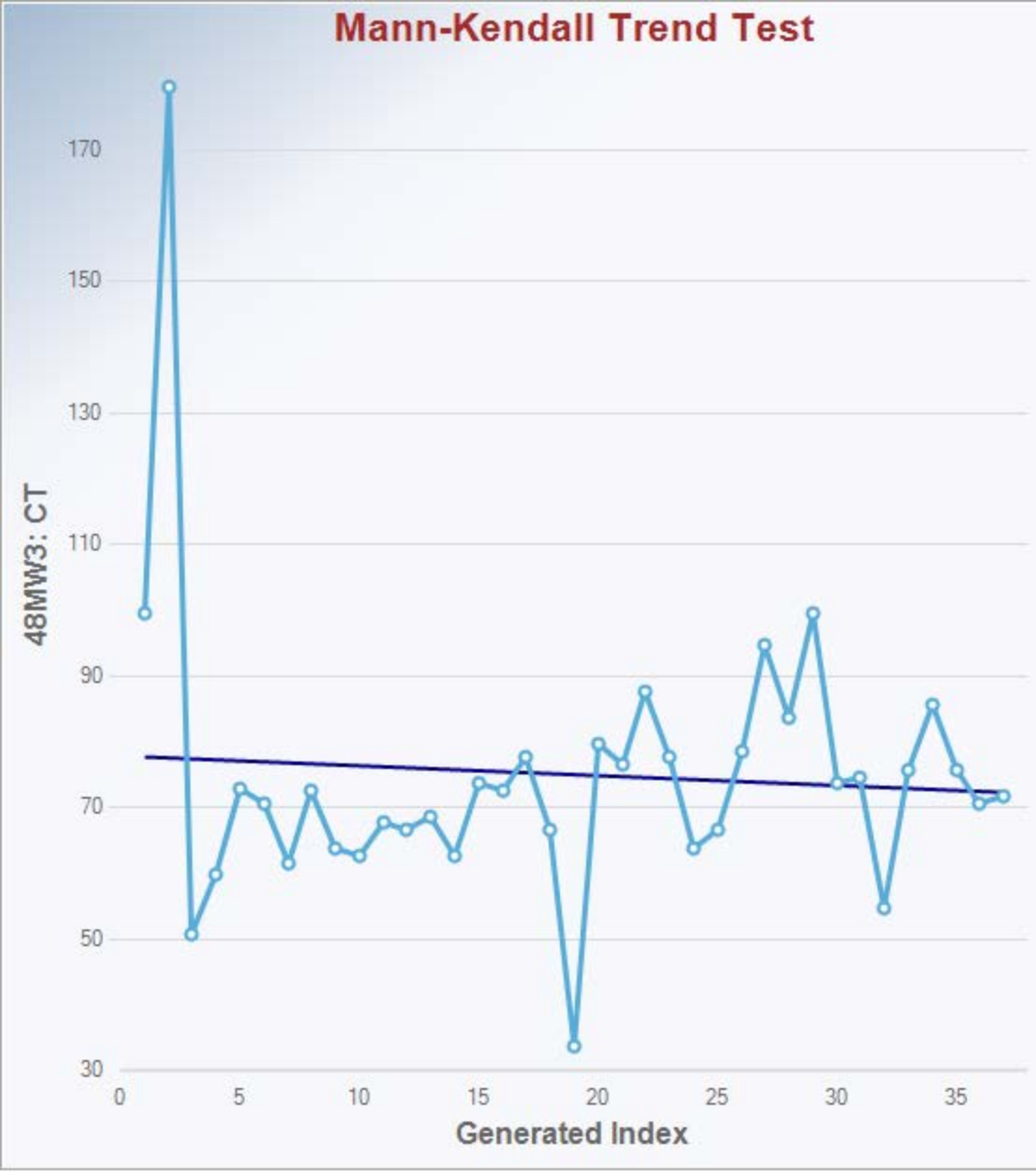
General Statistics

Number or Reported Events Not Used	0
Number of Generated Events	37
Number Values Reported (n)	37
Minimum	0.71
Maximum	18
Mean	4.048
Geometric Mean	3.082
Median	2.8
Standard Deviation	3.544
Coefficient of Variation	0.876

Mann-Kendall Test

M-K Test Value (S)	-274
Critical Value (0.05)	-1.645
Standard Deviation of S	76.39
Standardized Value of S	-3.574
Approximate p-value	1.7592E-4

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	37
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	76.3828
Standardized Value of S	1.7543
M-K Test Value (S)	135
Appx. Critical Value (0.05)	1.6449
Approximate p-value	0.0397

OLS Regression Line (Blue)

OLS Regression Slope	-0.1567
OLS Regression Intercept	78.3185

Statistically significant evidence of an increasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis		
User Selected Options		
Date/Time of Computation	ProUCL 5.2 3/18/2026 4:49:24 PM	
From File	2025MK_SWMU49_inputs.xls	
Full Precision	OFF	
Confidence Coefficient	0.95	
Level of Significance	0.05	

48MW3: CT

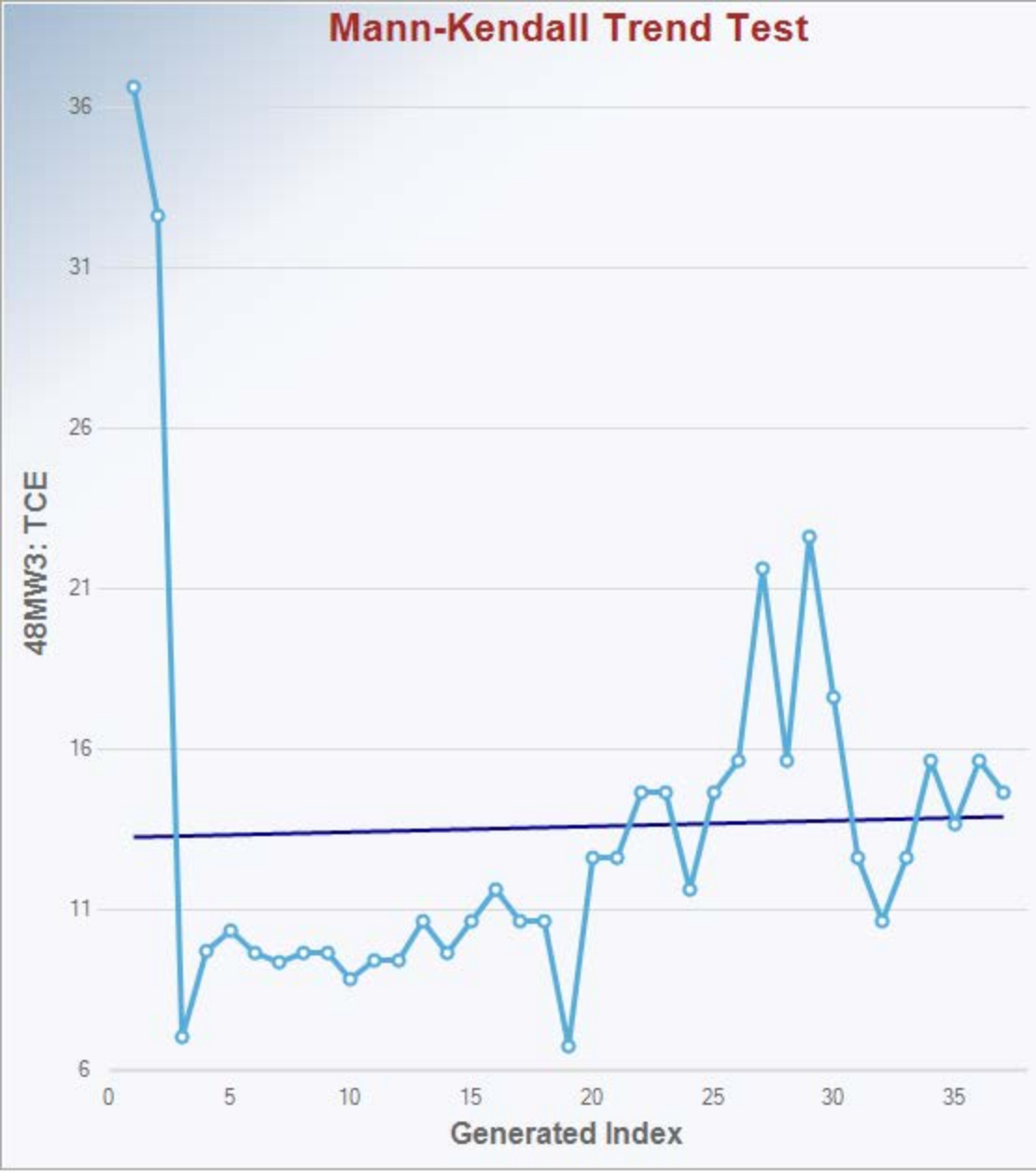
General Statistics

Number or Reported Events Not Used	0
Number of Generated Events	37
Number Values Reported (n)	37
Minimum	34
Maximum	180
Mean	75.34
Geometric Mean	73.02
Median	73
Standard Deviation	21.73
Coefficient of Variation	0.288

Mann-Kendall Test

M-K Test Value (S)	135
Critical Value (0.05)	1.645
Standard Deviation of S	76.38
Standardized Value of S	1.754
Approximate p-value	0.0397

Statistically significant evidence of an increasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	37
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	76.1096
Standardized Value of S	3.6658
M-K Test Value (S)	280
Appx. Critical Value (0.05)	1.6449
Approximate p-value	0.0001

OLS Regression Line (Blue)

OLS Regression Slope	0.0188
OLS Regression Intercept	13.5842

Statistically significant evidence of an increasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis		
User Selected Options		
Date/Time of Computation	ProUCL 5.2 3/18/2026 4:46:25 PM	
From File	2025MK_SWMU49_inputs.xls	
Full Precision	OFF	
Confidence Coefficient	0.95	
Level of Significance	0.05	

48MW3: TCE

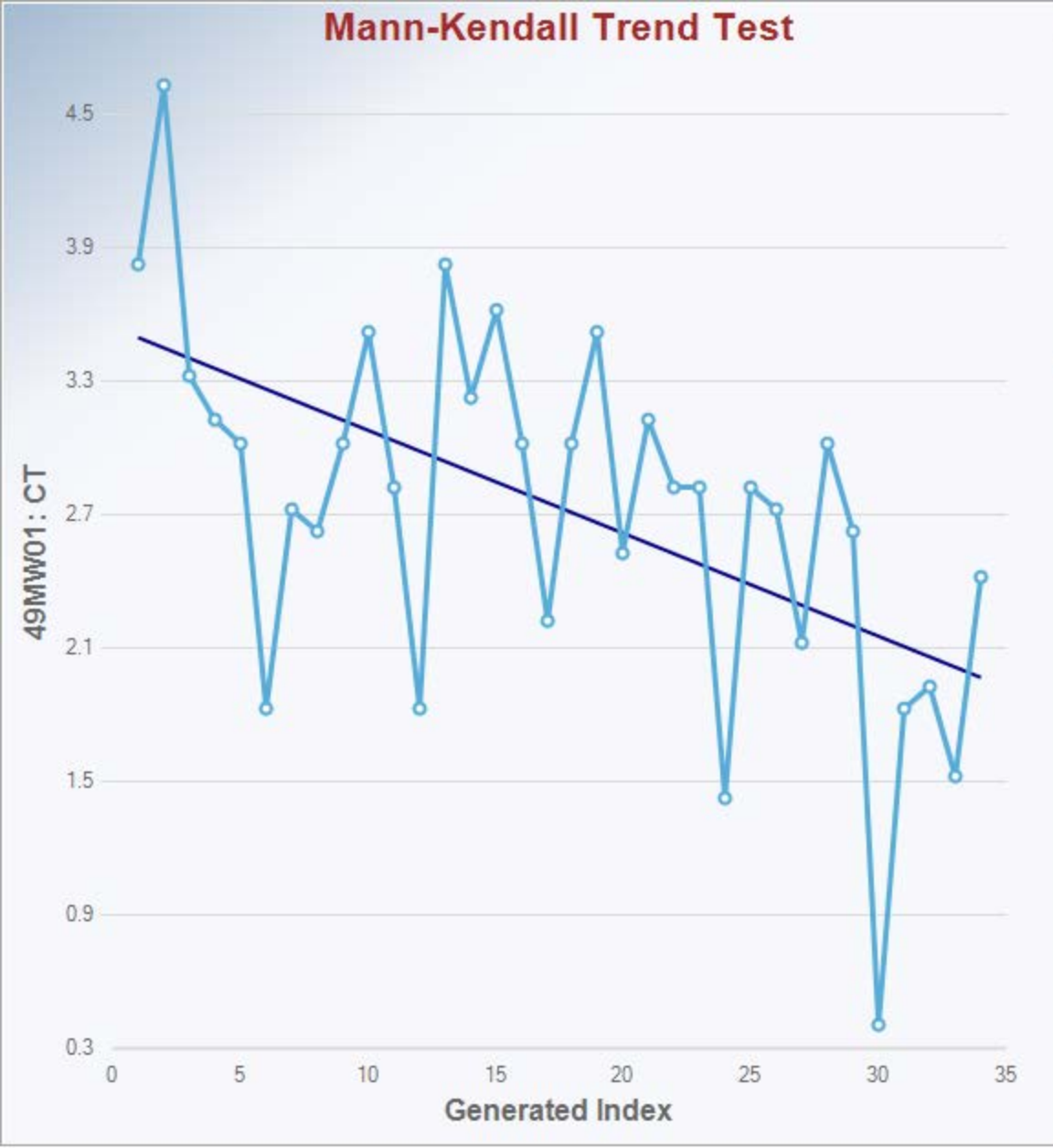
General Statistics

Number or Reported Events Not Used	0
Number of Generated Events	37
Number Values Reported (n)	37
Minimum	7.1
Maximum	37
Mean	13.94
Geometric Mean	13
Median	12
Standard Deviation	6.205
Coefficient of Variation	0.445

Mann-Kendall Test

M-K Test Value (S)	280
Critical Value (0.05)	1.645
Standard Deviation of S	76.11
Standardized Value of S	3.666
Approximate p-value	1.2330E-4

Statistically significant evidence of an increasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	34
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	67.2037
Standardized Value of S	-3.5117
M-K Test Value (S)	-237
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0002

OLS Regression Line (Blue)

OLS Regression Slope	-0.0465
OLS Regression Intercept	3.5222

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis		
User Selected Options		
Date/Time of Computation	ProUCL 5.2 3/18/2026 4:50:34 PM	
From File	2025MK_SWMU49_inputs.xls	
Full Precision	OFF	
Confidence Coefficient	0.95	
Level of Significance	0.05	

49MW01: CT

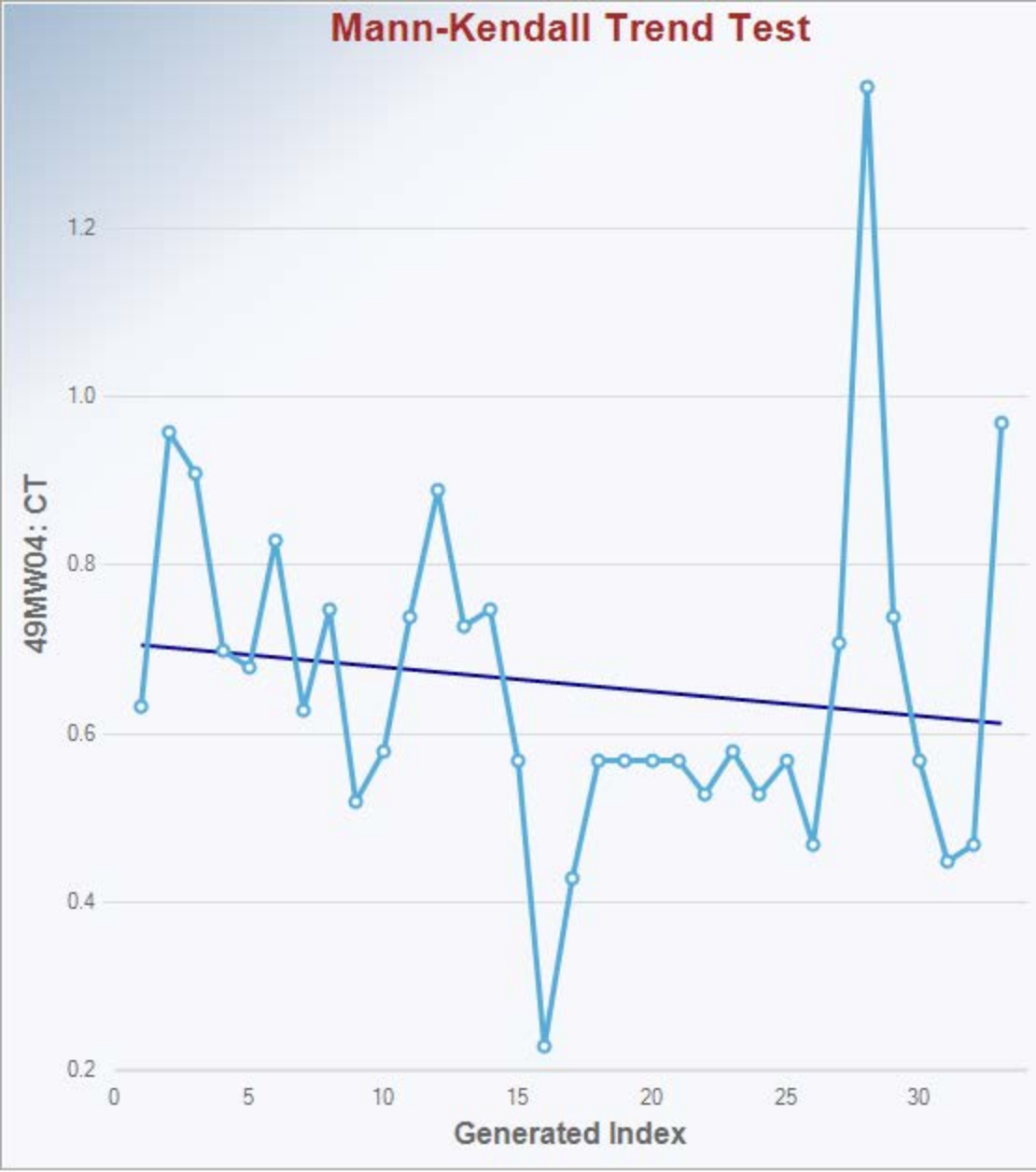
General Statistics

Number or Reported Events Not Used	0
Number of Generated Events	34
Number Values Reported (n)	37
Number Values Missing	3
Number Values Used	34
Minimum	0.38
Maximum	4.61
Mean	2.709
Geometric Mean	2.534
Median	2.8
Standard Deviation	0.815
Coefficient of Variation	0.301

Mann-Kendall Test

M-K Test Value (S)	-237
Critical Value (0.05)	-1.645
Standard Deviation of S	67.2
Standardized Value of S	-3.512
Approximate p-value	2.2261E-4

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	33
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	64.1561
Standardized Value of S	-2.0731
M-K Test Value (S)	-134
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0191

OLS Regression Line (Blue)

OLS Regression Slope	-0.0029
OLS Regression Intercept	0.7393

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis		
User Selected Options		
Date/Time of Computation	ProUCL 5.2 3/18/2026 4:51:34 PM	
From File	2025MK_SWMU49_inputs.xls	
Full Precision	OFF	
Confidence Coefficient	0.95	
Level of Significance	0.05	

49MW04: CT

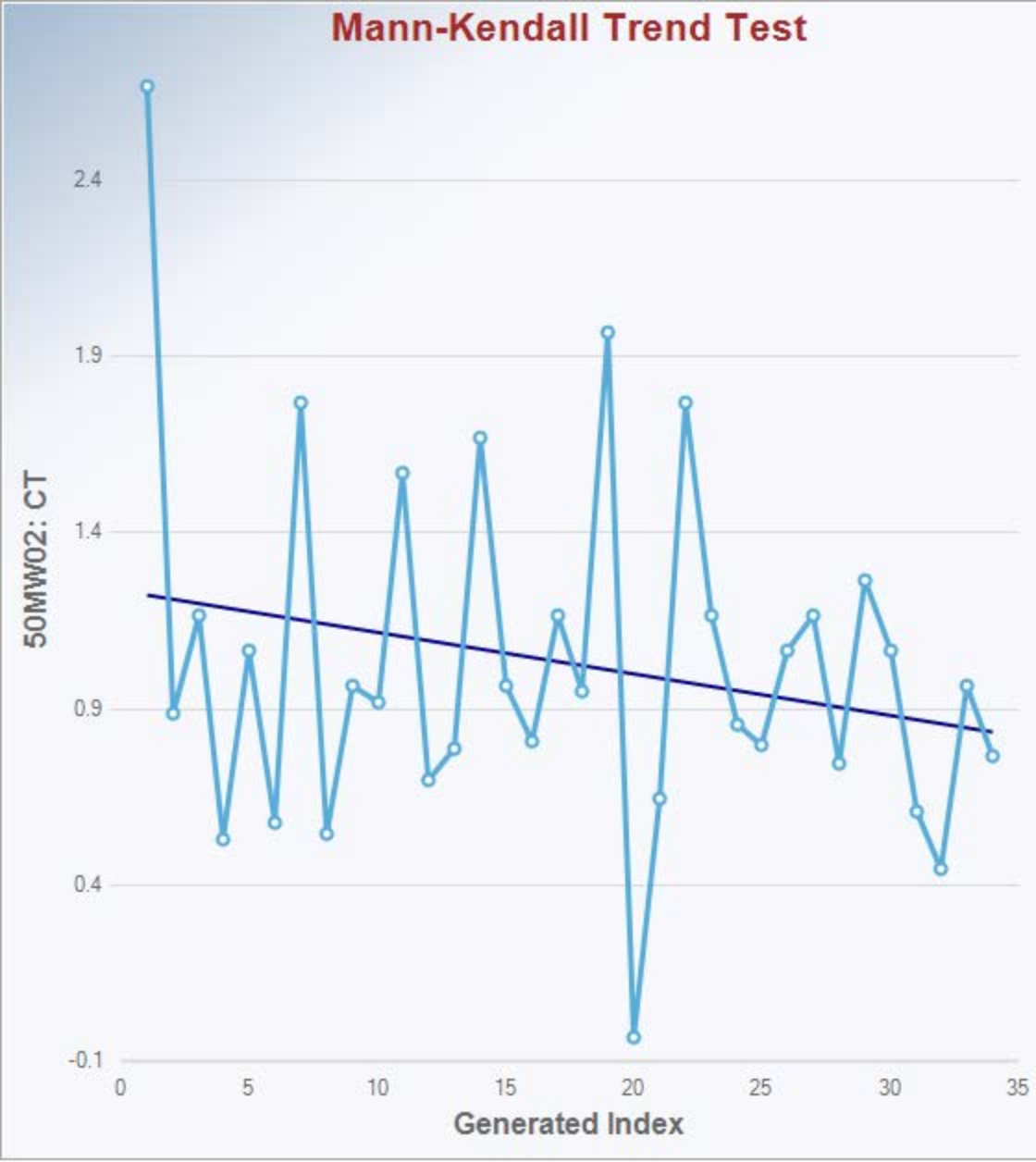
General Statistics

Number or Reported Events Not Used	0
Number of Generated Events	33
Number Values Reported (n)	37
Number Values Missing	4
Number Values Used	33
Minimum	0.26
Maximum	1.4
Mean	0.69
Geometric Mean	0.662
Median	0.61
Standard Deviation	0.206
Coefficient of Variation	0.298

Mann-Kendall Test

M-K Test Value (S)	-134
Critical Value (0.05)	-1.645
Standard Deviation of S	64.16
Standardized Value of S	-2.073
Approximate p-value	0.0191

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	34
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	67.3300
Standardized Value of S	-0.7278
M-K Test Value (S)	-50
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.2334

OLS Regression Line (Blue)

OLS Regression Slope	-0.0117
OLS Regression Intercept	1.2671

Insufficient statistical evidence of a significant trend at the specified level of significance.

Mann-Kendall Trend Test Analysis		
User Selected Options		
Date/Time of Computation	ProUCL 5.2 3/18/2026 4:50:03 PM	
From File	2025MK_SWMU49_inputs.xls	
Full Precision	OFF	
Confidence Coefficient	0.95	
Level of Significance	0.05	

50MW02: CT

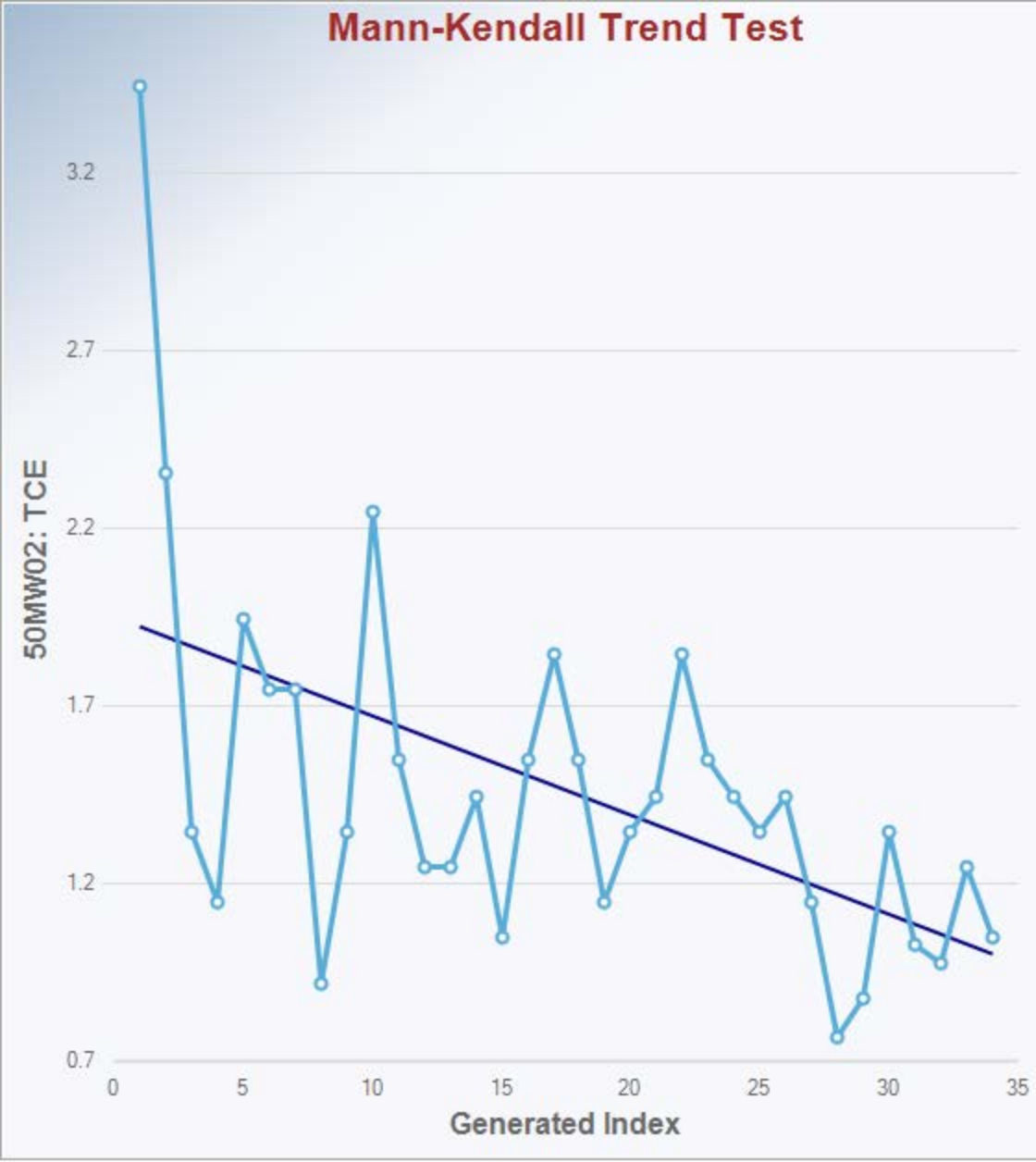
General Statistics

Number or Reported Events Not Used	0
Number of Generated Events	34
Number Values Reported (n)	37
Number Values Missing	3
Number Values Used	34
Minimum	0
Maximum	2.7
Mean	1.061
Geometric Mean	0
Median	0.99
Standard Deviation	0.507
Coefficient of Variation	0.477

Mann-Kendall Test

M-K Test Value (S)	-50
Critical Value (0.05)	-1.645
Standard Deviation of S	67.33
Standardized Value of S	-0.728
Approximate p-value	0.233

Insufficient evidence to identify a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	34
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	67.1267
Standardized Value of S	-3.1433
M-K Test Value (S)	-212
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0008

OLS Regression Line (Blue)

OLS Regression Slope	-0.0280
OLS Regression Intercept	1.9057

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis		
User Selected Options		
Date/Time of Computation	ProUCL 5.2 3/18/2026 4:46:56 PM	
From File	2025MK_SWMU49_inputs.xls	
Full Precision	OFF	
Confidence Coefficient	0.95	
Level of Significance	0.05	

50MW02: TCE

General Statistics

Number or Reported Events Not Used	0
Number of Generated Events	34
Number Values Reported (n)	37
Number Values Missing	3
Number Values Used	34
Minimum	0.72
Maximum	3.4
Mean	1.416
Geometric Mean	1.346
Median	1.3
Standard Deviation	0.507
Coefficient of Variation	0.358

Mann-Kendall Test

M-K Test Value (S)	-212
Critical Value (0.05)	-1.645
Standard Deviation of S	67.13
Standardized Value of S	-3.143
Approximate p-value	8.3525E-4

Statistically significant evidence of a decreasing trend at the specified level of significance.